

**‘1970-73 Drought of Maharashtra with special reference  
to state and legislative response’**

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FORM 'B'

I hereby declare that the thesis entitled '1970-73 Drought of Maharashtra with special reference to Maharashtra' completed and written by me has not previously formed the basis for the award of any Degree or other similar title upon me of this or any other Vidyapeeth or examining body.

Place: Pune

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## Abbreviations

ABL	Atmospheric Boundary Layer
AC	Annual Cycle
AC	Appended Charts
AGCM	Atmospheric General Circulation Model
AIMR	All India Monsoon Rainfall
AIR	All India Rainfall
AIRI	All India Rainfall Index
AIRS	All Infrared Sounder
AMIP	Atmospheric Inter-Comparison Project
AMTEX	Air Mass Transformation Experiment
ARMEX	Arabian Sea Monsoon Experiment
ASR	Absorbed Solar Radiation
AT	Appended Tables
BOB	Bay Of Bengal
BOBMEX	Bay Of Bengal Monsoon Experiment
CGCM	Coupled General Circulation Model
CEO	Chief Executive Officer
CHI	Southern China And East China Sea Region
CLIVAR	Climate Variability And Predictability Program
COLA	Center For Ocean Land-Atmospheric Studies
CPC	Climate Prediction Center
CV	Coefficient Of Variation
DPAP	Drought Prone Area Program
D.O.	Demi official letter.
EAM	East Asian monsoon
EASM	East Asian summer monsoon
ENSO	El Nino Southern Oscillation
ET	Equatorial Trough
FAD	Food Availability
FEE	Failure Of Exchange Entitlemen
G.C.	Government Circular
G.C.M.	Government Circular Memorandum.
GDP	Gross Domestic Product
G.E.	Government Endorsement
GHG	Greenhouse Gas
G.L.	Government Letter
G.M.	Government Memorandum

G.N.	Government Note
GIPE	Gokhale Institute of Politics and Economics
GMS	Geostationary Meteorological Satellite
GOALS	Global- Ocean-Atmospheric-Land-System
GOOS	Global-Ocean-Observing System
IAS	Indian Administrative Services
IAV	Inter-annual Variability
IITM	Indian Institute of Politics and Economics
IMD	India meteorological department
INSAT	Indian national satellite
IO	Indian Ocean
IOD	Indian Ocean Dipole
IOZM	Indian ocean zonal mode
ISM	Indian summer monsoon
ISMR	Indian summer monsoon rainfall
ISO	Interpersonal Oscillation
ISOV	ISO variability
ISV	Intra-seasonal Variability
ITCZ	Inter-tropical Convergence Zone
IV	Internal Variations
ITCZ	Inter-tropical convergence zone
JJA	June-July-August
JJAS	June-July-August-September
KMA	Korea Meteorological Agency
L-AI	Land-Atmosphere Interaction
LAI	Land-Atmosphere Interaction
LLJ	Low Level Jet
LSM	Land Surface Model
LSS	Land Surface Schemes
MAC	Mean Monsoon Annual Cycle
MCC	Mesoscale Convective Complex
MCV	Mesoscale Convective Vortex
MH	Monsoon Hadley
MISO	Monsoon ISO
MJO	Madden-Julian Oscillation

MONEX	Summer Monsoon Experiment
MTC	Mid-Troposphere Cyclone
NAO	North Atlantic Oscillation
NCAR	National Center for Atmospheric Research
NNMT	Nagaland Manipur Mizoram Tripura
NGO	Non Governmental Organization
OAI	Ocean-Atmosphere Interaction
OLR	Outgoing Long-Wave Radiation
PBL	Planetary Boundary Layer
PN	Percentage Normal
RSS	RashtriyaSvaymsevakSangh
QBM	Quasi-Biweekly Mode
QBO	Quasi-biennial Oscillation
SACZ	South Atlantic convergence zone
SAM	south Asian monsoon
SMIP	Seasonal Model Inter-comparison Prediction
SOI	Southern Oscillation Index
SPI	Standard Precipitation Index
SST	Sea Surface Temperature
STJ	Subtropical jet stream
TAO	Tropical Atmospheric-Ocean
TBO	Tropospheric biennial oscillation
TC	Tropical cyclone
TCZ	Trpical convergence zone
TEJ	Trical easterly jet
TH	Tibetan High
TT	Tropospheric temperature
ZP	Zilla Parishad

## INTRODUCTION

### **Rationale and Importance of Research Topic**

Drought and famine are different but they are interrelated. Famine is more devastating expression of drought. Drought related with shortage of water when water supply fail short to suffice different water needs. Large scale shortage of accustomed food supply over large area which results in to large scale starvation deaths means famines. As these two phenomenons have many dimensions and had wide impact on human culture and society these subjects remained serious concerns of many scholars. These subjects with its various shades, aspects and attributes studied in this research. Amartya Sen and Dreze became Nobel Prize laureate for their studies on famines and hunger of world. These two academicians also studied 1970-73 drought as part of their study of hunger and famine. Recorded history of Indian monsoon shows that on long run, Indian monsoon is quiet stable. Indian summer monsoon system is self regulatory hence even after erratic behavior for two to three years consequently, it again comes to its equilibrium exhibiting satisfactory performance. Generally monsoon arrives and performs rainfall every year regularly without fail. There are certain years in the history of India that recorded severe droughts some of them resulted in to grave famines. Famines are not heavenly but worldly creation of state. This postulation can be tested through the careful analysis of drought and scarcity related facts.

The outlook of people state and legislature to issues of public importance and especially issues of acute distress that society and state facing is reflected in historical research. This research is intended to pursue all these attributes and facets of 1970-73 droughts. In any historical research researcher is not suppose to suggest measures to be adopted in future while dealing in similar kind of crisis that researchers have pursued. In the year 1967 over Bihar and 1970-73 over Maharashtra were two incidences where drought created very grave situation for the people of both the state during latter half of twentieth century. However this drought did not turn into severe famines. Bihar drought reported starvation deaths this was not the case with Maharashtra drought as there was not conclusive evidence as suggested by Dreze.

There are very few occasions in the history of monsoons over India that exhibited dismal performances. If droughts for two consequent years persist over particular geographical area creates very difficult situation to government and people of that particular area. 1970-73 drought created such a vulnerable situation over Maharashtra. This drought did not resulted into famines. However, probe into this situation of Maharashtra unravel the many facets of droughts and

scarcities. Historically it had been proved that there were many droughts over country as well as over state and created critical situation to masses. 1970-73 drought is deep rooted in the minds of people of Maharashtra. More than 5 million people were working at on the scarcity relief work at the peak of distress. This figure amounts nearly 20% of rural population. Agriculturists having more than 50 acres of land were working on the scarcity works. Many journalists and academicians wonder that even women of rich and elite families worked on the scarcity works. This drought is also remembered for the Sukhadi the supplementary diet provided to scarcity relief workers. October 72 onwards the state faced acute food problems of food, water and fodder. Its severity reflected through news paper reporting. Economists and academicians whoever studied this topic commented that the famine was averted and this was success story of the state. I am myself belong to the farmers family as part of rural population my family also faced the distress and the references to the 1970-73 drought frequently noticed from the people of my surroundings. During this drought acute shortage of water fodder and food scarcity noticed. This is the first time over Maharashtra that decision of rationing of water implemented. Government of Maharashtra sought help from military department. Military provided water tankers and other essential help to government. First time railway wagons were used for water supply. These were noticeable significant facets of this drought.

### **Significance of study**

This study is different from many previous works either covering various different aspects or interpreting previous facts differently. Attempts have been made to provide full insight and holistic approach to the subject while pursuing this research. In this regard review and assessment of monsoon studies, and various probable approaches to tackle vagaries of monsoon through application of agronomic practices, augmentation of water resources, judicious and economical use of water and development of accurate and precise forecasting system these approaches and methods discussed and analyzed. Monsoon and droughts are indispensable part of any scarcity and famine study. It enhances understanding of the subject. This study has ample scope for meta-analysis of previous works and surveys. This drought is well documented and after lapse of sufficient time, objective analysis and interpretation of subject as well as previous studies could be effectively made. This study has taken benchmark analysis of previous studies. Responses of state and bureaucracy as well as legislation are new aspects covered in this study.

A different assessment of previous studies made in this study. Entirely new and different sources like Lokrajya, regional news papers and legislative proceedings explored for this studies. Compilation and editing of primary sources has also immense importance in the historical writings. Chapter 1,2 and 5 are the significant contributions compare to different studies of 1970-73 droughts. Attempts have been made to incorporate all significant aspects and attributes of legislative proceedings in this study.

### **A survey of previous works done in research area and further review of research literature**

1970-73 drought of Maharashtra has been most attracting topic to the academicians. Hence many studies are available on this topic. This is well-documented as well as more recent or contemporary topic. There is no dearth of literature and documents for study on this topic. As the data from all the sources are same and repetitive, it was imperative to opt for most relevant and reliable sources; instead all. Regional news papers, Lokrajya the government journal, season and crop reports, economic surveys and budgets of state government and union government of relevant years, report of various government committees, gazettes of state government, two volumes of compendium of government rules and above all legislative proceedings of both the houses are most relevant reliable primary sources to construct this historical account. Like news papers legislative proceedings is mirror of socio-cultural life of particular time. Situation emerged due to drought, distress, miseries of people, government efforts, ground reality, mass movement and public participation each and everything related with drought reflected through the legislative proceedings. Being as historical source regional newspapers is valuable source and has same impact and value like legislative proceedings in historical construction. There are direct references and news of droughts and distress faced by rural masses appeared in different newspapers. Lokrajya official publication of the state government is also valuable source of the information that reported valuable events and relief measures of 1970-73 drought of Maharashtra. As this publication is mouthpiece of state government; all government efforts, government appeals are published through this publication. One can judge the mounting distress and its graphs through its recordings. Brief legislative proceedings, district-wise news coverage with photographs, official statistics of relief works, cover-stories containing unique events on relief works including Sukhadi distribution, event of joy and mourning on relief works covering

marriages to accidents are recorded. Speeches appeals of Chief Minister and other ministers are recorded and published in this publication. Relief works of various districts are reported with photographs and it itself depicts the ground reality and degree of distress of this period. Lokrajya also reported legislative proceedings in its issues. It has also provided important statistics of work performance at various levels and expenses incurred therein. I have taken photographs of two regional news papers namely Kesari and Loksatta pertaining to this drought period. This is also very rich source of information. This source cites events and analysis that are just opposite or providing critique of government views. As official reporting did not always revealed ground reality to exhibit flaws and shortcomings of government. Right from daily rainfall to retail prices of consumer goods and food articles all concern attributes of drought and scarcity are reported in the news paper reporting. These news paper reported district-wise news bulletin with vivid description of water, fodder and food scarcity. Migrations in the Pune and Mumbai suburban area reported and interviews of the migrants were printed in the news papers. Meetings of various volunteer agencies, visits of Prime-Minister, Chief-Minster, Revenue minister and central assessment team are reported in news papers. Efforts of various non-governmental agencies like, Satguru Seva Sangh, Maharashtra famine relief committee, Dnyan Prabhodhini, St Annes Church, Rashtrya Svyansevak Sangh were reported through news paper reporting. Individual efforts of Tanpure Maharaj, of bringing grains from north India and opening of free kitchens over scarcity affected area acknowledged and due references made in the reporting. Free kitchens were opened to students of rural areas studying in urban areas. Special attention had been provided to students studying in the urban areas of rural background by various agencies like famine relief committee, mayor of Pune and other organization for their daily free meal and concession in examination fees. Donations of clothes, grains, fodder were made. Same were reported through news paper writings. Various political agitation and activities of opposition parties for relief operations and reliving distress within legislation and outside legislation were reported. Milo import, shortage of grains from October 72 onwards, adulteration of Milo with poisonous weeds, latthi charges and opening of the fires on the mob, employment to children above age of 14 and hike in the wages, taking over of wholesale trade of grain by state were issues raised and agitated in legislation and outside by political parties. These were addressed and reported through news paper writings. These news papers tried to produce historical accounts of past infamous famines. Varied articles by eminent journalists and experts



pertaining to scarcity relief and drought proofing measures appeared in the news papers. Jankalyan Samiti of Rasthriys Sawaym Sevak Sagnh compiled album of news paper reporting of Tarun Bharat. This album also reflects above mentioned features. Appeals by various agencies including Maharashtra famine relief committee to donate either in cash or kind for scarcity relief and distress over Maharashtra appeared in the contemporary news paper reporting. Individual donations like donating fodder to scarcity affected farmers, and donations of fifty thousand by herbal tooth powder company, donation of tanker by Burma Shell Company appeared through news paper reporting. The appeal of use of tubers or potato as alternative food source appeared in the news papers. Drought was all pervading and it was reported during acute distress of this drought. Thus news paper reporting is also very valuable source.

Legislative proceedings of both the houses of these three years, is valuable source of information and very authentic account of these drought years. News paper reporting and legislative proceedings provide us unbiased and authentic description of 1970-73 droughts. It also provides critique of government policies by members of opposition in legislation. Drought scarcity, miseries of people and scarcity relief works, relief measures, public participation, grain violence, police firing everything with minute detailed recorded in the legislative proceedings. Since this proceedings has statutory and constitutional base information and data quoted as part of answer to questions is very authentic. The incorrect information provided in the house by executive is summarily breach of privileges of members. Prior to right to information this was the only tool available for members of opposition and ruling party to some extent to get correct information of state and bureaucracy. Common people were also able to avail so called secret information via proceedings of legislation which was otherwise hidden by government and bureaucracy of state in name (disguise) of official secret act. There were various surveys carried to understand exact nature of this drought by academicians and various institutes. Department of economics and statistics of government of Maharashtra, Gandhi Smark Nidhi, Village Survey of Adul and Bhadji by M.V.Borkar and N.M. Nadkarni, a comprehensive detailed research work based on survey of Sinnar Taluka by S.N.Kulkarni, Similar work based on sample survey by Gokhale Institute of Politics and Economics of Pune, Ahmednagar, Osmanabad, Sangli and Solapur districts, Sakri college carried survey of Sakri taluka of Dhule district are the important contemporary survey on 1970-73 drought of Maharashtra. These surveys are contemporary surveys and therefore are more relevant and authentic and treated as primary sources. These

surveys made detailed and comprehensive inquiries of all attributes of the 1970-73 drought of Maharashtra. Consumption pattern, income level, percentage loss of agricultural income, health, nutritional status, availability of food grains, relief employment, migrations, and all such attributes covered in the survey. Therefore these surveys give very clear picture and idea of 1970-73 drought of Maharashtra.

Findings of these surveys are reported, Included and acknowledged in some previous work. V.Subramanin then the chief secretary of revenue and forest department (involved as nodal agency of scarcity relief work), compiled and created a very valuable work named 'Parched earth' on this drought. This book is very valuable source for the history of this drought. As author himself was involved in all relief operations of state he had access to all relevant statistics. This is very comprehensive book related with 1970-73 drought and covered each and every aspect of it. Mobilization of finances is very significant aspect of relief operations and how finances were arranged and how maximum central assistance sought by Maharashtra bureaucracy described with minute detail in this work. Comprehensive statistics of each district with detailed description of scarcity works laid down in this work. Public participation and contribution of various nongovernmental organizations is acknowledged in this work. This work is honored with D. Lit. by Mumbai University.

An attempt has been made by Mohit Bhattacharya, and Kuldip Mathur to assess the role of bureaucracy and administrative organization in scarcity relief during 1970-73 drought of Maharashtra. Two big volumes related with government rules of various department framed during this drought, studied by these two authors. They tried to provide new insight and analysis of the innovations made during this drought within administration and administrative organization in their book. Their work is published as 'Administrative response to emergency: study of scarcity administration in Maharashtra.'

Jean Dreze gone through all available literature of this drought and commented that at this occasion famine was certainly averted and this was success story of government. In this study Dreze calculated total need of food grains through the national sample survey consumption patterns. He showed that grain supply from public distribution system was very short and to fulfill the need of people, grains from Punjab and Haryana came to Maharashtra illegally. It became possible because the employment generated through large scale scarcity works created purchasing power in people to buy grains from the market. The grain prices over Maharashtra

increased; it then pulled grains from northern state through illegal trade. Dreze's study of Maharashtra drought first published through publication of development research program in 1988. Further this revised study published in second volume of political economy of hunger edited by Jean Dreze and Amartya Sen. Aforesaid work of Dreze and Sen is part of United Nations University's research through world institute of development economic research(WIDER).

Elizabeth Oughtan put analysis of this drought through entitlement perspective. She concluded that the situation in the first two years could not be attributed to failure of supply. There was plenty of grain in the country as whole. This was a peak of harvests throughout the rest of the India and thus there need not have been a shortfall in availability in the State. During third year of drought the food-grains policy failed to fulfill its aim of supplying grain at reasonable price to the population. The evidence suggests that the food exchange entitlement moved against those dependent on labor from the beginning of the drought. Smaller cultivators did suffer badly through death and distress sale of livestock. This was particularly important in view of the effects on the future productive capacity of small farm agriculture. Food Exchange Entitlement did not fail for farmers producing cash crops but their number was too small. This study is covered and published as Maharashtra drought of 1970-73: An Analysis of Scarcity in Oxford Bulletin of Economics and Statistics Vol. 44, No.3 August 1982.

## **Research Problem**

To construct a comprehensive historical account of 1970-73 drought of Maharashtra comprising meta-analysis of all previous works is measure theme of this research; which deals with significant problem of intended research.

## **Aims and Objective of the research**

- (a) To take review of monsoon studies and to make its inferences to assess its impact on socio-economic life pertaining with monsoon vagaries.
- (b) To take review of drought studies and pointing out its implications towards drought proofing measures.
- (c) To collect information from all contemporary survey of 1970-73 drought and to make benchmark analysis of it.
- (d) To describe nature of 1970-73 drought and its impact

- (e) To study the food crisis of 1972-73 and to identify the forces and factors responsible for the same
- (f) To make detail enquiry in the administrative set up and innovations during 1970-73 drought of Maharashtra.
- (g) To assess the role of executives and administration in reliving distress of such a colossal nature
- (h) To study legacy of scarcity relief operations and drought proofing measures.
- (i) To assess the experience of 1970-73 drought and its overall impact in enhancing knowledge of drought proofing measures.

### **Hypothesis**

- (a) This drought was the most severe drought of 20<sup>th</sup> Century and resulted into famine like condition
- (b) It was blessing in disguise and aftermath of it changed the approach of state and people in dealing with drought proofing measures and scarcity relief.
- (c) Executives and legislative organ of state responded with fullest accountability to overcome distress.
- (d) People of Maharashtra acknowledged the nature and degree of severity and as responsible citizen without getting demoralized worked hard to overcome distress.
- (e) It was the period of political agitations and political parties with socialistic leaning acted as pressure group on government. These parties mobilized mass protest over questions of relief operations, wages, employment and more specifically food supply. This though created law and order problem built confidence in the people and unlike present peasants' suicides kept away rural masses from such negative thoughts.

### **Research Methodology techniques to be used;**

Historians have their own limitation they themselves cannot record the things of past. Even they cannot carry surveys for past. Thus, historian cannot create his own data. However relaying sources and data of others historian has to see beyond the sources and facts. Historian analyzes the facts to construct new interpretation. Historian also tries to reconstruct past with its socio-economic as well as cultural traits. While relying on data and facts of others he has to remain very vigilant applying historical research methods like internal criticism and external criticism. Historian tries to reconstruct past with utmost care keeping intact the objectivity of events.

This research is intended to construct objective historical account of 1970-73 drought of Maharashtra. Historical research demand the ascertaining of facts beyond doubt and then organizing as well as interpreting the facts data in such a way to make various arguments. These arguments may consist of analysis, description, understanding, comment, analogy, relation with other events, consequences, influences of far reaching nature on society economy. It tries to correlate events as well as facts. It tries to provide analysis which covers all social sciences and humanities. In this work all these techniques are applied. Beside, this research had applied statistical methods wherever applicable. Like processing of rainfall data and making graph out of it, presenting trends of labor attendance on scarcity works etc. Rainfall data scientific advancement and its social and economic impact assessed through empirical method in this study. Exploring of untouched sources, inculcating new facts, new data and interpreting it attempted in this research.

Historical researchers try to reconstruct past as well as tries to assess cultural, socio-political and economical outlook of particular period in historical perspective. Historical research also tries to depict public psyche and general perception of period. Any historical account is essentially of descriptive nature i.e narrative. Any historical research is nothing but writing new history as well as providing new interpretation. Rewriting of history accepted attribute of historiography. Historiography acknowledges as well as encourages rewriting history. Historian with influence of specific ideology tries to interpret old sources and old historical writings in light of his own ideology or influences. Feminist, subaltern and caste critique are types of influences that exerts influence in today's history writing. Internal criticism and external criticism and interpretation are three main components of history writings. However, history writing cannot be confined to only these components, though these attributes covers many aspects of standard history writings. Internal and external criticism of historical documents is solely deals with ascertaining authenticity of document and establishing event and facts beyond doubt. This method is very essential for ancient and medieval documents. However, for contemporary topic it need not be followed rigorously. In this research it is very easy to ascertain primary and secondary sources. There are ample sources of primary as well as secondary category for making historical account of this topic. Legislative proceedings and News paper reporting are authentic primary sources to reconstruct history of 1970-73 drought of Maharashtra.

## **Chapter Scheme and Methodology Followed**

First chapter of the thesis deals with monsoon phenomenon. In this topic monsoon definition, factors affecting monsoon performance, monsoon circulations, synoptic situation during monsoon months, history of monsoon studies, these aspects of monsoon reviewed. Importance of forecasting and measures to improve it discussed in this topic. Feedback from India meteorology department and implementation of suggestion in agricultural planning is also discussed.

Second chapter of the thesis deals with drought studies. Definitions of droughts, types of droughts, history of Indian as well as Maharashtra droughts are traced in this thesis. Even history of droughts over geographical regions of Maharashtra traced. Findings and studies of great meteorologists of India meteorology department like Sikka, M.P. Shewale & Shravankumar, Gore & Sinha Ray and Pai and others reviewed and inferences from their finding drawn in this thesis. Criterion for drought prone area studied and characteristics of drought prone areas over Maharashtra traced from the studies of different scholars.

In both topic review of the scientific development and advancement in techniques had been taken. Tracing of history of monsoon studies reveals the development of monsoon understandings. Monsoon behavior and rainfall pattern are important aspects of monsoon understandings. This in turn could be very helpful to provide solutions for drought and scarcities of scarcity prone areas or drought due to erratic behavior of monsoon in particular year over particular regions. Tracing the history of these two studies reveals nature and behavior of monsoon performance with respect to trend and patterns. Thus, in both these chapters scientific advancement and its impact on social life, correlation between these two phenomenon are discussed. Blending of sciences and social science are sought in historical perspective in this topic. Third chapter of the thesis deals with nature and impact of the 1970-73 drought. In this chapter tools of economic history are used. Many scholars and institutes carried surveys during the 1970-73 drought, of drought affected areas. These surveys provide economic analysis using tools of economic theories. Meta analysis of these surveys as bench-mark analysis with tools of economic history sought for this topic. Economic history is the study of economic phenomena in the past. Analysis in economic history is undertaken using a combination of historical methods, statistical methods and by applying economic theory to historical situations and institutions. Quantitative (econometric) Economic history is also referred to as Cliometrics and Cliometrics, refers to the systematic use of economic theory and econometric techniques to the study of

economic history. The term cliometrics was originally coined by Jonathan R. T. Hughes and Stanley Reiter in 1960 and refers to Clio, who was the muse of history and heroic poetry in Greek mythology. In this topic all facets of this drought covered and described. The full description of this topic is entirely based on the contemporary surveys carried during this period. In this topic rainfall, agricultural production, reduction in income, scarcity relief works described with the data of different contemporary surveys. Income level of different occupational group their consumption and level of living described with help of these surveys. Attempt had been made to assess impact of drought on economy and polity and environment.

Efficiency of bureaucracy, innovative techniques in the administration, and detailing of scarcity relief works highlighted in fourth chapter through descriptive method and empirical tools. This chapter of thesis deals with executive organ of state including executives specifically council of ministers, administration and bureaucracy. Response of this organ to scarcity and dealing with scarcity relief operations assessed and adjudged. Though some passages of this chapter deals with description of nature of drought, it also helps in many ways to understand the flexibility of administrative mechanism to respond quickly to such a high degree of distress. Fourth and fifth chapters of this thesis have met different treatment. Rearrangement of orders of facts from previous works sought for interpreting the facts differently.

Fifth chapter of this thesis is dealt with legislative proceedings and legislative response to 1970-73 drought of Maharashtra. These proceedings are full of information of 1970-73 drought. Each and every aspect with minute detailing of this drought appeared through proceedings of legislation. Classification of proceedings, classification of issues, issues addressed, debates these facets of proceedings described in this topic. Legislative proceeding is authentic source for constructing history of this drought. All attributes and aspects of this drought are depicted in the proceedings. As a historical source this is very valuable document. Very Comprehensive work on this drought is published by V.Subramanin. This works is full of eulogy of bureaucrats and council of minister. Other side of the government response could be seen through legislative proceedings as many pages of proceedings occupied by complaints made by legislators. Only legislative proceeding record is sufficient to construct integrated history of this drought. Legislative proceedings during drought years were full of drought related issues. Governor's address, adjournment motion, calling attention motion, budget, one hour discussion, question answers, no-confidence motion all these proceedings reveals the severity and gravity of the

drought. The concern of members towards the people due to grave situation arise out of drought condition is revealed through proceedings. Issues discussed, addressed as well as policies suggested, altered and modified in the houses had direct impact on the policy implemented by government during drought years. Issues related with caste and untouchability, wages, scarcity relief, entitlement issues, starvation deaths analyzed in this topic. Deprivation class struggle and political agitation its outcome also discussed in this topic.

Last chapter of thesis named epilogue deals with conclusion and some probable approaches to the droughts and scarcity relief.

### **Chapter wise Findings of the Thesis**

Inferences drawn from first topic suggest that there cannot be drought over all meteorological divisions of India simultaneously in any given year. Indian monsoon is very much consistent in long run. These two inferences suggest that systematic planning of water resources will overcome drought condition of any region of India. Tapering shape of Indian subcontinent and three oceans around India is unique geographical setting set for very consistent rainfall over India. Deficiency of rainfall over one region is fulfilled by excess rainfall over another region over India in any given year. Meteorological drought over high-rainfall area does not necessarily lead to agricultural drought. Though, it may lead to hydrological drought. Use of technology and improved agronomic practices can produce good results in agriculture over any part of India. Accurate and advance forecasting of rains will helpful on large extent in preparing advance water resources. It can also helpful in planning protective irrigation to crops. Rainfall patterns and monsoon performance over India suggests that even during worst performance of monsoon over particular region of India could produce good results in agriculture sector by using modern agronomic practices that are used in country like Israel. If water resources if ever used only for producing food grains, Indian land has far more potential to produce food grains. However, water resources now days are used on greater extent in other economically important sectors like hydroelectricity, industrial use and suffice different water need of urban population. These are equally important components of economy. This study is emphasizing on formalizing national policy of water management and constant feedback from concern agencies by government and act on its suggestions. In long term planning as well as in framing measures to overcome droughts and distress caused due to droughts ; national commission of agriculture, agriculture ministry, state ministry and agricultural institutes and universities have used rainfall and other



relevant data from national agencies like India Meteorology department and other departments. Drought monitoring unit of India meteorology department every year prepares the weekly charts of rainfall of different regions on the basis of departure from normal. These charts and maps suggest and warn drought condition over particular region or area. However, it is very hard to employ instant corrective measures to improve agriculture. At such instance there is provision of protective irrigation then measures to provide protective irrigation could be implemented. Judicious and economic use of water could be implemented by studying these charts. If advance and accurate rainfall forecasting system evolved, then instant change in cropping pattern could also fetch good harvest.

Some of the findings mentioned above are also deals with drought studies. However from second chapter some exclusive findings are noted. Northwest India and Rajasthan are more vulnerable to droughts and these are chronically drought affected regions of India. . In fact, whenever drought occurs, chances of it being of severe nature are quiet high in Saurashtra & Kutch (with 48% probability), Gujarat Region (41% probability), west Rajasthan (36% probability) east Rajasthan(23% probability) Haryana and Punjab (18% probability) Himachal Pradesh (14%) probability. In rest of the sub-divisions, the chances of drought to be severe in intensity appear quite remote. Shewale and Shravan Kumar further identified areas that are having drought probability of less than 10% belongs to least drought category

Sikka identified 23 all India droughts as per areal extent criteria for the period 1970-2002. Among these drought years he identified 1877,1899, and 1918 as phenomenal droughts. Whereas he identified another three droughts very close to phenomenal category these are 1972,1987 and 2002. Shravan Kumar and Shewale as per areal extent criteria identified 27 all India droughts and as per 10% departure from normal rainfall on all India level identified 20 all India droughts. As per percentage departure criteria Sheawale and Shravan Kumar identified 1877,1899,1918,1972 as worst drought years and as per aerial extent criterion and further identified 1918,1899, 1877, 1987,1985 and 1972 as worst drought years. Shewale and Shrvan Kumars study is confined to 1875-2002. Pai and others by using percentage normal departure identified 22 drought years and further identified 28 drought years on the areal extent criterion from 1901-2003. Pai and his colleagues identified 16 all India drought satisfying both criterion of areal extent and percentage departure. They identified six severe drought years satisfying both criterion. 1911,1918,1972 and 1987 years identified as severe drought years. An analysis of

droughts by Pai and his colleagues using SPI parameter this index identified 20 all India droughts and among its 10 were moderate drought years, six as severe drought years and 4 as extreme severe category. Incidentally analysis of drought on percentage normal category and on SPI category shows same result recording only once exception. These drought studies inferred that the over 130 years of Indian monsoon from 1875 onwards identified 16 to 27 all India droughts. Among these droughts only 4 to 6 occasions were identified as severe droughts. 1877,1899, 1911,1918,1972 and 1987 these years easily could be identified as extra severe category of drought years. This statistics evidenced that there are very few occasions of severe droughts over India. It also suggests that monsoon performance over India is very consistent over the years. Even during worst drought years food grain production on all India level after green revolution does not show any drastic reduction. Droughts over Maharashtra studied by Sambhashiva Rao by modified Palmer's approach. Another important study of Maharashtra's drought by Sinha and Ray covered characteristic features of rainfall patterns of particular region of Maharashtra and history of drought over particular regions. P.G.Gore and Sinha Ray identified 13 years as widespread drought years over Maharashtra. Most of these years coincide with all India drought years identified by Shraavan kuramar and Shewale. 26 large-scale meteorological drought years identified over Maharashtra during 1901-1998 out of these drought years 11 drought years were worst drought years during this drought years more than 50% of area came under the grief of drought . These findings were noted in the study of Gore and Sinha. Shraavan Kumar and Shwale noticed 9 moderate droughts over Konkan and no severe droughts over Konkan region. There were total 9 droughts over Madhya Maharashtra out of it 7 moderate and 2 severe droughts noticed. For both these climatic region probability of drought counted was seven. Marthwada and Vidharbha noticed 18 and 16 droughts respectively both region reported one severe droughts each. Other droughts were moderate droughts. Probabilities of droughts for both the regions were 14 and 12 respectively. Pai and his colleagues of IMD calculated SPI index of all climatic regions of India. This index shows positive trend over 4 districts out of 10 districts of Mahdhya Maharashtra and 4 districts out of 6 districts of Konkan and go. This suggests that rainfall over these areas shows increasing trend and less possibility of droughts. On the contrary out of 11 districts of Vidharabha 2 have shown negative trend means these areas are getting less rainfall. Hence over these districts possibility of droughts increased. Sambhashiva Rao and A.R.Subramanina studied 1971-73 extreme drought condition over 23 locations of

Maharashtra and inferred that these three years were extreme years over many parts of Maharashtra. These two studies reviewed in this chapter and inferences are drawn from these studies. Criterion and recommendations to ascertaining the drought prone area reviewed and recommendations of Subramanian committee discussed. This committee identified 95 talukas of state as drought prone talukas.

Finding of third chapter are enumerated in foregoing paragraph. This drought reduced the agricultural production and it was reported in the contemporary surveys. However, the villages having protected irrigation, least affected by drought and reported very meager reduction. The reduction over severely affected areas is from 40% to 60%. The reduction is highest over Beed followed by Solapur, Aurngabad and Osmanabad. Reduction was comparatively very low over Vidharabha and Konkan districts. Overall reduction in food grain production state as whole was 54% during 1972-73 and 34% during 1971-72. In many surveyed villages there was total reduction in the agricultural production. The incomes of the villagers heavily depend on the scarcity relief works. Survey reported ranging from 20 to 80% of the income of people amounted from the scarcity relief work. This difference in the levels was due to the initiation of the scarcity works over particular region. For the state as a whole the income level in the drought year was below the normal income level by 28%. During these drought year agriculturist could not repay their agricultural loans. Migrations noted from all scarcity affected regions and sample survey indicates that there were 10% migrations from rural areas. Many of the migrants also reported to return their village after drought condition over. From all sample surveys it is evident that the after October 1972 the food grains supply situation worsened. It was hardly possible to issue 4-5 kg grains per month per household from public distribution system.

First and foremost achievement of state higher bureaucracy was pulling maximum assistance from the union government. State government promptly made appeals and request to union government to sought visit of central team to assess the situation over state and releasing central assistance for relief of distress. Subramanina's work provided clear mechanism of release of central assistance careful analysis of this work through light on the efficiency of state bureaucracy. This chapter provides all aspects of scarcity relief and scarcity relief works spreading all over state. Charts containing information and statistics of relief operations are appended in this chapter.

Fifth chapter reveals following findings. Legislative proceeding included in fifth chapter reflected the socio-economic norms and psyche of people. Public outlets of drinking water did not opened to untouchable people suggesting untouchability was prevailing over rural Maharashtra during that time. Incidence of violence inflicted on untouchables on issues of opening or using of common drinking water outlet to untouchables were reported through proceedings. Scarcity relief was important aspect of this drought. Description of relief operations all over state are revealed through the proceedings. Accidents, clashes, incidences of violence, humanity and even rapes were reported on scarcity works as during these years 5 million people were working on the scarcity works. These works were continued for more than three years. Legislative proceedings provides information about the public rallies, public protest, agricultural production, relief measures, incidence of violence, police firing, all government statistics so and so forth. All major government policies, rules, resolutions of relief operations, long term and short term measures for drought proofing measures discussed in the legislation. Government policies that actually executed during drought period as relief measures were results of legislative discussions.

General perception of drought scarcity and famine is described in epilogue. Holistic and integrated approach which can overcome all difficulties discussed in this chapter.

### **Contribution of research works**

This work is of multidisciplinary nature and exact blending of science and social science had been sought in some of the chapters. This is comprehensive historical account of 1970-73 drought taking review of all available studies and its meta analysis. The efficiency and organizational skills of Maharashtra bureaucracy and executives are assessed in the study. Innovations, communication patterns, decisions made and implemented delegation of power all such administrative mechanism assessed and highlighted. Month wise labor attendance and severity of drought analyzed differently. Rainfall of nine agro-climatic zones processed and analyzed in this research. Legislative proceedings and legislative response explored with great detail in this study, which was not done previously by any scholar. As, main purpose of monsoon studies is to unravel the mysteries of monsoon and to provide accurate forecasting system of monsoon prediction, study of monsoon in historical perspective studied. Drought studies are related with providing optimum use of scarce water resources and overcoming distress caused due to droughts. Augmentation of water resources, increasing ground water level, water-shade

development and various soil conservation methods are the important aspects of drought studies. A drought study also provides deep insight in ecological and environmental perspective to drought. It also compels to think beyond drought, famine and scarcity trilogy. This research is intended to initiate such new thinking on droughts. Thus, this research is an attempt to study droughts holistically.

## Chapter 1

### UNDERSTANDING MONSOON TO KNOW ITS VAGARIES

#### 1. Introduction

Climate over any particular area has not abstract or abrupt origin; it developed through global atmospheric activities of many years. Geographical position of particular area is also equally important in setting climate of particular region. As monsoon had profound impact on Asian culture and nearly two third population of world is relied on monsoon, it is interesting to unravel the mysteries of monsoon. Understanding and predicting of monsoon will have far-reaching consequences on feeding mechanism to manifold population of the world. In the Indian context, it involves winds blowing from the southwest direction (known as South-West Monsoon) from the Indian Ocean into the Indian landmass during the months of June to September. These are generally rain-bearing winds, blowing from sea to land, and bring rains to most parts of the subcontinent. They split into two branches, the Arabian Sea Branch and the Bay of Bengal Branch near the southern-most end of the Indian Peninsula. In October, southwesterly monsoon bearing or moisture containing wind reversed its direction and starts blowing from northeast to southwest direction. This phenomenon is known as returning monsoon. General rainfall pattern over India had been studied variously. It also includes aspects of returning monsoon. Full understanding and exact prediction of monsoon could make tremendous changes in agricultural production. The unseen wealth and assets of India is its topography and tapering shape. Very consistent Indian monsoon made India very different and enriched with natural wealth. Along with tapering shape of Indian peninsula Arabian Sea, Bay of Bengal and Indian Ocean help in accumulation of moisture in the winds during the hot season. Second is the presence of abundant highlands like the Western Ghats and the Himalayas right across the path of the SW Monsoon winds. These are the main causes of the substantial orographic precipitation all over the Indian subcontinent. The Himalayas play more than the role of just the orographic barriers for Monsoon. They help in its confinement of monsoon onto the subcontinent. Without it, the South West Monsoon winds would blow right over the

Indian subcontinent into China, Afghanistan and Russia without causing any rain. For North East Monsoon, the highlands of Eastern Ghats play the role of orographic barrier.<sup>1</sup>

As today's many planetary and environmental problems like pollution and global warming linked with atmospheric changes, monsoon studies can also provide different insights to solutions of these problems. Indian continent and Maharashtra particular receives more than 80% of its rainfall during monsoon season i.e. during June to September. The monsoon studies will provide breakthrough on many fronts.

Wang Bin pointed out that the winds of monsoon brings moisture from Indian Ocean and Pacific Ocean and shades it on East Asia and south Asia. Meanwhile monsoon wind system dumps sinking dry air to the north and west of Asia's monsoon area, forming the world's largest desert zone, which stretches from the Sahara and Middle East to Mongolia.<sup>2</sup>

Geographical setting and topography of landmasses along with oceans created typical climates of particular geographical areas. Bin Wang further pointed out that Eurasian continent, ocean basin of Indo-Pacific Oceans, Tibetan Plateau and their positions on the planet have set a thermal engine, which pours monsoon rains over south and East Asia.<sup>3</sup> This unique tectonic setting responds in seasonal progression of the solar radiation and earth's rotation, producing the monsoon climate with its seasonal reversals in both prevailing winds and associated precipitation, characterized by "wet" summers and dry winters.<sup>4</sup> Further research by Chao and Chen attempted to show that the ocean land mass contrast is not fully responsible for development or genesis of monsoon.<sup>5</sup>

The real breakthrough has come when it studied at the global rather than regional level. Largely this phenomenon confined to tropical land lying between 20<sup>0</sup>N and 20<sup>0</sup>S. However, in the Indian subcontinent it greatly influenced by the Himalayan ranges bringing the whole subcontinent under the sway of these moist equatorial winds for a season ranging between two to five months. It accounts for 75 to 90 percent of the annual

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<sup>1</sup> [www.wikipedia.org](http://www.wikipedia.org)

<sup>2</sup> Wang Bin preface of the book 'The Asian Monsoon' Springer and Praxis Publishing Chichester, U.K. 2006 in preface

<sup>3</sup> Ibid Loc.Cit.

<sup>4</sup> Ibid Loc.Cit.

<sup>5</sup> Muna Rawshan 'on the origin of Monsoon: conventional theory versus new findings p.2 from <http://ffden2.phy.uaf/atm/students/thesis/Rawsan.Mauna.pdf> date 4.11.2011 at 3p.m.

rainfall just from June to September. The term ‘monsoon’ stems from seasonal variations in winds but it now more generally applied to tropical and subtropical seasonal reversal in both the atmospheric circulation and associated precipitation. These changes arises from reversals in heating and temperature gradients between continental regions and the adjacent oceans with the progression of seasons, and the extremes are often best characterized as ‘wet’ and dry seasons rather than summer and winter. It is evident that there is a global monsoon, by which we mean a global-scale persistent overturning of atmosphere throughout the tropics and subtropics that varies with time of year.<sup>6</sup> The dominant monsoon system in the world is the Asian-Australian, African and American monsoons, although the latter did not clearly identify with wind reversals.<sup>7</sup> In these sectors, the wet zone migrates from one hemisphere to the other following the sun, and large-scale overturning atmospheric circulation reverses.<sup>8</sup>

## **1.2 Definitions of Monsoon**

The phenomenon of monsoons is certainly very old, but its exact nature and causation discovered only recently. The monsoon has received fervent attention for nearly 350 years. Since then there is consistent effort of meteorologist, to unravel the mysteries of monsoon. As the understanding of monsoon went on increasing, the definitions of monsoon also went on changing. The name southwest monsoon is used for the phenomenon of rains, southwesterly surface winds and the period during which they occur. It connotes the seasonal reversal of wind at lower atmosphere and upper atmosphere over Indian subcontinent. These wind system prevails for 2 to 4 months from June to September.<sup>9</sup>

The word ‘monsoon’ indicates, the south Asian summer monsoon is part of seasonally reversing wind system characterized by wet summer and dry winters. Thus, in simple words Monsoon is a seasonal reversing wind accompanied by corresponding changes in precipitation.<sup>10</sup>

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<sup>6</sup> Trenberth, James W. Hurrell, and David P. Stepaniak & Kevin Wang Bin et. Al The Asian Monsoon Opp.Cit. from the Trenberth et al 2000.p.67

<sup>7</sup> Ibid Wang Bin Opp.Cit by quoting Webster et al. 1998 p.67

<sup>8</sup> Ibid Loc.Cit.

<sup>9</sup> Rao Y.P., ‘Southwest Monsoon’ Meteorological Monograph Synoptic meteorology No.1/1976 IMD Pune 1976 p.1

<sup>10</sup> Colin Stokes Ramage in *Monsoon Meteorology*, International Geophysics Series, Vol. 15, has given above definition



The meteorologist definition of the monsoons is very simple. ‘ A complete replacement of the dry hot air by the equatorial maritime air up to an altitude of three to five kilometers over the land and water surface.’<sup>11</sup>

The monsoon system considered holistically self-regulating described by renowned meteorologist Webster. The monsoon manifested as land-atmospheric-ocean interaction between continents and oceans in the seasonal cycle. Monsoon is a response of the coupled atmosphere-ocean-land system to annual variation of solar radiation forcing. Physical process governing monsoon climate involve not only atmospheric dynamical process but also extremely complex process of interactions among the atmosphere ocean and land surface. <sup>12</sup> Coupled aspect, land-sea and atmospheric interaction as mentioned above challenged by new theories of Chao and Chen has to do very little with monsoon formation. Land sea contrast is complementing the monsoon formation was their inference.

### **1.3 Monsoon Theories**

The marked difference between the response of a large land mass and an oceanic surface to the heat received from the sun creates temperature difference on surface of land and sea. In summer, the air over the continents is much warmer and less dense than over oceans. This and earth’s rotation and its effect on lower atmosphere create different temperature and pressure set up and this helps in formation of the monsoon system is argument of many meteorologists. This was first theory propounded by Edmund Hally in 1686. <sup>13</sup> According Martin Menski it is generally accepted that the monsoon phenomenon attributed to three physical processes. The uneven heating of land and sea, which causes a pressure differential that drives the winds from high pressure to low pressure, is first physical process. The rotation of earth, which forces moving wind to veer towards the

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<sup>11</sup> The monsoon winds, after crossing the equator in the Indian Ocean, take southwesterly trades, a planetary system of winds. The dry and hot land-bearing trades are thus completely replaced by sea-bearing winds full of moisture. Based on the difference between tropical continental air and equatorial maritime air, the meteorologist definition of the monsoons is very simple. It a complete replacement of the dry hot air by the equatorial maritime air up to an altitude of three to five kilometers over the land and water surface.

<sup>12</sup> Webster Peter J. Wang Bin et al. The Asian Monsoon Opp. Cit pp.22-66

<sup>13</sup> Due to difference in the specific heat capacity of land and water, continents heat up faster than the seas. Consequently the air above the coastal lands heats up faster than air above seas. This creates areas of low air pressure above coastal lands compared to the air pressure over the seas causing winds to flow from the seas onto the neighboring lands. This is known as sea breeze

right in the northern hemisphere and to the left in southern hemisphere is the second physical process. Finally the transition in the state of water from liquid to vapor which determines the strength and location of the monsoon rains.<sup>14</sup> The monsoon cell is characterized by easterly jets aloft and south-westerlies near the surface; it is separated from the circulation in middle latitudes by the monsoon trough at the surface and by the Tibetan anticyclone above the mid-troposphere. The easterly jets fluctuate in accordance with the release of latent heat in regions of heavy rainfall. The release of latent heat also plays a significant role in accentuating the low pressure over the Thar Desert. The structure of the monsoon depressions differs markedly from that of the Caribbean type of easterly waves. During periods of breaks in the monsoon, the Tibetan anticyclone disappears, the monsoon trough moves northward, and heavy rainfall is concentrated along and near the foot of Himalayas.<sup>15</sup> This monsoon circulation pursued and put forth by meteorologists suggest that the monsoon circulation is heat driven and follow thermodynamic principles.

### **1.3.1 Dynamic theory**

Inter-tropical convergence zone are air masses of the wind fronts near equator formed due to confluences of trade winds of both sides of equator near 5 degree Celsius. These convergence zones shifted up to the tropics of both sides of the equators under vertical sun i.e. in scorching heat. As these convergence zones are low pressure zones it pulls winds from the equator these winds are actually easterly but after crossing equator it became westerly during summer in northern hemisphere. As cross equatorial air flow bring moisture with them shades it over Indian sub- continent in the form of orographic rains.<sup>16</sup> Uneven heating as well as cooling of land and ocean surfaces and shifting of inter-tropical convergence zones are these two principles on which all monsoon theories are based. Studies of centuries together collected huge data related with air circulation, temperature and pressure since 1880 led to unravel the all monsoon circulations. Meteorologist studied each and every attribute of monsoon studies. They canonized, and

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<sup>14</sup> [www.soas.ac.uk/southasianstudies p.2](http://www.soas.ac.uk/southasianstudies/p.2)

<sup>15</sup> Jen-Hu-Chang 'The Indian Summer Monsoon' Geographical Review American Geographical Society Journal Vol.57, No.3 . Jul. 1967

<sup>16</sup> [www.wikianswers.com](http://www.wikianswers.com)

compiled it as academic study materials. Certainly, this enhanced the monsoon understanding still these efforts are falling short to full understanding and forecasting mechanism of monsoon mysteries.<sup>17</sup>

### **1.3. 2 New theory on Monsoon and its interpretation**

Theories of the development of monsoons have stood firm over 300 years. Classical thinking on monsoon is that its development sparked by the differential heating of land and ocean as described above. But in recent years NASA earth observatory release, challenged theory of differential heating. Geoscientists at the California Institute of Technology have been working on new ideas as to exactly why monsoon develop. In attempt to describe monsoon mechanism; two researchers, Schinder and Simona Bordoni of national centre for atmospheric research in Colorado, used computer models to recreate an earth with no landmasses. Surprisingly, they found that differential heating was not a necessary component to creating monsoons. Instead, they concluded monsoons arise because of an interaction between tropical air circulation change, which can bring on the characteristic high surface winds and heavy rainfall of the monsoon. They further explained, that monsoon arises instead because of an interaction between the tropical circulation and large scale turbulent eddies (circular air movements) generated in the atmosphere in middle latitudes. The ‘eddies’ Schneider says, are “basically large waves, which crash into the tropical circulation. They “break” much like water waves on the beach and modify the circulation because of the breaking. There are feedbacks between the circulation, the wind pattern associated with it in the upper atmosphere, and the propagation characteristics of the waves, which make it possible for the circulation, to

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<sup>17</sup> Cff. South Asian Monsoon: B. N. Goswami

The south Asian monsoon system [www.weather.nps.navy.mil/.../wm](http://www.weather.nps.navy.mil/.../wm) According to this theory, during the summer months of Northern Hemisphere, the ITCZ shifts northwards pulling the SW Monsoon winds onto the land from the sea. However the huge landmass of the Himalayas continue to restrict the low pressure zone onto the Himalayas itself. It is only when the Tibetan Plateau heats up a lot more than the Himalayas does the ITCZ abruptly and swiftly shift northwards leading to *burst of Monsoon showers* over the Indian subcontinent. The reverse shift takes place for the NE Monsoon winds leading to a second minor *burst* during the Northern Hemisphere winter Months of NE Monsoon rainfall over Eastern Indian peninsula.(Source :- Wikipedia) The monsoon or the seasonal changes of winds and rainfall in the region could be interpreted as result of northward seasonal migration of the east west oriented precipitation belt( tropical convergence zone, TCZ ) from southern hemisphere in winter to northern hemisphere in summer (Gadgil 2003). The largest northward excursion of rain belt takes place over the Indian monsoon region where it moves from a mean position of about 5 degree south in winter to about 20 degree north in northern summer. In addition to primary TCZ around 20 degree north during the summer season, a second TCZ exists over the eastern equatorial Indian ocean. The large scale summer mean monsoon circulation is characterized by a deep baroclinic vertical structure with low level cyclonic vortices (and convergence ) and upper level anticyclone vortices (and divergence).

change rapidly.” This can quickly generate the characteristic high surface wind and heavy rainfall of the monsoon.

“ These feedbacks provide one possible explanation for the rapidity of monsoon onset which had been a long standing conundrum in the traditional view of monsoon,” because substantial differences between land and sea temperature can only develop slowly through heating by sunlight,” added Bordoni.

Although the results won't produce better forecasts immediately for impending monsoons; “in the long run a better understanding of monsoon may lead to better predications with semi-empirical models, but much more work needs to be done,” concluded Scheider.<sup>18</sup>

Winstone Chao and Baode Chen put new model pertaining to Asian Australian Summer monsoon circulation. They made experiment by constructing a model simulation. They removed Asia and Australia maritime continent by ocean. They noticed that change resulting from such replacement is in general due more to removal of topography than to the removal of land-sea contrast. Therefore, land-sea contrast plays only a minor modifying role in Asian and Australian monsoons. This also happens to the central American summer monsoon. however, the same thing cannot be said of the African and south American summer monsoons. In Asian Australian winter monsoons land-sea contrasts also plays only a minor role. Their interpretation on the origin of monsoon based on shifting of of ITCZ (Inter-tropical Convergence Zone). In their paper the origin of ITCZ explains the monsoon circulations. The longitudinal location of the ITCZ's is determined by the distribution of surface conditions. ITCZ's favor locations of high Sea Surface Temperature as in western Pacific and Indian Ocean, or tropical landmass, due to land-sea contrast, as in tropical Africa and South America. Thus, they argued that the role of landmass in the origin of monsoon can be replaced by ocean of sufficiently high Sea surface temperature.<sup>19</sup>

#### **1.4 Factors exerting influence on Indian Monsoon**

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<sup>18</sup> [www.scienceagogo.com](http://www.scienceagogo.com) quoting California Institute of technology

<sup>19</sup> Muna Rawshan 'on the origin of Monsoon: conventional theory versus new findings p.2 from <http://ffden2.phy.uaf/atm/students/thesis/Rawsan.Mauna.pdf> date 4.11.2011 at 3p.m

Jet streams, Tibetan Plateau, El Nino, Indian Ocean Dipole, Monsoon Trough, Cyclonic Storms and Mid Troposphere Cyclones are factor that exerts its influence over Indian monsoon. Its effects on Indian monsoon are explained in foregoing paragraphs.

### **1.4.1 Jet Streams**

"Jet stream is a swiftly blowing wind at a height of 3 to 5 kms above the subtropical high pressure belt. Himalayas act as a barrier in their path and as such, the jet streams divided into westerly and easterly jet streams. The westerly jet is responsible for bringing western disturbances into north-west India and Pakistan which bring winter rainfall. The easterly jet blowing over northern India is responsible for bringing tropical depressions over India and Bangladesh. These depressions play an important role in the distribution of rainfall." This is short description of jet streams.<sup>20</sup>

### **1.4.2 Effect of Tibetan Plateau**

First time in year 1958 Flohn propounded theory that Tibetan Plateau might act as elevated heat source during the summer monsoon season has gained some importance. According to this theory due to extra heat at Tibetan Plateau lifts air over Tibetan Plateau this air then tries to descend over Indian ocean of equatorial side. However, due to earth has movement the air deflects to the right side this air returns to Indian peninsula in the form of moisture-contained air in southwesterly direction.<sup>21</sup> It has even been suggested by some investigators that the thermal effects produced by the plateau might be

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<sup>20</sup> [www.wikianswers.com](http://www.wikianswers.com) citing from ICSE geography text book Cff. The jet streams located in the upper troposphere (9-14 km) are bands of high speed winds (95-190 km/hr). The two most important types of jet streams are the polar jet streams and the subtropical jet streams. They are found in both northern and southern hemisphere. Subtropical jet streams are formed as air from the equator moves towards the poles that form a steep temperature incline along a subtropical front that like the polar jet streams produce strong winds. In southeast Asia, India and Africa, these jet streams help bring about the region's monsoon or rainy climate. As these jet streams warm the air above the Tibetan highlands, a temperature and pressure gradient is formed as the air from the ocean is cooler than that above the continental high lands. This as a result from on-shore winds that produce the monsoon.(source:www.angel.com) cff. According to the theory the onset of SW Monsoon over Indian subcontinent is driven by the shift of the *subtropical westerly jet* northwards from over the plains of India towards the Tibetan Plateau. This shift is due to the intense heating of the Plateau during the summer months. This shift of the *westerly jet* to the north of the Himalayas is not a slow and gradual process, as expected for most changes in weather pattern. The primary cause of these is believed to be the height of the Himalayas. As the Tibetan Plateau heats up the low pressure created over it pulls the *westerly jet* northwards. Due to lofty Himalayas, the *westerly jet* is inhibited from moving northwards. However, with continuous dropping pressure, sufficient force is creating for the movement of the *westerly jet* across the Himalayas after a significant period. As such the shift of the jet is sudden and abrupt causing the *bursting of SW Monsoon rains* onto the Indian plains. The reverse shift happens for the NE Monsoon.

<sup>21</sup> Das P.K. Opp. Cit pp.66-67 theory of Flohan and P.Koteshwaram

dominating factor responsible for the northward extension of easterly monsoon current over India. To test the hypothesis all available radiosonde observations from central and southern Asia, including several from Tibet and the neighborhood for the year 1957, were utilized and mean upper air temperature maps were drawn. It is found that there is no observational evidence for the hypothesis (which was originally based on indirect evidence) that a concentrated warm region exists in the upper atmosphere over Tibetan Plateau. On the other hand a diffuse warm ridge has been found to extend east-west along the entire Asiatic continent between the 25<sup>th</sup> and 30<sup>th</sup> Parallel at 500mb. level. The existence of such a ten thousand kilometer long ridge suggests that the associated northward extension of the upper easterly current cannot be linked solely with the Tibetan Plateau but with the entire Asiatic landmass itself.<sup>22</sup> At upper troposphere over Tibetan plateau the planetary scale high pressure system and associated anticyclone circulation persists. This system is referred as Tibetan High. This ridge covers entire eastern hemisphere and dominates the global upper tropospheric circulation. The clockwise flow (anticyclone) around Tibetan High contains an easterly jet stream in its southern flank called the tropical easterly jet. Tibetan High formed due to diabatic heating process associated with deep convective rainfall in south-east Asia and western Pacific and also to sensible and convective heating over elevated Tibetan Plateau.<sup>23</sup>

### **1.4.3 El Niño-Southern Oscillation (ENSO) effect**

A warm ocean current that originates along with Peru coast replacing usual cold current (Humboldt or Peru Current) is known as El Niño current. This warm surface water reaching towards the coast of Peru with El Niño is pushed westwards by the trade winds thereby raising the temperature of the southern Pacific Ocean. A reverse condition is known as La Niña.

Average temperature increases by 0.5 degree Celsius of eastern tropical Pacific oceans this condition remains for 7-9 months and it occurred occasionally irregularly with periodicity of 2-7 years. Similarly cold phase of its also persists and occurred like hot phase and it is known as La Nina phenomenon.

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<sup>22</sup> [www.bom.gov.au/am/das/1963](http://www.bom.gov.au/am/das/1963) Ngarajan S. Thermal effects of the Tibetan plateau p.24 ; 551.513.1(515):551.553 21(5)

<sup>23</sup> Wang Bin. et al. Hoskins Brain & Wang Bin 'The Asian Monsoon' Opp.Cit. pp.378-379

Southern Oscillation, a phenomenon first observed by Sir Gilbert Thomas Walker Director-General of Observatories in India, refers to the seesaw relationship of atmospheric pressures between Tahiti near tropical eastern Pacific and Darwin in Australia.<sup>24</sup> He noticed that when it was high pressure in Tahiti, it was low pressure in Darwin and vice versa. Walker noticed that the quantity of rainfall in the Indian subcontinent was often negligible in the years of high pressure at Darwin (and low pressure at Tahiti). Conversely, low pressure at Darwin bode well for the precipitation quantity in India. Thus he established the relationship of Southern Oscillation with quantities of Monsoon rains in India. Ultimately, it was realized that the Southern Oscillation is just the corresponding atmospheric component of the El Niño/La Niña effect (which happens in the Ocean). Therefore in the context of the Monsoon, the two cumulatively came to be known as the ENSO. The ENSO is known to have a pronounced effect on the strength of SW Monsoon over India with the Monsoon being weak (causing droughts in India) during the El Niño years whereas La Niña years had particularly good Monsoon strength over India.<sup>25</sup> Although ENSO was statistically effective in explaining several past droughts in India, in the recent decades the ENSO-Monsoon relationship seemed to weaken in the Indian subcontinent. For e.g. the 1997, strong ENSO failed to cause drought in India. However, for 14 consecutive years beginning with 1988, there were no droughts despite the occurrence of El Nino. Further, during the strongest El Nino event of the century in 1997, the ISMR was even slightly higher than the long-term mean. Krishna Kumar suggested (1999b) that the relationship between the Indian summer monsoon and ENSO had weakened in recent decades. Although a weak El Nino was known to be developing in 2002, none of the predictions for 2002 suggested a large deficit in the Indian monsoon rainfall. The experience of 1997 and 2002 suggest that we do not as yet understand adequately the response of the monsoon to El Nino. It should be noted that droughts do occur in the absence of El Nino. In fact, of the 24 droughts that occurred during 1871-2004, only 11 were associated with El Nino.<sup>26</sup> Discovery of ENSO thus led to establishing important predictor for forecasting Indian monsoon.

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<sup>24</sup> <http://en.wikipedia.org/wiki/monsoon> of Indian\_ subcontinent #cite\_note

<sup>25</sup> <http://en.wikipedia.org/wiki/monsoon> of Indian\_ subcontinent #cite\_note

<sup>26</sup> Gadgil Sulochana & K Rupa Kumar 'The Asian Monsoon' Wing Ban et al. Opp.Cit p.66

#### **1.4.4 Indian Ocean Dipole effect**

This effect depends upon the temperature and pressure of sea surface at western Arabian Sea near African coast and temperature and pressure of sea surface at eastern Indian Ocean near Indonesia. Like ENSO, the temperature difference of sea surface at both sides has seesaw like effect. Discovery of this phenomenon took place in 1999 and named the Indian Ocean Dipole (IOD). In due course of time its index got formulated. IOD develops in the equatorial region of Indian Ocean from April to May peaking in October. At the time of positive IOD index west Arabian Sea is hotter than Indian Ocean at Indonesia. In the negative dipole year, reverse happens making Indonesia much warmer and rainier. It demonstrates that a positive IOD index often negated the effect of ENSO, resulting in increased Monsoon rains in several ENSO years like the 1983, 1994 and 1997. Further, it was shown that the two poles of the IOD - the eastern pole (around Indonesia) and the western pole (off the African coast) were independently and cumulatively affecting the quantity of rains for the Monsoon in the Indian subcontinent.<sup>27</sup>

#### **1.5.1 Synoptic situation over India during Indian Summer Monsoon**

It was very long observations of Arabian traders who were trading with India that the surface wind on the Indian ocean were reversing in the month of June to September. This wind were carrying moisture with them and shading in the form rain over India. Thus, the word monsoon, as is well known has been derived from Arabic word 'Mausim' which literally means season. Careful study of earth's wind system by scientist showed that during monsoon season surface wind over India or south east Asia during June to September get reversed as the winds which crosses equator from 10<sup>0</sup>C changes its direction and approaches India in southwesterly direction to India the depth of Indian Monsoon current is of 6kms. But at upper atmospheric level around 6 to 7 Km. the wind direction is in opposite of surface wind during monsoon months.<sup>28</sup> Westerly jet and easterly jet are two other winds streams flowing at the height of 13 and 12 Km. height in the atmosphere over India during monsoon season with very high speed. Westerly jet high speed wind blows from west side to east side at upper latitude means between 20<sup>0</sup>C

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<sup>27</sup>[http://en.wikipedia.org/wiki/monsoon\\_of\\_Indian\\_subcontinent](http://en.wikipedia.org/wiki/monsoon_of_Indian_subcontinent) #cite\_note

<sup>28</sup> Das P.K., The monsoons National Book Trust Delhi 1968 pp.24-26



to 40<sup>0C</sup> north over India. At the same time easterly jet blow with very high speed over south India and Gulf of Aden from east to west. This is general circulation pattern of wind over India during summer monsoon season.<sup>29</sup>

During monsoon high temperature zone developed over north-west India. It further resulted into development of quasi-static low-pressure system over northwest India, and its extension along the Indo-Gangetic plains in the form of monsoon trough. Another high temperature zone over Tibetan plateau persists during monsoon period.<sup>30</sup>

Cyclonic depression is important aspect of Indian monsoon. On an average about eight cyclonic depressions passes from Bay of Bengal into the land area between June and September during monsoon season of India.<sup>31</sup> As the depression moves from the head of the Bay of Bengal towards the coast, a belt of heavy rainfall extends to the southern or southeastern parts of Bengal and lower Assam. With the further movement of the storm westward, the rain belt extends to Orissa, Chota Nagpur and Bihar. Further westward movement of cyclonic depression over Madhya Pradesh strengthens Arabian Sea branch of the monsoon. This causes another spell of moderate to heavy rain over Madhya Pradesh and southern districts of Utter Pradesh, as well as over the north of the Peninsula. The rainfall may then be carried by the depressions into Rajasthan and Gujrat before it merges with the seasonal low-pressure area over northwest India. Northward movement of cyclone burst heavy rains over Punjab, Kashmir and sub-Himalayan region.<sup>32</sup> Slackening and reviving of the monsoon is another important aspect of the monsoon and it normally to some extent depend on the reviving and receding of the cyclonic

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<sup>29</sup> Das P.K., The monsoons National Book Trust Delhi 1968 pp.26-27

<sup>30</sup> Das.P.K.Opp.Cit. pp.30-31

<sup>31</sup> Cff. As most of the lows/ depressions from over the northern Bay of Bengal organized convection occurs first near the coast (south-west sector of synoptic system) which subsequently moves inland and distributes rain along the track of systems. This allows the land-surface processes to operate vigorously and in turn impacts on the monsoon activity. The average life duration of these low-pressure systems is about five days for those forming over the Bay of Bengal and three days for those forming over the Indian inland areas? These systems move in a west-north-west/north-west direction from the northern Bay of Bengal and weaken within the trough after traveling a distance of 500-1000 km over land. A few even travel far westward merging with the seasonal low over western India and Pakistan. Some system get rejuvenated while crossing 78 degree east by the fresh moist air incursion from the Arabian while the differential thermal advection from north-west sector of system, producing abnormally heavy rainstorms with 24 hour point rainfall reaching between 30-100 cm. A few systems, while moving north-west recurve along 75-78 degree east under the influence of an approaching westerly trough and produce very heavy rains in the north-east sector of depression/low along the foothills of western Himalayas. The formation of these systems indicates a synoptic scale dynamic instability of monsoon trough. The structure of monsoon depressions and associated rainfall patterns has been studied based on case studies. (The above passage is from 'The Asian monsoon' et al Wang Bin.pp.147-148

<sup>32</sup> Das. P.K. Opp.Cit. p.111-112

depression of which originate from Bay of Bengal. There appears break in monsoon activities but it again get revived. There is thus a certain degree of periodicity in the pattern of monsoon rainfall over northern India and the central parts of the country. “ It tends to intensify in series of spurts with a few days of lull before each spurt. Meteorologist often refer to this as pulse of the monsoon. Perhaps the best demonstration of this phenomenon is the day-to-day variation of the position of the monsoon trough of low pressure.”<sup>33</sup>

### **1.5.2 Monsoon trough**

The most important aspect of Indian monsoon from synoptician’s point of view is periodic shift of the monsoon trough. In preceding paragraphs while discussing the climatology of the Indian monsoon, we mentioned that the axis of this trough shows marked movement to the north and south Gagectic plain. It is observed that a more southerly position of the axis is favorable for the general activity of the monsoon widespread rainfall over most of the country. But on the other hand, a more northerly position of the axis of the trough results in a shift of the rainfall further northward into Himalayan foothills. Northerly position of trough weakens the Arabian Sea branch of the monsoon. At such instance rain get confined to Assam due to Bay of Bengal branch of monsoon and it results into the break.

### **1.5.3 Cyclonic storms during monsoon.**

Cyclonic storms are short of depression of extreme nature when region of low pressure is more localized and the air requires much greater cyclonic spin. A depression is then said to concentrate into tropical storm or cyclone. Tropical storms are not infrequent during monsoon season. The maximum number of storms in the Bay of Bengal occur in the months of July and November. In the Arabian Sea the largest number of storms are observed in May, June and November. The early part of the monsoon season is favorable for the formation of tropical storms in both the Bay of Bengal and Arabian Sea.<sup>34</sup>

### **1.5.4 Mid Tropospheric Cyclones**

It is usually characterized by very intense convective and non-convective rainfall. It forms mainly over the north-eastern Arabian Sea off the north Konkan-south Gujarat

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<sup>33</sup> Ibid Loc.Cit.

<sup>34</sup> Das.P.K. Opp.Cit pp.113-114

coast of India and during an active phase of monsoon from mid-June to the end of July and only occasionally over Bay of Bengal (similarly either during the onset/advance phase or the revival phase of the monsoon after a prolonged break). Often the system is generated within the monsoon cyclonic shear zone at 700 hPa which gets enhanced when a monsoon depression forming over northern Bay of Bengal moves inland. They have a life span about 5-7 days and procedure very heavy rainfall over the north Konkan-Gujarat coast of India. Carr (1977) made a very detailed observational study of MTCs using a diagnostic model and validated all the structural characteristics features of MTCs described above. He also found that MTCs usually occur with frequency of one to four times per year, but more often in the period from 15 June to end of July. As the advection of warm air over western India reduces from August onward, the formation of MTCs is perhaps reduced but the exact cause is yet to be investigated.<sup>35</sup> These were important attributes and synoptic situation over India during monsoon and some others are noted below in footnote.<sup>36</sup>

### **1.5.5 Break monsoon and its synoptic analysis**

Break monsoon condition is significant synoptic situation of Indian monsoon. National Commission of agriculture described findings of monsoon breaks. In study of breaks during 80 years of period 1888 to 1967, there were a total of 113 breaks, 53 in July, 55 in August and 5 in July- August. The duration of breaks has varied from 3 to 21 days and

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<sup>35</sup> Wang Bin et al. The Asian Monsoon Opp.Cit. pp.150-151

<sup>36</sup> During monsoon season the following synoptic weather system regulate the seasonal rains.

The regional monsoon trough and its latitude oscillation manifested in the mid-season “active break’ cycle of the monsoon.

The low pressure systems forming in the monsoon trough on the scale of 1000-2000km and having life spans of 3-7 days some of them having a well defined center and extending up to the mid-troposphere.

The north-south oriented offshore trough along the west coast of India (life span of 3-7 days) with embedded mesoscale vortices of 1-2 days duration and horizontal scale of 200 km, (George 1956).

The monsoon depressions forming within the monsoon trough with a horizontal scale of 2000-3000 km and life spans of 3-7 days (Sitka, 1977).

The mid troposphere cyclone forming off the north Konkan-Gujrat coast with maximum vorticity at 700-600-hPa levels, a horizontal scale of 1000-2000km, and life span of 5-7 days (Miller and Keshavmurty, 19680).

The major cyclonic circulations in the lower and middle troposphere with horizontal scale of 1000-2000 km and life span of 2-5 days.

The north-south troughs from the Gangetic west Bengal to the southern peninsular of India during weak monsoon conditions with life spans of 3-7 days.

The western disturbances associated with eastward moving mid-tropospheric trough in extratropical westerlies across Indo-Pakistan longitudes and penetrating to 30degree along 70-75 degree east.

The low frequency MJO moving eastward on 30-40 days scales along near-equatorial belts which on several occasions trigger northward-moving organized convective episodes, particularly after a prolonged ‘break’ in the monsoon.(From Wang Bin the Asian monsoon pp.145-146

half of them are 3 to 4 days. Breaks of duration of 8 continuous days and higher recorded they were 20% for July and 24% for August.<sup>37</sup> Foregoing description aptly describes the prevailing synoptic condition over India for break monsoon situation during monsoon season. Shift of the monsoon trough northwards near the foothills of the Himalayas and absence of any low pressure or trough of low pressure in the North Bay of Bengal. Pressure gradient reduced over Indian subcontinent during monsoon break. The pressure gradient between Bhuj and Tirivendarum get reduced. Instead of monsoon trough the development of ridge over northwest India is feature of break monsoon. At lower atmosphere during active monsoon easterlies over Uttar Pradesh and Bihar is usual feature. However, during break this feature vanishes. In large number of cases, a trough of low or cyclonic circulation, similar to the development of Equatorial Trough during the onset phase, develops over the south Andaman Sea. (West ward movement of the system in most cases helps in the revival of the monsoon activity). At upper level of atmosphere general shift of upper troposphere ridge get shifted over 2-3 degree latitude. Occurrence of double easterly jet maxima over India, one around 10 degree North and another fairly north near 20 degree North. Sometimes instead of double maxima, we observe generally strong easterlies spread over a very broad area. Appearance of westerly jet over northern parts of country is another feature of break monsoon. The establishment of well marked anticyclone with north-south ridge axis over and near the Caspian Sea in the lower and mid-troposphere has been observed to cause interruption in the normal monsoon activity. Strong northerlies east of the anti-cyclone thwart the normal northward progress of ITCZ during the onset phase and cause break monsoon condition. In years of prolonged break conditions, this feature is also reflected in the mean flow in contrast to years of normal monsoon activity.<sup>38</sup>

### **1.5.6 Synoptic observation of break monsoon in reference to 1972 drought**

S.K. Datta during majority of break monsoon condition including long break of 1972 drought observed the ridge over and near Caspian Sea at 700/500 mb level. During 2<sup>nd</sup>

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<sup>37</sup> Report of the National Commission on Agriculture 976 part fourth climate and agriculture government of India Ministry of Agriculture and Irrigation New Delhi 1976 p. 15

<sup>38</sup> Datta S.K. Opp.Cit, pp.319-324

half of July 1972, break conditions began to get established. The monsoon trough started progression northward by 14<sup>th</sup> July, and the break was fully established by 20<sup>th</sup> July. The marked North-South ridge trough system at 700/500 mb level which appeared even as early as on 11 July was good indicator of the possible forthcoming break conditions. This break was prolonged up to 4<sup>th</sup> August 1972. Revival took place under the influence of the formation of low pressure area in Bay which concentrated into a depression on the 5<sup>th</sup> and affected most of the northern parts of India. This resulted in a shift of the monsoon trough to its normal position. The ridge-trough system also collapsed during the same period, making the flow zonal. It was noted that build up of high amplitude ridge over the Caspian Sea area and gradual northward shift of the monsoon trough, till the break condition is established. The slope of the trough along 70, 80 and 90 degree East for the same period is present.<sup>39</sup> Thus, monsoon studies are able to explain synoptic condition of break monsoon through experience and observations of India meteorology department. Meteorologists thus are empowered with knowledge of describing unfavorable climatology of monsoon but still cannot forecast accurate and precise performance of monsoon well in advance.

## **1.6 Anomalous Synoptic situation during 1972 drought year**

T.N. Krishna Murti and M Kanamitsu observed global synoptic situation and behavior of monsoon for year 1972. “Sequence of events starting from the warm near-equatorial sea-surface temperature over the eastern and central Pacific Ocean initiated beginning of bad performance of monsoon. The preponderance of warm-core ITCZ (inter tropical convergence zone) wave disturbances over the western Pacific and larger than normal frequency of typhoons may be related to these warmer than normal sea-surface temperatures. A series of upper anticyclones found over these typhoons. This large frequency of upper anticyclones over the western Pacific near 15 degree North, in effect, produces a shift in the anticyclone climatology of the tropical upper troposphere. The shift is towards the southeast. This quasi-permanent anticyclone is found to act as a

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<sup>39</sup> Datta R.K. Chagas Carlos & Puppi Giampietro et al. Monsoon Dynamic and rainfall and teleconnections Persistent meteo-oceanographic anomalies and teleconnections Pontificiae Academiae Scientiarum scripta Varia-69 (Persistent Metro-Oceanographic Anomalies and teleconnections) Ex Aedibus Acadamae civiale Vaticana Mmexx September 23-27, 1986 p.326

blocking high at these upper levels. A consequence of this blocking is the manifestation of intermittent cross-equatorial pulses of meridional mass flux in the eastern Indian Ocean a phenomenon that normally occurs in the eastern Atlantic Ocean. Furthermore, the blocking seems to weaken the high-level easterlies between the longitudes of the International Date Line and the Greenwich Meridian. The weaker easterlies seem to affect the storm tracks as well as the development of wave disturbances. The latter were examined from calculations of the necessary conditions for existence of combined barotropic-baroclinic instability. This was not satisfied by weaker zonal flows over West Africa. Thus this complex sequence of events might have been important for the anomalous circulation regimes and the widespread drought over monsoonal region during 1972.”<sup>40</sup> This description reveals the factors which blocked the monsoon flow in the year 1972. It also reveals the causes of weak flow of monsoon circulation during this year. Thus early adjudging of strength and force of monsoon overturning could lead to development of better forecasting system of monsoon.

### **1.7 Monsoon circulations**

Allan Plumb and Peter Clift showed that large hemispheric systematic movement of air circulations starting from south of equator crossing upwelling and spreading towards west and then turning by southwesterly directions to India.<sup>41</sup> The movement of monsoon rains get covers very long time off period of air and moisture movement. This movement initiate in spring season of northern hemisphere from southern equatorial Indian Ocean. This circulation movement moves towards southern and southeastern Asian continent and nearby oceanic regions in northern summer (June, July August). This movement returns back to southern hemisphere near north Australia and Madagascar in the west, at the time of southern summer. During most active period of northern summer, vigorous deep convection and the concomitant net upwelling accompany the intense rainfall maximum near the Asian coast. Actually, the monsoon air circulation has its origin in easterlies (eastward flowing wind) of southern hemispheric tropics. It crosses equator at western ocean and curving northeastward across Arabian Sea, and from the southeast across the maritime continent. The strong cross-equatorial flow, a feature of most monsoon

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<sup>40</sup> Krishnamurti T.N. & Kanamitsu p.46

<sup>41</sup> Plumb Allan & Clift D. Peter, The Asian Monsoon causes and effects, ( Cambridge University Press 2008.) pp.14-16

circulations is especially strong over the western ocean where in fact it forms a northward jet on the eastern flank of East African highlands.<sup>42</sup> Differential heating of land and sea, Tibetan plateau, Western Ghats, Himalaya Garao Khasi Jaitia hill ranges Kirther ans Suleman Ranges to west Vindhya and Satpura over central India plays important role in monsoon spread over India.<sup>43</sup> Monsoon Expedition 79 data set further confirmed the significance of cross equatorial flow as an important feature for onset of monsoon.<sup>44</sup> Enquiries into wind and pressure status for knowing the monsoon circulation over eastern parts of globe at sea surface levels reveals that the traders of southern hemisphere shifts northwards by April. Heat low means very hot temperature prevails over Pakistan Northwest India and the isobar of same value extends through Burma to China and Pacific Ocean. This heat low means high temperature area further intensify as season advances. This is nothing but development of monsoon trough. Pressure gradient develops across Indian continent with low pressure at northern India and high pressure in southern India. Similarly enquires at upper atmospheric level of air and wind circulations reveals some important information it suggests building of cross equatorial southerly flow near Somali coast of east Africa with speed reaching 60 knot well known as low level jet. Similar low level jet found at southern tip of peninsula also. Upper atmospheric or troposphere flow direction is exactly to opposite direction to low-level airflow. The air or wind flows at both level as precursor of monsoon circulation initiated in April and get fully established in July. These two level wind movements during December are exactly of opposite nature. Further investigations with regard to cross equatorial; inter hemispheric, between tropics and middle latitude circulation and movements suggests that circulations from west Arabian Sea towards Indian Peninsula and this air again reach to the east Africa and adjoining Arabian sea from Arabian Sea to again towards peninsula

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<sup>42</sup> Ibid Loc.Cit.cff. Datta S.K. pp371-380

The basic concept of Sir George Simpson (1921) that the monsoon is a continuation of southerly trade winds of the Indian Ocean, which after crossing the equator, attain southwesterly direction due to the turning effect of coriolis force, is still southwesterly direction due to the turning effect of coriolis force is still valid. A conventional forecaster looks for cross equatorial flow as an important signal for the onset of monsoon over the Indian sub-continent. Datta et al (1981) have also shown a northward shift for the equatorial trough as well as penetration of flow from the southern hemisphere associated with progress with the progress of monsoon over India. The intensity and location of well known Mascarene high a part of the southern hemispheric subtropical anticyclonic belt is also observed to have a great influence on the onset processes and activity of monsoon. Thus there is evidently a linkage between anomalies in the circulation features over the southern hemisphere and performance of monsoon over the Indian sub-continent.

<sup>43</sup> Datta R.K. p.362

<sup>44</sup> Ibid Loc.Cit.

by picking moisture. These inferences are drawn from observation of southerly movement of air at east coast of Africa. Similarly vertical circular movement of monsoon wind postulated by meteorologists Frost and Stephenes proposed a zonal circulation cell with an ascending branch over the heated land mass of Indonesia and descending branch over equatorial Indian Ocean.<sup>45</sup> P.K.Das observed monsoon circulation of month of July a typical monsoon month. He found that the monsoon circulation over India was dominated by two principal zones; one of which represented rising air and other an area of subsiding air. Evidence of strong ascending currents of air was found over northeastern India just south of the Himalayan barrier. On the other hand there was an equally pronounced zone of descending air over northwest India, especially near the area of the Rajasthan desert. The magnitude of the vertical component of velocity over northeast India decreased in regular and systematic manner with height. The ascent of air was entirely due to air striking the Himalyan barrier.<sup>46</sup>

## **1.8 History of monsoon studies**

Early monsoon studies in 18<sup>th</sup> century and first half of 19<sup>th</sup> Century were emerged from studies of trade winds. <sup>47</sup>Maury (1855) was of the view that he “SW monsoon of India is the deflection or retroversion of the lowest stratum of perennial trade wind as a rule of the northern summer, without any intervening calm.” Colonel Capper (1801) of the East India Company wrote a book ‘observation on the winds and Monsoons’ described monsoon linkages with winds of north Indian Ocean. Meteorological diaries and registers were started in Calcutta in 1785 by Henry Trail and latter by Major General Thomas Hardwick. Meteorological observations started in Madaras from 1796 and an abstract of the meteorological work done at Madras observatory from 1838 to 1878 was published in the Journal of Literature and Science of Madras. Colaba observatory in Bombay was established in 1823 and Lt.Col. W.H.Sykes discussed a paper before the Royal Society (London) on 6 years (1825-830) of observational work done by him while on duty at

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<sup>45</sup> Datta R.K., Chagas Carlos & Puppi Giampietero et al. Monsoon Dynamic and rainfall and teleconnections Persistent meteo-oceanographic anomalies and teleconnections Pontificiae Academiae Scientiarum scripta Varia-69 (Persistent Metro-Oceanographic Anomalies and teleconnections) Ex Aedibus Acadamae civiale Vaticana Mmexx September 23-27, 1986 pp.261-271

<sup>46</sup> Das P.K., Opp.Cit pp.98-100

<sup>47</sup> Sikka and Kulshreshta Opp.Cit. p.36 Hadley (1735) Dove (1837) Humboldt (1817) Kantz (1847) and Maury (1855) contributed substantially to the growth of knowledge on the monsoon wind system which was thought to be anomaly on the general circulation of the global system.



different places in December (Skyles 1835). Meteorological observations began to record in various other cities of India after 1823. Simla, Benaras, Saharnpur, Travancore were the cities where these observations began. After devastating, Orissa Famine of 1866 and after recommendation of famine commission to start establishment of meteorological service the India Meteorology department started in 1875 under the department of revenue, Agriculture and Commerce, as nodal agency of Government of India. H.F. Blanford was appointed as head of the department with title of Meteorological Reporter to Government of India. By 1875 about 434 rainfall measurement stations distributed throughout India, were functioning over varying periods of observations. Blanford worked with uncommon zeal and energy and laid foundation of system of reliable, systematic and uniform meteorological observations throughout the length and breadth of undivided India. Blanford (1884) discussed in detail linkages of Himalayan snowfall with the monsoon rains. Excessive rainfall at Himalayas showed deficit rainfall over India. This finding was validated by various experiments and 20<sup>th</sup> century scientists. His three observations related with India droughts are important. The areas suffered severe droughts and famines during 18<sup>th</sup> Century were had only 125 cm. annual rainfall and 12% mean annual deviation. The area most vulnerable to disastrous famines had annual rainfall between 70-100 cms. and mean annual deviation from 15 to 23%. Based on 20 years data at his disposal he concluded that it has found that in no single year was the rainfall excessive or deficient simultaneously in all parts of India. The greatest variations in any of the 20 years have been about 15% in excess (1878) and 16% deficit (1868) on general adopted average annual rainfall of India of 105 cms. In any extreme year, two third of India goes in one way (flood/Drought) and one third other way (Drought/flood). The recurrence of an excessive atmospheric pressure is probably intimately concerned with drought of 1876 and 1877 and its disappearance with the abundant rainfall of 1878. The monsoon trough is of preeminent importance to the synoptic meteorology of the summer monsoon and its fluctuations across plains and foothills of the Himalayas. The system of long range forecasting of monsoon season rainfall of India was established on the single parameter of the winter/spring season's snowfall reports from Himalayan region. He coined the terminology Bay of Bengal and Arabian Sea branch of monsoon of India. In 1888 after Blanford Johan Eliot became head

of IMD in 1889. He explained the phenomenon of onset of Monsoon. Cross equatorial low level jet stream the monsoon onset vortex were contained in the research of Eliot. He observed that during monsoon there is oscillation of strong and feebler wind over India resulting performance of monsoon over India. He described pulsating nature of Indian monsoon. Eliot authored a full memoir on Monsoon depressions a very important transient disturbance of summer monsoon season. He discovered the planetary pressure oscillation with a period of 5-7 days over the tropics which has been studied extensively. He was excellent synoptic meteorologists who made outstanding and pioneering contributions to the scientific study of meteorology. He compiled in 1902 the monthly and annual rainfall of 457 stations in India up to the end of 1900 and provided the first rainfall time series of India. Gilbert Walker succeeded John Eliot as Director General of Observatories in IMD, further added to this rainfall series and by 1910 a long series of the Indian rainfall was available for the period 1848-1908. Walker also worked on long range forecasting added several conceptual and synoptic climatological aspects into the empirical methodology followed of his predecessor. However he fail to forecast 1899 drought and famine. After 1902 Walker studied vigorously on Indian monsoon with mathematical and statistical models. His research identified important oscillation in short term climate variability the Southern Oscillation (SO). Other important oscillations include the North Atlantic Oscillation (NAO) and the North Pacific Oscillation (NPO).<sup>48</sup> Of these, the SO had gained tremendous importance since 1950s an important component of global climate variability. The SO was primary predictor that Walker used for statistical weather prediction in regions other than the monsoon. The genius of Walker

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<sup>48</sup> Datta S.K. pp371-380

Although there were other studies on the distant relationship (Hildebrandson, 1897; Lockyer and Lockyer 1902 the real detailed study was conducted by Sir, Gilbert Walker, 1923, 1924). He observed that there are three dominant circulations features which he called North Atlantic North Pacific and Southern Oscillations. The two northern oscillations can be represented mainly by opposition between the subtropical anticyclones and the low level pressure areas on the their pole-ward sides. One measure of this opposition is measure of the strength of the westerly of mid latitudes. The southern oscillation (SO) is however regarded as large seesaw of atmospheric mass between Pacific and the Indian Ocean in the tropics and subtropics. The main opposing centre of action of the SO are located near Indonesia and the South Pacific anticyclone covering the subtropical eastern Pacific. Walker did not stipulate any satisfactory physical basis for these oscillations except the possibility of SO being related to some emanation from the sun. Temperature anomaly over Antarctica and Indian Summer : It is generally believed that the southern hemispheric circulation feature play a significant role in the onset and various other phases of monsoon activity (Kumar et al. 1983).

was recognized by Bjerknes. Bjerknes discovered the link between the southern oscillation and anomalous warming of equatorial Pacific. Bjerknes coined the equatorial plane east west circulation as Walker Circulation to honor Sir Gilbert Walker. In a normal year, the rising branch of the east west Walker Circulation lies over the maritime Indonesian region and the sinking branch over central and eastern cold water of equatorial Pacific Ocean. In anomalous El Nino years, the rising branch shifts eastward to lie over the anomalously warm equatorial central-eastern Pacific. The combined phenomenon is now called El Nino and Southern Oscillation (ENSO) in the climate literature. Walker and after Walker many scientists (Kirtman and Shukla) showed that Indian summer monsoon exerts influence on world climate. They saw that monsoon as trigger instruments which act as indicator for development of southern oscillation. This suggests that Indian summer monsoon and Southern Oscillation influence each other, but each having connection with other interacting systems. Scientist showed that the El Nino and monsoon correlations after 1980 are weakening. After Walker's model in the year 1988 Gouwarikar 16 multi parameter model operated by India Meteorology department for long range forecasting of monsoon. Since 1988 none of the 14 years has witnessed an all India drought. However, the Gouwarikar model did not pass the quantitative testing. The prediction of this model deviated considerably from the actual seasonal rainfall. The average error for the period 1988-2000 is over 7% of the observed rainfall. There has even been an event in 1994 when the model forecast was -8% but the realized rainfall was +10% or slightly more. Timothy DelSole and J Shukla commented on Gouwarikar model that although model employed 16 predictors the model itself contains 49 independent parameters. D.R.Sikka pointed out problem of statistical power regression model lies in the data of drought years. Parthasarthy and others compiled data pertaining to rainfall and other some parameters of drought prediction for 130 years. However, data pertaining to all predictors is available only for 50 years. Within these 50 years, there could be droughts on an all India scale only during 7 to 10 years. Therefore, forecasting of drought based on statistical techniques becomes very difficult. Another problem of statistical method lies with the number of predictors. Recently Shukla after careful analysis of

forecasts based on eight parameters has concluded that, regression equations should be with maximum four predictors.<sup>49</sup>

### **1.9.1 Other World Weather Phenomenon and Indian Monsoon**

Late and heavy snowfall over north and western India considered unfavorable for the monsoon. An unusually large snow cover in late spring generates a region of local high pressure over northwest India. Often this gave rise to northerly winds that were unfavorable for monsoon rains over Punjab and adjoining region. Sir Gilbert reasoned that heavy rain at Zanjibar and Sychelles was an indication of the predominance of an equatorial flow pattern over monsoon.<sup>50</sup> Consequently, this factor was also unfavorable for monsoon rain. South American pressure may be taken to represent conditions over south Pacific Ocean. According to southern oscillation, this should favor the formation of low pressure over the Indian Ocean and a strong monsoon current. This factor was therefore favorable for monsoon. High pressure around Mauritius and Australia in Spring reflect a predominance of equatorial flow. Consequently, they were not favorable for a good monsoon. High pressure over India during the previous year was found to be favorable for a good monsoon although the physical reason was somewhat obscure. Winds observed by ships in the Indian Ocean especially in the month of May, provided a good indication of the advance of the monsoon over India. The Onset of summer rains over Abyssinia in May found that a large departure from the normal date of onset of summer rains over Abyssinia was also reflected in the date of onset of the monsoon over India.<sup>51</sup> Surface temperature over Antarctica also exerts influence on Indian monsoon rainfall.<sup>52</sup> The single minded devotion of synoptic meteorologists and deep conviction to discover the distant relation of world weather led to unravel these correlations.

### **1.9.2 Predictors used in long range forecasting of Indian monsoon**

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<sup>49</sup> Sikka D.R.& Kulshresha Opp.Cit. pp.38-46

<sup>50</sup> Cff. Datta S.K. P.371-72 Since the last century, meteorologists have been searching for relationship of monsoon rainfall with weather events of distant regions. Above normal snowfall over the Himalayas in the pre-monsoon period was found to be negatively correlated with subsequent monsoon rainfall over India. Indian droughts were also associated with high pressure over Mauritius and Australia.

<sup>51</sup> Das P.K., Opp.Cit. pp. 140-141

<sup>52</sup> Datta S.K. Opp.Cit p.374

Sir. Gilbert Walker in 1923-24 started extensive and pioneering work that led to the development of the first objective model based on statistical correlation between monsoon rainfall and antecedent global atmosphere, land and ocean parameters.<sup>53</sup> During the period 1988-2002 IMD's operational forecasts were based on 16 parameter power regression and parametric models (Gowarikar et al. 1989&1991) Indian monsoon rainfall 29 subdivisions average of June to September, Drawin Sea-level pressure tendency, Pacific surface temperature, NAO North Atalantic Oscillation means sea level pressure difference between Gibraltar and Stykkisholmur, Icelands January February Mean. Quasi-biennial Oscillation index, SST averaged in the western Pacific region, SST averaged in the eastern Indian Ocean region, SST averaged Arabian Sea region, Eurrasina Sea temperature, Indian Sea surface temperature were the predictors used as predictor in the Gowarikar model.<sup>54</sup> This model failed to predict the severe drought of 2002.however, none of the other experimental forecasts based on statistical and dynamical models also could predict the severe drought of 2002. Following the failure of forecast in 2002, a critical evaluation of the 16-parameter power regression and parametric model was made in 2003. Two new models (8 and 10 parameter models) were introduced for operational work. Further a two stage forecasting strategy also adopted with provision for forecast update by end of June/first week of July. The predictors used for this model as follows. (1) North Atlantic SST anomaly, (2) Equatorial South East Indian Ocean Sea Surface Temperature(3) East Asia Surface Pressure Anomaly (4) Europe land surface air temperature anomaly(5) Northwest Europe Surface pressure anomaly (6) Warm water anomaly (7) Nino 3.4 SST Anomaly (8)North Atlantic Pressure Anomaly (9) North Central Pacific Zonal Wind Anomaly are the predictors used in 2005 model of India Meteorology department in statistical model.<sup>55</sup> From 2007 onwards, Indian Meteorology Department has been using the new statistical method for long range monsoon forecasting. In this model five predictors had been used namely, North Atlantic Sea Surface Temperature, Equatorial South Indian Ocean Sea Surface Temperature, Northwest Europe Land Surface Air Temperature and Equatorial Pacific Warm Water

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<sup>53</sup> Pai D.S. , Rajeevan M and Rohilla Anilkumar 'New Statsitcal Models for Long range Forecasting of South West Monsoon Rainfall over India.' National Climate Report Vol. 1 India Meterology Deapartment Pune September 2005 p.2

<sup>54</sup> DelSole Timothy & Shukla J [www.isg.org/delsole/dir\\_monsoon/subdtrpdf](http://www.isg.org/delsole/dir_monsoon/subdtrpdf)

<sup>55</sup> Pai Rajeevan Opp.Cit. p.35

Volume. <sup>56</sup>The predictors used in all these models indicate the global linkage of Indian Monsoon. Temperature, pressure gradients all over the world has studied since inception of synoptic study of world climates. The literature produced in the form of concepts and daily weather charts helped in developing correlation between various world phenomenon and performance of Indian Monsoon. The synoptic meteorologists with curiosities and sometimes with clear intention were able to found atmospheric pressures and pressure belts at lower and upper level of atmosphere. This led to correlate different predictors of Indian Monsoon. Even if we go through the list of predictor used in since Walker, it shows that meteorologists understood basic meteorology of world climate. Worldwide wind movements currents oceanic and atmospheric movements correlated with the all predictors of Indian Monsoon. Scientific evidences suggest that such correlations validated on scientific data and experiments.

### **1.10 Concluding remarks on monsoon studies and its legacy**

Systematic studies of Indian Monsoon in India begin in 19<sup>th</sup> Century. However, the real impetus it received after establishment of India meteorology department in 1875. With very little resources and experiences at disposal Blanford, Elliot, Walker Bejerkens directors of India Meteorology department made remarkable advancement in monsoon understandings. However, the establishment of India meteorology department intended to develop reliable forecast system of Indian Monsoon, this department studied all other weather phenomenon of Indian subcontinent. Understanding very basic synoptic climatology of Indian summer monsoon immediately after the establishment of India Meteorology department was genius of Blanford. The contribution of other directors made further advancement in understanding of monsoon. This implies that only scientific tools and statistical techniques and computers did not make real breakthrough in monsoon understanding. It is application of mind, logical thinking that made inroads to monsoon understandings. Monsoon studies in pursuance of its endeavor to develop precise and accurate forecasting developed into three major directions. First is the synoptic understanding of monsoon circulations and overturning in global and Indian perspective. Second direction deals with preparation of rainfall trends and series. Third

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<sup>56</sup> [www.imd.gov.in](http://www.imd.gov.in) It was government press release o 19<sup>th</sup> April 2011.

direction of monsoon studies deals with attempt to develop long range forecasting system based on the correlation of Indian monsoon and other world weather phenomenon i.e. teleconnection. Indian monsoon is related with global climate is established beyond doubt.<sup>57</sup> After discovery of Somali current all meteorologist accepted the fact that the monsoon current initiated from the south of equator.

Monsoon circulation looks like gear wheels. Energy applied to one teathed gear disc revolves another teathed gear disc fitted to it but in opposite direction. Tibetan high circulation at upper troposphere drives the Indian Monsoon circulation at lower level of atmosphere. In pursuance to unravel monsoon mysteries meteorologist by observing daily weather charts unraveled all monsoon circulations on Indian as well as on global scale. All troughs and ridges on global scale discovered and enlisted through works of S.K.Datta and Y.P Rao. It includes air movements at lower and upper atmosphere of intra continental nature its upwelling and down welling patterns revealed by meteorologists. Vertical, longitudinal and latitudinal movements of air masses observed and discovered

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<sup>57</sup> Teleconnections H.E.Fleer Monsoon dynamic( H.E.Fleer ) Lighthill et al. pp.7-18

The term teleconnections refers to the statistically or empirically determined coupling of large-scale abnormalities of the atmospheric circulation in time and space. Such links were first discovered by Walker who found linear correlations between sea-level pressure in different parts of world. In order to obtain a global survey of rainfall teleconnections, more than 1000 cross-spectra have been computed with several reference stations. Several interesting relationship are found . Between the equatorial Pacific and Indonesia there exists a negative correlation, as mentioned earlier. The equatorial African rainfall is in-phase with the equatorial Pacific rainfall, while the equatorial south American rainfall and the majority of West African stations are out-of-phase with the equatorial Pacific. Investigations were carried out by Schutte (1969) and Doberitz (1967,68,69). Additional aspects were dealt with Flohn and Fleer (1975). Even for such distant stations as Nauru and Djakarta there is marked coherence (frequency-dependent correlation coefficient) over a period of 5 years. An inverse behaviour of the rainfall fluctuations in the Pacific and Indonesian is verified by the negative cospectrum. A comparison with higher latitudes indicate that anomalies in the equatorial Pacific are in-phase with those in southern Japan, the Near East and the subtropics of North America, but out-of-phase with those into the Indian peninsula and most of the northern part of the African continent.

A physical interpretation of such coincidence of rainfall anomalies in different parts of the tropics can be given in terms of zonally-extended, thermally driven Walker circulation, as first described by Bjerknes (1969).

In the tropics and subtropics the zonal temperature differences are not negligible in comparison with meridional differences. In the equatorial Pacific and Atlantic there exists a heat source on the western flank (the maritime continent of Indonesia and the Amazon basin), together with a cooling area on the eastern side produced by upwelling off the western coast of south America and to a lesser degree off the west coast of Africa. A weak zonal thermal gradient exists also between the cool western Indian ocean (including the area upwelling off Somalia and southeast Arabia) and the unusually warm waters around Sumatra, which may create a Walker circulation, opposite to the circulations above the Pacific and Atlantic.

Spectrum and band-pass filter analysis verify that the occurrence of rainfall anomalies is not strictly periodic: instead it is quasi-periodic, with preferred frequencies at around 27 and 60 months, respectively. The amplitude of 5 year oscillation in rainfall is not negligible in comparison with the amplitude of annual cycle and is also more significant than quasi-biannual pulse. Teleconnections across parts of the tropics and subtropics, possibly resulting from a Walker circulation, are clearly demonstrated.

in due course of monsoon studies.<sup>58</sup> The movements of ITCZs identified in pursuance of monsoon understanding. Atmospheric general circulation resulted due to ITCZ movement noted. It has been all time enigma in the minds of meteorologists' how persistent the monsoon climatology maintain synoptic situation over India that conduces precipitation for more than three months. B.N. Gowsawami by quoting Wu and Zhang asserted that synoptic climatology over India during monsoon conducive for precipitation is due to Tibetan high. He attributed this phenomenon to development of meridional gradient of troposphere temperature for setting of an off equatorial large scale deep heat source. It leads to off-equatorial convection over India and the Bay of Bengal. Thus according to Gowsami and Xavier change in the sign of meridional gradient of tropospheric temperature may be used as thermodynamic definition of onset of Indian summer monsoon.<sup>59</sup> Thus role of Tibetan high and tropospheric temperature is important for good Indian monsoon.

Another most important aspect and contribution of monsoon studies is in the field of understanding spatio-temporal distribution and behavior of Indian monsoon. Sulochana Gadgil and Rupa Kumar showed empirically that the Indian summer monsoon is very stable in the longer term.<sup>60</sup> Indian drought studies are included in second chapter of this thesis. Observations of this chapter reveal fact that some parts of India are drought prone. Some parts are chronically drought prone. Shewale and Shravan Kumar, Sikka and Kulshreshta, Pai and his colleagues studied Indian droughts for 105 years to 130 years. In all these studies they mentioned around 4 to 6 severe droughts. These studies reveal that simultaneous drought covering all meteorological divisions of India is very rare occasion. There is every chance of deficit rainfall over some region may get compensated by excess rain over other part. As far as food grain production concerned even during severe drought over some parts of India some other parts of India receives good rains. Thus, area receiving good rain can produce enough food grain that will be able to feed whole nation. Even worst drought witnessed good harvest from non drought area of India. Even during 1972 a widespread drought on all India level Indian food condition

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58 Datta S.K. pp.262-271- Chagas Carlos & Puppi Giampietero et al. Monsoon Dynamic and rainfall and teleconnections Persistent meteo-oceanographic anomalies and teleconnections Pontificiae Academiae Scientiarum scripta Varia-69 (Persistent Metro-Oceanographic Anomalies and teleconnections) Ex Aedibus Acadamae civiale Vaticana Mmexx September 23-27, 1986

59 Goswami 'South Asian Summer Monsoon: Introduction' [www.weather.nps.navy.mil/.../wm](http://www.weather.nps.navy.mil/.../wm) p.3

60 The Indian Monsoon Bin Wang et al. Opp.Cit. 2005 pp.660-62



was not worst. This implies that Indian monsoon and Indian land has potential to feed huge population. There is constant criticism on the part of social activists is that all famines and scarcities over India are not heavenly but worldly creation of state machinery and profit making people. Indian Monsoon system is like tides of oceans sometimes it shows fluctuations but it immediately establishes its equilibrium coming to its normal position. It never happened in the history of India that there were more than three years of drought at stretch. Loveday a economist wrote essay on Indian famine in pre-independence period studied all the droughts and commented that there never exists position of drought condition stretching for more than three years. He also commented citing meteorologists' opinion that there never had a drought over India simultaneously covering whole India. He further commented that such an event is impossible.<sup>61</sup> While commenting on 1396 famine i.e. Durga Devi famine of Deccan he postulated that 12 years long stretched drought and famine is not plausible. However, there may have drought of two years and comparatively low rainfall in subsequent years. This situation might have similarity with droughts of last decade of 19<sup>th</sup> Century.<sup>62</sup> All these facts show that there is consistency in performance of Indian summer monsoon. Most of meteorologists believe that there is quasi biennial oscillation in monsoon behavior in India. A high spatial correlation exists between the rainfall of most adjacent sub-divisions over main land India on long-term data. This is quiet important because the rainfall behaves in coherent manner over wide tracks of the country which fact lies at the core of developing long-range prediction techniques for the seasonal rainfall for the country.<sup>63</sup>

Variability of rainfall within a day is important for agriculturist for agricultural operations. To forecast diurnal variability attempts are going on. Forecasting of rains for 2-3 weeks is equally important for agricultural operations. In this regard meteorologists claim that they have succeeded to some extent. Some time medium range forecasting also goes wrong due to sudden change in weather. Northward propagation of tropospheric convergence zone makes active and break situation over India postulated recently. "With

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<sup>61</sup> Loveday A., The History and Economics of Indian Famines,(New Delhi Daryagaj Usha Publishing Company 1985 p.4 &p.17

<sup>62</sup> Ibid p.17

<sup>63</sup> Sikka D.R., Aboral, Gadgil et al Abrol Yash P., Gadgil Sulochana, Pant Govind et al. 'Climate variability and Agriculture' Narosa Publishing House New Delhi 1996 . p.38

the availability of the satellite data and reanalysis produces better description of spatio-temporal characteristics of monsoon intra-seasonal oscillation. Such observation have revealed that the active and break of SAM or the wet and dry spells over Indian continent are manifestation of repeated northward propagation of the ITCZ from equatorial position to the continental position (Sikka and Gadgil 1980 Yasunari 1979) and results from superposition of 10-20 day and 30-60 day oscillations. Both the 10-20 day oscillation and 30-60 day oscillation has a very large zonal scale encompassing both South Asia and the East Asia monsoon regions. The 10-20 day oscillation has a smaller zonal scale and is regional in character. The 30-60 day mode is characterized by a northward propagation while the 10-20 day mode is characterized by a westward propagation. The spatial scale of the dominant ISO and the meridional circulation associated with it.”<sup>64</sup> This understanding shows that monsoon breaks could be predicted up to 20 days in advance with useful skill. D.R.Sikka described recent development of medium range forecasting of 30 day prior prediction of rainfall.<sup>65</sup> Similarly B.N.Gowsawmi also described 20-30 day prediction based upon northward propagation of tropical convergence zone.<sup>66</sup> Thus with prediction of ITCZ movement rainfall forecasting could be predicted.

Meteorologist identified synoptic condition during active and break monsoon.<sup>67</sup> Gowsawami and Xavier showed that break monsoon condition of monsoon could be

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<sup>64</sup> Gowsawami Opp.Cit. p.4

<sup>65</sup> It was found that the large-scale monsoon rainfall was associated with an intense cloud band. This cloud band over the monsoon zone on the indo-gangetic plane is maintained over the equatorial Indian Ocean. These northward movements of cloud bands occur at intervals of 2-6 weeks throughout every summer monsoon, irrespective of whether it was a drought or an excess monsoon season. These are manifested in significant lag-correlations over the peninsular region, so that the weekly rainfall over a region can be predicted from that previous one or two weeks in the region to the south. In recent years a lot of work has been done on the mechanisms of this mode and it has been linked with the eastward moving low-frequency waves on the planetary scale within the equatorial belt.

<sup>66</sup>Gowsawami pp.4-5 Such observations have revealed that the active and break of SAM or the wet and dry spells over the Indian subcontinent are manifestation of repeated northward propagation of TCZ from equatorial position to the continental position and results from superposition of 10-20 day and 30-60 days oscillations. While 30-60 day oscillation has a very large zonal scale encompassing both the SA and the EA/WNP monsoon regions

<sup>67</sup> Assessing monsoon variability and its study developed as offshoot of forecasting endeavor is immensely important to agriculturist scientists and planning department of government of India. The active phase of the monsoon disturbances and their passage across the length and breadth of the country and the weak of break monsoon phase is characterized by the absence of these disturbances. An important aspect of organization of large scale rainfall is dictated by two features in the lower atmosphere, namely, the position of the monsoon trough and the synoptic scale disturbance such as monsoon low/monsoon depression or the mid-troposphere cyclone. The short break monsoon spells lasting for 3-5 days are welcome by farming community for their in-season agricultural operations but it is the prolonged breaks in rains which cause them major concern.

predicted three weeks in advance. Similarly active phase could be forecasted but of very short period in advance.

This advances made in forecasting is equally important for agriculture. Meteorologist identified epochal or decadal variability of Indian monsoon this is also important characteristics of Indian monsoon. It is well known that Indian summer monsoon rainfall displays multi-decadal variations in which there is clustering of wet or dry anomalies. Rajeevan Ghatkurta delineated (1) 1901-1930 dry period (2) 1931-60 wet period (3) 1961-90 dry period (4) 1991-2020 possibly wet period from available data.<sup>68</sup>

This also testifies that Indian monsoon performances oscillates between good and bad monsoon but still it is very stable. Even it confirms that Monsoon system is self-regulating after fluctuations it gets restored to its original position by establishing self maintained equilibrium.

The agro-research community has tried to develop different strategies for sowing operations, cropping patterns and agriculture inputs over different parts of the country. In such a way that the ill effects of variability in dates of sowing rains and the total duration of the growing season or the inadequacy in rainfall amounts can be reduced. Thus, the weather forecast on short-medium and long-range scales become very crucial for the farming community as well as those who are responsible for managed agriculture in the country.

Archival data of Indian Meteorology department is valuable data source for further studies of monsoon. Over the year department has stored voluminous data of daily weather charts. These are valuable documents. Preparation of long rainfall series is equally important for further studies of monsoon and agricultural planning. India meteorology department's monsoon studies led to many publications these are valuable source of information for department and to meteorologists' academicians and researchers too.

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<sup>68</sup> Guhatakurta P & Rajeevan M., ' Trends in the rainfall over India.' National Climate Centre Research Report No.2/2006 India Meteorology Department Pune 2006.p.5

Prediction and forecasting of India meteorology department always went wrong this perception of common person is not correct. However, history of monsoon studies shows since inception of India Meteorology department has performed commendable job. With very meager sources at disposal the discoveries and lead that early meteorologists took lead that was simply amazing. The rainfall atlas, classification of climates, archives of daily weather charts building of scientific manpower and infrastructure is not a mean achievement. Classification of India into coherent climatic regions is also helpful in planning and monitoring crop pattern and drought. Studies related with monsoon synoptic pattern far helpful in daily forecasting and some extent in medium range forecasting. Occasionally such forecasting went wrong this does not mean that it is total failure of meteorology department.

As far as long-range forecasting concerned, still it is too difficult to develop reliable system. Operational forecasting systems since Walker to till date based on teleconnection principle by employing statistical regression methods. No attempts have been made till date to tackle other alternative methods. Experts are arguing that statistical skills utilized may have fail short to develop useful model. There are so many predictors which have made task further difficult was arguments of some experts. To my mind there should be exact one or two predictors that will be able to quantify the force of monsoon circulations for particular year. ENSO showed strong correlation with Indian monsoon. ENSO-monsoon correlation after 1980s becoming weak this is observations of meteorologists. Further enquiries in this regard may reveal some important facts and that could lead to further breakthrough in the long-range forecasting. Judging and following the development of monsoon overturning and circulations and its progress will helpful in this regard. Use of satellite and global weather data, exchange of meteorological knowledge with meteorologists of the world would certainly helpful in near future in unraveling the monsoon mysteries. It will further improve forecasting techniques. Feeding millions of people, sustained and improved use of hydroelectricity, catering water need of growing population, fulfilling water need of industry are the major challenges before planners. Therefore, monsoon forecasting should be national mission. There should be increased investment in this field. Like national space-mission and atomic research programme there should be notational policy and mission to cater all forecasting needs of nation.

There should be policy to take active participation of private sector just like Indian space research organization. Attempts should be made to attract young and talented human resource to meteorology department. Government should invest more amounts on this department. Better scientific equipment and technical exploration in this field could fetch better results. Individual efforts in this regard should be welcome and encouragement for same in the form of awards, competition and prizes must be initiated.

To my mind, historically Indian monsoon had been satisfactorily consistent. Though it is believed that every year's monsoon behaves differently, the upper and lower limit of rainfall for various regions first must be fixed. During better monsoon beside dams if ever near river basin there are some natural underground tunnels and with some investment and engineering techniques, such tunnels used as buffer water storage. It would be innovative water conservation techniques. If such buffer storage of water used during drought period then it will be step further in drought proofing endeavor.

Precise and accurate forecasting of monsoon would lead to another green revolution in India. India has ability to produce enough food grains to feed Indian population even during worst monsoon season. With help of better forecasting monsoon techniques and agronomic practices even during acute drought India can overcome water shortage. Understanding of monsoon and rainfall should be to such an extent that nation could develop accurate and precise forecasting that will helpful in catering forecasting need of small farms. Operational forecasting is in terms of averages covering wide area. India meteorology department forecasts for climatic regions. Such climatic regions cover some times more than 10 districts spreading over thousands of square kilometers. Forecasting for such a wide area is not helpful to farmers. More micro-level forecasting of rainfall and other weather phenomenon will certainly improve agricultural production.

Monsoon studies over the years as not able to predict exact forecasting in advance; better understanding of monsoon behavior in future will certainly unravel the mysteries that are still beyond the realm of understanding.

## Chapter 2

### RAINFALL AND DROUGHT

Monsoon drought is natural disaster known to India from time immemorial as the rain in some area of India underperforms. The Indian sub continent experiences large-scale drought in some part or the other, almost every year. Drought occurs in nearly all climatic zones of the world at one time or other, but this creeping phenomenon mostly affects tropics and adjoining regions. As a disaster, its experience feels only after it has occurred. Drought exerts profound influence over agriculture, hydrology, tourism, transport, water supply, hydroelectricity, etc. There is hardly any decade when the drought not occurred in India at least in two years. Hence, drought a normal feature of our climate and its recurrence is inevitable. It is part of climate variability. Unlike other weather related natural disasters drought creeps in slowly and passively. Naturally, the study of monsoon features and consequent drought has attracted the attention of Indian meteorologists' since long time.

#### 2.1 Drought Definitions

Drought is an occasion when the rainfall for a week is half of the normal or less, when the normal weekly rainfall is 5 mm or more. Agricultural drought is a period of four such consecutive weeks in the period from middle of October or six consecutive weeks during rest of the year. Seasonal drought occurs when the actual seasonal rainfall is deficient by more than twice the mean deviation.<sup>1</sup> This is description of drought stated in the report of National commission of Agriculture of 1976. Subramaniaym and co- workers made use of aridity index of Thornthwaite and drought years were classified as moderate, large severe or disastrous according to the departure of the yearly aridity index from the climatic normal values.<sup>2</sup>

Drought is a period of drier-than-normal conditions that results in water-related problems. Definitions of drought varied widely with area of interest. Palmer (USA) defines drought as an interval of time, generally the order of months or year in duration, during which the actual moisture supply at given place consistently falls short of the climatically expected

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<sup>1</sup> Government of India Ministry of agriculture and irrigation New Delhi Report of the National Commission on Agriculture part IV Climate and Agriculture 1976 pp.35-36

<sup>2</sup> ibid Loc.Cit p.36

moisture supply. The US weather bureau defines drought as period of dry weather of sufficient length and severity to cause at least partial crop failure. Thornthwaite defines drought as condition in which the amount of water needed for transpiration and direct evaporation exceeds the amount available in soil.<sup>3</sup> Warrick defined drought as a lack of rainfall so large and so long continued to adversely affect all established human activities of the region. Different countries have, however defined drought as per their rainfall pattern. The British rainfall organization in UK defines “absolute drought” when at least 15 consecutive days none of which receive at least 0.25 mm of rainfall and partial drought when at least 29 days during which mean rainfall does not exceed 0.25 mm per day.<sup>4</sup> In U.S.A. according to Conard (1944) a period of consecutive 20 days or more without 6.4 mm precipitation in 24 hours during season March to September is considered as drought situation. In Australia according to Gibbs and Maher (1967), the rainfall is the best single index of drought and use of rainfall declines demonstrate temporal and spatial distribution.<sup>5</sup> In USSR drought is defined as period of ten days with a total rainfall not exceeding 5mm.<sup>6</sup> According to Ramdas “drought is an occasion when the actual rainfall fell short of the normal by more than twice the mean deviation.”<sup>7</sup> However, from practical standpoint, drought may be regarded as a period of abnormal dry weather sufficiently prolonged for lack of water to cause serious hydrological imbalance in the affected area. The Indian meteorological Department defines drought in any area when the rainfall deficiency in that area is more or equal to 26% of long term normal. It is further classified in to moderate and severe drought depending upon the rainfall. A period of drought is defined as a year or season in which the total rainfall is less than 75% of the normal. It may further be classified as a year or season of ‘moderate drought’ if rainfall deficit is between 26percent and 50 percent and a year or season of ‘severe drought’ when it is more than 50 percent. When during a long period of years,

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<sup>3</sup> ibid pp.34-35

<sup>4</sup> Shewale M.P. and Shravan Kumar climatological features of drought incidences in India IMD Pune Meteorological monograph Climatology 21/2005 2005 p.3 Koteswaram Cff, P.Koteswharam Drought in Asiatic monsoon region a symposium Indian National Science Academy New Delhi 1976 a Symposium on droughts Delhi held between 14 to 16 December 1972 editor K.R.Ramaswamy. Bulletin No. 54, Vol.42 1976 p.11 p.11

<sup>5</sup> ibid p.4

<sup>6</sup> Report of National commission on agriculture 1976 Opp.Cit p. 35

<sup>7</sup> Ramdas L.A., ‘1950: Rainfall and Agriculture,’ Indian Journal for Meteorological Geophysics (IJMG) 1 (4), pp.262-74

drought as defined above, occur on at least 20 percent of the years over an area that may be classified as a 'drought prone area.' If the frequency is, 40 percent or more then area may be termed as 'chronically drought area.'<sup>8</sup> For the country as whole, the area-weighted rainfall having normal of 88 cm, also called Indian summer monsoon rainfall (ISMR), is considered. When the rainfall deficiency exceeds 10% and when area under drought exceeds 20% of the total area of the plains in the country (which is 32, 87 787 sq. km) such situation is considered as drought for country as whole.<sup>9</sup>

The definition of drought remained inexact and based on inference for over 5000 years of human history until the means of quantifying it became available in the late 19<sup>th</sup> century when reliable observation of rainfall began.

Drought may be broadly classified into the following three types:

(1) Meteorological drought: It is a situation when there is significant (more than 25 per cent) decrease from normal precipitation over an area.

(2) Hydrological drought: meteorological drought, if prolonged, results in hydrological Drought marked depletion of surface water and consequent drying of reservoirs, lakes, Steams, and rivers, cessation of spring flows and fall in ground water levels. Hydrological drought may be reflected in depleted snowmelt due to poor snow-fall in an Earlier season and this may result in curtailment of power generation and affect industry As well as agriculture.

(3) Agricultural drought: It occurs when soil moisture and rainfall are inadequate during growing season to support healthy crop maturity and cause extreme crop growth to maturity and cause extreme crop stress and wilt.

(4) Economic drought: When deficit precipitation affects the normal economic growth of the country it results into economic drought.<sup>10</sup>

## **2.2 Scope of Drought Studies**

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<sup>8</sup> The climate of Maharashtra India Meteorology department publication Pune 2006 p.8

<sup>9</sup> See Shewale M.P. and Shravan Kumar climatological features of drought incidences in India IMD Pune Meteorological monograph Climatology 21/2005 2005 pp.3-4

<sup>10</sup> Sikka D.R. & Kulshreshta S.M., ' Indian droughts in the context of history and climate' A study for institute global environment and society Centre for Ocean-Land-Atmosphere studies and Centre for the application of Research on the environment Joint COLA/CARE report no.6, 2002 pp.7-8 Cff. Government of India ministry of agriculture and irrigation, Report of the national commission on agriculture 1976 part IV climate and agriculture 1976 pp.34-35



Considering all definitions of drought, it appears that drought concerned with deficiency of water for different purposes. Measures to quantify drought is part of drought studies. Water is indispensable part of human life and civilization. Therefore, drought poses serious concerns to human life. Averages of rainfall and other climatic conditions like temperature, wind velocity and rate of evaporation of very long period set normal water retaining and storing potential of particular geographical area. Any deficiency in such water storage and retaining capacity if affecting gross domestic product of country through any set of consequences have to be considered as drought condition of that particular country. Thus, water requirements are important attribute in defining drought. In future or as part of new innovations effective and economic use of water may reduce existing water requirements at such instance water requirements for different use may get reduced. At such instance threshold limit of water availability for defining drought condition have to be reduced further. Effects of droughts, drought proofing measures, use of drought resistance crop varieties, and augmentation of ground water along with economic measures are also considered within ambit of drought studies.

### **2.3 Some characteristics and Significance of droughts**

Droughts occur in a chaotic way and there is no quasi-periodicity in their occurrence. Drought is identified with situation when a water loss, due to vapor- transpiration exceeds the effective rainfall. In India not only the tropical situation but also its entire dependence on the monsoon rainfall aggravates the situation of drought even more. Drought prone areas in India are generally associated with low level of development, and when drought strikes, the condition of toiling people becomes miserable. Drought affected people have to lead the life of destitute. Moreover, the scope of agricultural growth in these areas is limited by low and uncertain moisture conditions. Predominance of small holdings, large incidence of agricultural workers, non availability of suitable high yielding variety of crops and above all, lack of suitable infrastructure to stimulate economic growth are important attributes of typical drought prone areas. All these combine to aggravate unemployment and low income and create glaring disparities in living standard compared to the areas which have good irrigation facilities and fairly high rainfall. These are common features associated with drought-affected areas. Drought has been a constant visitor in India since time immemorial. In fact, whenever

drought occurs, chances of it being of severe nature are quite high in Saurashtra & Kutch (with 48% probability), Gujarat Region (41% probability), west Rajasthan (36% probability) east Rajasthan(23% probability) Haryana and Punjab (18% probability) Himachal Pradesh (14%) probability. In rest of the sub-divisions, the chances of drought to be severe in intensity appear quite remote.<sup>11</sup> Shewale and Shraavan Kumar further identified areas that are having drought probability of less than 10% belongs to least drought category, areas having drought probability between 10 to 20% belongs to frequently drought prone areas and more than 20% probability categorized as chronically drought prone areas. Shewale and Shraavan Kumar also made two categories of drought one is moderate having rainfall deficiency between 26 to 50% and another of severe drought having rainfall deficiency more than 50%.<sup>12</sup>

The arid sub-divisions of west Rajasthan and Saurashtra and Kutch are the most drought prone areas of the country. Most areas of per-humid and humid northwest India, face the drought menace but infrequently. Occurrence of drought in consecutive monsoon seasons are common in northwest Indian sub-divisions, particularly west Rajasthan, Saurashtra and Kutch and Jammu and Kashmir and Rayalseema in the Peninsular India. Probability of drought over India is 20%. The period 1965-1974 was the worst period with drought occurred on 5 occasions. In the 130 years under study, only 20 cases of drought observed which gave probability of drought for India as 15%. This figure seems to be lower than obtained by other method.<sup>13</sup> Similar findings are put forth in the studies of Sikka and Kulshresthta that Northwest India and Central North-East India are more vulnerable to droughts.<sup>14</sup> Pai and Shridhar observed that “It is seen that majority of the districts in the northwest part of the country consisting of Rajasthan, Gujarat, Jammu & Kashmir, Punjab, Haryana have drought probabilities of  $\geq 20\%$ . The probabilities decrease as moving eastwards from northwest India to northeast India. Over northeast India, most of the districts have probabilities of less than 10%. Over the peninsula, many of the interior districts have probability of  $\geq 20\%$ . Districts along the west coast show less than 10%

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<sup>11</sup> Shewale M.P. & Kumar Shravankumar Opp. Cit. p.6

<sup>12</sup> *ibid.* pp.4-5

<sup>13</sup> *ibid.* p.7

<sup>14</sup> Sikka D.R.and Kulshreshta & Kulshreshta S.M. ‘Indian droughts in the context of history and climate’ A study for institute of global environment and society October 2002 p.10

probability.”<sup>15</sup> Though as per percentage departure criterion humid and sub-humid climatic regions of India faces meteorological droughts. Such mild droughts over these areas did not result into agricultural droughts. Twenty five percent deficit rainfalls over such area does not affect much on paddy production. Finding of all above mentioned renowned meteorologists are similar indicating usually some area receives low rainfall and more prone to droughts. Some area receives higher rainfall and has very low probability of drought. Therefore it is easy to identify rainfall pattern and adopt drought proofing measures over such drought prone areas.

#### **2.4 Monthly Monsoon Rainfall and droughts**

Mooley (1984) has examined the month by month departure of rainfall in the monsoon season (June to September) for 18 of 22 drought years shown. There is clear pattern in the monthly progression of rainfall. Several years even started with positive rainfall anomaly in June (1899, 1904, 1911, 1918, 1941 and 1968) but the rainfall got suppressed in the subsequent months. In 10 drought years, there was a positive anomaly in at least one month of the season. On the other hand, in 1987, the All India rainfall deficiency was above 10% in all four monsoon months. There are years such as 1951 and 1979 in which the deficiency of monthly rainfall increased with the progress of the season-suggesting an abnormally persistent dry season. In 1987 the negative monthly rainfall was higher than 20% in June and remained above the 10% limit for the remaining 3 months of the season. The two years 1920 and 1982 show small positive rainfall departure in July and August respectively, but it made little impact as these large negative departures in the other two months overwhelmed the contribution of two months positive rainfall departure.<sup>16</sup>

#### **2.4 Measures towards quantification of droughts**

Van Rooy of south Africa has developed a drought anomaly index on rainfall departure and the mean of lowest ten values of rainfall in a series. This index gives an idea of water income but not water availability. The water availability depends upon such factors as

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<sup>15</sup> Pai D.S., Sirdhar Lata, Guhathakurta Pulak and Hatvar H.R. Districtwise climatology of the southwest monsoon season over India based on standardized precipitation Index National climate centre research report 2/2010 March 2010 of IMD calculated SPI index means standard precipitation index for different districts for different 36 meteorological subdivisions. NCC research report March 2010 RR No. 2/2010 p.8

<sup>16</sup> Sikka and Kulshetra Opp. Cit p.19

evapo-transpiration, soil moisture desiccations soil type etc. A drought index computed using all such parameters besides rainfall only would be helpful to quantify drought objectively. Such index can provide the basis for classification of drought according to their severity. According to the water balance approach by Thornthwaite drought is described as condition when the amount of water need in the form of evaporation and transpiration exceeds the moisture supply that is available as rainfall and soil moisture. This water deficiency when expressed as ratio of the water need (Potential evapo-transpiration) becomes a very useful parameter, aridity index, which can be used for comparison of drought in space and time. Palmer conceived a two layer model of the soil in deriving a metrological drought index. Palmer developed empirical equations for monthly index values that are applicable to actual drought conditions. Based on these equations and indices he has evolved limits for four classes of droughts namely mild, moderate, severe and extreme. Such computations have been done for the various subdivisions of the country from 1901 onwards. The index being dependent on antecedent moisture conditions represents agricultural drought in dry areas and hydrological drought in humid areas. Foley in Australia, Subramanayam and co-workers in India and Yevejvich and others made similar attempts using Palmer's and Thornthwaite's methods to develop drought indices.<sup>17</sup> India meteorology department also developed drought indices to monitor droughts in India. <sup>18</sup> A drought index is typically a single number value used for indicating severity of drought and it is far more useful than raw data to understand the drought condition over an area. During the past few decades, several drought indices based on remote sensing data such as Normalized difference vegetation index (Jordan 1969, Tucker 1979), Enhanced vegetation index (Huete et al. 2002) Vegetation condition index & Temperature condition index (Kogan 1995 & 1997) etc. have also been developed. <sup>19</sup> The standardized precipitating index (SPI) is an index developed by Mckee et al (1993) based on the probability of rainfall for the scale of

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<sup>17</sup> Kotesaram P., ' Drought in Asiatic monsoon area a paper in symposium on drought organized by Indian National Science Academy' 1976 (symposium was organized between 14-16 December 1972) Opp.Cit. pp.12-13

<sup>18</sup> Pai D.S., Sirdhar Lata, Guhathakurta Pulak and Hatvar H.R. Districtwise climatology of the southwest monsoon season over India based on standardized precipitation Index National climate centre research report 2/2010 March 2010 of IMD calculated SPI index means standard precipitation index for different districts for different 36 meteorological subdivisions. NCC research report March 2010 RR No. 2/2010

<sup>19</sup> Ibid p.3 Due to multidisciplinary importance of droughts several drought indices found in the literature. (Bates 1935, Palmer 1965&1969, Gibbs and Maher 1967, Frere and Popov 1979, Bhalme and Mooley 1980, Petrasovits 1990, Rao et al. 1981, Sastri 1993, Heddinghaus 1991, Tate et al. 2000)

interest and is relatively less complex to compute. The time scale reflects the impact of drought on the availability of the different water resources. Soil moisture conditions respond to rainfall anomalies on a relatively short scale. Groundwater, stream flow, and reservoir storage reflect the longer-term rainfall anomalies. For the calculation of SPI for any location, long time series of rainfall for the desired period (monsoon season for this study) is used. This long time series of rainfall is fitted to probability distribution which is then transformed into a standardized normal distribution so that the mean SPI for the location and desired period is zero. Positive SPI values indicate greater than median rainfall and negative values indicate less than median rainfall. The classification of the drought intensities based on the SPI value as follows; drought is moderately dry/moderate drought for SPI value from -1.0 to -1.49, severely dry/severe drought for SPI value from -1.5 to -1.99 and extremely dry/extreme drought for SPI value of -2 and less.<sup>20</sup> Drought climatology based on SPI is not biased by the aridity of the region and hence is a better index for drought monitoring.<sup>21</sup> As the all India rainfall is significantly normally distributed, the years of all India drought (moderate and above) identified both PN and SPI were nearly same. However, there were significant differences in the district-wise climatology based on these two drought indices. The district-wise drought climatology over India based on PN was found to be highly biased by the aridity region. Highest probability for droughts of moderate intensity was observed over many districts from northwest India and neighboring central India and interior parts of south peninsula. The lowest probability for droughts of moderate intensity was mainly observed over several districts along west coast of the north peninsula and eastern and northeastern parts of the country. The highest probability of the severe droughts was also observed over the northwestern part of the country. On the other hand district-wise climatology of the drought based on the SPI was not biased by aridity of the region. Therefore, SPI is a better index than PN for monitoring the district-wise drought indices over India. Further as the SPI is normalized index, it can be used to represent the excess rainfall or wet conditions in the same way as it is used to represent the drought/dry conditions and wet periods can also be monitored using the SPI. As seen in the previous paragraph, whereas

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<sup>20</sup> Ibid p.7

<sup>21</sup> Ibid p.10

both PN and SPI are suitable for the seasonal drought monitoring on all India scale. SPI is more suitable for district-wise drought monitoring. This is mainly because of the higher C.V. of district-wise rainfall than all India rainfall. The C.V. also increased with decrease in the spatial and temporal scale for region of reference because of more frequent extreme events at these scales. Therefore, the SPI will also be a better index than PN in monitoring wet and dry incidences at intra-seasonal scales such as break and active events over India. SPI is also more suitable as it allows drought severity at two or more locations to be compared with each other regardless of climatic difference between them. As the variability of SPI is nearly same as that of the precipitation anomaly, prediction models can be developed for SPI and hence it is suitable for drought prediction. Dynamical model forecasts of rainfall can be altered to produce spatial maps of SPI for drought prediction.<sup>22</sup>

## **2.5 Enquiries into Historical Indian Droughts through different Studies**

Many scholars have studied Indian droughts D.R.Sikka, Shewale and Shraavan Kumar are prominent among them. Number of drought incidences over India its classification and types described in table No. AT-16 & AT-58 appended in Appendix-A. This classification is prepared by D.R.Sikka. This gives clear idea of Indian droughts. Monsoon droughts over India categorized as mild, moderate, severe and phenomenal, if the quantum of seasonal monsoon rains has been below 1.0 of standard deviation (SD), 1.25-1.49 of SD, 1.50-1.99 of SD, and equal or above 2.00 of the SD, respectively. The monsoon season of the years' 1877,1899, 1902, 1905, 1918, 1920, 1965, 1972, 1979, 1987 and 2002 witnessed severe droughts, of which 1877, 1899, and 1918 were phenomenal droughts and the recent 3 years 1972, 1987 and 2002 were very close to the phenomenal category in which the deficit of seasonal rainfall was 19%. Almost all the severe droughts except those of 1920 and 1979 are associated with warm El Nino phenomenon in the central and eastern equatorial Pacific Ocean and low Southern Oscillation Index (SOI). Walker (1924) discovered the relationship between the out-of-phase performance of monsoon over India and Southern Oscillation (SO).<sup>23</sup>As far as Indian droughts concern D.R.Sikka drawn following conclusions. Droughts occur in a

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<sup>22</sup> ibid p.12

<sup>23</sup> Sikka D.R., and Ding Yuhi Wang Bin et al. 'The Asian Monsoon' Opp.Cit. p. 176

chaotic way and there is no quasi-periodicity in their occurrence. Almost all (20 of 22) drought years(See table AT.16 appended in Appendix-A ) have occurred simultaneously in at least two homogenous regions of India except two years 1920 and 1941, which occurred in West Central India region only. The deficiency of rain reached the phenomenal category over West central India on both these occasions. Thus, all India droughts are expected to cover two or more homogeneous regions of India simultaneously. In the 22 All India droughts regional scale droughts occurred over west central India homogeneous region on 17 occasions (77%), over Northwest India homogeneous region on 16 (73%) occasions and over Central NE India homogeneous region on 14( 64%) occasions. Simultaneously of all India drought and drought in South Peninsular India and NE India homogenous regions is only on 7 (32%) and (4%) occasions only. This implies first two homogenous regions are more drought prone and last two least drought prone areas of India. During 13 drought years, three or four homogenous regions were simultaneously gripped by droughts (1873, 1877, 1899, 1905, 1911, 1918, 1951, 1965, 198, 1972, 1974, 1979 and 1987) and on four occasions four homogenous regions simultaneously came under grip droughts (1918, 1972, 1979, 1987). Only, in the case of 1972 all the five homogeneous regions of India were simultaneously under the grip of a drought. The 1972 drought is unique in this respect. However, the areal extent covered by severe drought was not as large as 1918, 1877, 1899 and 1987.<sup>24</sup>

Shravan Kumar and Shewale studied Indian droughts. The range of drought years faced by different climatic regions of India is from 27 to 31 for period of 1875 - 2002.<sup>25</sup> As per percentage departure from normal criterion they identified 1877, 1899, 1918, 1972 as worst drought years ranked as per sequence enlisted herein.<sup>26</sup> 1918, 1899, 1877, 1987,

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<sup>24</sup> Sikka & Kulshreshta Opp.Cit. pp.,9-10)

<sup>25</sup> Shewale M.P. Shravan Kumar p.4 Highest cases from West Rajasthan, Saurashtra and Kutch with 31 cases, Gujarat region 27 cases, J&K 28 cases, other areas recording significantly large incidences of drought are Haryana, Delhi & Chandigarh, Punjab, Himachal Pradesh and Rajasthan in northwest India and Rayalseema in southern peninsula. The lowest number of droughts have been observed in Northeast (Arunachal Pradesh, Assam, Meghalaya, Orissa and Gangetic west Bengal and Jharkhand per humid areas of coastal Karnataka also experience significantly less frequency of droughts though similar climatic zone of Konkan and Kerala do experience drought on comparatively more occasions.

<sup>26</sup> Shravan Kumar and M.P.Shewale Opp.Cit. table 4 p.17,p.7 The worst drought the country faced was in 1877 with ISMR deficiency 33%, followed by 1899 with 29% deficiency, 1918 with 25% deficiency, 1972 with nearly 24% deficiency and 2002 with nearly 19% deficiency.

1985 and 1972 are worst drought years as per aerial spread criterion. They are ranked as per sequence enlisted herein.<sup>27</sup> (See also table appended T.2 in Appendix-A) Shewale and Shravan Kumar also identified 27 all India drought years as per the areal extent criteria. The probability of all India droughts as per areal extent criteria is 20%. It observed that 13 year period; from each span of following periods,. 1878 to 1890, 1926 to 1938, 1952 to 1964 and 1988 to 1999 the country was free from droughts with respect to areal extent criterion. (When drought area exceeds 20% of all India area then it is considered as all India droughts) As per criterion of departure from normal or average rainfall i.e. 88 cm of all India level 10% negative departure is considered as all India droughts. 20 such cases identified by Shewale and Shravnkumar. Thus, probability as per rainfall departure criterion is only 15% of drought all over India.<sup>28</sup>

It can also be observed that in some years like 1891, 1907, 1913, 1915, 1925, 1939, 1985 and 2000 all India droughts identified by criterion of areal extent did not match with the criterion of rainfall deficiency. Within span of 130 years there were only two years i.e. 1986 and 2004 when the ISMR was deficient by 12.7 and 13.0% but it affected only about 19% area of the country as whole.<sup>29</sup> Data analyzed for 130 years shows only two cases of consecutive droughts over India as one unit i.e. 1904-1905 and 1965-1966. These years satisfy both criteria and confirm consequent drought years. However when the analysis is extended to the meteorological sub-divisions, obviously, a different picture emerged. For a good number of sub-divisions we not only found two consecutive droughts but also sometimes even more occasions of consecutive droughts. Sub-divisions which experience such situation are shown in table appended in the appendix. Not surprisingly the humid areas of Arunachal Pradesh and Assam and Meghalaya, Gangetic West Bengal, Bihar, Jharkhand and costal Karnataka seem to be free from persistent drought in consecutive years. Even sub-divisions like west Uttar Pradesh and Tamil Nadu West Bengal and Nagaland, Manipur, Mizoram and Tripura through belonging to per humid climate have observed to experience drought on 2 or more consecutive years. In fact in NMMT (Nagaland, Manipur Mizoram Tripura) drought has

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<sup>27</sup> Shravan Kumar and M.P.Shewale table 4 p.17,p.6 during 1918 the spread of drought area was 70%, 1877 the corresponding figure was 59%, 1987 it was 48% and during 1905 corresponding figure was 37%.

<sup>28</sup> ibid p.7

<sup>29</sup> ibid p.7



occurred in three consecutive years once viz. 1887-1889. This observation shows that on very few occasions drought over particular region and year coincide with all India droughts. This also implies that during regional drought year scarcity over particular region get relieved by good monsoon over other regions. Cases when areas where drought has occurred once in 2 or more consecutive years east Uttar Pradesh, Uttranchal, Madhya Pradesh (including Chatisgrah) Marthwada, Vidharbha, Coastal Andhara Pradesh and South Interior Karnataka. In parts of northwest India like Harayana, Himachal Pradesh, Jammu & Kashmir, Rajastan, Gujrat and Kerala in southern India, recurrent drought appears more common as is evident from table. Over Punjab, Jammu and Kashmir, West Rajasthan, Surashtra and Kutch such occasions even exceeds 5 in number. They attain frequency of 8 over west Rajasthan. Over western Himalyas viz. Himachal Pradesh and Jammu and Kashmir, in 4 consecutive years droughts have occurred. In fact over Jammu and Kashmir there was one incidence during 1983 to 1987 the drought has occurred on 5 consecutive years.<sup>30</sup> Thus, West-Rajasthan, Saurashtra and Kutch are chronic drought prone area of India.

The lowest number of droughts have been observed for obvious reason in per-humid and humid areas in the northeast (viz. Arunachal Pradesh, Assam & Meghalaya, Orissa Gangetic west Bengal and Jharkhand.) per humid areas of costal Karnataka & Meghalaya, Orissa, Gangetic Bengal and Jharkand. Per humid areas of coastal Karnataka also experience significantly less frequency of droughts though similar climatic zone of Konkan and Kerala do experience drought on comparatively more occasions.<sup>31</sup>

“Area affected by drought seems to have shown steady increase between 1894 to 1908 and between 1964 to 1975. A progressive decline from 1908 and 1964 and from 1985 to 1998 are also seen. Drought area has more or less remained constant from 1976 to 1986. Surprisingly, in recent years there again seems to be a tendency for drought affected area to increase from 1988 onwards.” This observation underlines the epochal or decadal behavior of monsoon.<sup>32</sup>

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<sup>30</sup> Shewale & Shravan Kumar Opp.Cit. p.8

<sup>31</sup> ibid p.4.

<sup>32</sup> ibid. p.8

These findings of Shewale and Shravan Kumar are deals with meteorological droughts. However, these droughts at humid and sub-humid places like high-rainfall areas would not have resulted into agricultural drought but may lead to hydrological drought. The places where normal rainfall is above 150 cms. at such places 10% deficiency in normal rainfall could not affect paddy production. Even at places having 100 cms. annual rainfall could not affect agricultural production. Therefore rainfall departure at high rainfall areas is not sufficient to depict the exact picture of drought situation.

Pai, Sridhar and other meteorologists of IMD Pune developed new standardized precipitation index for all districts of India in 2010. However they also classified Indian drought with conventional departure from normal rainfall method. They observed that during the period 1901-2003, there were 22 deficit monsoon years (with percentage normal ( PN )values less than 90%) and 28 years when the percentage area of the country under drought was more than 21%. Using PN criteria and areal extent criteria Pai and his colleagues identified 16 years as all India moderate droughts. These years are as follows 1901, 1904, 1905, 1907, 1913, 1920, 1941, 1951, 1965, 1966, 1968, 1974, 1979, 1982, 1986 & 2002. They identified as the all India moderate drought years with PN less than 90% and 21-40% of area of the country under drought. Further, they observed that 4 years 1911, 1918, 1972 & 1987 were all India severe drought years (with PN less than 90% and more than 40% of area of the country drought).<sup>33</sup>

Pai and his colleagues from calculating of standardized precipitation index derived another classification of Indian droughts. Drought classification of all India rainfall time series based on SPI criteria identified following 10 years 1901, 1904, 1907, 1913, 1920, 1941, 1966, 1968, 1974, 1986 as moderate drought years. Another 6 years as mentioned further 1905, 1911, 1951, 1965, 1982 & 2002 identified as severe droughts. They further identified following 4 years mentioned as follows 1918, 1972, 1979 & 1987 as extreme drought category. On comparing the drought years based on both the drought indices, it

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<sup>33</sup> Pai D.S., Sridhar Latta., Guhathakurta Pulak.m., Hatwar H.R., District-wise Drought Climatology of The South Monsoon Season over India Based on Standardized Precipitation Index (SPI) National Climate Centre NCC Research Report No.2/2010 IMD 2010 p.10; Using criteria given in the section 3.1 all India drought and all India severe drought years were identified. For this purpose the percentage of area of the country under drought was calculated using PN and geographical area data of all the 458 districts.

observed that in both the cases the list of 20 years is the same. Further, it can be seen that 15 of the 16 moderate/severe drought years based on SPI is same as 15 of 16 moderate drought based on PN criterion. The only exception is that in drought years based on PN 1979 comes under the moderate category and 1911 comes under severe category. On the other hand, in the case of SPI, 1979 comes under extreme drought category and 1911 comes under moderate/severe category.<sup>34</sup> The trend analysis of district-wise SPI series showed significant decreasing trends over many districts in Uttaranchal, Kerala and in the subdivision from east central India and such as east Madhya Pradesh, Vidarbha, Chattisgarh, Jharkhand, Bihar etc., and significant increasing trend was observed over several districts from Konkan region, Karnataka, West Madhya Pradesh, Andhra Pradesh, Punjab and West Uttar Pradesh. Some districts from Kerala and Chattisgarh showed decreasing trends in SPI series and relatively high probability for drought occurrences of moderate and above intensity.<sup>35</sup>

Thus D.R.Sikka identified 22 cases of all India droughts as per rainfall departure criterion for span of 112 years. Shewale and Shravan Kumar identified 20 cases of all India droughts for 130 year span on percentage departure criterion while on area extent criterion they identified 27 all India drought cases. Pai and his colleagues identified 28 all India droughts on area extent criteria and 22 all India drought by percentage departure criteria. Using SPI index Pai and his team identified 20 all India droughts. They further identified 16 all India droughts which satisfied both PN and SPI index criterion. Shewale and Shravan Kumar covered 130 year span, Sikka covered 112 year span up to 1987, Pai covered 102 years up to 2003 period in their studies. Thus we can add only one all India drought in Sikka's list that of 2002 drought. In Pai's list we can add droughts of 1875 onwards to 1901. Thus we can add only three droughts as per areal extent criterion and two droughts as per percentage normal or percentage departure criteria. The corresponding figures of Pai's list of area extent criteria and percentage normal criteria would be 30 and 22. Thus there were only 22 to 23 all India droughts as per departure from percentage normal rainfall criteria. However, in this list only 4- 6 droughts were of severe category.

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<sup>34</sup> Ibid p.10-11

<sup>35</sup> ibid p.13

## **2.8 Physiographic information and Rainfall of Maharashtra**

Maharashtra is situated between 16.4 to 22.1 degree north latitude and 72.6 to 80.9 degree east longitudes. This state of Indian union has occupied western part of Indian peninsula.<sup>36</sup> It is bounded by Arabian Sea on its western side. The physical features of the state is characterized by western Ghats (Sahyadri ) run north to south separating the coastal districts of Konkan from the rest of Maharashtra. As the ridge runs across at right angles to the monsoon stream, it forms an important climatic divide. The western slopes and the coastal districts get very heavy monsoon rains, while to the east of the Ghats rainfall drops to less than a tenth within a short distance from the Ghats. The state receives rainfall mainly during the southwest monsoon season (June to September). There is heavy rainfall in coastal region (about 1000 mm) of the state. Fortunately, all the important rivers like Godavari, Bhima and Krishna which originate from the water shades of the Ghats flow east across the drier regions and contribute to their economic benefit. The influence of the smaller and less cohesive east west oriented ranges of Satpura and Ajaanta is not so marked.

There are four meteorological sub divisions viz. Konkan, Madhya Maharashtra, Marathwada and Vidharbha in the state. The state consists of 35 districts as on first January 2002.

## **2.9 Rainfall pattern over Maharashtra**

Maharashtra state experiences extremes of rainfall ranging from 600cms over the Ghats to less than 60 cm in Madhya Maharashtra. The coastal strip and adjoining Western Ghats exposed to the southwest monsoon receive the heaviest rains exceeding 200cm. rainfall over the Ghats may exceed 500cms annually. Rainfall decreases very rapidly towards the eastern slopes and plateau area where it is a minimum. It again increases as we proceed further eastwards. The Madhya Maharashtra is the region of lowest rainfall. In this region, the annual rainfall is less than 60cms at most places. Within this strip lies the area of lowest rainfall less than 50cms running from Dhond- Baramati sector to Indapur-Mhaswad sector to south east of Pune district. July is generally the rainiest month except in the central region except in the central region of the state comprising of

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<sup>36</sup> Subramanian committee for drought area determination report Government of Maharashtra 1987 pp.8-9

the districts of Ahmednagar, Beed, Osmanabad and Latur where September is the rainiest.

The state gets its rainfall chiefly in the southwest monsoon season (June to September). Konkan receives 95 % and Vidharabha 88 % of annual total during the monsoon season. Madhya Maharashtra and Marathwada receive around 83% of the annul during the monsoon and about 11 % during Post monsoon months of October and November. The post monsoon showers are of considerable economic importance. The advent of monsoon is generally sudden the rainfall increases from 1 to 2 percent of the annual normal in May to 15 to 23% in June. The rainfall becomes heavy to very heavy on occasions in association with cyclonic storms and depressions. The monsoon advances from the south to north and reaches Mumbai by about 10th June. The number of rainy days in a year varies from 70 to 100 in Konkan to 34 to 75 in the interior to east of Western Ghats. Indian meteorology department prepared the charts of heavy rainfall days but none of the event is noted during Known drought year.<sup>37</sup>

## **2.10 Rainfall Variability over Maharashtra**

Coefficient of variation of normal rainfall is more than 25% in southeastern eastern and extreme north western parts of the state. In western parts of the state, it ranges between 20 to 25 percent. In the months of January and February, the coefficient of variation (C.V.) is extremely high and it ranges from 100 to 400. It increases from east to west. During the summer months i. e. March, April and May, it is the lowest in the southeastern parts of the state, adjacent to Karnatka state boundary and increases to its northern and western coastal sides even greater than 120% in the coastal region of Thane and Mumbai; it is more than 200% in the north eastern parts of the state. Lower values of the C.V. are noticed and range 80 to 100%. During the southwest monsoon season, C.V. is more than 30 percent in southeastern and extreme northwestern parts of the state. In extreme western parts, it is less than 20% and in other parts of the state, it ranges between 20 and 30%. During post monsoon season, central parts of the state comprising parts of Aurangabad, Jalana, Prabhani, Hingoli, Washim and Buldhana and northwestern and

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<sup>37</sup> Climate of Maharashtra pp.5-6

some eastern parts of the state, C.V. is greater than 80%. In the southern parts of the state, C.V. is less than 60% in the remaining parts of the state, it ranges from 60 to 80%.

The above discussion gives the picture of rainfall variability in different seasons as well as year as whole.<sup>38</sup>

## **2.11 Drought over Maharashtra different studies and observations**

The state gets its rainfall primarily in the southwest monsoon season (June to September) Konkan receives 95 percent and Vidharba 88 percent of the annual total during the monsoon season. Madhya Maharashtra and Marathwada receive around 83 percent of the annual rain during monsoon and about 11 percent during post monsoon months of October and November. The post monsoon showers are of considerable economic importance.<sup>39</sup>

Incidence of widespread drought over the state in any particular drought year is usual phenomenon. In the years 1941, 1952, 1972, 1984 and 1986 widespread drought affected the state. In the years 1952, 1972 and 1984, the number of districts affected by drought were 22, 32 and 18 respectively. In the years 1941 and 1986; 12 and 17 districts were under the grip of drought respectively. During the years 1918, 1920, 1972, 1985 more than 2 lakhs sq. km. area has been affected by drought.<sup>40</sup> There, were no drought anywhere in the state in 16 years.<sup>41</sup>

P.G.Gore and Sinhha Ray also identified following years as drought years over Maharashtra. 1904,1905,1911,1918,1920,1925,1941,1965,1972,1974,1982,1985&1987 are large scale droughts over Maharashtra.<sup>42</sup>

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<sup>38</sup> Climate of Maharashtra pp.7-8 Coefficient of variation (C.V.) which is expressed as percentage is defined as  
$$CV = \frac{\text{Standard deviation}}{\text{Normal}} \times 100$$

<sup>39</sup> ibid p.6

<sup>40</sup> Gore P.G., & Sinha Ray K.C., letter to editor Masusam, 53,4 (October 2002) IMD publication 2002 pp.535-537

<sup>41</sup> Climate of Maharashtra Opp.Cit.p.10 namely 1948, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1961, 1963, 1967, 1969, 1977, 1980, 1983 and 1988

<sup>42</sup> Gore & Sinha Opp.Cit. P.537 Least number of droughts is in decades 1931-40. 1951-60 and 1961-70. There are three worst drought years in decades 1911-1920 and 1981-1990 on an average one worst drought is noticed in each decade. Successive years of either large scale or worst drought are 1904-05, 1911-12, 1924-25, 1971-72, 1984-85, 1986-87.<sup>42</sup> Rainfall of less than 50% of the annual normal representing severe drought conditions occurred in various districts may be summarized as follows.

Ahmednagar, Aurangabad, Beed, Jalana, Latur, Nanded, Osmanabad, and Solapur were the districts which faced severe drought condition during the year 1972. The area under this severe drought of 1972; for each of these districts are 38, 46, 40, 41, 34, 41, 36, 37 percent respectively.<sup>43</sup>

Gore and Sinha Ray studied the rainfall of all 26 districts of Maharashtra. Then identified drought years with moderate and severe category and reached following findings. There are 26 large-scale meteorological droughts identified over Maharashtra during 1901-1998 and out of them 11 years are worst drought years when more than 50% area of the state was affected by drought.

A trend for total area affected by drought over Maharashtra did not show a significant trend and epochal behavior of occurrence of drought is depicted. The severe drought probability is 1 to 7 percent for most of the districts. The severe droughts not experienced in some of the districts of Vidharabha and Konkan for last 98 years.<sup>44</sup> The probability for large scale drought years for Maharashtra is 59% during the drought over country and is about 55% during EL Nino years.<sup>45</sup>

The frequencies of drought have reduced a little during the decade 1991-98 except Marathwada. Successive years of either large scale or worst droughts are 1904-05, 1911-12, 1924-25, 1971-72, 1984-85 and 1986-87 were the severe drought years.<sup>46</sup>

Severity of drought not only depends upon the order of rainfall deficiency in single year but also upon continued occurrence of deficient rain in successive years even though the

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<sup>43</sup> Climate of Maharashtra Opp.Cit.p.10

<sup>44</sup> The decadal frequency of drought for most of the districts has been reduced during the years 1931-70. Most of the districts from Vidharabha experienced no drought during years 1931-40. A single occasion of drought incidence during 1931-40 was shown only over Wardha district. In addition, most of the district Bombay showed two incidences of drought during this period.

<sup>45</sup> Gore Sinha Opp.Cit. p.538 Most of the districts show 2 to 4 incidences of drought during first 3 decades from 1901 to 1930. The decadal frequencies of drought have been increased little after 1970 to 1990 except Konkan. The districts in Madhya Maharashtra and Vidharabha experienced about 2 to 5 incidences of drought during 1981-90. While districts in Maharashtra also experienced 2 to 5 incidences of drought during this period.

<sup>46</sup> Gore P.G. & Sinha, Ray K.C. India Meteorological Department Mausam 53,4 October 2002 p.535( By using seasonal rainfall departure for southwest monsoon, season for period 1901-98, the years with deficit rainfall more than 25% for different districts in Maharashtra identified as drought years for districts. Maharashtra, have been identified as drought years for districts These are further classified as moderate when the percentage deficit is 26 to 50 percent and severe if deficit is more than 50%. The probabilities of moderate and severe droughts have been computed for various districts for period 1901-1908. if in a year 25% or more of the area of state is affected by drought , then that year is considered as one in which the state suffered from large scale drought , then that year considered as in which the state suffered from large scale drought. The worst drought affected years were demarcated (marked with star ) out of large scale drought years, when the area affected by drought is exceeded by 20% of country's area.)

deficiency in such successive years may not be as high in a single year. Successive droughts were never faced by Ratnagiri, Kolaba, Raigad and Sindhudurg districts of Konkan subdivision. Beed, Hingoli, Nandurbar, Osmanabad, Pune are the districts which faced most of the time successive droughts. These districts faced in four successive years droughts. Eleven districts faced successive droughts during 1971-72 which is so far highest. Further, rainfall of less than 50 percent of the annual normal representing severe drought conditions occurred in various districts as indicated below. India meteorology department has identified such 13 instances for affected districts. 1972 was the severe drought condition for eight districts. Ahmednagar, Aurangabad, Beed, Jalana, Latur, Nanded, Solapur are these districts where severe drought condition was prevailing during this drought.<sup>47</sup>

Years of severe/extreme drought conditions occurred during (June-September) are also examined at different locations. Severe and extreme condition prevailed on 28 out of 44 years during 1934-77 at some location or other. At half of the locations, severe/extreme drought conditions prevailed during June to September in 1972-73 alone. At few stations like Yeotmal drought situation (1951-77) never touched the extreme conditions during the period. The severe/ extreme drought conditions also prevailed in the region for two to three consecutive years. Because of spatial and temporal variability of rainfall, the data of beginning and ending of different classes of droughts are differing from location to location.<sup>48</sup>

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<sup>47</sup> Climate of Maharashtra pp.8-10 Ahmednagar faced 1985-86 the successive drought years. Akola faced 1984-85 successive drought years. Aurangabad faced 1984-85-86 years in succession droughts. Beed faced 1945-46, 1984-85-86 years in succession drought. Buldhana faced 1971-72, 1984-85 years as drought years. Gadchiroli faced 1971-72, 1984-85 as the drought years in succession. For Gondia 1984-85 were the successive drought years. Hingoli faced 1943-44-45, 1984-85 the droughts in succession. Jalgaon faced 1971-72, 1984-85 the drought years which come in succession. For Jalana 1984-85-86 as successive drought years. Kolhapur faced 1971-72 years as drought years in succession. Latur faced 1971-72 as drought years. For Mumbai city 1972-73 were the years successive droughts. 1971-72, 1984-85 were the years of droughts for Nanded. Nandurbar faced 1951-52, 1985-86-87 as the successive droughts. Osmanabad faced 1971-72, 1984-85-86 as the years of droughts. Prabhani faced droughts in the years 1951-52, 1971-72 droughts in succession. Pune faced the droughts in the years of 1981-82, 1985-86-87 in succession. Sangli faced droughts in the years 1985-86 droughts in succession. 1986-87 were the years of droughts. For Thane as successive drought years. 1984-85 were the years of successive droughts for Wardha. Washim faced droughts in succession in the years of 1971-72.

<sup>48</sup> Rao Sambashiv Mausam (1986), 37,3,377-384 India Meteorology Department p.382-383



## 2.12 Rainfall analysis of 1971 & 1972 drought years

A prolonged spell of scanty rainfall in July and the first fortnight of August led to drought condition in the interior parts of Maharashtra state, Andhra Pradesh and some parts of north interior Mysore, Southwest monsoon withdrew by 9 October 1971.<sup>49</sup> Rainfall over Konkan, Madhya Maharashtra, Marathwada and Vidharabha fail short by 4,20, 31 and 33% respectively of normal rainfall during monsoon season of 1971.<sup>50</sup>

C.J.Jorge a meteorologist of India Meteorology Department developed a index to quantify agricultural drought. Jorge's drought index inferred that the main agricultural drought belt of 1971 monsoon season revealed by the index was over the peninsula covering areas of Tamil Nadu, Interior Mysore, Rayalseema, costal Andra Pradesh, Telegana, Marthwaa and Madhya Maharashtra. this drought belt persisted almost during the whole season from 23<sup>rd</sup> week (4-10 June) to 38<sup>th</sup> week (17-23 September) with a break of only one week namely 34<sup>th</sup> (20-26<sup>th</sup> August). The prevalence of persistent drought conditions in the areas mentioned above had been very well corroborated by newspaper and crop reports of the period.<sup>51</sup>

The 1972 monsoon was characterized by its late onset over most of the country outside northwest India, an unusually long three weeks of break in its activity from about the middle of July up to the first week of August and its rather early withdrawal from north Peninsula. As a result the rainfall of the season was deficient over most of the country outside Jammu and Kashmir where it was in excess and over Bay islands, Arunachal Pradesh, Assam & Meghalaya, Gangetic West Bengal, Orissa, Bihar Plateau, hills of west Uttar Pradesh, Haryana, Punjab, east Madhya Pradesh, Rayalseema, Tamilnadu, South

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<sup>49</sup> Indian journal of Meteorology and Geophysics Vol.23 No.3 July 1972 p.103

<sup>50</sup> Harihar P.S., S. Ayyar, Abbi S.D.S.& Raj Hem Indian journal of Meteorology and Geophysics Vol.23 No.3 July 1972 p.294

<sup>51</sup> Georje C.J. Vol.42 pp,262-266; An index computed on a weekly basis of a network of 100 stations in the country during 1971 monsoon is used to demarcate agricultural drought areas. In 1971 monsoon season, there was a belt of agricultural drought covering several weeks over the peninsula stretching from Tamilnadu to Marathwada. This is corroborated by News paper and crop reports of the area. The paper provides agricultural drought index based on the water balance computations by taking into account factors like rainfall evapotranspiration soil moisture and climate of the place and is therefore a suitable one to indicate agricultural drought possibility. Index computation :- water balance computation are done on a weekly basis (standard weeks) of representative network of 100 stations in India for the monsoon season of 1971. Aridity value of the station for week is calculated from weekly moisture deficit. Normal aridity value of the station of the week is also calculated from climatic water balance computation. The difference between actual and climatological aridity values, when positive is taken as agricultural drought index. The value are plotted on a map for each week. The areas where index has some value, are hatched to indicate agricultural drought.

interior Mysore, Kerala and the Arabian Sea Islands where it was normal. Rainfall over Konkan, Madhya Maharashtra, Marathwada and Vidharabha fail short by 32, 44, 55 and 37% respectively of normal rainfall during monsoon season of 1972.<sup>52</sup>

The extreme drought condition prevailed during 1971-73 over Maharashtra 23 locations are studied in by Sambashiva Rao and A.R.Subramanian by modified Palmer's approach. In their study the following were the locations where the extreme condition prevailed during respective years.<sup>53</sup>

Ahemednagar 1972-73, Baramati 1970-72, Jalgaon1971-73, Jeur 1971-73 Kolhapur 1972, Malegaon 1970-74, Miraj not noticed so far, Nandurbar 1971-72, Ponna 1970-72, Sholapur 1972, Aurangabad 1971-73, Nanded 1971-74, Prabhani 1971-72 ,Akola 1971-72, Amravati 1971-72 , Barhampuri 1972-73, Buldhana 1972-73, Chandrapur1971-72 Gondia 1972-73, Nagpur 1972-73, Pusad 1971-73, Sironcha not noted so far, Yeotmal not noted so far.<sup>54</sup>

The frequency of extreme droughts was zero at Kolhapur in Madhya Maharashtra and Sironcha in Vidhrabha. Yeotmal in west Vidhrabha has 4 % of severe drought in February March, the stations Jalgaon, Ahemednagar, Amravati have experienced severe droughts for 13.8 and 6 % of total period. The maximum number of extreme droughts in the region was in January-April.<sup>55</sup>

## **2.13 History of droughts over climatic regions of Maharashtra**

Rainfall tendency and rainfall patterns along with drought probability of each and every climatic regions of Maharashtra are discussed in foregoing passages.

### **KONKAN**

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<sup>52</sup> Indian journal of Meteorology and Geophysics Vol.24 No.3 July 1973 p.215 & p.221

<sup>53</sup> A. Sambasiva Rao and A.R. Subramaniam Dept of Met. And oceanography, Andhra university Mausam, (1986) 37, 3, 632.116.6333pp.377-384p.382

<sup>54</sup> Ibid Loc.Cit.

<sup>55</sup> Sambashiva Rai p,383

P.G.Gore studied rainfall patterns of Maharashtra and made foregoing observations about the Konka subdivision. The probabilities for wet weeks are mostly high and rainfall is persistent in nature with moderate to high probabilities for 2 and 3 consecutive wet weeks in large area except Bombay.<sup>56</sup> IMD made foregoing observations about the number of drought years during 1941 to 1990 over districts of Konkan. Sinhudurg (5), Thane (5), Raigad (5), Ratnagiri (5), Mumbai city (6), Mumbai suburban (6), Ratnagiri (5), the districts mentioned above had faced number of droughts as indicated in brackets.<sup>57</sup>

Konkan falls under high rainfall climatic zone, therefore probability of drought over this region is very low. The probability of occurrence of less than 75 percent of annual or monsoon normal rain is about 11 percent. Occurrence of severe drought was very rare.<sup>58</sup> Decadal frequencies over Konkan of Maharashtra after 1970 did not found any increase.<sup>59</sup> The severe droughts not experienced in some of the districts Konkan for last 98 years.<sup>60</sup> SPI values of 4 districts of this region show positive trend means rainfall is increasing over these 4 districts of this region.<sup>61</sup>

## **MADHYA MAHARASHTRA**

P.G.Gore observed through studies that the spatial variation in rainfall probability is noticed. The probabilities of wet weeks are low to moderate, those for districts Kolhapur, Pune and Satara are moderate to high. The rainfall is persistent and probabilities of 2 consecutive wet weeks are low to moderate for some areas. The persistency in dry weeks is noticed for Sangli up to 2 consecutive weeks and for Sholapur for 3 consecutive

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<sup>56</sup> P.G. Gore, 'Dry and wet spells for meteorological sub division of India', Meteorological monograph No. 12/2000 drought research unit office of additional director general of meteorology 2001 Pune pp.48-51

<sup>57</sup> Climate of Maharashtra p.8

<sup>58</sup> Indian Meteorology Department Publication 'The Climate of Maharashtra' 2007p.10 From finding of Gore and Sinha Ray following points are inferred. Each district had 5-6 years of drought during 50 year period under severe drought condition was experienced only once at Mumbai district in the year 1941. Also the districts except Bombay in Konkan experienced no drought during 1931-40. The district Bombay showed 2 incidences of drought during this period. In addition, most of the district Bombay showed two incidences of drought during this period.

<sup>59</sup> Gore 535

<sup>60</sup> Gore p.538

<sup>61</sup> Pai and others Opp.Cit.p.17

weeks.<sup>62</sup> Sambashiva Rao studied contemporary drought by Palmer's approach over Maharashtra during 1932-71 and made following generalization. The divisional analysis shows that the drought spells have occurred for only 10 times during 1934-71 in Madhya Maharashtra, whereas the location analysis in the area at Poona and Malegaon identified 28 and 25 drought spells during the same period.<sup>63</sup> IMD observed number of droughts occurred over different districts of Madhya Maharashtra. The number of droughts occurred in districts as follows the number in brackets indicates number of droughts Ahmednagar (6), Dhule (3), Jalgaon (8), Kolhapur (2), Nandurbar (8), Nashik (6), Pune (10), Sangli (6), Satara (6), Sindhudurg (5), Solapur (6).<sup>64</sup> The probability of occurrence of annual rainfall less than 75 percent of normal over this subdivision is about 14 percent, while probability occurrence of rainfall less than 50 percent of the normal is 1 percent.<sup>65</sup> Sambashiv Rao by using modified Palmer's approach showed that The pattern of drought prone areas for Rabi season was similar to that of Kharif season. The north Madhya Maharashtra experienced 40 months of drought in the Rabi season, whereas the south of Madhya Maharashtra 5-10 months during 1934-77.<sup>66</sup> He further showed that the percentage occurrence of mild drought (index value  $-1.00$  to  $-1.99$ ) was highest in the northern parts and lowest in southern parts of Madhya Maharashtra. Mild drought prevailed on 7% occasion at Kolhapur.<sup>67</sup> The number of drought months during Kharif seasons ranged from 30 in the extreme north to zero in extreme south of Madhya Maharashtra when the index value reaches  $-2.00$  or lower during 1952-76.<sup>68</sup> The southern parts of Madhya Maharashtra was almost free from extreme drought (index value  $-4.00$  and below).<sup>69</sup> The percentage occurrence of moderate droughts (index values from  $-2.00$  to  $-2.99$ ) was low compared to mild droughts in all locations except in the North Madhya

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<sup>62</sup> Gore P.G., 'Dry and wet spells for meteorological sub division of India', Meteorological monograph No. 12/2000 drought research unit office of additional director general of meteorology 2001 Pune pp.48-51

<sup>63</sup> Rao Sambashiv Opp.Cit. p.381

<sup>64</sup> Climate of Maharashtra Opp.Cit. p.8

<sup>65</sup> Climate of Maharashtra p.11 Pune district experienced drought in 10 years out of 50 years. As such Pune is drought prone area. The remaining districts except Kolhapur and Dhule had 6-8 such years. The Pune district experienced severe drought in 1985. Ahmednagar and Solapur districts had severe drought in the year 1972 and Satara had severe drought in 1968.

<sup>66</sup> Rao Sambhashiv. P.183

<sup>67</sup> ibid p,383

<sup>68</sup> ibid Opp.Cit. p.383

<sup>69</sup> ibid p,383

Maharashtra where it was high. Kolhapur in south Madhya Maharashtra was free from moderate droughts during May to November as suggested by data of the study period. The percentage occurrence of droughts is maximum at Malegaon (32%) and minimum at Kolahapur (2%)<sup>70</sup> The percentage occurrence of severe droughts (index valu-3.00 to-3.99) was highest in northern parts of Madhya Maharashtra compared to other parts of state. However, the percentage occurrence of severe droughts was less than that of moderate droughts.<sup>71</sup> Severe droughts occurred for about, 24%at Malegaon. The areas were free from droughts throughout the year over Kolhapur.<sup>72</sup> SPI index prepared by Pai, Sridhar and others shows that 4 districts of this region has positive trend means rainfall is increasing over these districts.<sup>73</sup> The longest spells of drought occurred at Miraj at beginning in January 1939 and ending in April 1944 with duration of 64 months. The station is situated in a low rainfall area.<sup>74</sup>

## **MARATHWADA**

P.G. Gore observed that the probabilities of wet weeks and consecutive 2 and 3 wet weeks are very low. The district Nanded shows moderate probability for wet weeks and persistency in rainfall. The probabilities of dry weeks are low to moderate and persistency in dry weeks is noticed for most of the districts.<sup>75</sup> During 1941-1990 the number of droughts occurred over different districts of Marathwada indicated in the brackets observed by IMD; Aurangabad (6), Beed (10) , Bhandara (4), Buldhana (8), Hingoli(10), Jalgaon (8), Jalna (8), Latur (5), ), Nanded (8), Osmanabad (8), Prabhani (10).<sup>76</sup> Sambhashiv Rao jolted down drought months of each year for period of 1952 to 1977 by Palmer's approach. This study showed that Marathwada region experienced drought for about 10 months during 1952-76 the period.<sup>77</sup> Marathwada faced 15-20

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<sup>70</sup> Rao Sambhashiva p,383

<sup>71</sup> ibid p,383

<sup>72</sup> ibid p,383

<sup>73</sup> Pai and others Opp.Cit.p.17

<sup>74</sup> Rao Sambhashiv Opp.Cit. p.382

<sup>75</sup> P.G. Gore, 'Dry and wet spells for meteorological sub division of India', Meteorological monograph No. 12/2000 drought research unit office of additional director general of meteorology 2001 Pune pp.48-51

<sup>76</sup> Climate of Maharashtra p.8

<sup>77</sup> Rao Sambhashiv p.383

months of droughts during Rabi season inferred by Sambashiv Rao.<sup>78</sup> The southern parts of Marathwada was almost free from extreme drought (index value-4.00 and below).<sup>79</sup> Beed Hingoli and Prabhani districts experienced drought in 10 years during study period of Rao. Therefore these districts come under drought prone area. Other districts in the subdivision experienced 5-8 years of drought. Severe drought was experienced in the year 1972 by most of the districts. Severe drought was experienced by Hingoli in 1941 and 1950. The probability of occurrence of drought is about 16 percent and for severe drought, it is about 2 percent. The corresponding probability values for the southwest monsoon season also about the same. Shrawan Kumar and Shwlae in their study found 1984-85 two consequent drought.<sup>80</sup> Sambashiv Rao by applying Palmer's method found that the divisional analysis of Marathwada could identify only 11 out of 26 drought spells at Prabhani and 22 at Aurangabad.<sup>81</sup> The percentage occurrence of mild drought Mild drought prevailed on 30% of the occasions at Aurangabad, 21% at Prabhani.<sup>82</sup>

## **VIDHARBHA**

The divisional analysis by Palmer's Method for Vidharabha could identify only 15 drought spells out of 32 at Chandrapur and 27 at Akola during 1935-77. Thus the location wise analysis could identify properly the various intensities of droughts occurred in Maharashtra.<sup>83</sup> Official Publication of IMD the 'Climate of Maharashtra' mentions number of droughts each districts faced over Vidharbha during 1941-1990 as indicated in numbers enlisted in brackets as follows; Akola (7), Amravati (7), Bhandara (4) Chandrapur (8), Gadchiroli (8), Gondia (6), Wardha (5), Washim(5), Yavatmal (8).<sup>84</sup> The probabilities for wet weeks are low to moderate in western and central parts and moderate to high in eastern parts. The rainfall is persistent in only eastern parts with moderate probabilities for two consecutive wet weeks.<sup>85</sup>

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<sup>78</sup> Rao. Sambhashiv Opp.Cit p.183

<sup>79</sup> ibid p,383

<sup>80</sup> Shewale Shrawan Kumar p.19 table no.5

<sup>81</sup> Rao Sambhashiv Opp.Cit. p.381

<sup>82</sup> ibid p,383

<sup>83</sup> ibid p.381

<sup>84</sup> Climate of Maharashtra

<sup>85</sup> P.G. Gore, 'Dry and wet spells for meteorological sub division of India', Meteorological monograph No. 12/2000 drought research unit office of additional director general of meteorology 2001 Pune pp.48-51

The percentage occurrence of moderate droughts (index values from -2.00 to -2.99) was low compared to mild droughts in all locations over Vidharbha. Yeotmal was free from moderate droughts from June to September.<sup>86</sup>The percentage occurrence of severe droughts (index valu-3.00 to-3.9) was highest in, northwestern parts of Vidhrabha compared to other parts of state. But the percentage occurrence of severe droughts was less than that of moderate droughts.<sup>87</sup>Severe droughts occurred for about 2% at Yeotmal, 3% at Sironcha, and 16% at Nagpur. The areas were free from droughts during August to October at Chandrapur, June to December at Yeotmal, September to October at Akola.<sup>88</sup>The north western parts of Vidharabha experienced drought for 10-20 months during 1952-76. Vidhraba faced 10-30 months of drought during Rabi Season.<sup>89</sup> The dry sub-humid climatic location of Nagpur has experienced drought conditions for 32 consecutive months during December 1951 to July 1954, while Chandrapur has 26 months of drought period during September 1946 to October 1948. This shows that drought conditions prevail for longer periods in semi-arid regions compared to the dry sub-humid regions.<sup>90</sup> The southern parts of Vidhrabha was almost free from extreme drought (index value-4.00 and below).<sup>91</sup>Each district experienced 4-8 years of drought Washim had experienced severe drought in the year 1965. The probability of occurrence of drought is 13 percent and occurrence of severe drought was rare.<sup>92</sup> Shrvan Kumar and Shewale found 1971-72 these two years as consequent drought years over some parts of Vidharbha.<sup>93</sup> Most of the districts from Vidhrabha experienced no drought during years 1931-40. A single occasion of drought incidence during 1931-40 was shown only over Wardha district.<sup>94</sup> The severe droughts not experienced in some of the

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Analysis of probability of dry and wet spells

<sup>86</sup> Rao Sambhashiv p,383

<sup>87</sup> ibid p,383

<sup>88</sup> ibid p,383

<sup>89</sup> ibid p.382

<sup>90</sup> ibid p.383

<sup>91</sup> ibid p,383

<sup>92</sup> Indian Meteorology Department Publication 'The Climate of Maharashtra' 2007

<sup>93</sup> Shewale Shrvan Kumar p.19 table 5

<sup>94</sup> Gore p. 535

districts of Vidharabha and Konkan for last 98 years.<sup>95</sup> Sahasrabudhe made following observations about the droughts of western Vidharabh. During active monsoon period scarce weeks (46%) dominate over excess (15%).<sup>96</sup> The grain filling and maturity period has more percentage of scarce weeks. Thus it is necessary to evolve and use shallow soils drought resistant and early maturing Kharif crop varieties and follow suitable agronomic practices to enable as much of the scanty rains received during this last period to get soaked in the soil. Second and third week of July appear to have more of droughts than excess; on the contrary in 2<sup>nd</sup> and 3<sup>rd</sup> week of August the opposite situation prevails/ assuming the usually every year, the major area of cotton and groundnut is sown during 25<sup>th</sup> to 27<sup>th</sup> meteorological Weeks (between 8<sup>th</sup> June to 18<sup>th</sup> July), these newly germinated crops have thus greater probability of facing a droughty fortnight or droughty three weeks period in their early establishment stages. It is therefore, necessary to give a small fertilizer dose at sowing in order to make the young seedlings more vigorous and use varieties which have rapid and deeper rooting habit during its seedling stage a narrow root: shoot ratio in its early growth.<sup>97</sup> SPI index analysis shows that one district shows positive trend and one negative indicating rainfall increasing and decreasing trends over these districts.<sup>98</sup>

## **2.14 Ascertaining drought prone area state government's efforts**

V.Subramanin committee identified 94 talukas as drought prone talukas in Maharashtra.<sup>99</sup>

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<sup>95</sup> Gore p.538

<sup>96</sup>K.R. Sahsrabudhe, the paper was presented at the symposium on 'Drought in Asiatic Monsoon area' (et al. Ramnatathan 1976) pp.267-270., held during 14-16 December 1972 (Convener: Dr. K.R.Ramnathan, FNA) Vol.42 B. No. 1 bulletin of Indian National Science Academy New Delhi.

Droughts occurring in four western Vidhrabha during the past 25 year's period (i.e. from 1947 to 1971) are studied. As per Sahasrabudhe's studies The districts which grow mainly Kharif crops to extent of about 90% are more vulnerable to droughty condition than flood condition over 40% of the weeks during each of important growth phase of Kharif crops (viz. seedling establishment and early growth. Flowering and grain filling phase) experience droughts. Moreover, during the 25 years period there were 27 occasions when drought conditions persisted for 3 or more consecutive weeks and 28 other occasions when such condition occurred consecutively for 2 weeks. As against this, 3 and 2 consecutive scarce weeks excess weeks came only on 3 and 9 occasions respectively. For first 3 periods scarce and normal rains have more or less the same chance of occurrence. In the years of meager rainfall in July and August only if there are good rains by end of August or early September, can be the situation is partly saved by taking recourse to some suitable late Kari early Rabi crops. In medium to deep soil where adequate soil moisture can be stored in September, crop like Jowar, sunflower or linseed can also be planted by late September and early October respectively.

<sup>97</sup> K.R. Sahsrabudhe, the paper was presented at the symposium on 'Drought in Asiatic Monsoon area' (et al. Ramnatathan 1976) pp.267-270., held during 14-16 December 1972 (Convener: Dr. K.R.Ramnathan, FNA) Vol.42 B. No. 1 bulletin of Indian National Science Academy New Delhi.

<sup>98</sup> Pai, Sridhar and others Opp.Cit. pp.17-18

<sup>99</sup> Subramanina V A report of drought prone are determination committee p.8



Considering Pardasani Committee and Sukhtankar Committee's suggestions state government have determined 87 Talukas of 12 districts as drought prone area in 1973. However number of talukas increased up to 89 Talukas of 14 districts due to newly created districts and Talukas. Over seven thousand villages and 1.51 croer population is covered under this drought prone area. The population thus covered under drought prone area was 37% of state population then. Average rainfall of this area then was between 460 to 800 mm. Insufficient and irregular rainfall is main characteristic of this area. Agricultural land of this area does not at all receive assured rainfall. Frequent droughts did not fetch any income from agriculture. It resulted into scarcity of fodder and drinking water. Union government under drought prone area programme is spending 15 lakh of rupees annually on each talukas of 74 drought prone Talukas of state that had identified by union government as drought prone Talukas of Maharashtra. Thus 13 Talukas which state government identified as drought prone Talukas not covered by union government committee remained unfinanced by union government. However, on these remaining 13 talukas state government is spending Rs. six Lakhs annually.<sup>100</sup> Following criterion were considered by various committees while considering drought prone areas. Report of National commission of agriculture mentions the characteristics of drought prone area in paragraph 59.4.4-5 of part 13 on page number 122. Insufficient and irregular rains, very short period of rainy seasons, no replenishment of ground water, very high percentage of utilization of agricultural land, very low percentage of land under forest, vagaries of rains and prevalence of long duration of dry air these are characteristics of drought prone areas of India.<sup>101</sup> Pardasani Committee (1960) set three criterions while determining the drought prone areas of Maharashtra rainfall. Ana valuation i.e. assessment of crop production, and past incidences of drought were these three criterion set by Pardasani Committee. Rainfall, area under irrigation, surrounding situation, employment, these are other criterion suggested by central secretaries committee in 1971. Second such committee set criterion of irrigation and rainfall, remittance in revenue, irrigation facilities etc. Rainfall, irregularity of rainfall

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<sup>100</sup> Subramain V. Report of drought prone area determination committee 1987 Mumbai p.2

<sup>101</sup> Subramanin V. Report of drought prone area determination committee 1987 p..20

with respect to crops and soil texture were criterion set by Sukhatankar Committee to decide drought prone areas over Maharashtra in 1973. Sukhtankar committee set another set of criterion based upon the effects of droughts such as Anna valuation, past droughts, production, migration, prices, food grain supply etc. Finally, this committee highlighted rainfall at the time of requirements of crop and water retaining capacity of land. This committee fixed all regions that have rainfall below 750 mm. and the regions or areas between 750 to 800 mm rainfall having shallow lands in drought prone area.<sup>102</sup> During critical crop growth time deficit or insufficient rainfall results into drought condition. According to meteorologist Ramdas if the normal rainfall of week is between 5mm. or more at such instance whenever, the rainfall of week is half or less than half then drought condition persists.<sup>103</sup> Sukthankar Committee had ascertained that during June to October if rainfall over the area is less than normal for 11 weeks out of 22 weeks then drought condition prevails over such area.

Subramanian committee of 1987 relied in Thornthwaite and Mather method of 1955 while determining and ascertaining prevailing drought conditions. This method or definition relied on the effective need of moisture of particular crop. If the moisture evaporation and evapotranspiration from crop or plant is more than the moisture requirement of plant then drought prevails is the simple proposition that these scientist put forth. Mather and Thornthwaite developed method of calculating moisture index depending upon the evapotranspiration and evaporation. He then classified the climatic regions such as per humid , moist sub humid, arid, semiarid etc.<sup>104</sup> Subramanian acknowledged the work of Venkatramn and Khambote of Indian Meteorology department of Pune quoting their research article of Mausum 1984 vol. 35(4) pp.475-478. On the basis of their work Subramanian also agreed to identify 8 Talukas as chronic drought prone, 25 Talukas as acute drought prone. Towards eastward side and adjoining to these 25 talukas 13 talukas identified as occasionally succumb to droughts.

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<sup>102</sup> Ibid pp.20-25

<sup>103</sup> Ibid P.25

<sup>104</sup> Ibid P.34

Subramanin Committee has used Thornthwaite and Mather Principal in determining drought condition and drought prone area. Committee also applied scientist Penman's method while calculating potential evapotranspiration and Thisense polygon method in determining values of the potential evapotranspiration over all Talukas of Maharashtra state. Subramanin Committee also used crop drought index of Khambote Venkatraman while calculating and ascertaining drought condition. By employing all these scientific methods and computer analysis threshold limit of rainfall that results into drought calculated for each Talukas. Then committee calculated the drought years of each Talukas. The Talukas having 20 to more than 20% drought years are considered as drought prone areas. Thus, Subramanin committee of 1987 fixed 95 Talukas of state as drought prone talukas. There are Seventeen talukas which were not previously in the list state government's list added by Subramanian Committee of 1987. Committee also deleted nine Talukas from its list which were included previous list of state government. Thus, the method employed by Subramanin committee is based on scientific principles. This method depends on three main criterion, rainfall, moisture requirement of plant and potential evapotranspiration along with water retaining capacity of soil.

## **2.15 Concluding Remarks**

As monsoon studies are primarily related with unraveling mysteries of monsoon and to develop improved techniques in forecasting of monsoon, drought studies deals with optimum and effective use of available water resources. This study led to development of water-shade development program, better agronomic practices, use of improved seed to improve the production. Most of the studies revealed that there were 22-23 all India droughts over 130 years of rainfall data based on departure of rainfall from normal criteria. Meteorologist also identified 4-6 severe droughts over India. Whereas over Maharashtra some studies shows that there are 26 large-scale meteorological droughts identified over Maharashtra during 1901-1998 and out of them 11 years are worst drought years when more than 50% area of the state was affected by drought. During all India drought year the probability of drought over Maharashtra is 59% inferred by meteorologist. Frequency of severe drought is low over state. Konkan and eastern Vidharbha district faces least drought. These regions falls in high rainfall region drought of moderate intensity cannot exert much more influence on agricultural production of this

region. Epochal behavior of monsoon over Indian subcontinent is easily identified over Maharashtra by meteorologist. Droughts of different intensities noticed and studied by meteorologists. Probability of mild droughts found highest over northern parts of Madhya Maharashtra. Northern parts of Madhya Maharashtra and Northwestern parts are more prone to all intensities of droughts. Frequency of mild drought is highest followed by moderate and severe droughts. Sambashiv Rao's study reveal that Ahemednagar, Malegaon, Akola and Nagpur stations under study showed most number of severe droughts. All studies reviewed showed that 1971 and 1972 were droughts years and these years were of severe droughts.

The state has a large variety of agro climatic patterns, rainfall and vegetation. Konkan and east Vidhrabha have adequate assured rainfall for major crop like paddy. The droughts over the mid-western portion of Dhule, Nashik, Ahmednagar, Pune, Satara, Sangali and northeast Kolhapur may affect the crops like Bajra, Jowar and groundnuts. Droughts over the interior parts having low rainfall (of about 50-75 cm.) which includes regions of eastern portions of Dhule, Nashik, Ahemednagar, Pune, Satara and Sangali, Solapur, western portion of Aurangabad, Bhir Osmanabad and Jalgaon, affects on production of millet.<sup>105</sup>

Aftermath of 1972 drought had far reaching consequences on state policy. Foregoing chapters of this thesis reveals the facts that there were number of policies that changed the outlook of state towards drought proofing measures. Tremendous change could be seen water and soil conservation sector over state after 1970-73 drought of Maharashtra.

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<sup>105</sup> Gore and Sinha p. 538

## **Chapter 3**

### **NATURE AND IMPACT OF 1970-73 DROUGHT OF MAHARASHTRA**

#### **3.1 Impression of 1970-73 Drought**

1970-73 years were years of droughts over Maharashtra. These years created extremely difficult situation to government and people of Maharashtra. 1971 and particularly 1972 were the years of deficient rainfall over Maharashtra. On the background of very successful agricultural production during season of 1969 agricultural production of Maharashtra decreased during 1970 due to excessive rainfall and infection of pests on rabi crops. Maharashtra was never self sufficient in food grain production. "The Maharashtra drought between 1970 and 1973 was a period of unprecedented agony as also unparalleled ecstasy. The agony lay in fact that millions of people in the rural areas suffered privation and misery as never before."<sup>1</sup> Drought and socio-economic status developed then forced almost all people including some families of good economic background to work on scarcity works. After October 1972, the food grain situation and availability went worsening. Naturally, the prices went high too. Scarcity developed in the wake of consequent three years drought also brought acute scarcity of water and fodder added misery of the people. To judge the severity and unique feature of the 1970-73 droughts some observations of foreign correspondent are also evident. "The Indian state of Maharashtra is enduring the worst drought in memory. Prosperous farmers and landowners unable to make their living from land join the laborers at the worksites.<sup>2</sup> The victims of scarcity are determined to earn by sweat of their brow and not to ask for doles. "In ten day's travel through country areas hardest hit by the drought I met not a single beggar. A village that did me some service refused to take payment for it. More than 4 million men and women are now at work on such tasks as dam building, road making and canal digging, labor the one asset the state is never short of is being used to create other assets which should ensure that no future drought is ever so damaging as the present

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<sup>1</sup> Subramanian V. ' Parched Earth' Orient Longman 1975 Bombay p. 513

<sup>2</sup>Ibid Loc.Cit. When the drought continued for the second year in succession, the land-holder who have exhausted their stocks of foodgrains which they had laid by for the rainy day, found themselves in an uncomfortable position and resorted to employment in the relief works. But when for a third year in succession the drought raised its ugly head in many districts of Maharashtra, even many agriculturists who owned 10 hectares of land and above were compelled in the relief works.

one...” This was the observation of Martin Bell on 7<sup>th</sup> June 1973.<sup>3</sup> “Maharashtra’s peasants millions have shaken off their apathy and are actively, eagerly working not only to stave off immediate disaster but to transform their brightened landscape into new India. Across the length and breadth of the state literally millions of people are engaged in collective action to build dams and roads sink wells and reclaim the land.” This was the writing of one foreign correspondent quoted in Subramanian’s work.<sup>4</sup> John Pilger wrote in ‘New Statement’ of London on 8<sup>th</sup> June 1973. He observed, “The Herculean relief efforts of both the Indian and State Government have undoubtedly prevented it from becoming a famine in the classic sense, with people dying in their tracks.”<sup>5</sup> These observations of 1970-73 testify to the uniqueness and significance of the 1970-73 drought of Maharashtra.

### **3.2 Famine Historiography**

William Digby and R.C. Dutta and Dadabhai Nowrasjee have given their interpretation providing analysis of how and how far British administrative policies aggravated the local famine situation. British outlook and colonial compulsion depicted through typical works of G.F. Forrest and C.W. McMinn. Forrest’s emphasis was on government policy and relief measures during the latter half of nineteenth-century Bengal famines. Though supporting the government policy of non-interference with private grain trade during the famines, Forrest admitted the danger of applying such general principles without regard to local circumstances, as was apparent during the Orissa famine of 1866.<sup>6</sup>

R.C. Dutta emphasized the over assessment of land revenue and Naoroji emphasized the drain of wealth for the famine situation. K.C. Ghosh and P.C. Ray blame the government for its non-interference in private trade and export of grains during famine years.

B.M. Bhatia and H.S. Srivastava have concentrated on a more detailed and secular study of the problems in rural society, which were however, aggravated by the policies of the British government. Dietmar Rothermund, Ashok Sen, and others have focused on the intricacies of tenancy legislation in the context of peasant agriculture in the nineteenth century.

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<sup>3</sup> Ibid p.485

<sup>4</sup> Ibid p.484

<sup>5</sup> Ibid Loc .Cit. p.486

<sup>6</sup> Chakrabarti Malbika; G.W. Forrest, the famine in India (London: Horace Cox, 1897)p.16

Michelle Burge McAlpin, in explaining the frequency of famines in western India between 1870 and 1920, challenges such views and underscores the role of climate in causing crop failures.<sup>7</sup>

Demographic approaches put emphasis on the per capita availability of food grains. This approach put logic of increasing population and not proportionate increase in production. New Malthusian approach stating undue and unlimited interference in nature's activity get equal and opposite reaction in the form of natural calamities.<sup>8</sup>

Amartya Sen in his theory of Failure of Exchange Entitlements (FEE) questions this approach of Food Availability Decline or FAD, as he calls it. He criticizes it as being too gross and simplistic, which fails to make note of the finer distinctions of income distribution and the changing entitlement values in a market economy.<sup>9</sup>

According to Sen, most famines caused less by a decline in food supply than by a coincidental shift in the existing pattern of exchange relations. Several case studies of twentieth-century famines<sup>10</sup> show that as food prices rise due to partial crop failure or other exogenous factors the values of different commodities, including labor, not only remain static but begin to fall due to a variety of other reasons. This in turn further puts limitation on the purchasing power of food grain entitlements of the wage earner, and of the dealers in those particular commodities. Famine often viewed not only as a food crisis, but also as a total economic disaster: food shortage in no more than one possible

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<sup>7</sup> Chkarbarti Malbika, *The famine of 1896-97 in Bengal Availability or Entitlement Crisis* Orient Longman 2004 pp.1-7. Michele B. McAlpin, "Dearth Famine and Risk: the changing impact of crop failures in Western India, 1870-1920" *Journal of Economic History* 39, no 1 March 1979, P. 145. A shade of environmental determination is also evident in the structuralist approach of the 'Annales School', as represented by scholars like Gouber, Braudel and Ladorie; This approach, based on rainfall statistics and climatology, emphasizes the natural or ecological, rather than the institutional or policy background of famines. According to Presidency during 1898-1906, which accounted for frequency of famines in this region at the turn of the century. For example, the rainfall index showed a decline of 20% between the periods 1896-97 and 1898-1906 and 6% during 1907 to 1916

<sup>8</sup> See Chakrabarti Ambika Op.Cit., B.N. Ganguli, *Trends of Agriculture and Population in the Ganga Valley* (London: Methuen, 1938), P.45 This Malthusian interpretation has new analysis may be called as new Malthusian approach utters, "whenever the limits set by nature are ignored, and there is unwise and violent interference with man's agricultural-economic environment, nature reasserts herself with destructive energy.

<sup>9</sup> Chakrabarti Ambika Op.Cit. There may be various types of entitlement to food grains in a rural economy: direct or production-based entitlement, as of the landed proprietor, big farmer, small peasant and tenant-cultivator producing food staples, who command varying proportions of the crop grown, trade-based entitlement, as of cash-crop cultivators, fishermen, craftsmen, weavers, retailers, etc., who meet their food requirements by selling their respective commodities; and own-labor entitlement, by which production-based and trade-based entitlements relate to one's labor power.

<sup>10</sup> Ibid Loc.Cit., Bengal in 1943, Ethiopia in 1973-74, Bangladesh in 1974, and the Sahel countries in Africa during 1968-73,

factor in cluster of variables, some of which might interact to cause strains and shifts within the framework of entitlement relations, and precipitate severe famine conditions “even without receiving any impulse from food production.”<sup>11</sup>

### **3.3 Drought, Scarcity and Famine; Trilogy**

Governments and politicians do not like to use famine term to describe a situation, unless they forced to, while others concerned with hunger and starvation quarrel over when a situation can be precisely described as having turned to a famine.<sup>12</sup> There are two approaches to perception of famines; some experts think that it deals with extreme hunger, starvation malnutrition and its effects on the body of individual and its societal effects. Other expert exclusively attributes famine to excess mortality over widespread geographical areas.<sup>13</sup> The United Nations Research Institute for social Development states in a document that a famine occurs when many people in the same place and at the same time lack resources that will provide them with command over foodstuff. The document further states famine is an economic and social phenomenon characterized by the widespread lack of food resources, which, in the absence of outside aid, leads to the death of affected.<sup>14</sup> In a latter revised version of the document, famine is used to refer to a social crisis develops due to food deficiency and condition without supply of food within and outside of the region threatens sizable population. The minimum acceptable definition would imply a wide and prolonged shortage of food resulting in an increased human death rate. According to B.M. Bhatia “ Instead of absolute want, famine, under modern conditions, has come to signify an abrupt and sharp rise in food prices which renders food beyond the reach of the poor who suffer starvation. In a modern famine, food may be available at all times in the market but prices are so high that the poor people cannot purchase it.” Bhatia obviously focuses on starvation and not death as such. Alamgir considers famine as general state of prolonged food grain intake deficiency per

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<sup>11</sup> See Chakrabarti Ambika Opp. Cit pp.1-7

<sup>12</sup> Alamgir Mohiuddin , Towards a theory of famine, seminar paper No. 103 may 1978, Institute for international Economic studies S-106 91 Stockholm Sweden p. 1

<sup>13</sup> Curry, Bruce, The Famine Syndrome: Its definition for preparedness and prevention in Bangladesh ecology and nutrition 1978 p.87 this is A.E.Taylor’s quotation cited in Curry’s work.

<sup>14</sup> See Alamgir Mohiuddin Ibid “Famine Risk in the modern World” (mimeo) United Nations Research Institute for social Development , Geneva, 18<sup>th</sup> August 1975



capita giving rise to a number of accompanying substrates ultimately led dietary stress in individual and community or indirectly to excessiveness in region or country as whole.<sup>15</sup> Studying all definitions enumerated above suggest certain preconditions for famine. Emphasis on excess death rate due to starvation, food-grain shortage and prolonged food grain intake decline, which causes death, is important preconditions suggested by many experts in their definitions. Increase in interregional migration, increase in crime, increased incidence of fatal diseases, loss of body weight, eating alternative “famine foods”, changes in nutritional status, mental disorientation, uprooting of families, separation of families, transfer of assets, wandering and breakdown of traditional social bondage are some chained sub-states which led to devastating famine finally described by Muhiuddin Alamgir . Among this crime, diseases loss of body weight, changes in nutritional status and eating of alternative “famine foods” can combine to produce significant deaths. Mohiuddin Alamgir deduces this definition and famine characteristics. Thus, famine includes poverty, hunger, starvation and something more than excess deaths. In the phenomenon of famine food grain intake declines resulted into crime, diseases, loss of body weight, changes in nutritional status, eating of alternative famine foods which all these in turn results into deaths. Along with these effects migration, mental disorientation, wandering, uprooting of families and transfer of assets breakdown of traditional social bondages are other significant effects or constituents of famine phenomenon.

Alamgir Mohiuddin had further analyzed the characteristic of famine. Large number of casual sequences as described above may lead to the famine syndrome. However, it is contended here that possibly more than one sequence operates simultaneously, and reinforce one another to finally cause excess deaths. This has been characterized as disequilibrium phenomenon in the context of a country like Bangladesh in modern times. Alamgir further observes that famine facilitate restoration of the low income-low food grain intake equilibrium. However, the famine syndrome initiates a number of processes in the society, which facilitate restoration of the low income-low food-grain intake equilibrium. However, excess deaths reduce labor force, thus improving the bargaining

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<sup>15</sup> Alamgir Mohiuddin, *Famine in South Asia Political economy of mass starvation* Cambridge Mezs, Oelgeschlager Gunn and Hain 1980 p.239

power of labor in certain localities. But this gain is very short lived since new addition to the rank through the process of pauperization and marginalization (because of distress sale of assets) in rural areas and permanent migration into urban squatters wipe it out. The power of local elites is clearly enhanced since they gain command over greater amount of productive resources and inequities in the society become even more pronounced. A general famine however can bring about a leveling of the society, while any type of famine does this to the lower strata of the society which becomes even more homogenous.<sup>16</sup> There are three types of famines. Taking national boundary as a point of reference, famine as a general phenomenon imply a situation in which all classes of people in all regions are affected although the time sequence may differ somewhat. Second type of famine affects only a part of region of country but all groups of people within the region affected may call as regional famine. In third type of famine, specific groups or classes of people are affected with or without any reference to the geographic of concentration. Mohiuddin Almagir made these observations through his studies. At majority of times whenever famine condition erupted over India, the major factor responsible for famines was drought. So far, droughts led to most of the nineteenth century famines of India. From above definitions, it is clear that acute hunger, starvation, and excess mortality are the main attributes of famines. Unavailability of food thus creates famines. However, as per modern approach of Amartya Sen famines caused not due to non-availability of food but failure of exchange entitlement. It ultimately stressed up on economical power of person in particular society to have legal command (i.e. exchange entitlement) to gain sufficient amount of food for his survival. Undoubtedly drought is essentially major single factor which sufficient to create famine condition. However, economist and thinker proved it with evidence that famine is socio-economic syndrome through many stages it ultimately results into excess deaths over wide geographical area. Thus demand supply distribution and import of food grains or food items are main factors which ascertain continuous and essential supply of grains to all sections of society.

Drought though not led to famines in modern India, created critical condition on food front on many occasions like Maharashtra drought of 1970-73 and Bihar drought of 1967.

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<sup>16</sup> Ibid p.35

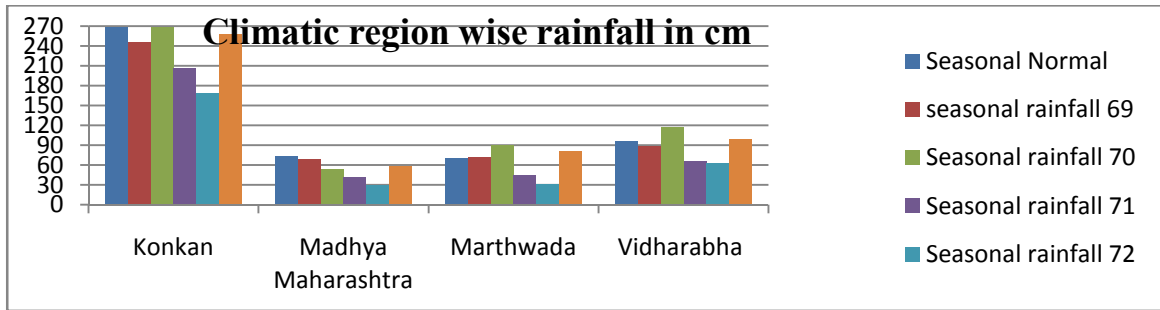
Drought develops certain traits and sub-states, which were akin to early signs of famines that occurred in nineteenth century India. However, there was no famine after independence. Indian and state governments therefore officially deleted the word famine from the subsequent enactment and laws and introduced term scarcity conditions. It was the official policy asserted as per direction of union government and state government further incorporated it in published booklet on scarcity in the year 1972. "Scarcity is marked deterioration of the agricultural season due to the failure of rains or floods or damage to crops from insects resulting in severe unemployment and consequent distress among agricultural labor and small cultivators." This definition is laid down in the draft scarcity manual on scarcity by state government of Maharashtra in its published booklet. Thus drought deals exclusively with deficiency of rainfall, famine with starvation deaths and scarcity with distress caused due to decreased agricultural production.

### **3.4 Rainfall and Performance during 1970-73**

Following bar diagram depicts exact picture of sub divisional rainfall performance during 1970-73 drought of Maharashtra. The year 1969-70 was satisfactory as far as rainfall performance concerned. It is evidenced that rainfall fail short during 1970-71 over Madhya Maharashtra and it fail by 27% to 1968-69 rainfall. All bar diagram and charts of nine climatic zones are prepared and annexure of it attached in the appendix. It gives clear idea of the rainfall performance of the drought years of Maharashtra. This poor performance of rainfall had adverse effect on the agricultural performance of Maharashtra. It can be seen through subsequent charts. It will be further cleared to judge the rainfall performance over Maharashtra during 1970-73 periods over Maharashtra through judging rainfall performance over all agro climatic zones of Maharashtra. (See Appendix-G Charts No.AC1to AC18.)

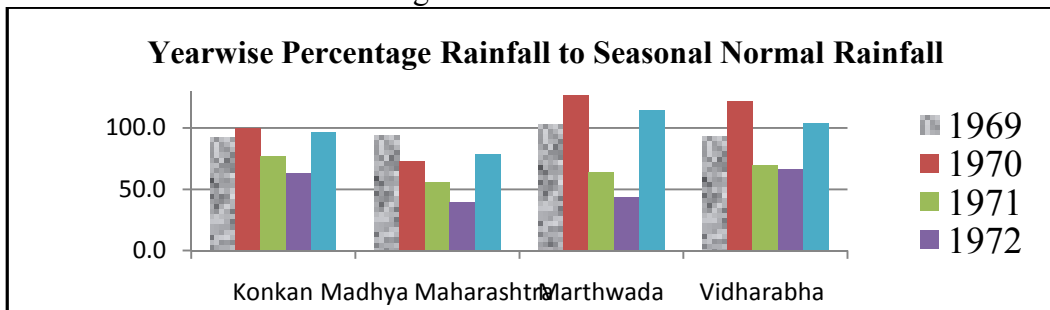
This suggests that over, all agro-climatic zones the rainfall was far below to normal during 1972. The analysis of rainfall over different places of same agro-climatic zone shows similar rainfall pattern. It reveals the fact that the classification of agro-climatic zones on rainfall and soil criterion is correct. It is also corroborated through rainfall data processed for different places of same agro-climatic zones and of different agro-climatic zones.

Chart No. 3.1 Climatic region wise rainfall in cms.



The rainfall value taken from V.Subramanin's book 'The parched earth' p. and the climatic zone normal values calculated from the rainfall records provided by Indian Metrological Department.

Chart No.3.2 Year-wise Percentage Rainfall to Seasonal Normal Rainfall



### 3.5 Description of Season and Crop

Actual description of performance of rainfall and subsequent agricultural performance is described through state government's season and crop reports of subsequent years and glimpses of it help in assessment of rainfall and agricultural situation of Maharashtra on drought years. Foregoing passages describes the food grain situation over State during this drought.

#### 3.5.1 Kharif 1970

In the month of June the monsoon set in ten days earlier than usual. It was active and widespread and covered the entire state by the first week of June. This facilitated large scale sowing of paddy and nagli crops during the first week in the western paddy growing areas of the state. Sowing of cotton, groundnut and other kharif crops carried out by the third week of June in the other areas of the state. However, inadequate rain was reported

from eastern parts of Deccan, parts of Aurngabad and Osmanabd districts of Marthwada region where sowing operations did not underwent due to deficient rains up to August.<sup>17</sup>The agricultural season of 1970-71 was quite unsatisfactory. The distribution of rainfall was uneven. In parts of Ahmednagar, Poona, Sholapur, Satara and Sangli districts sowing could not done due to inadequacy of rains during the month of August. In Marthwada, parts of Vidharabha and Khandesh tract heavy and continuous rains received in August and September damaged the standing crops particularly cotton and pulses to varying extent. The crops on river banks in Marhtwada and Vidarbha were damaged due to floods. On account of severe incidence of midgfly, local jowar in Vidharha and Marthwada was severely affected. Heavy rains in early October caused lodging of paddy crop in Kolaba district and affected hybrid-jowar in Kolhapur district.<sup>18</sup>

### **3.5.2 Rabi 1970-71**

Continues dry weather prevailed since the middle of October and affected the growth of rabi crops, particularly in the light and medium soils in the Deccan and Marathwada districts and in Chandrapur district of Vidharabha. The prospects further deepened by the cold spell since the month of November 1970. The water table in the wells had reduced considerably, affecting availability of water for irrigation to rabi crops. A hailstorm in early March damaged the matured crop of wheat in eastern parts of Vidharabha. In view of the above adverse seasonal conditions the total rabi food grain production was considerably affected. However, in spite of the adverse seasonal conditions experienced this year, the production level reported least affected.<sup>19</sup>

### **3.5.3 Kharif 1971-72**

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<sup>17</sup> The director government of Maharashtra printing and stationary, Season and crop reports 1970-71 p.1

<sup>18</sup> ibid p.21 Subramanain also corroborates same from government documents; in August and September 1970 there were incessant and torrential rains as well as floods in Aurngabad, Bhir Prabhani, Osmanabad,Nanded, Yeotmal, Akola, Wardha, Chandrapur, Nagpur, Jalgaon, Dhulia and Ratangiri districts. The rains affected the crop of Bajra and pulses. Due to heavy rains and infection of pests and crippled diseases. The production of Jowar decreased from 16.47 lakh tones in 1969-70 to 8.7 lakh tones in 1970-71 though the sown area in 1970-71 was only 0.41 lakh hectares in respect to 1969-70. the production of cotton decreased by from 2.17 lakh tones to 0.85 lakh tones the sown area was nearly same. (Subramnian)pp.37-38

<sup>19</sup> Ibid Loc.cit. p.21; further corroborated by Subramainam from government documents; After the heavy September, rains which provided good moisture for sowing the rabi crops, a dry October followed and almost abruptly the rains withdrew. The unceremonious retreat of rain was both unexpected and disastrous. The prospects were further deepened by the cold spell since the month of November 1970. the water table in the well particularly in the Deccan region was reduced considerably and adversely. Affected the yield of crop under irrigation. The yield of Jowar was 6.9 lakh tones as against normal yield of 15 lakhs tones. Conditions of scarcity were declared to exist in 16,147 Kharif villages and 6915 rabi villages i. e. total 23,062 villages/ the total population affected was 1.9 corers. (Subramanian)pp.38-39

The southwest monsoon created very precarious situation over Maharashtra this year. After initial showers in all districts, droughty conditions prevailed and continued almost up to the third week of August all over the State excepting the assured rainfall area in the western part of the state and Vidharbha region. Consequently in major parts of Aurangabad division and in Ahmednagar and Sholapur districts and in the eastern parts of Poona, Satara, Dhulia and Nasik districts and western parts of Jalgaon district sowing of Kharif could not be undertaken due to inadequacy of rains during the sowing season. The rains received in the last week of August and early September proved beneficial to the growth of standing kharif crops and facilitated large scale sowing of rabi jowr, in parts of Deccan and Marathawada regions. The dry spell that followed till the fourth week of September, affected the standing kharif crops particularly cotton and groundnut in their critical growth stages.<sup>20</sup>

### **3.5.4 Rabi 1971-72**

There were rains in last week of September but subsequently there were no rains in October and November it damaged the all prospects of rabi crops allover Maharashtra. In certain areas, bright sunshine and windy condition depleted the soil moisture and resulted in the cracking of black cotton soil. This retarded the growth of rabi crops and condition of un irrigated crops also becomes extremely precarious. During January 1972, it was cold and humid with precipitation and this also had an adverse effect on the rabi crops in many areas. In February and March 1972, the absence of sunshine and particularly the intensely severe and localized cold wave of 13<sup>th</sup> and 14<sup>th</sup> February affected not only the rabi crops but also fruits and vegetables such as mangoes, banana, grapes, chilies, potatoes etc., in Nashik, Ahemednagar, parts of Dhulia, Jalagaon, Aurangabad and Poona districts. Even the newly planted sugarcane could not resist the effects of this severe natural set-back.<sup>21</sup>

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<sup>20</sup> Season and Crop reports 1971-72 Opp.Cit. pp.20-21; The decrease in the production was noticed in the Bombay, Poona and Aurngabad dividisons by 26.6 per cent, 2.6% and 19.6% respectively whole an increase to the extent of 7.7% was noticed in Nagpur division. The production, of the food grains during the year under report was lower as compared to that of the previous year mainly due to the reduction in area and lower yield rates caused by continuous dry spell. It, in the growth stage of both rainfed kharif and rabi crops as also irrigated crops raised under well irrigation could not provide essential water to crops,. Besides, the incidence of cold wave affecting the rabi jowar lowered the production level of the food-grains crops, worsening of the situation was saved to some extent by the hybrid and high yielding varietied which gave substantially higher yields of crops.

<sup>21</sup> Subramanian Opp.Cit. pp.40-41

### **3.5.5 Kharif 1972-73**

The year 1972-73 proved to be summit of pyramid of disaster, which was being built up by an unkind fate since the year 1970-71. Monsoon commenced late in the year i.e. last week of June 1972. It continued for about two weeks outside the frequently affected scarcity areas of Ahemednagar, Sholapur, Poona, Satara and Sangli districts that did not receive enough rains satisfactory for sowings. Parts of Aurangabad, Bhir, and Osmanabad also were particularly dry. The monsoon coverage was incomplete. Its continuity was broken by two long dry spells one from the 9<sup>th</sup> July to 2<sup>nd</sup> week of August and the other from the 15<sup>th</sup> September to the end of October. As a result, the sowing of Kharif crops could not be undertaken in many areas including the frequently scarcity affected areas of Ahmednagar and Solapur districts, eastern parts of Poona, Satara and Sangli districts of the Deccan region and parts of the Marthwada region. In other parts of these regions although the khaif sowing were completed the crops on light soils failed due to inadequacy of soil moisture and at places the farmers even remain idle without any agricultural operations in their fields. The early varieties of pulses also received a serious setback because of the long dry spell in July-August. Even in the assured rainfall areas of the Konkan and eastern parts of the Vidharbha (comprising Nagpur, Chandrapur and Bhandara districts), the paddy transplanting was delayed due to the inadequacy of water in the fields. In the Konkan region the transplanting of nagli was also delayed for the same reason. This had an adverse effect on the yields of both paddy and nagli crops. In Vidharbha, large scale Kharif sowing were completed by June end but the crops were adversely affected as long dry spells in the months of July-August and September-October coincided with the critical phases of their growth.<sup>22</sup>

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<sup>22</sup> Season and crop reports 1972-73 Opp.Cit pp.1-2. corroborated by Subramanian through government records In the areas, agriculturists were inspired to finish kharif sowings with the little rain that was received. But from the first week of July a dry spell commenced which lasted till the third week of August. This dry spell caused a severe setback to the

### 3.5.6 Rabi 1972-73

With the receipt of rains for a few days in early September, the sowing of rabi crops mainly rabi Jowar was undertaken. But due to the continuous drought from the 15<sup>th</sup> September to October end the crop could not be sown in several parts and consequently its total area was reduced appreciably. Similarly the sowing of wheat and gram crops was affected not only under rain fed conditions due to inadequacy of soil moisture but also under irrigated conditions due to shortage of irrigation water.<sup>23</sup> There were no rains in October 1972 and in the November rains were inadequate for the sustenance of standing rabi crop. Both the kharif and rabi crops were in extremely bad shape. For the third year in succession conditions of acute scarcity manifested themselves. In some district of the State viz Aurangabad, Beed, Osmanabad, Sholapur, Satara, Sangli, Poona, Ahmednagar, Nasik and Dhulia the position was extremely precarious. The acute shortage of drinking water, the almost total absence of fodder as miserable conditions of the food and the cash crops spelled certain doom for the unfortunate agriculturists and their helpless dependents. Scarcity conditions were declared in all villages which had an annewari of 4 annas or less. The total number of such villages was 25,488 (19888 Kharif villages and 5600 rabi villages).

From the above account it will be obvious that the damage caused to the agricultural situation as result of erratic monsoon during all the three years was of greater magnitude than ever before in the past. The crop position in 1972-73 reached an all-time low. Three continuous years of drought as result of failure of rains had completely depleted the soil moisture with severe consequence not only during the season in which the rainfall was

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kharif crops of pulses and groundnut. Crops in light soil practically withered away. Even in the assured rainfall districts fo Konkan and eastern parts of Nagpur division comprising Nagpur, Chandrapur and Bhandara districts, adequate water was not available in the fields for transplanted of paddy. For the same reason, transplanted of nagli in Konkan region was also delayed.

However, in the second fortnight of August, widespread rains occurred in the Vidharabha region the Konkan and some parts of Western Maharashtra namely Jalgaon and Dhulia as well as parts of Nanded and Parbhani. The rain helped to some extent the standing Kharif crops of jowar and also in the transplanted of the paddy crops. But in the other districts of the Aurangabad division. i.e. Aurangabad Beed Osmanabad and in the districts of Satara Sangli Ahmednagar Sholapur and Poona of Poona division absence of rains practically meant the death warrant of the kharif crops. The estimate of production of the principals crops showed that rice would be 50% of normal prodction, kharif jowar 45% bajara 25% tur 50%, coton 60% and grounut 30%. In the second week of September, rains were received all over the State but they were of no use whatsoever to kharif crops, hopes about which had already been severely dampened. These rains lasted for a short period and were far from adequate to receive the rabi seeds. To crown this all agter the middle of September there was long dry spell for over a month as a result of which the sowing fo rabi crops was very badly affected. What little of the standing kharif crop remained was in a critical state of growth, and it also crawled slowly to its waterless grave. Subramanian (1974)pp.41-42

<sup>23</sup> Ibid.Loc.Cit.



megare but also possibly for the future. It is in this context that the utility of the several productive schemes, which were intended to reintroduce the proper balance of moisture in the soil is to be judged.

Amongst the principle crops in the state the most important terms of area are cotton, creels, pulses and groundnut. The average area and production of kharif cereals and pulses constitute about two-thirds of the total area and production of all creels (kharif and rabi) and pulses. This it brings out the importance of the kharif crop entirely dependent, except in irrigated areas, on the satisfactory nature of the monsoon, but also the adequacy of the moisture required for the production of the rabi crop is also a direct consequence of satisfactory kharif monsoon.<sup>24</sup>

### **3.6 Agricultural performance of Maharashtra during drought years**

There was a reduction in the total area shown in 1972 in some areas of state because of drought conditions. The gross cropped area was 170 lack hectares in 1972-73 as against the normal hetaerae of 194lakh. There was no reduction in the area sown in the Vidhrabha region. The reduction was marginal in Mumbai division while the extent of reduction was nearly 25 percent in Western Maharashtra. A decrease in the hectare to the extent of 20% was noted in the cases of pulses and chilies and 30% in the case of Bajra. The corresponding percentage was 15% for wheat and 12% for groundnut. The extent of reduction in the case of crops like Jowar, cotton was less than ten percent while there was no decrease in the areas rice and sugarcane; the former is grown the region receiving heavy rainfall and the latter is a wholly irrigated crop. There were considerable variations between different crops in the extent of the loss of crop sustained during 1972-73. The Kharif crop was sown in June with the expectation of normal rainfall, but with an almost total failure of rains in following months, the crop did not mature over large tracts of the state. The loss of production was the heaviest in the case of groundnut; nearly 70 percent of crop lost. The total production in the case of Bajra was 65% and in the case of jowar and gram it was 60 percent of the normal production. For wheat, rice and Tur the extent of reduction about 40% and it was about 23% in the case of cotton. The loss of wheat and cotton crop considerably more in the Marathwada region while Khandesh and the western Maharashtra the extent of loss was relatively less. Wheat and cotton are cultivated under

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<sup>24</sup> Subramanian p.44-45

irrigated conditions to a significant extent in Khandesh and western Mharashtra. There was not significant reduction in the production of sugarcane. The area under irrigation was not affected in Bombay division or in Vidhrabha districts. There was reduction to the extent of 10% in the irrigated area in western Mharashtra and 22% in Marathwada region. The Marathwada region is dependent mainly on well irrigation and the water supply from wells proved to be inadequate in certain tracts, particularly after the month of December, 1972.<sup>25</sup> The damage to crop was the most extensive in Solapur district where all the Talukas suffered heavy losses due to drought conditions. In 1972-73 the net value of agricultural produce excluding sugarcane was about 20% of normal level in Solapur district. If the income from sugarcane is taken into account then, the income in 1972-73 worked about 33% of normal income. The sugarcane cultivation is restricted mainly to Malshirus and parts of Pandharpur and Sangola talukas and barring these green islands, the whole district lay desolate. Almost the entire districts of Beed, Aurangabad and Sangli were affected and net value of agricultural produce excluding sugarcane was about 25% of the value of normal production in these districts, whole for Osmanabd Satara and Ahmednagar district the corresponding percentage varied between 35 and 40.<sup>26</sup> The short-fall in relation to the normal production was to the extent of about 20% for all the food-grain taken together. In 1972 the food grains production was 54 per cent below the normal production and that of groundnut nearly 70% below the normal production. The production of cotton was 77% of the normal production as the districts of Vidharabha and Parbahani, Nanded Jalgaon the important cotton growing districts were not severely affected by drought conditions. The sugarcane production was normal, as it is a fully irrigated crop.

Following table prepared by Sulbha Brahame depicts actual picture of agricultural production over Maharashtra during 1972-73.

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<sup>25</sup> Brahame pp.51-54

<sup>26</sup> Brahame pp.55-56

Table 3.1 Percentage reduction in net value of agricultural produce 1972-73

Sr.No	Percent reduction in net value of Agricultural produce in year 1972-73	Name of the district
1	More than 70	Beed
2	61-70	Solapur, Aurnagabd, Osmanabad
3	51-60	Sangli, Satara, Nanded
4	41-50	Thane, Nashik, Dhulia, Parbhani
5	21-40	Ahmednagar, Poona, Jalgaon, Vidharbha
6	Less than 20	Kolaba, Ratnagiri, Kolhapur

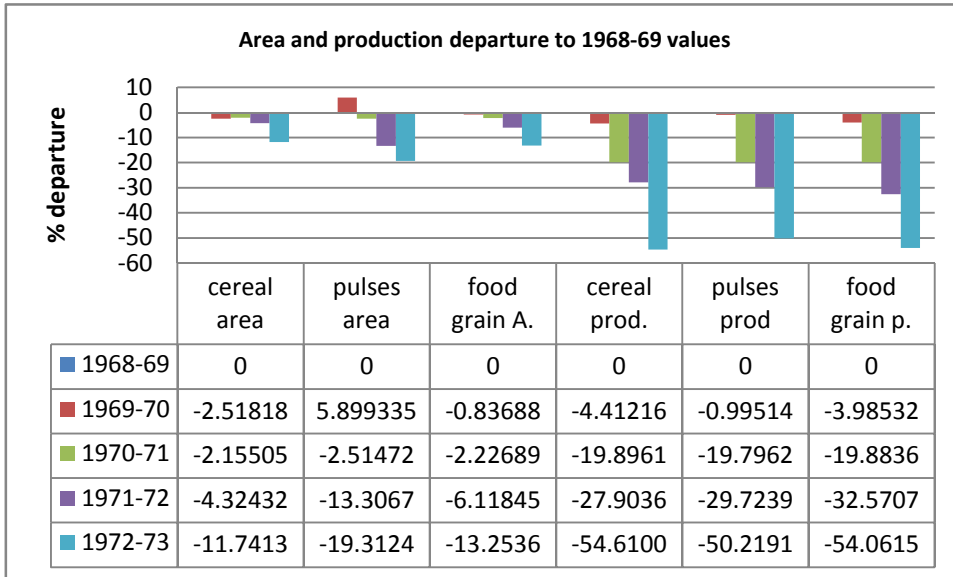
Source:- Brahame p.56

Table 3.2 Percentage loss of agricultural produce during drought years 1970-73

Crops	Normal production	1970-71 fully revised	1971-72 partly revise	1972-73 (Final forecast)	Loss of production Of 1972-73 as compared To 168-69 in %
Total Kharif cereals	3884	3591	2966	1958	-49.6
Total Kharif pulses	692	552	443	369	-46.7
Total Kharif food grains	4576	4143	3409	2327	-49.1
Total Rabi cereals	1910	1134	1340	630	-67
Total Rabi pulses	160	146	183	80	-50
Total Rabi food grains	2070	1280	1523	710	-65.7
Total food grains	6646	5423	4933	3037	-54.3

Source:-Selected important description V.Subramanian's book Parched earth p.544

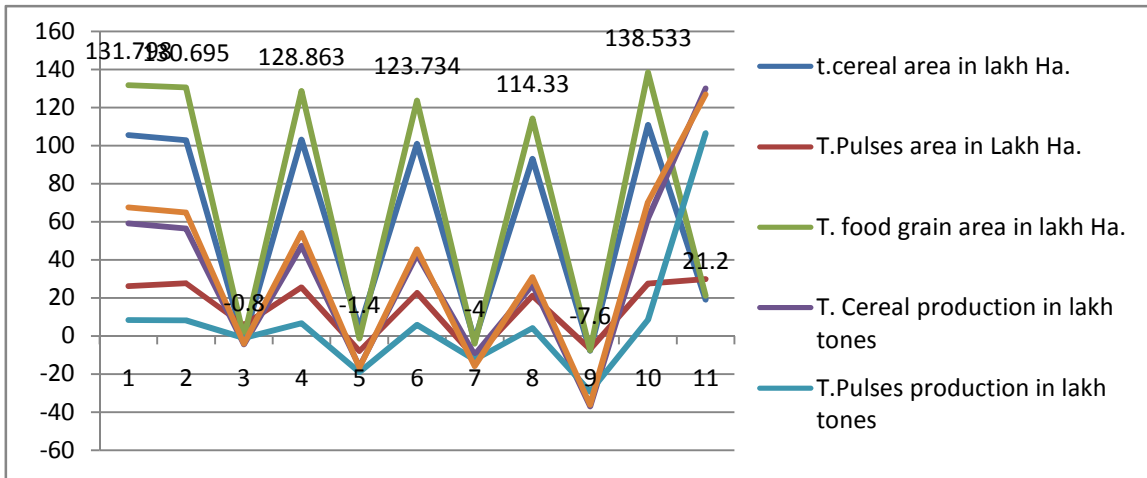
Chart 3.3 Area and production departure to 1968-69 values



Source:- Data from the season and crop reports processed and calculated in tables

Source:- calculated from the data of season and crop reports of respective years; government of Maharashtra agriculture department publication

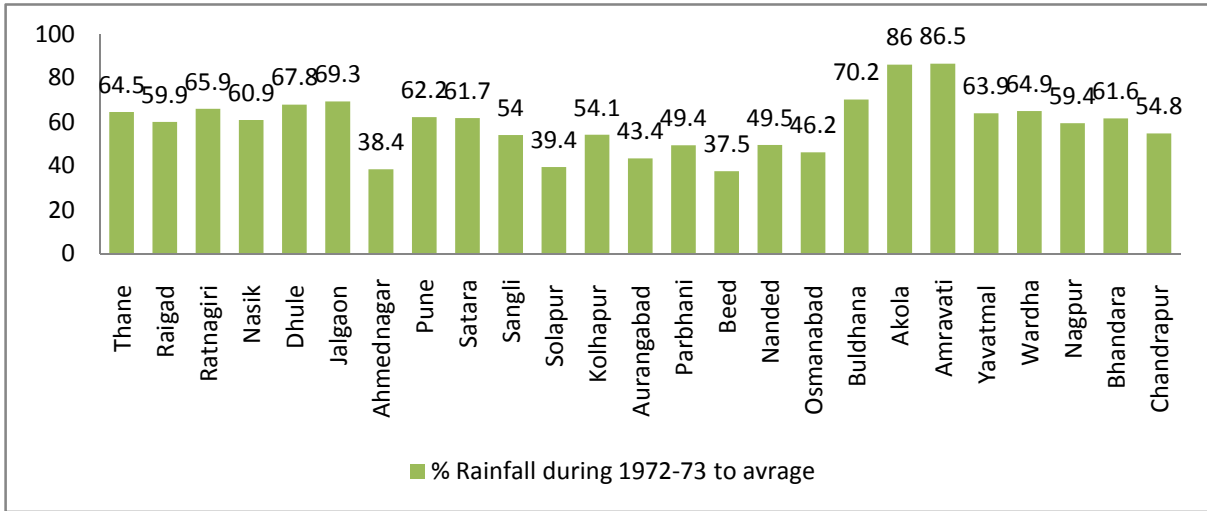
Chart 3.4 Trends of area under crop and total food grain productions



Figures calculated from season and crop reports of the year 1968-69 to 1973-74 graph depicts trend of sown area and crop production and % departure of the same from 1968-69 values.

Here are some more charts and figures depicting the exact picture of the seasons comparisons of 1968-69 with the season of 1972-73 the figures are calculated by Sulbha Brahame p.52

Chart.3.5 Rainfall during monsoon season 1972-73 over all districts of Maharashtra



Agricultural production and its percentage to 1968-69 agricultural production is equally important because during 1968-69 food grain production over Maharashtra including chronic drought area reported highest production.

Chart.3.6 Food grain production during 1972-73

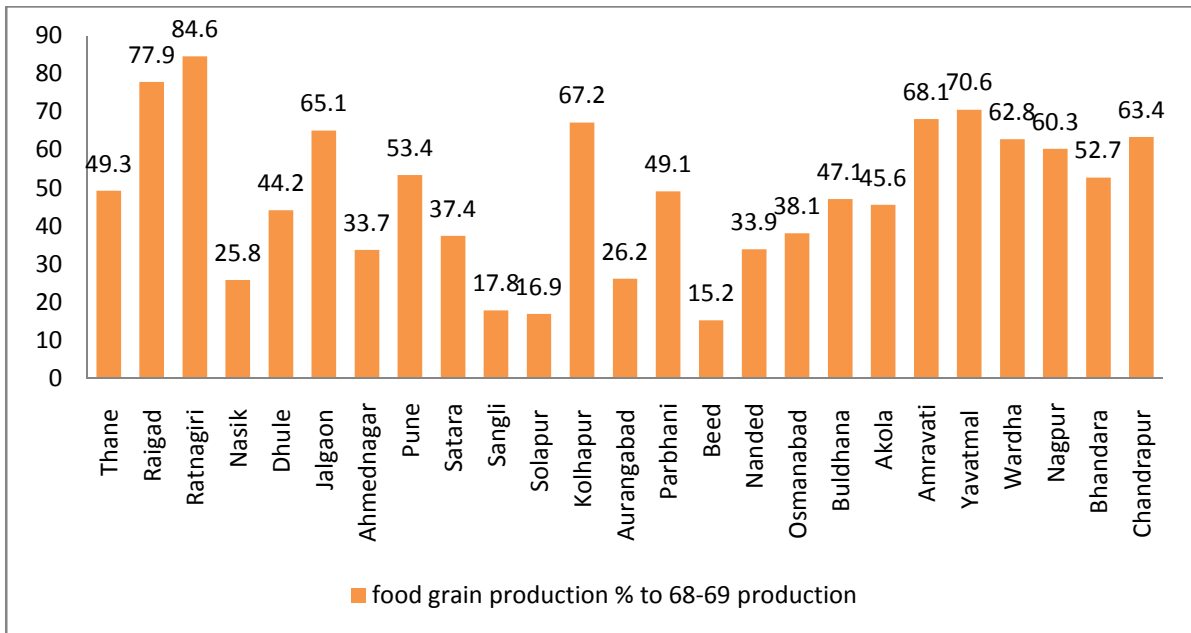
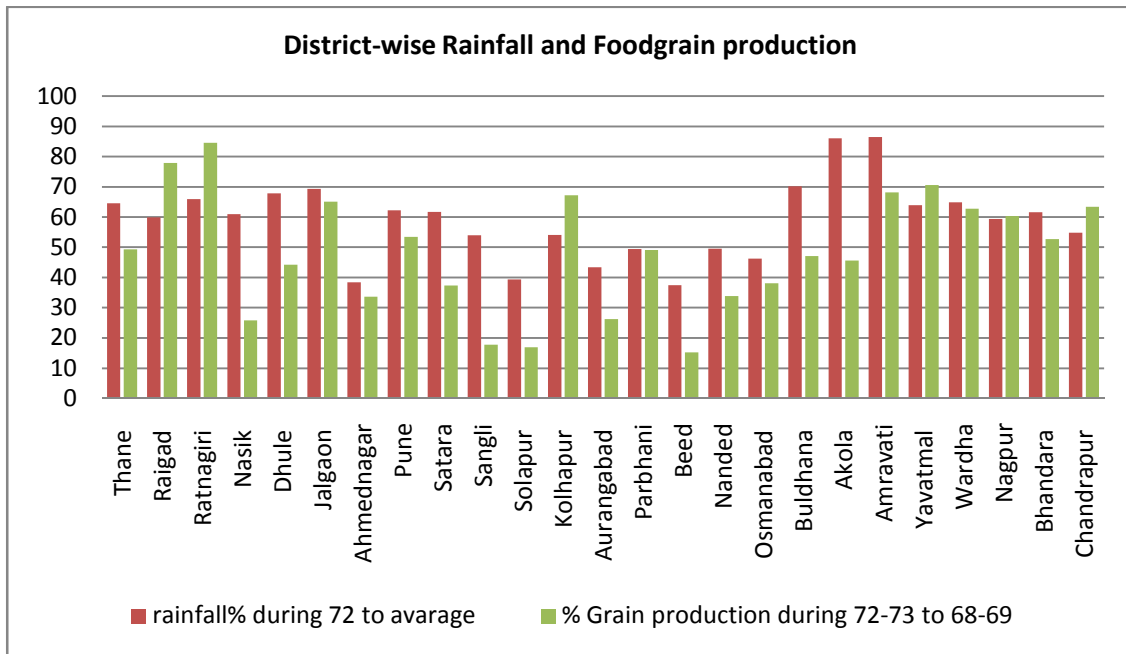


Chart 3.7 District-wise Rainfall and Food-grain production



Above bar diagrams depicts exact picture of drought year of 1972-73. However, the agricultural production declined from 1970-71 onwards. During 1970-71 the monsoon performance was satisfactory but due to unfavorable weather, untimely rain and pest affected food grain production. 1971-72 was drought year over major parts of Maharashtra. Rainfall maps of different agro-climatic zones of Maharashtra itself reveals the cumulative severity of drought over Maharashtra (See Appendix G Charts No AC1 to AC18) Similar charts of agricultural production from 1968-69 are also attached in the appendix A (AT-1 to AT-5.) it also corroborate similar story. Major Marthwada districts fall in zone number five and six these zones are drought prone zones and most of the districts and regions of these zones faced all three years droughts. Rainfall during 1970 was satisfactory. However, in the year 1970 charts shows over all the places of these regions received no rainfall during October 1970 and it resulted into drought condition for rabi crops same can be corroborated by shortfall in sorghum production during this year. (See Chart of AC11 Udgir and AC 10Jat Appendix-G for understanding rainfall performance and agricultural production can be adjudged through Table no. AT-5 appended in appendix-A) Agro-climatic zones six and seven faced drought condition

during 1970. Zone six received deficient rainfall during June and July 1970. This suggests uneven distribution of rainfall over this region. It might have resulted in reduction in agricultural production. From the rainfall charts it is observed that during 1971 rainfall of almost all months over agro-climatic zone No.8 was deficient. The scarcity was more severe over this region and corroborated by attendance reported on scarcity workers on scarcity works. This is also analyzed in some of the paragraphs appeared at the end of this chapter. Charts also depict two consequent droughts severely and squarely faced by agro-climatic zones number seven and eight. Zone number nine comprising eastern Vidharabha received good rains during July 1972 and due to that the agricultural situation over this region during 1972 was satisfactory. Elsewhere over state 1972 witness severe drought.(See Charts AC1 to AC18 appended in appendix-G) The severity and exact nature of drought and its effect is further realized through following charts prepared from the ‘Lokrajya’ the official publication of the Maharashtra government.

Table 3.3 Nature of scarcity during 1970-73

Sr. No	Year	Scarcity affected districts	Scarcity declared villages			Total population Affected	% Loss of Crops	% Loss of Crops in Value
			Kharif	Rabi	Total			
1	1970-71	21	16151	6910	23061	1.88 Croers	60%	225Croers
2	1971-72	20	8707	5980	14687	1.12 Croers	70%	250Croers
3	1972-73	25	24797	5983	30780	3 Croers	60%	333Croers

Source:-lokrajaya p.24 1 Oct.1974 Review of scarcity in Maharashtra up-to 21 December, 1973

### 3.7 Nature of drought a bench mark analysis

Millions of people of Maharashtra experienced two consequent severe droughts during 1971 to 1972. The drought of 1970-73 affected almost 80% of the villages in the state and about 15 to 30 million people out of a population of 50 million. During the decade of 1961-71 agricultural growth in the state was 0.07 per cent per annum, while the population grew at the rate of 2.7%. Consequently the condition of agricultural laborers deteriorated. Rural areas experienced an acute shortage of food grains by hoarding and

subsequent increase in food prices.<sup>27</sup> The attendance of labor force itself revealed the nature and degree of severity of this drought. Not only labor force but also rural elite and many non-governmental agencies saw very seriously towards this disaster. Attempts made by different agencies, colleges, academician's universities to conduct the survey of rural Maharashtra of that time.<sup>28</sup> All the surveys followed some common criterion to assess the ground reality of the period of contemporary rural Maharashtra. These surveys devised methods based on statistical and economic principals; while conducting surveys as well as making conclusions. Assessment of agricultural situation, general economic condition, consumer patterns and relief measures assessed through surveys. Worsening food grain condition, scarcity works and wages enquired through all these surveys. As these surveys were carried over the 10 severely affected districts of Maharashtra the pictures it revealed more or less similar to each other.

### **3.7.1 Places of surveys and their agro-climatic zones**

Sinnar come under agro-climatic zone number five with rainfall 700 to 1250mm. The area of Ahmednagar district come under zones five and six number zone has rainfall range between 500-700mm with title scarcity zone. Sakri taluka of Dhule district and Sirur taluka of Pune district come under this zone. One of survey deals with Vaijapur taluka of Aurngabd and Parendra taluka of Osmanabad of Marthwada region both these come under zone number six. Two villages namely Adul and Bhadji of Aurngabad district are situated in Paithan and Kuldabd talukas of the district fall in the seventh agro-climatic zone having normal rainfall range between 700 to 900 mm. The rainfall performance over these climatic zones of drought years can be seen through the charts and bar diagrams attached in appendix G. (Chart No.AC1 to AC18 in appendix-G)

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<sup>27</sup> Patel Sujata EPW December 2006 p.5128

<sup>28</sup> Borkar and Nadkarni carried survey of Adul and Bhadji villages of Aurngabad district. Gokhle institute of political science carried out the survey of different villages of Shrirur , Solapur and Beed districts of Maharashtra. Dr. S.N. Kulkarni who carried extensive survey of different villages of Sinnar taluka during drought of 1972 for his doctoral research work.. Gandhi Smark Nidhi also carried survey of villages making enquiry into socio-economic aspects of the 1972 scarcity. Nutritional institutes also carried out some nutritional surveys. Maharashtra government also carried surveys of Ahmednagar and Osmanabad districts. Sakri college carried out Survey of Sakri taluka of Dhule district. Ten most severely affected districts were identified as Ahmednagar, Pune,Solapur, Sangli, Nashik, Dhule, Aurngabad, Beed, and Osmanabd. Most of the surveys are pertaining to these areas only.



As information collected through surveys pertaining to these areas from the eyewitness or the people actually experienced the droughts help in assessing and quantifying drought along with government institutional records.

### **3.7.2 An Assessment of Agriculture**

Survey carried by Ghokhale institute of politics and Economic Pune covered vital drought affected talukas of western Maharashtra and Marthwada regions. This survey covered 73 villages. Half of the Villages of Rahuri taluka that covered for surveys did not experienced severity of drought compare with other surveyed villages due to protected irrigation facilities. Five villages of Rahuri and two each from Sangola and Ashti talukas had irrigation facility and suffered negligible losses.<sup>29</sup> Elsewhere throughout Maharashtra identical observations noted with respect to irrigated land the sugarcane producing farmers suffered only 25% loss in sugarcane production.<sup>30</sup> A similar survey of Gokhale Institute of Politics and Economics of Antroli Village of Solapur reveals similar fact. “The effect of drought on the village economy was extremely uneven. Sugarcane acreage only marginally affected. There was some reduction in the sugar recovery percentage because of the shortage in the irrigation water supply. It was reported that the loss sustained by irrigated agriculture was to the extent of about 10%. The annual income of the sugarcane cultivators estimated to be around as high as Rs. 20000 or more per family.”<sup>31</sup>

Observations pertaining with 24 severely affected villages with drought recorded agricultural production between 20 to 30% production. Among these villages, highest numbers were from Sirur followed by Sangola and Vaijapur. Nearly 60%-70% villages of Asti and Parendia recorded up to 20% production of agricultural produce. It is evident of severity of these talukas and respective districts. Even during three consequent years of

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<sup>29</sup> Loss in the agricultural production from village Aradgaon was normal and of other villages like Trimbkapur, Chinchvare, Jatap and Dhamori villages found relatively very small due to irrigation facility in Rahuri taluka. Chik Mahud, Gayaghavan villages of Sangola and Devi Nimgaon, Mandva from Ashti enjoyed some seasonal canal irrigation facility. Brahame , five villages of Rahuri and two each from Sangola and Ashti talukas had irrigation facility and suffered negligible losses. p.57

<sup>30</sup> Patil Sharad Economic and Political weekly 28.7.73 pp.1316-17 quoted the survey of Sakri taluka carried by Arts and commerce college Sakri of Dhulia district.

<sup>31</sup> Brahame Sulbha,1972 Drought in Maharashtra Gokhale Institute of Politics and economics (Orient Longman,1983p.74

distress total 14 villages had up to 50% production among that 8 from Rahuri and remaining six from other talukas.<sup>32</sup>

The drought prone talukas viz, Khandala, Man, Khatava and Koregaon of Satara district were assessed through a quick sample survey of six villages viz Khidawadi Asawali, Pingli, Ranshingpur, Karanj-Peth and Enkul from the above talukas was completed during January-February 1973. In all 990 households were covered in the study. During 1972-73, the crop yields of these villages were reduced to the extent of 80% of the normal yields. The reported reduction in the production was 90% in case of Bajara, onion and groundnut. In case of Bajara the production in 1972-73 worked out to about 22% of the normal production. The production came to only 10% of normal for the cultivator s having less than 2 hectares of land. While for other cultivators the corresponding values varied between 20 and 30 percent.<sup>33</sup> The survey reveals that agricultural production of some villages of Parenda taluka completely lost. Over Beed district within Ashti taluka the loss of crop was almost total in most of the villages.<sup>34</sup>

A scarcity survey report of Sinnar Taluka reveals the annewari of years 1970-71 and 1971-72 and 1972-73 were below 4 anna valuation for 4,71 and 102 villages respectively.<sup>35</sup> Annawari of both the villages which were surveyed by Nadkarni and Borkar of Aurngabad district namely Adul and Bhadji during 1972-73 was zero. A survey carried out at Sakri taluka by Sakri College reveals fact the reduction in bajara i.e. staple cereal production ranged from 30 to 60%. (Table 2 of survey report p.3)<sup>36</sup> The survey report from Sakari further reveals some facts of agriculture The report observe that the overall reduction in sugarcane production was only 25%. Production by small landholders has not declined to the same extent as they had not increased their area under the crop. The decline in the bajra production increases as we go to down to the ladder, and landholders owing only non-irrigated land are the greatest losers. The report shows same trend in the production of wheat and groundnut.<sup>37</sup>

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<sup>32</sup> Ibid p.57

<sup>33</sup> Ibid pp.76-77

<sup>34</sup> Ibid pp.60-61

<sup>35</sup> Kulkarni S.N. Economic Survey of Famine affected Sinnar Taluka a research report submitted to University of Pune 1974

p.82

<sup>36</sup> Patil Sharad EPW 28July 1973 p.1317

<sup>37</sup> Patil Sharad EPW 28July 1973 p.1316

The average area cultivated declined from 4.05 acres to 2.96 acres for a small cultivator in Ahmednagar district from the latest normal year to the year 1972-73. However, in the kharif season of 1973-74, the average area cultivated by these cultivators again went up to 4.13 acres. A similar decline obtained in the average area cultivated by other cultivators from 15.66 acres in the latest normal year to 11.87 acres in year 1972-73. This again went up to 15.94 acres in the kharif season of 1973-74. The position in Osmanabad district is also somewhat similar. The average area cultivated in the case of small cultivators declined from 4.08 acres to 3.12 acres from the latest normal season of 1973-74. In the case of other cultivators the area declined from 21.53 acres in the latest normal year to 10.47 acres in the year 1972-73 but again slightly picked up to 15.00 acres in kharif 1973-74. Only a small portion out of these areas was irrigated. Even this irrigated area went down both in the cases of small cultivators and other cultivator in both the district of Ahmednagar and Osmanabad in the year 1972-73.<sup>38</sup> We have seen how as result of the failure of the monsoon, cultivators either reaped a poor harvest or were able to cultivate only a portion of the land or even had to leave the lands completely unsown as in the year 1972-73. The type study of households in the drought affected areas of Ahmednagar and Osmanabad districts which were conducted by the Directorate of Economics and Statistics of the Government of Maharashtra confirms these observations with actual observations cited above with the survey it carried. Findings through all above observations illustrate the exact picture of ground reality through its findings. Rural population of Maharashtra experienced distress due to drought at its peak. However, Thane, Ratnagiri districts suffered losses in agricultural production by 15% to 25% only. Yeotmal and Amravati district also incurred moderate losses in food grain production. These districts also received satisfactory rainfall. All surveys suggests that even in some pockets of chronic scarcity area villages that had protected irrigation suffered very marginal loss in agricultural production especially of sugarcane. The loss in production and in cropped area reduction was marginal. The areas adjoining to Western Ghats and particularly Kolhapur district suffered very marginal loss of agricultural production. This suggests proper crop planning and economical utilization of water resources even during acute scarcity can relieve distress on considerable scale.

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<sup>38</sup> Subramanian pp.-441-447

### **3.7.3 Income Sources and Its Depletion an Analysis of Surveys**

#### **Scarcity Relief works as source of income**

Eminent academic institutes carried contemporary surveys on 1970-73 drought of Maharashtra. The intentions of these institutes were to know precise socio-economic effects of droughts on rural life. Survey carried by S.N.Kulkarni was extensive covering minute details and with utmost care of stratified samples. Similar criterion and methods were employed in other surveys too. Table 3.1 of this chapter is evident of reduction in agricultural production over various parts of rural Maharashtra during drought. Employment in any form in agricultural field ceased during the drought period. Large scale relief works provided employment to millions of people over Maharashtra. All measure surveys reveal that scarcity relief works was major source of employment to people. Description of the same found in the study carried by Gokhle institute of various regions. 80% of the annual income of the villagers of Sirur taluka came from the scarcity works.

The earnings on the scarcity works formed 80 to 90 percent of total income in 1972-73 and the level of income of these villages was nearly 80% of the normal level over Parenda taluka. In some villages total income of the year was made through scarcity work by villagers. As there were no continuous works in the vicinity of some villages, income of some villages reduced considerably it reported just up to 50%.<sup>39</sup>

In Vaijapur taluka of Aurngabab district, the income level in 1972-73 was about 25-30 percent of normal income level in these villages as the scarcity works started very late in this taluka. In the Beed taluka the earning on the relief works contributed on an average to about 60% of the total income in 1972-73. The income level was on an average 50% of normal income level and it was a little less than 40% in some villages.<sup>40</sup> Over Sangloa taluka of Solapur district extensive area suffered from crop loss. The relief work provided for income that came to about 50% of total income in 1972-73. The income level in 1972-73 was only about 50%.<sup>41</sup> Out of 12 villages selected for survey from Rahuri taluka 5 villages had less than 5% earning from the scarcity works. Three villages had earning between 5 to 25 % and other three villages between 40 to 55%. Only in one village viz

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<sup>39</sup> Brahme pp.60-61

<sup>40</sup> Brhamhe, pp.60-61.

<sup>41</sup> Brhamhe, pp.60-61.

Tarahabd had more than 70 % earning from the scarcity works. Survey conducted over remittance area of Statra district reveals income situation of different occupational groups. The village had to depend heavily on the relief works for their livelihood. On an average 38% of the earners worked on the relief works. The corresponding proportion was 63% in the case of landless laborers and 60% in case of small cultivators. The income of the landless families in money terms was more or less on par with their normal level of income. Income earned through scarcity relief works has proved to be major sources of livelihood in both the villages more so in Adul revealed through the survey of Adul and Bhadji villages of Aurngabd district.<sup>42</sup>

Sulbha Brahame observed further from survey that, “The contribution that scarcity relief works made towards the total income varied considerably between districts. It formed about 50% of the total income in Beed district and about 45% in Solapur district around 30% in Osmanabad, Sangli and Aurngabad districts, about 20% in Ahmednagar district and 15% in Pune and Nashik districts. Despite the sizable magnitude of the earnings on the relief works, the total income in the drought year was below the normal income by nearly 40% in districts like Beed Aurngabad and Osmanabad because of the severe loss suffered in the agricultural production. For the state as a whole the income level in the drought year was below the normal income level by 28%.”<sup>43</sup>

### **Income pattern over villages having protected irrigation**

Income of the villages and farmers having protected irrigation facility even during such a hard hit drought and even in hardcore chronic scarcity area had very marginally affected. Sample survey revealed the above fact and it suggests drought and scarcity get averted through protected irrigation. Following are some evidences to prove the argument. “The report observe that the overall reduction in sugarcane production was only 25%. Production by small landholders has not declined to the same extent as they had not increased their area under the crop.”<sup>44</sup> Gokhale institute of Politics and economics observes in foregoing paragraphs. “This suggests that the sizable area of Rahuri taluka was under irrigation and created conducive environment for employment in one form or other and protected people from such a severe scarcity, which people experienced more

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<sup>42</sup> Borkar V.V.and Nadkarni M.V., ‘The impact of drought on rural life’ Popular Prakashan Mumbai 1975 p.57

<sup>43</sup> Brahame pp.61-62

<sup>44</sup> Patil Sharad EPW p.1316 from survey of Sakri taluka carried by Sakri college district Dhule

intense severity elsewhere. The income level of people of Rahuri taluka also seems satisfactory. There was need of scarcity works only for two villages and it made available in the form of community wells. This also suggests that it is possible to make some areas drought proof after construction of dams. In the case of Talukas other than Rahuri the agricultural income in 1972-73 came to about 20 to 25% of the normal income from agriculture. The scarcity relief work could provide earning that could make up of about 30 to 35 per cent of the normal income. Consequently the total income in 1972-73 came an average about 50 to 55% of normal income in money terms.

The effect of drought on the village economy was extremely uneven. Sugarcane acreage was only marginally affected. There was some reduction in the sugar recovery percentage because of the shortage in the irrigation water supply. It was reported that the loss sustained by irrigated agriculture was to the extent of about 10%. The annual income of the sugarcane cultivators were estimated to be around as high as Rs. 20000 or more per family.”<sup>45</sup>

#### **Income of agricultural households**

Decline in the farm income is a natural outcome of drought conditions and consequently need for agricultural labor also declines resulting in a fall in the income of the laboring households. Sinnar survey of S.N.Kulkarni reveals following facts about the reduction in income of rural household. Average income per farming household over A group village was 16.76% and over B group village 13.15%; the corresponding value over all group villages came 22.27% compare to normal year income value. A group village comprises villages of chronic drought affected villages and B group villages are not chronic drought prone this decrease in the income is obviously due to poor agricultural season due to drought.<sup>46</sup> Over Ahmednagar and Osmnabad districts the survey of economics and statistics department of Maharashtra came with following figures and facts. As regard the gross value of agricultural production per house-hold it came down form Rs 1213 per

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<sup>45</sup> Brahame p.75

<sup>46</sup> Kulkarni S.N. p.152 Sinnar Taluka was experienced. Extent of crop failure has however, been estimated by comparison of farm income in an year with normal crops. Farm income for the present purpose include wages of the owners and services of their owned cattle. From the gross receipts, only cash payments for purchase of seed and fertilizers wages paid to hired labor marketing expenses etc. are excluded balance is considered as farm income. It may be pointed out that the three villages in B group which had above 20% of farm income as compared to normal year are those with first or wsecond clas irrigation facilities and other are dry villages. Hence impact of scarcity on farm income differed in group A and B villages.

household from the latest normal year to Rs. 48 in the case of small cultivators in Ahmednagar district. In Osmanabad district the comparative figures were Rs 1023 and Rs. 245 in the case of small cultivators and Rs. 4160 and Rs. 1770 in the case of other cultivators.<sup>47</sup> It evidenced that the agricultural production of selected villages of Shirur taluka was 25% of the normal annual income.<sup>48</sup> In the case of talukas other than Rahuri the agricultural income in 1972-73 came to about 20 to 25% of the normal income from agriculture.

Sinnar survey further reveals that farm income during 1972-73 was hardly 18 per cent of the normal year. This small income also could be reduced if the irrigated land of this village would have not included in aggregate figure. Majority of the farming households with dry and land had either zero or negligible income from farm. It concluded in Sinnar report that income from agriculture decreased by 82.16%.<sup>49</sup>

#### **Income status of different working groups**

Finding of the Sinnar survey provide striking information us about the income of different groups. Income from agriculture decreased by -82.16%, income of agricultural labor decreased by -65.81%. The corresponding income of professionals' of other than agriculture reduced by -11.85% while income from Services increased by +10.70%. Scarcity affected people brought money from outside relatives it amounted +15.47%. Scarcity relief works were 100% gain in the total income of the people. However the total loss in the income during 1972-73 amounted -40.28%<sup>50</sup>

Sinnar survey provides further information in foregoing description. Income of agricultural labor dropped to 34% of what people would have earned during the years of normal crop year. Professional income viz. income of village artisans and of other allied occupations also declined as result of an overall decline in the rural income. In 1972-73, farm and agricultural labor nearly ceased to be the main sources of income. Earnings from scarcity works could however, compensate at least 28.73 per cent loss of normal year income from all sources or 33.00% loss of income from farm output and wages of

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<sup>47</sup> The details are given Table 4 (2). Subramanian p.446-447

<sup>48</sup> Brahame pp.60-61

<sup>49</sup> Kulkarni S.N. p.175

<sup>50</sup> Kulkarni S.N. p.175

agricultural labor during normal years. In fact earning from scarcity wages constituted above 48% of the total income of the sample households in 1972-73 from all sources.<sup>51</sup> Overall decline in money incomes of the sample household in 1972-73 was 41%. If exclude earning from scarcity works during 1972-73, the decline in the total income would have been 68.30%. Actually however, money income dropped by 41%. We therefore, roughly estimate decline in real income of these sample households at 66.55% as compared to the immediately preceding year 1971-72.

Information regarding income of different house-holds other than agriculturist from Ahmednagar and Osmanabad district assessed through the survey carried by department of economics and statistics of government of Maharashtra. The earning of other cultivator households were naturally the highest in the latest normal year: they were Rs. 2981 per household per annum in Ahmednagar district. The monthly per household earnings amounted to Rs. 248 while the per capita earnings came to Rs. 36. In the year 1972-73, there was a decline in the earnings of these types of households. However, the annual earnings of the small cultivator household had gone up marginally from Rs.1573 in the latest normal year to Rs. 1656 in 1972-73. There was a similar increase in the annual earnings of agricultural labourers in Ahmednagar district. As regards Osmanabad district, the annual earnings of the household of the other cultivators went down from Rs. 2910 in the latest normal year to Rs. 2076 in the year 1972-73. The annual income went up from Rs. 988 to Rs. 1281 in the case of small cultivators and from Rs. 942 to Rs.1322 in the case of agricultural laborers between the latest normal year and 1972-73 respectively. The per capita monthly earnings in the case of other cultivators fell from Rs. 32 to Rs. 23 in the year 1972-73, whereas in the case of small cultivators and others laborers it increased during the year 1972-73 as compared to the latest normal year.<sup>52</sup>

Sharad Patil provides information of income status of Sakri taluka of Dhule district quoting the survey report of Sakri taluka. "Even though the categorization of landholders in the report is far from systematic, the details about the physical impact of the famine on

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<sup>51</sup> One should admit that government, Zilla Parishad and voluntary agency like St. Anne's Church, Nashik Road, have played a very important role in making provision for work and income to the affected people through execution of relief works. In absence of such works on extensive scale famine distress would have been far in excess of what had been experienced by the people.

<sup>52</sup> Subramanian P.445-46



the different sections of the rural population are significant. Those owning more than 50 acres of land (including about 20 acres of irrigated land) are found to have been so little affected by the famine that not only has none of them had to toil on scarcity works, but evidently no one has even felt the need to postpone such marriages in their families as were due to be celebrated during the year. In fact-though the report fignd shy of noting these marriages are being celebrated with increased expenditure and pomp. A recent marriage at Matpur in Sakri taluka is estimated to have cost not less than half a Lakh of rupees and the dowry given to the bridegroom is said to have been Rs 32,000. Landholders of category owning 20 to 30 acres (with 5 to 10 acres land) have also not felt compelled to work on scarcity projects-though some of them had to postpone marriages that were due this year. This is the category of rich peasants.”<sup>53</sup>

Following observation of Adul and Bhadji villages of Aurngabad districts not only underlines the importance of scarcity works but also reveals the income status of different working groups. “It is paradoxical that income per household has been more in Adul, the worst hit village, than in Bhadji. This happened because the farmers of better-endowed Bhadji village hopefully relied on agriculture, which ultimately let them down, while those in Adul turned to government sponsored relief works much earlier. Cultivators operating less than 25 acres have earned more total income and also more income through scarcity works in Adul than in Bhadji. Agricultural labor who could find employment in private agriculture also at favorable wages rates because of the wage norms in scarcity works, earned more in Bhadji than in Adul. Both small farmers and agriculture labour in Adul felt that their income was higher this year than the past: in Bhadji this was true only of agricultural labor. It is painful commentary on the state of agriculture of small and medium cultivators that they should find their occupation less remunerative than working in metal-breaking centers: and it is equally important that it needed a scarcity of this magnitude to improve their lot as also that of agricultural labor. This experience also reflects the effectiveness of the relief works organized by government.”<sup>54</sup>

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<sup>53</sup> Patil Sharad EPW 28July 1973 p.1316

<sup>54</sup> Borkar V.V. and Nadkarni B.V, ‘The impact of drought on rural life’ Popular Prakashan Mumbai 1975 pp.57-78

The survey of Antroli village further provides information as far as the agricultural laborers are concerned, the estimated per family annual income of the laborers was of the same magnitude (about Rs. 800) in 1972-73 as in the previous year. In the case of smaller cultivators (0-4 hectares) the reduction in income was to the extent of about 20%, while for cultivators with 4 to 12 hectares of land, working under dry conditions the decline in the annual income was by about Rs. 800 to Rs. 1100 per family i.e. reduction to the extent of about 40%. For agricultural families in the village as whole ((barring the 10 large sugarcane cultivators) the income in 1972-73 was 70% of the 1971-72 level in money terms. The income from relief works contributed to the extent of about 60% in this income.<sup>55</sup>

Survey conducted over remittance area of Statra district reveals income situation of different occupational groups. The cultivators in size group of 0 to 2.0 hectares and 2.1 to 4.0 hectares sustained a loss to the extent of about 35%. The income in 1972-73 (excluding the salary income and remittance) of the total families covered in the study was about 50% of the normal income and the earning at the relief works contributed to the extent of about 50% in the income. However, if the salary income are taken into account the decline in the income is not so considerable, the extent of reduction worked out to the tune of 30% of the normal income.<sup>56</sup>

All these surveys suggest that during scarcity period and especially during 1972-73 due to dismal performance of agriculture cultivators suffered heavy loss. People from all sections of society sought employment on relief works. Income level of the small cultivators and agricultural laborers was higher than big farmers during 1972-73. As suggested by survey the more reduction in the income of big and medium cultivators was due to higher investment in tilling operations and comparatively less members of these families worked on the scarcity works. Even the members from big and medium cultivators' families were not tuned to the hard labor of scarcity relief work.

### **Changes in income and income composition**

Very astonishing fact surfaced through all the surveys that the scarcity relief works on such colossal scale proved beneficial to agricultural labors and unskilled rural laborers.

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<sup>55</sup> Brahame p.75

<sup>56</sup> Brahame p (p,77)

Per capita income within Ahmednagar district of small cultivators, other cultivators, agricultural laborers and village artisans changed from 23 to 24, 36 to 24, 21 to 24 and 18 to 17 respectively. The similar values for Osmanabad district 16 to 20, 32 to 23, 16 to 22 and 28 to 24 respectively. These figures reported from survey of these both districts carried by economic and statistics department. Reveal that the big cultivators' income decreased but the unskilled laborers and small cultivators income increased.<sup>57</sup> Sakri taluka survey also reveals fact that even after good rainfall during 1973 agricultural laborers were not happy to return to agricultural operation due to better wages from the scarcity works.<sup>58</sup> A sample survey of remittance area over Satara district provides details of change in income of different working group shown as in following table.

Table 3.4 Change in income level during drought years of different landholding groups over Satara district

Size of land-holdings in Hectares	Income of normal period in Rs	Income of drought period in Rs	Percentage Change
Landless	1140	1100	96.49
up to 2 hectares	1641	1345	81.96
2.1 to 4.0 hectares	2110	1830	86.72
4.1 hectares and above	4367	2773	63.49

Source :- data from the Brahame table 4.13 p.76 calculated in percentage change

A sample survey of Shirur taluka carried by Gokhale institute of politics and economics made its observations in foregoing description and in table 3.5. The average family income for the year June 1971 to June 1972 (referred to as normal period) worked out to Rs. 1220 . About 80 per cent of the income was derived from cultivation of the land the rest from agricultural or other labor and from artisan work.<sup>59</sup> The income for the period June-December 72 was around the level of last year's income in the case of small cultivators in terms of money. However, income for same period of cultivators had 4 to 8 hectares of land reduced by 20%. Families having six-monthly income below Rs.25 shows increase in their income by 6 to 15%. Whereas during acute scarcity The total number of earners in the 140 families covered in the survey 436, of these 394 were working on the relief works it amounted to be 90% of the total surveyed persons and 42 workers engaged in the work on their own farms. It amounted nearly 9.<sup>60</sup>

<sup>57</sup> Subramanin table IV-3(V) p.598

<sup>58</sup> Patil Sharad p.1317

<sup>59</sup> Brahame p.67

<sup>60</sup> Brahame pp.66-67

Table 3.5 Change in Income in different landholding classes over Shirur taluka

Size of land-holdings In hectares	Income of normal period in Rs	Income of drought period in Rs	percentage change
0 to 2.0	887	422	47.57
2.1 to 4.0	1122	555	49.46
4.1 to 8.0	1320	525	39.77
8.1 and above	1784	828	46.41
Landless Agriculture labor	860	326	37.90
Artisan	1233	614	49.79

Source;- Brahame table 4.8 p.68

S.N.Kulkarni collected minutest detail of income attributes of different work groups of Sinnar taluka and provided foregoing figures. The figures of income increase or decrease to normal years are as landless agricultural laborer increased by 10%, other landless decreased by 3.16%, all landless increased by 1.82%, agriculturist having land between 0.01 to 5acres decrease by 27.90, agriculturist having land between 2 to 10 acres decrease by 38.85% and of 10 acres and above decrease by 40.28%.<sup>61</sup>

### **3.8 Shifts from Cultivation to Relief Employment**

Foregoing description of S.N.Kulkarni highlights the increasing number of people engaged in relief operations and switched over working population from different groups turned to scarcity relief works over Sinnar taluka. “landless agricultural labor their working population was 77.55%, other landless 33.94% holding up to 5 acres 72.43% 5 to 10 acres 66.40%, 10 acres and above 68.36%; their respective % to total population of scarcity workers to their respective classes as follows. 39.58%, 11.78% , 35.12% ,33.87 and 34.51% respectively.”<sup>62</sup> The analysis revealed that a sharp change had taken place in the main source of livelihood of many of the households, which had now to seek activity other than cultivation for their livelihood.

<sup>61</sup> Kulkarni S.N.p.178 It will be interesting to note that because of scarcity works being available, landless labor could be absorbed by and large. As a result, money incomes of landless people do not decline during the scarcity year 1972-73. Instead it increased by a small amount. One reason why income of landless people remained stable is relatively greater proportion of non-agricultural population, businesspersons and servants in this group, whose money incomes remained nearly constant. Losses in incomes were mainly due to relief works and money it poured in economy.

<sup>62</sup> Kulkarni S.N. p.174

The number of working persons increased considerably in the period June 1972 to June 1973. The increase was more pronounced in the case of female members the number increased from 118 to 155 in total of 178 female members in the age group of 14-60 years. This was the observations of GIPE survey of Shirur taluka.

In the study showed that a large number of female workers were drawn into employment in the crisis, they joined the scarcity relief works in a large number while the men remained in their normal occupations for a longer period and returned earlier to their normal occupations. The composition of the total earnings in the two periods was examined. It was noted that between June 1972 and June 1973, the income from the scarcity relief works formed over 90% of the total earning in case of female works and 75% in the case of male workers. The corresponding percentage for the period June to December 1973 was 75% and 50% respectively.<sup>63</sup>

Drought sealed any hope and prospectus of agriculture. Agriculturist suffered heavy loss because of expenses incurred for seeds, fertilizer and tilling operations. Agricultural labor, other laborers and artisans lost their employment due to dismal performance of agriculture. Various surveys including the surveys of statistics and economic department over Ahmednagar and Osmanabad reveals the fact that people from all income group and working classes joined relief works without any reservations in their mind. An analysis in this regard with statistical evidences of workers and non workers and attendance on relief works suggests that even agriculturist with big land-holding joined relief work and even female members from such house hold joined the work.<sup>64</sup> Information in survey with

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<sup>63</sup> Brahame pp.70-71

<sup>64</sup> In the case of small cultivator households in Ahmednagar district 32 percent of the members were engaged in cultivation in the latest normal year. However, this percentage came down to only one in 1972-73. There were 36% small cultivators practicing cultivation as their main occupation during normal years their number reduced to 16% during 1972-73 the worst drought year. During drought years 36% members of other cultivators' group sought employment on scarcity works as unskilled labors. On the contrary this year the unskilled labors percentage was 21% more than small cultivators. The corresponding figures for the other cultivators having more than 7.5 acres of land was 32% during normal years and it reduced to only 6% during 1972-73. The people which were exclusively worked as agricultural labor during normal agricultural season there percentage was 46%. These people could not find employment in agricultural operations during drought years. Only 2% among these got employment in agriculture during 1972-73. Over Osmanabad district non working population percentage found highest in other cultivator group viz 71%. This figure came down to 60% suggesting that those who were not worked at all before; specially female members of households and not acquainted with hard labors, sought employment as wage earners on scarcity works. 17% of the members of the other cultivator household were engaged in unskilled labor in the year 1972-73 as against 0.5% in the latest normal year. However, during 1973-74 only 2% of the other cultivator were engaged on scarcity works. Agricultural laborers mainly engaged in agricultural operations could not find employment in agriculture during drought year. Their percentage in agricultural operations was 40% reduced to 12% during drought years. In 1973-74 forty eight person of the members of the agricultural labor category person again engaged as agricultural labors.

respect to income level of different groups its change and percentage of workers and non workers of different group collected the interpretation of this information suggests that people realized grim reality of the situation. Without any moral degradation and lack of confidence people of all class resolved to fight adversity by working hard they decided to join the relief works.<sup>65</sup> 22<sup>nd</sup> round of National Sample Survey and 27<sup>th</sup> round of sample survey also reveals the same fact. It stressed that during normal year 61% of rural population involved in agriculture related activities this number came down to 35%. The statistics and analysis further states that rural population of all working group heavily

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(Source Subramanian p.588-592 table (IV) 3(I) other category cultivators includes agriculturist having 7.5 or more acres of land.)

<sup>65</sup> The income from agricultural produce to small cultivators during latest normal year was Rs. 1213 and Rs. 3095 to other cultivators. The corresponding amounts during drought year 1972-73 came Rs. 48 and Rs. 484 respectively over Ahmednagar district. Over Osmanabad the income during lasts normal year foRs. 1023 &4160 during drought year this income reduced to Rs. 245 and Rs. 4160 only. (Subramanian p.592)

The average values of annual income in Ahmednagar district during latest normal year, 1972-73 and 1973-74 were calculated for all occupational groups. These values for small cultivators were Rs. 1573, 1656 & 1110 respectively showing nearly 30% decrease during drought year. Corresponding values for other cultivators over Ahmednagar were Rs. 2981,1987 &965. The same corresponding values over Ahmednagar for agricultural laborers were Rs. 995, 1142 & 1227. These values for village artisans over same area were Rs. 1393, 1357 &1314. This phenomenon also testified from similar survey over Osmanabad The corresponding values over Osmanabad for small cultivators were Rs. 988, 1281 &904. These corresponding values for other cultivators were Rs. 2910, 2076 and 829 & for agriculture labors Rs. 942,1322 and 1188. Corresponding values for village artisans were Rs. 1862, 1607& 1300.(p.598) This observation suggests that the income of agricultural laborers, village artisans was higher than small cultivators and other cultivators during last year of scarcity. This indicates that these work groups with their more laborer skill and with all other family members worked on scarcity works. As observations shows that there were less non working members from these groups compare to small cultivators and other cultivators. These works groups were accustomed to this type of hard work.

Average number of non-workers:- In Ahmednagar district during scarcity the numbers of non workers were more at artisans group followed by other cultivators occupational group. The number for the same category was lowest in agricultural laborers occupational group followed small cultivators group. As far as female non-workers concerned lowest number was from agricultural laborers group followed by small cultivator group. Highest numbers were from village artisan group and followed by other cultivators group. Over Osmanabad district highest number of non workers were from other cultivators occupational group followed by village artisans group. As far as female non workers member concerned highest members were from other cultivators group followed by village artisan group. As far as female members concerned highest number of non workers were from other cultivators followed by villager artisan group. The corresponding values for lowest numbers were for agricultural labors followed by small cultivators.

Observations of Ahmednagar district:- During latest normal year just prior to the scarcity most of the small cultivators i.e. 45% were engaged themselves for 271 to 330 days on the work, this percentage reduced to 43.55% during 1972-73. The working population of this work group worked 299 average work days during normal year their employment reduced to 291 average days during 1972-73. This suggests that due to drought there was slack in agricultural harvest and operations. The similar trend could be seen in agricultural labor group too. Hundred percent male members of the agricultural labor category engaged themselves for 271-330 works days. Even during normal years, they could find employment for 300 and 301 days of males and females of this category. However, this category of people found employment for 300 days. However, data did not reveals on which work the members were employed. An interesting observation noted from survey that during normal years 34.6% village artisans that the highest numbers were engaged themselves just for 211-270 days on the work. This percentage reduced to just 22.22 % during scarcity. During scarcity year the highest percentage of artisans employed just for 151-210 days. (Source:-Subramanian p.599-608 table (IV) 3(vi))

depend on scarcity works including women of reach farmers families.<sup>66</sup> Similar observation noted in the Adul and Bhadji villages survey of Aurnagabd district.<sup>67</sup>

### **3.9 Household Management of the Financial Resources**

It either saving of the past or increases in the current debts that saved human lives from death by starvation though with a lower standard of living.<sup>68</sup> Overall decline in money incomes of the sample households in 1972-73 was 41 per cent. If we exclude earning from scarcity works during 1972-73 the decline in the total income would have been 68.30 per cent. But people were faced with a dilemma of decline in money income and general rise in prices. This uncovered gap in money income, aided by sharp rise in the prices brought the standard of living of the sample households to miserably low levels. It will be interesting to note that because of scarcity works being available, landless labor could be absorbed by and large. As a result, money incomes of landless people did not decline during the scarcity year 1972-73. Instead it increased by a small amount. The money income of non agriculturist including laborers and merchants and business men remain nearly constant due to scarcity relief work and money it poured in economy. The sufferers were agriculturist and farmers having higher holding suffered higher losses due to more investment in the form of seeds fertilizers and tilling operations. This observation of Sinnar is applicable to elsewhere in Maharashtra as scarcity works prevailed everywhere on large scale. Relief works also provided relief to medium and large-scale agriculturists as well as to laborers of all kind.

### **3.10 Wage rates**

Wages of agricultural labor in normal times varied between slack and busy season for adult male worker between Rs. 1.50 to Rs. 2.00 and for female worker between Rs. 1.25 to Rs. 1.50 per day. The schedule of rates differed from district to district because of the variations in the departmental rates. It was noticed that in some cases the works could not

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<sup>66</sup> Subramainan with charts and figures of 22<sup>nd</sup> and 27<sup>th</sup> round of NSS pp.435-36

<sup>67</sup> Borkar Nadkarni p.58

<sup>68</sup> Kulkarni S.N. pp.176-77 But there is good reason to believe that the farmers with holding 20 acres and above must have released their past savings, estimated at Rs. 1000/- each fro 32 households in the category. Total savings released during 1970-71 are estimated at Rs. 32000/- In addition, whole of the credit for normal agricultural operations estimated at Rs. 65000/- in 1972-73 must also have gone to consumption. Private credit of Rs. 65000/- in 1972-73 must also have gone to consumption. Private credit of Rs. 6500/- during the year. <sup>68</sup>

reach the maximum of Rs. 2.50 after a full day's work because the piece rates were low. By government order issued on 5 February 1973 the wage rates and tasks were fixed uniformly throughout the state.<sup>69</sup> an analysis of wages of the period December 1972 to January 1973 of Sirur taluka revealed that " The average daily wage rates did not vary significantly between different types of work. However, there were considerable variations between individual earnings. The daily wages ranged between from Rs. 1 to Rs.2.50 in case male worker. For female worker daily wages ranged between Rs. 0.80 to Rs. 2.00. The interpersonal variations were rather high in the case of metal breaking as the task was rather new and quite arduous.<sup>70</sup> In general, scarcity wages were fixed at Rs. 2.50 and Rs. 2.00 for male and female workers respectively. Since the prices of grain were exceedingly high, there was a demand for increase in the wage rates on scarcity works. Accordingly, the rate modified to Rs. 2.50 for both male and female workers from 15<sup>th</sup> April 1973. In addition a scarcity allowance of Rs. 0.50 per worker per day was paid during the period from 15<sup>th</sup> April 1973 to 31<sup>st</sup> July 1973.

The allowance method withdrew from August 1973. In fact, wages of scarcity workers should be such as to enable them to purchase at least 3 kgs. of grain per day in order to maintain himself and his family. However it failed short to fulfill the requirement. Basis of wages differed from work to work. Works of soil conservation paid according to the quantity of work done, i.e. at piece rate. Zilla Parishad works paid based on piece-cum-daily wage rate. Irrigation works mainly paid based on daily wages. Wages on community wells paid based on piecework and were found generally lower than those of other works executed departmentally. There was, therefore a tendency among the workers to join daily wage based works. A number of works of community wells were to be stopped for non-availability of workers. Wages on works executed by the Seva Kendra (Service centre) of St. Anne's Church were paid in kind, viz, in terms of grain and oil at the rate of 285 lbs. and 6 lbs. respectively per month per worker. On the face of acute scarcity of foodgrains and oil in open market, there is no wonder if these works appeared most attractive to the scarcity stricken people. Wages on scarcity works expected to be paid weekly on or before the market day. However, wages payments were usually

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<sup>69</sup> Brahame p.100 quoted (MSGO, I, 1973 pp.280-81)

<sup>70</sup> Brahame p.101



delayed many times from 3 to 4 weeks. This irregularity in payments added to suffering of the scarcity works at large.<sup>71</sup> Similar observations also noticed elsewhere rather wage policy of government was uniform everywhere.

### **3.11 Consumer Expenditure**

It may incidentally be observed that if one takes a view with regard to the total rural area of Maharashtra, the average per capita monthly expenditure in the year 1967-68 was Rs. 30.57 and in the year 1972-73 it increased by about 28% i. e. to Rs 39.17 . From this it would be seen that the increase in the consumer expenditure in the drought affected areas which was only 17% is, therefore about 11% less than in the total rural areas of the State during the years of reference.<sup>72</sup> It reveals that this marginal increase shows better equitable distribution of grains over severe drought affected area.

National Sample Survey shows that the average family expenditure per person was Rs. 39.17. The Sakri Taluka surveys fixed the subsistence level of a person to Rs. 33. National Sample Survey estimates same amount per person of expenditure for small cultivator and industrial workers. However author of Sakri report claimed that this much amount was not even within reach of the 94% people of the Sakri Taluka. This estimation seems much exaggerated though sizable population might have suffered from drought. Shirur Taluka survey of Gokhale institute estimated per capita food expenditure to Rs. 24.16 per month and report further mentioned that even it could not be earned through scarcity works.

### **3.12 Migrations**

A detailed enquiry of migrations was carried out over Sinnar by S.N.Kulkarni in his study. Among the migrants, 53.97% migrants migrated due to droughts. Among other categories of migrants 11.11% migrated elsewhere due to reasons other than drought and

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<sup>71</sup> Kulkarni S.N. pp.110-112

<sup>72</sup> During the year 1967-68 which might be taken as a normal year, the average per capita monthly expenditure of different types of households such as those of large cultivators and small cultivators farm laborers industrial workers and others was about Rs 30.70. In the year of acute drought i.e. 1972-73 this increased by about 17% i.e. to Rs. 36.34. A comparison of levels of consumer expenditure in different classes of households reveals that in the case of households of the large cultivators and the farm laborers the increase is of the order of 23 and 37 per cent respectively. While in the households of the small cultivators and the industrial workers the increase is less than 10% in each case. it will be seen that by and large the expenditure on most of the items has increased except on mild and milk products.<sup>72</sup>

scarcity. 17.46% migrants were government and migrated due to transfer. 14.29% were temporarily present at the time of census and then left elsewhere. 3.17% migrants were absconding.<sup>73</sup>

“It is reported that some of the families particularly the agricultural labor families out migrated when the rains failed and there was no work in the village.”<sup>74</sup>This was the observations of GIPE survey. However, enquiry of this survey was not detailed as compared to Sinnar Survey.

Enlisting some subsidiary reasons Migration of entire households takes place where overall scarcity of drinking water, food and fodder becomes the common feature, or administration didn't paid attention to plan scarcity works over that area in advance. There is also a class of so-called habitual migrants which usually migrates to nearby industries or sugar factories for employment during the off-season of agriculture and returns back to village with emergence of monsoon. During the present scarcity years 1970-73, no migration were officially registered with the taluka administration. Administration claimed that sufficient employment had been created through relief works near or within each village and there was no reason for the people to migrate except for those who are habitual migrants as referred to above. However, during the course of inquiries in the sample villages S.N.Kulkarni noticed migration of working individuals as well as entire households, mainly on account of scarcity. Some households moved with their cattle as well. It was really surprising to note that the Taluka administration did not take care of keeping records of migration on account of scarcity.<sup>75</sup>

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<sup>73</sup> Kulkarni S.N.p.180

<sup>74</sup> Brahame p.66

<sup>75</sup> Out of the total 2174 households from sample villages 109 entire households were reported to have been migrated whereas from another 96 households one or more individuals were migrated. All the migrations of total 205 constitutes 9.43 per cent of the total households in sample villages and were reported mainly on account of scarcity. ( Kulp.113) migration in B group villages mainly was relatively mild. Of the total 1269 households in these villages, migration from only 24 families or 1.90 per cent of the total households was reported. But very high rate of migration was found in A group villages where 181 households out of total 905 were migrated. This constitutes 20 percent of the total households in A group. P.113 In spite of all the suffering and hardship of this serious one must appreciate the role played by the relief administration in saving human life from death of starvation. Not a single such case is officially recorded. Even during the course of our investigation in selected villages we did not find or hear any death by starvation.(p.115)(sinnar)

“Above 10% of the population had migrated of which roughly 6% was in the form of entire households and 4% in the form of one or few individual moving out of villages.”<sup>76</sup> It was the finding of Sinnar survey. Nearly 60% had migrated in the form of entire families. By the time of second phase of inquiry in September-October 1973, hardly 52% of the migrants had returned to their villages. There were more male members among migrants compare to women members. By October 1973 among returning migrant members females were proportionately more in numbers. It is evident that nearly 75% of the migrants were working and only 25% were dependents, mostly children. It appeared that nearly 15% working population migrated. It would, therefore be clear that the migration during the scarcity years was of high magnitude and that in spite of the satisfactory rains in 1973-74 season about 50% of the migrants could not return to homes. It must be lack of confidence on the part of the migrants that they will get any remunerative employment after returning to homes. Therefore, sizable population of migrants preferred to stay at the migrated places where some better jobs available.<sup>77</sup>

Nearly 33% of the migrants migrated within the Taluka above 14% each at Nashik Road and Bombay and rest of the migrants travelled to different places outside the Taluka. Persons migrated were employed as unskilled laborers. They were living at substance level at migrated places and could not assist their family members at home. None of them could support their family members left behind in the villages. Migrations of Wanjara, Mali and Rajputs castes reported. Report indicated that there was no migration from Bhil caste. Most of the migrants around 70% left their land barren. 13.64% migrants left their unmovable property under supervision of relative. At migration places migrants with entire families and cattle made their lodging arrangement with their own some constructed huts and individual migrants stayed at their relatives.<sup>78</sup>

Out of above mentioned migerants three fourth of them returned within period of six months. Most of the migrants worked as unskilled laborers. Some of them remain unemployed for some period. A survey carried at Pune city for doctoral research

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<sup>76</sup> Kulkarni Opp. Cit. p.203 it will be seen that

<sup>77</sup> Kulkarni Opp.Cit. p.204

<sup>78</sup> Lodging arrangements made by the migrated households at the place or their migration 43.18% had their own huts, 27.27% had rented houses, 2.27% stayed at government camp arrangements, 22.73% stayed with their relatives, 4.55% had no arrangement and had open space.

confirms migrations due to drought and scarcities. In this survey it is also observed that 52% migrations over Pune city recorded due to drought and scarcities. Among these migrations 56%, migrations are within district itself.<sup>79</sup> This implies that migration due to droughts is usual phenomenon and most of the migrations were from home district itself.

### **3.13 Observations pertaining to relief works**

There was no need of scarcity works over irrigated areas of Maharashtra. This is corroborated from evidences of Rahuri taluka and Antroli of Solapur talukas. At Sirur taluka, the scarcity works of the reported villages commenced in August 1972 and lasted till September 73. There was no dearth of works and whoever wishes to join scarcity works sought it with immediate effect. There was continuity of works immediately after finished old works. Over Sangola taluka, the relief work amounted to about 50% of total income in 1972-73. The irrigated village of Solapur district named Antroli was not able to create employment like normal year. However it was marginally affected and compensated by scarcity works started near the village.<sup>80</sup> Over Beed Taluka, at some places relief works were not started before March 1973. At some places the number of relief works was not started on sufficient scale to suffice the employment need of people. In the this taluka the earning on the relief works contributed on an average to about 60% of the total income in 1972-73. The income level was on an average 50% of normal income level and it was a little less than 40% in some villages. Over Sangola taluka, The relief work provided for income that came to about 50% of total income in 1972-73. It reported that work was not available on continuous basis near some villages. The income level in 1972-73 was only about 50%.

During 1971 Kulkarni observes that over Sinnar “Farmers and agricultural laborers were turning towards scarcity works started by Government. attendance of scarcity workers was gradually increasing making obligatory on the part of government to increase the number of scarcity works.”<sup>81</sup> He further observed that “ earning from scarcity wages

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<sup>79</sup> Salve Tanaji a thesis entitled “socio-economic conditions of SC&ST people living in slums of Pune city and its effect on female education” March 2007 pp.133-134

<sup>80</sup> Brahame p.75

<sup>81</sup> Kulkarni S.N. p.8

constituted above 48% of the total income of the sample households in 1972-73 from all sources.<sup>82</sup>

Borkar and Nadkarni observed income status of surveyed villages in following words. "Income earned through scarcity relief works has proved to be major sources of livelihood in both the villages more so in Adul. It is paradoxical that income per household has been more in Adul, the worst hit village, than in Bhadji. This happened because the farmers of better-endowed Bhadji village hopefully relied on agriculture which ultimately let them down, while those in Adul turned to government sponsored relief works much earlier. Cultivators operating less than 25 acres have earned more total income and also more income through scarcity works in Adul than in Bhadji. Agricultural labor who could find employment in private agriculture also got at favorable wages rates because of the wage norms on scarcity works. Wages of such agricultural laborer were more in Bhadji than in Adul. Both small farmers and agriculture labor in Adul felt that their income was higher during drought year than the past. However in Bhadji this was true only in case of agricultural labor. It is painful commentary on the state of agriculture of small and medium cultivators that they should find their occupation less remunerative than working in metal-breaking centers: and it is equally poignant that it needed a scarcity of this magnitude to improve their lot as also that of agricultural labor. This experience also reflects the effectiveness of the relief works organized by government."<sup>83</sup>

"The lowest category –viz, the landless laborers-has been worst victim of the famine. Though some are employed in agricultural work, on yearly, monthly or daily wages, the majority were rendered jobless with the end of the last agricultural year, and not more than a quarter of the formerly employed were absorbed again in agricultural work with the commencement of the new agricultural year-on the third day of the bright half of Vaishakha (April-May). It is this mass of the landless laborers who are knocking at the doors of scarcity works. When this writer enquired among the laborers working of big scarcity project in the taluka, as to how many would return to agricultural work with the onset of rains he was told that only a small fraction would do so and that too only for the duration of the sowing season. The poor peasants having no-bullocks, would stay put

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<sup>82</sup> Ibid p.176

<sup>83</sup> Borkar V.V., Nadkarni M.V., 'The impact of drought on rural life' Popular Prakashsan Mumbai 1975 pp.57-58

while the high-school going boys above 14 years would also have to continue working, forgoing their education.” “Dhulia district, the tenth and the last district to be declared an intensive scarcity area, has more than 1.25 lakh people working on its scarcity works. Even a small scarcity work employs people by the thousands. This is the only time when the rural poor-normally tied to primitive petty and individual means of production and hence the most unorganized and backward section of the Indian people- amenable to militant organization like the industrial workers. If they are organized, they are bound to carry the impact of it with them when they return to their villages after the closure of the scarcity works.” These were the observations on Survey of Sakari Taluka of Dhule district by Sharad Patil.<sup>84</sup>

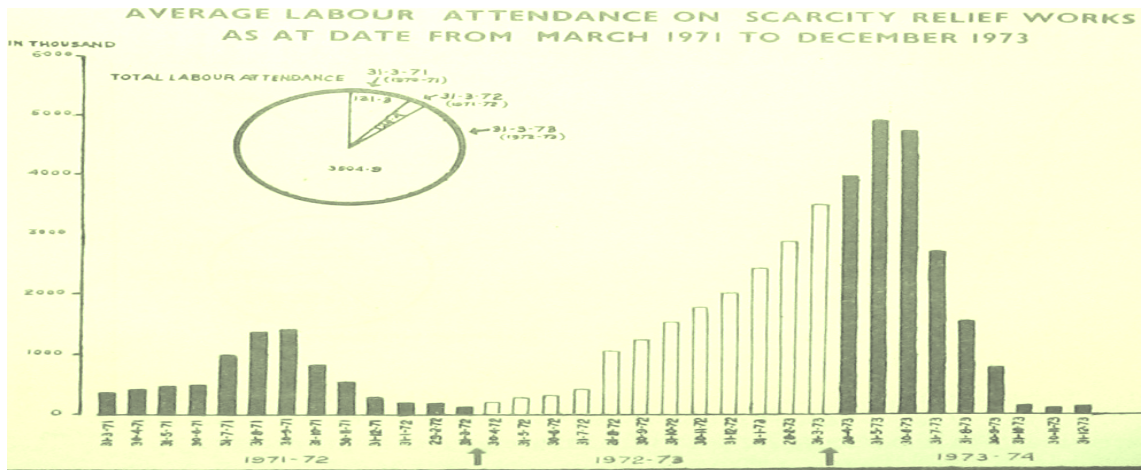
### **3.14 An Analysis of Attendance at Relief Works**

The magnitude of the operation and of the efforts involved can be conceived from the figure 3.5 given below. Out of the total number of 35778 inhabited villages in Maharashtra 23062 villages in 1970-71, 14687 in 1971 and 30878 in 1972-73 affected by drought. The total rural population affected during the three years of drought ranged between 15 million to nearly 30 million, constituting from 43% to 86% of the rural population. During the year 1971-72 an average number of 6.12 lakh of laborers employed on the relief works, and at the peak of distress during the year the labor attendance was 14.60 lakhs. During the year 1972-73 though the labor attendance in the first quarter did not average more than 2.6 lakhs every day the complete failure of the rains and the substantial diminution in the food grain production literally forced lakhs of agriculturist and laborers to find employment in the relief works. The average labor attendance in the remaining three quarters of the year 18.77 lakhs. At the height of drought in February and March 1973 about 35 lakhs of people earned their livelihood in the relief works.

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<sup>84</sup> Patil Sharad, Economic and Political Weekly 28 July 1973 pp.1316-17

Chart.3.8 Average labor attendance on scarcity works from March 71 to December 73



Source:- Subramanian appended in appendix

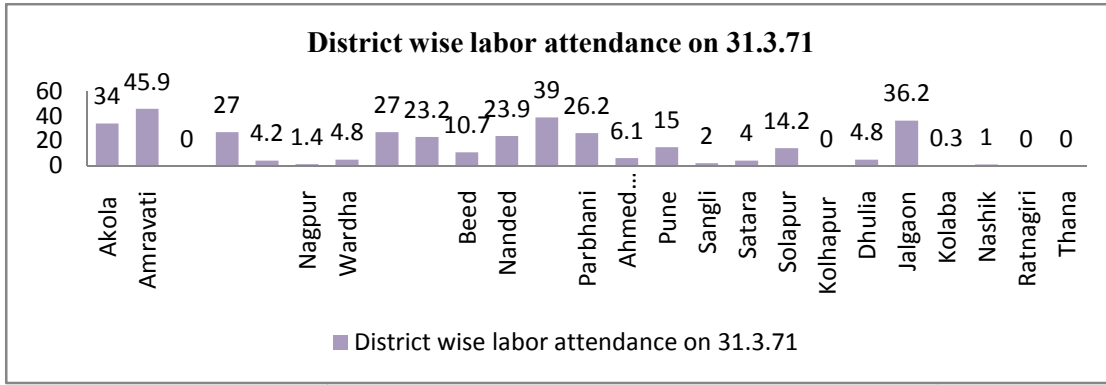
The persistence of the drought for three years in succession the shrinking supply of food grains and the rising costs of living compelled most able bodied men, women and children to seek refuge in the relief works for keeping body and soul together. This resulted into the fact that during the first quarter of the year 1973-74 the average daily labor attendance was 46 lakhs, the peak of attendance being in May 1973 when nearly 50 lakhs of people were daily employed in the relief operations.<sup>85</sup>

Graph shown in figure 3.9 shows scarcity works started in month of March 1971. In this month labor attendance was highest over Amravati followed by Osmanabad and Jalgaon. However, worst hit districts during 1972-73 of western Maharashtra shows moderate attendance. This implies that there was very little effect of drought during 1971 over 10 worst affected districts of Maharashtra except Osmanabad at beginning of scarcity. Bhandara, Chandrapur, Nagpur and Wardha registered very low number of laborers. At this point all of the Konkan districts and Kolhapur registered nearly zero percent of labor attendance. It shows degree of urgency to start relief works. During this year agricultural performance of Vidharabha was not up to the mark and it was seen through labor attendance. Districts of Marthwada showed the sign of forthcoming austerity and the start

<sup>85</sup> Subramanin pp.131-32

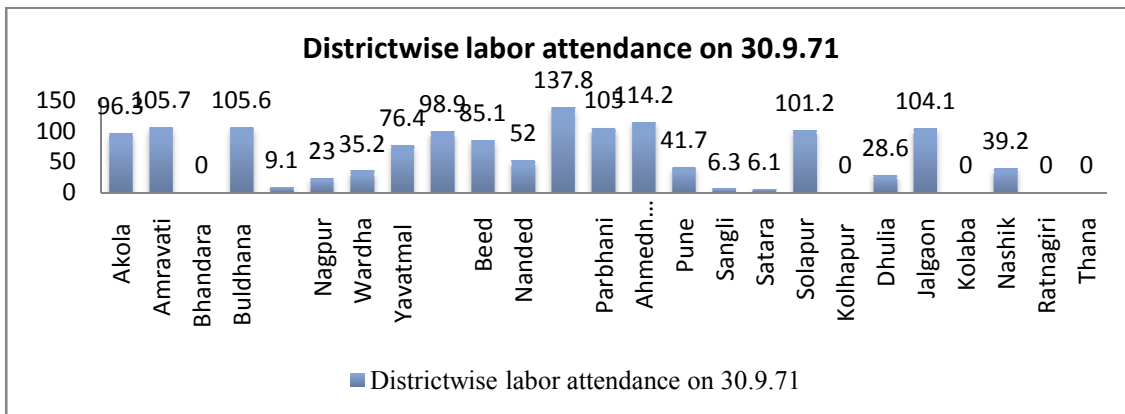
of cumulative effect of drought seen through the graph as labor attendance over this area began to increase.

Chart 3.9 District wise labor attendances on 31.3.71 figure in thousands



September 71 registered highest number of labor attendance during first year of drought. At this point Osmanabad registered highest number of labor attendance followed by Ahmednagar. These two districts latter proved worst hit by scarcity during 1973. It testifies the first ever indication of growing severity over these districts because these two districts were 10 severely hit districts of Maharashtra during 1972-73.

Chart 3.10 District wise labor attendances on 30.9.72

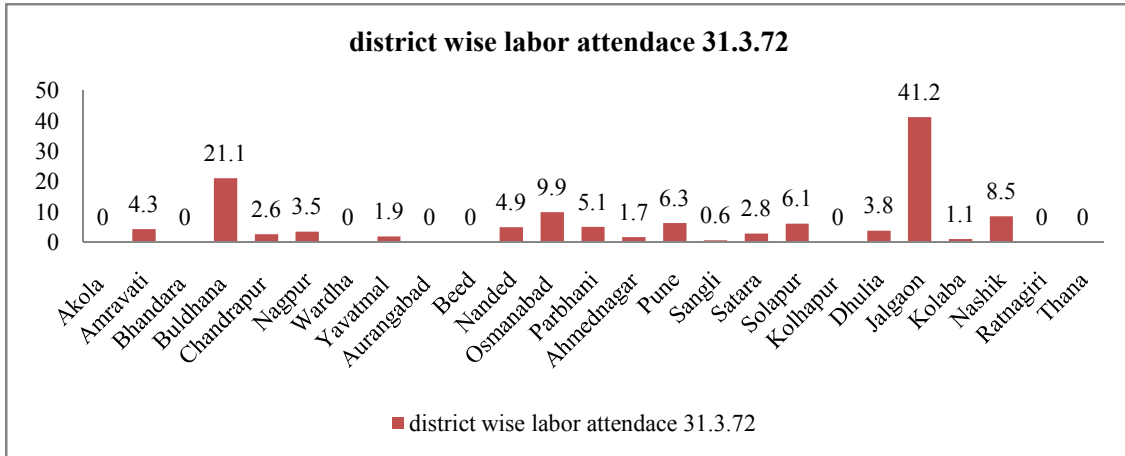


March 72 registered lowest labor attendance of the year immediately after that the labor attendance on scarcity relief works went increasing. Even at this point Jalgaon recorded sizable number of scarcity workers implying that this district had poor agricultural season of 1971-72. Graphs produced on the data of agricultural production during drought period



over state of Maharashtra; testifies that these two districts had poor agricultural season during 1972-73. (See appendix charts Nos. Table No. AT)

Chart 3.11 District wise labor attendance on 31.3.72



Though the daily labor attendance as on first July 1972 had dropped to about 3 lakhs, it rose by leaps and bounds on account of the acute drought. By the end of August the attendance had raised to 10.49 lakhs and by the end of October 15.39 lakhs. The failure of the rabi season swelled the daily labor attendance, which rose to 20.17 lakhs at the end of December 1972, and from then on it was mounting spiral till it reached 35.05 lakhs at the end of March 1973. It further increased to 40.19 lakhs as at the end of April 1973. It reached to its peak 49.47 lakhs at the end of May 1973.

Chart 3.12 District wise labor attendance on 31.3.73

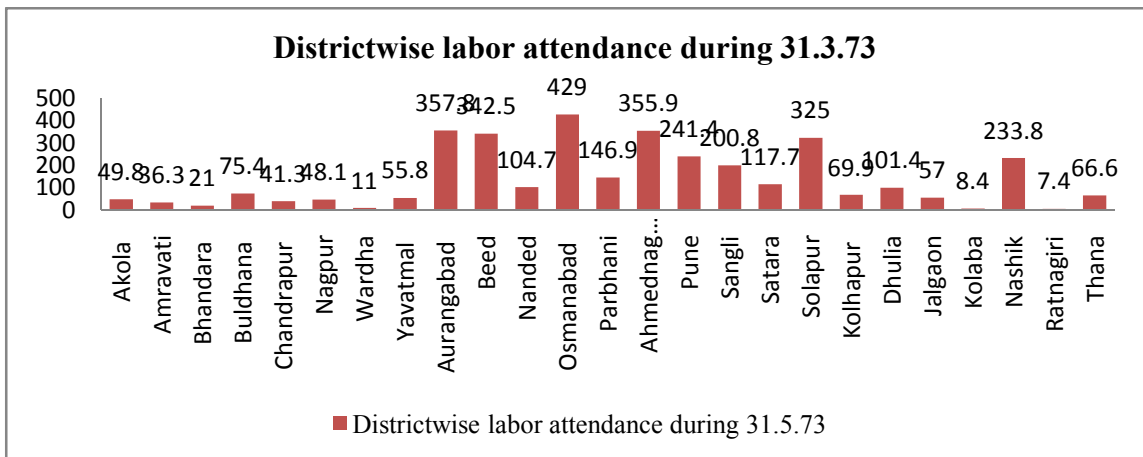
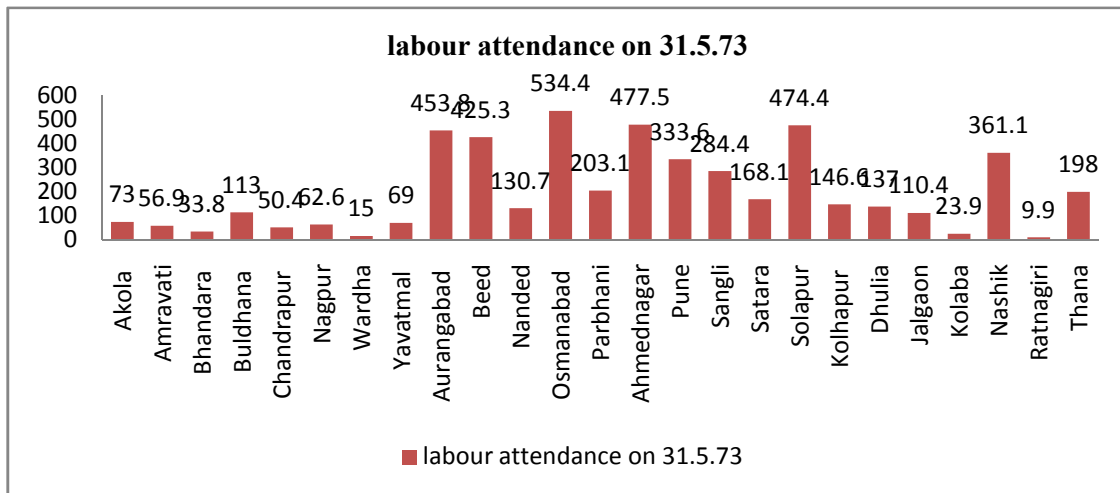


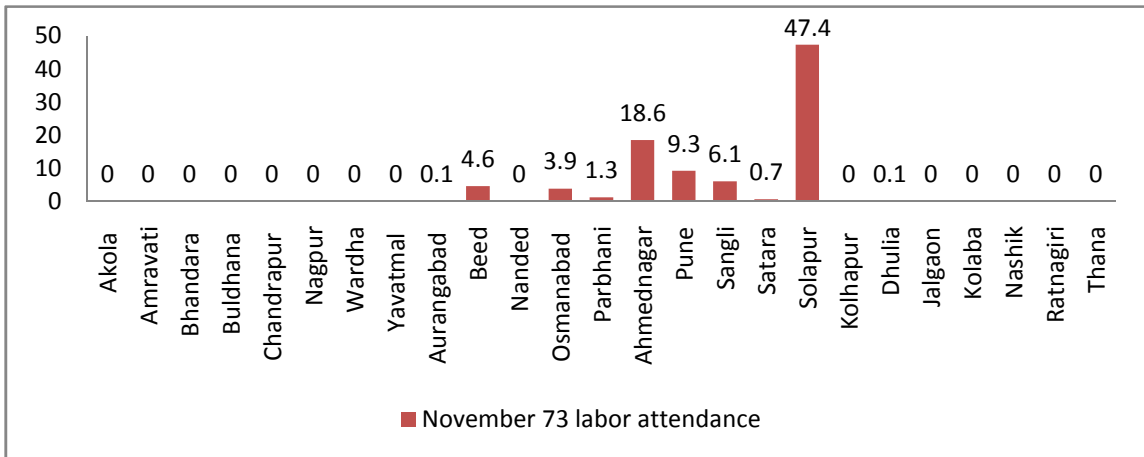
Figure 3.12 depicts the severity where the labor attendance at scarcity relief works was just below the highest figure. At this point the labor attendance was highest over Osmanabad and lowest over Ratnagiri district. The labor attendance on descending order Osmanabad, Aurngabad, Ahmednagar, Beed, Solapur, Nashik, Pune and Sangli can be seen through the charts depicted above. Fig.3.13

Chart 3.13 labor attendances on 31.5.73



In the month of May as per labor attendance norm the severity of scarcity was at its highest peak. Labor attendance over Osmanabad was highest followed by Ahmednagar then Solapur, Subsequently Aurangabad followed by Beed and Nashik in the ranking as per labor attendance norm. Drought and scarcity condition came to normal during November 73. Rainfall and agriculture during 1973-74 was quiet normal even during this period Sholapur recorded highest number of scarcity laborers. Ahmednagar, Pune, Sangli Osmanabad and Beed were subsequent districts where labor attendance in thousands reported. The number of labor attendance and name of districts infers that the worst affected districts during 1972-73 drought slowly recovering from scarcity. However, these districts did not fully recovered from shocks of scarcity.

Chart 3.14 November 73 district-wise labor attendances



The labor attendance over November 73 shows the prevailing effect of drought over Solapur, Ahmednagar, Pune and Sangli still persists.

### 3.15 Sale of asset

The loss of agricultural production resulted in total dependence on cash wages to meet all the daily necessities. The wage incomes obtained at the relief works were generally below the normal income and there was considerable irregularity in the wage payment. This forced people to sell their assets. During drought years, people first used their cash savings. Then they sold or mortgaged their gold. Utensils were sold and finally they mortgaged or sold their land. The agricultural labor families or the small cultivator’s families reported that they hardly had any assets to fall back upon during the drought period. “Out of 100 families from whom the requisite information could be obtained 23 families reported sale of cattle/utensils etc. or borrowings through pawning. For example, gold was mortgaged in three cases and in one case ornaments were mortgaged. An amount of Rs. 250 to R. 300 was obtained by mortgaging gold. Mortgaging of utensils was reported in three cases. In one case an amount of Rs. 2000 was borrowed against land mortgage of one hectare of land.

One case of sale of land was noted where an amount of Rs. 300 was received against a sale of one hectare of land. One family raised Rs. 1000 by sale of gold. The amount or utensils was around Rs. 25 to Rs. 50 per article sold. The average amount obtained worked out to Rs. 50 per article sold. The average amount obtained worked out Rs. 155

per family resorting to distress sale, pawning etc. barring the cases of land transactions. The addition distress sales of animal were also reported. The sale of animal fetched an amount of Rs. 100-150 in the case of bullocks and Rs. 35 to 50 in the case of cow. The 7% of the total bullocks and 10% of cows reported lost during this drought. These were observations reported from the survey report of Shirur taluka of Pune district by Gokhle Institute of Politics and Economics. Report further adds in foregoing passage. "The loss of drought animals varied from about 20% to 35% in different villages."<sup>86</sup> While different observations from Sinnar reported by S.N.Kulkarni in his own words "One of the consequences of chronic scarcity conditions is that affected households are forced to at least a part of their property and maintain themselves out of the sale proceeds during the period of scarcity distress. A few economically sound household can purchase such property assets. But in inquiries with the sample households I did not find any significant transfers of property. In even out of 11 villages there were no sales of property. Only 8 sample household from the remaining 4 villages sold a negligible quantity of gold and agricultural land, which hardly constituted 0.233 per cent of the total value of property held at the time of inquiry. As such, the sales so execute cannot be attributed to chronic scarcity conditions. Some transfers on account of sale are common even during the normal years. It appeared that relief provided through scarcity works has saved the distress sale of property and assets especially during the chronic scarcity year 1972-73. Purchase of property assets were also negligible. Only 7 households purchased 4 oil engines 2 electric motors and constructed one residential house during the three years of scarcity. All the purchase constituted 0.34% of the value of property and assets held by all 436 households at the time of inquiries."<sup>87</sup> Borkar and Nadkarni on their report on survey of Adul and Bhadji commented in foregoing passage. "Among the assets decline was greater in drought animals followed by other livestock in Adul. In Bhadji the decline was greatest in jewel articles. The holdings of agricultural tools and equipment in far

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<sup>86</sup> Brahma Opp. Cit. pp.72-73 Applications for bullock taqavi were made by 5 to 10 % of the families but they had not received the loan amount by June 1973. It was reported that the ploughing operations were carried out by renting in bullocks or the land was sown without ploughing operations were carried out by renting in bullocks or the land was sown without ploughing and in some cases. It was left fallow. There were shortage of seed and also complaints about the quality of seed supplied through the government. The extent of area not sown due to above reasons amounted to 5 to 8 percent of the total sown area in villages like Malthan, Ambala, Ranjangaon Ganpatiand Nimgaon Mahalungi.

<sup>87</sup> Kulkarni Opp. Cit. P.161

improved among medium and larger farmers. Even in Adul, decline in jewellery would appear to be great if the group others inclusive of traders is excluded. Loss suffered in respect of livestock has been significant, especially in Adul, both in absolute terms and in relation to the total assets possessed in 1971. Even agricultural labor has suffered in this village, bearing the heaviest loss in relation to total assets held. Among cultivators, it is difficult to say who has lost more. It is noteworthy that no loss of assets was reported any way of theft or robbery in both the villages in spite of an acute sense of deprivation and desperation among the villagers. The relief works provided by the Government, apart from their innate virtue may one of the reasons that kept them away from anti-social activities.”<sup>88</sup>

Sharad Patil observes through survey carried out by Sakri college of Dhule district “Famine is causing the sale of rural wealth in the forms of livestock, utensils, houses and lands. Agricultural laborers and poor peasants are compelled to sell much of their moveable and immovable wealth.”<sup>89</sup>

“It was observed that a small cultivator of Ahmednagar district possessed on an average assets valued at about Rs.10000 in July 1971 but this value came down to Rs. 9500 in July 1973. The assets mainly consisted of agricultural lands, livestock and durable goods. There was very little in the form of gold or silver which were reportedly possessed by the household. It was further observed that about 62% of the households lost during 1972-73 some of their assets in the form of livestock. The average value of the assets lost during 1972-73 was Rs. 675, most of it in the form of livestock. As regards cultivators owning 7.5 acres and above, their average assets were valued at Rs. 3200 in July 1971 and this came down marginally to about Rs. 3000 in July 1973. It was found that 69% of these households disposed of their assets during 1972-73 in the form of durable goods. The major loss was in the form of agricultural land (Rs.100 approximately) and livestock (Rs. 700 approximately) as regards agricultural laborers was only about Rs.600 in July 1971 which came down to 130 during the year 1972-73. Over Osmanabad district small cultivators suffered Rs. 500 loss and due to major loss of livestock. In the case of other cultivators the loss was Rs.2800. In case of landless laborer the loss was Rs. 600 in the

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<sup>88</sup> Borkar V.V. and Nadkarni M.V. ‘Impact of drought on rural life’ p.57

<sup>89</sup> Patil Sharad

year 1972-73.” These were observations made from the survey of Economics and Statistics department government of Maharashtra.

The per capita assets possessed and lost during 1972-73 are shown in tables attached to the annexure. The table itself is self revealing all the facts regarding assets possessed and lost during 1972-73.

Thus, all the sample surveys depicted that the major asset loss from all over state was in the form of livestock. Small savings of rural masses was accumulated in jewel articles all majority of surveys reported selling of this jewel articles. Sinnar Survey did not agree with substantial loss of assets but other surveys agreed it. All the surveys agreed that there were no thefts and robbery on account of prevailing scarcity. Scarcity relief works thus avoided thefts and robbery and kept law and order situation under control.

### **3.16 Debts**

During famines or chronic scarcity period, the households might resort to excessive borrowing mainly to meet their current consumption needs. Loans taken in the past and dues for repayments during scarcity years are to be renewed because of the inability of the affected repay. This increased total debts of the borrowing households. The distress during the affected years can therefore be judged by comparing the levels and purposes of borrowing during affected years with that of the previous years. The relevant information about borrowing is given. Over the period of three years from 1970-71, 1971-72 and 1972-73 percentage of borrowing households to the total 20.41% to 2.79% and 27.98% respectively. Kulkarni observed that percentage increase in the amount of loan over previous year 1971 to 10.74% and 15.35% during 1972-73. These were observations over Sinnar Taluka of Nashik district.<sup>90</sup>

One important feature of borrowing over the period was that repayment of loans declined and the proportion of recoverable debts to total loans at the end of agricultural years rose to roughly 97% in 1972-73. This was mainly due to inability of borrowing households to meet the liability on account of scarcity conditions. Thus, throughout the years of

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<sup>90</sup> Kulkarni S.N. P.162

scarcity, absolute amount of fresh loans increased, but recovery of debts was rather poor. This resulted in an abnormal increased burden of loans upon households at the end of scarcity period. Percentage, increase of debts over 1971-72 to 1972-73 was from 15.52% to 75.92%.<sup>91</sup>

### **3.17 Loss of Livestock**

In the study carried out in Ahmednagar and Osmanabad districts it was noted that the loss of livestock due to death was 37% and 52% respectively the percentage loss was 14 in the case of bullocks and nearly 24 in the case of cows and buffaloes in Ahmednagar district. While in Osmanabad district, the reported loss was considerably more, the corresponding percentage being 20 and 41 respectively. The average value of livestock lost per house hold reporting loss of livestock was estimated to be Rs. 430.<sup>92</sup>

The loss due to death or sale amounted to about 32% of the total cattle population in the sample families over Sirur taluka of Pune district.<sup>93</sup> “The loss sustained by the bigger cultivators (land-holding above 10 hectares) was significantly less viz about 6% it was noted that they transferred their cattle to safe areas. The survey in Sirur taluka was conducted in the early parts of the 1973, and reflects the loss during the first half of the drought period. The loss might have gone up particularly during the summer of 1973.

The average worked out for the talukas on the basis of village level data for livestock loss, indicated that the extent of loss was quite high in Parenda taluaks where nearly 35% of livestock population reportedly suffered loss and about 75% of this was due to death. The extent of loss was around 30% in Sangola taluka and Vaijapur taluka, in this the loss due to deaths respectively 55% and 45%. In Rahuri taluka the percentage of livestock population lost worked to about 17%, in this the major loss was through the sale of cattle

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<sup>91</sup> Kulkarni S.N.pp167-169

<sup>92</sup> (Subramanian p. 614-15) In the face of acute scarcity of water and fodder resources, it was difficult to maintain the livestock, particularly having population in the drought affected villages. Some cattle was sent to the cattle camps, but such number was negligible. The total number of cattle camps sanctioned by the government was 376 with the intake capacity of 466910 cattle. Out of these, only 156 camps were opened up and the maximum number of cattle admitted was 40809. “On the whole the experiments of cattle camps cannot be said to have been a success.” (Subramanian p.233) In addition to the cattle camps, organized by the forest department and public institutions, arrangements to accommodate some 25000 cattle were also made in neighboring districts of Vidharabha viz. Buldhana, Akola and Amravati. It was reported that 23 camps in Buldhana admitted 14712 cattle heads.

<sup>93</sup> The information about the cattle loss was collected from the families vocered in the study of the selected villages from Sirur talua, Poona district.

and only about 4% of livestock was lost due to death.”<sup>94</sup> Brahame observed that similar kind of situation exists elsewhere in state though the surveys are not carried over this area. According to 1972 Livestock census there were 62.06 lakh bullocks, 45.87 lakh cows in the Maharashtra state. The total bovine population was 180 lakh and the total livestock population was 263.6 lakh. Loss of livestock population was experienced in 14 districts of the state viz Nashik, Dhulia, Jalgaon, six districts of western Maharashtra and five districts of Marathwada which had together 62% of total livestock population lost worked to 21.8 lakh which comes to 13 per cent of livestock population of these districts. The incidence of loss was the highest for cows viz. 25%. It worked to 20% in the case of buffaloes and 18% for bullocks. It came to about 8% for young stock and other livestock like sheep, goat.

The estimated number of bullock lost was about 6.33 lakh and the corresponding number was 6.26 lakh in the case of cows and 2.45 lakh in the case of buffaloes. It was estimated that about 6.1 lakh of cattle were lost due to death and 8.2 lakh of cattle were sold. For the bovine population a whole the estimated loss through death worked to 7.2 lakh and 10.2 lakh through sale. The total loss inflicted on the cultivators on account of the loss of livestock was estimated to be of the magnitude of about Rs. 61 croers. <sup>95</sup>

Percentage reduction in livestock reported in Sinnar survey as follows. Bullocks 22.47%, cows 25.42%, He buffaloes 40% She buffaloes 10.17%, Young stocks 20.92% Total cattle reduction 22.62% other lesser like stock s Goats 18.03%; Sheep 22.58% and poultry 15.23%; total others 17.28%. <sup>96</sup>

Thus all surveys indicated substantial loss of livestock due to drought. However, it seems that there is ample scope to believe that the loss estimated may be of higher side that reported by Brahme. It is observed that immediately after drought of 1972-73 the agricultural season shows increase in cultivation area and agricultural production too.

### **3.18 Level of living**

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<sup>94</sup> The extensive canal irrigation facility in the taluks the supply of fodder from the sugarcane farms and the opening of the cattle camps through the initiative of the co-operative sugar factories helped keep down the extent of loss of cattle in a taluaka like Rahuri.

<sup>95</sup> Brahme pp.77-79

<sup>96</sup> Kulkarni p.156



There was continuous rise in the retail prices from June 1972. It is evident from the price index which was 100 in June 72 and it rose to 200 in May 73.

The level of living noted to be on an average below the normal level of living by about 40% for those who depended primarily on the scarcity relief works for their livelihood. The level of consumption expenditure of agricultural laborers and small cultivators was almost on par in the 1972-73. In the case of medium cultivators severely affected by drought, the level of living was reduced somewhat below that of agricultural laborers in normal year.

The proportion of population with cereal consumption below 12 kg., per month per person increased from 38% in the normal period to nearly 60% during the drought period for the drought affected districts. The drought situation thus pushed 50% additional population below subsistence level of cereal consumption. The corresponding proportion was even larger, in villages where the crop failure was total and the supply of cereals through the fair price shops was extremely meager.<sup>97</sup>

This was the observation of Sulbha Brahame on the cereal consumption pattern during drought. However, all other food centric analysis showed that there was reduction in cereal consumption of food grains during drought year. Dreze observed that the reduction in cereal consumption may not be far less.

### **3.19 The food centric analysis**

During the decade of 1961-71, the agricultural growth in Maharashtra was 0.07% per annum, while the population grew at the rate of 2.7%. Consequently, the condition of the agricultural laborers deteriorated. Rural areas experienced an acute shortage of food grains, drinking water and fodder, a situation that exacerbated by hoarding and the subsequent increase in food prices. Maharashtra is cereal deficit state in the best of years and relies on inter-state trade with rest of India.<sup>98</sup> It would easy to assume that Maharashtra's problem through straightforward failure in production by bad weather conditions. Dreze owed this situation to environmental degradation and stagnancy of

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<sup>97</sup> Brahame pp.83-84

<sup>98</sup> Oughten and testified by observation of Brahame if all the crops are taken together, some decline, both in the productivity and in the total production is noted for the state as a whole during the sixties. The annual compound growth rate for the period 1961-1970 (omitting drought year 1965-66) came-0.5 for area under crops, it was -0.07 for agricultural production and -0.12 in the case of productivity (Khare 1979, p.269). In the early seventies there was a marked decline in the production for three successive years viz. 1970-71, 1971-72, 1972-73 when drought conditions occurred in different parts of pp.25-2 the state.

cropping and stagnant use of high breeding varieties of seeds.<sup>99</sup> What then was happening to cereal production in the rest of country? Cereal production at the all India level had risen rapidly from 1966-67 to record harvests in 1971-72. Though the production dropped in 1972-73 due to widespread drought throughout the country, it was only marginally lower than in the 1969-70 seasons that had been a record crop year. Further evidence indicated by international trade figures. Imports of grain fell steadily from 1966 to in 1972, India become a net exporter of grain.

Subramanian calculated states cereal requirement as per nutritional norms for 1973 population of state 100.56 lakh tones<sup>100</sup> Subramanian claimed that 12 kg cereal consumption is modest estimate for per person per month by applying reasonable methods. He estimated 78 lakh tones was the cereal requirement of state for a year. He further calculated food grain availability and deficit in each of drought year. According to his calculations the deficit were 30.55, 34.84 and 51.43 lakhs tones for the years 1970-71, 1971-72 and 1972-73 respectively.<sup>101</sup> The open market supplies of cereals were quite uncertain and costly. As a result the situation took a grave turn in certain areas. In April 1973, satyagraha, demonstrations, marches demanding regular and adequate supply of cereals and Sinnar (Nasik district the firing opened up to disperse the angry agitators resulted in some deaths.). Subsequently the allotment to the state was raised from 1.75 lakh tonnes in April 1973 to 2.70 lakh tonnes in May 1973. For the next three months viz. June July August the allotment sanctioned stood at 2.5 lakh tones. During the period September 1972 to August 1973 a total of 23.56 lakh tonnes i.e. double the normal supplies were made available by central government to the Maharashtra State. Adding the quantity available for consumption from local production of about 27 lakh tonnes, the total supplies work out to 48 lakh tonnes. The average consumption level arrived at on the basis of field data was between 10.5 kg. to 11.0 kg per person per month. The balance of about 20 lakh tonnes of cereals must have been met on private account through imports of food grains from other states.<sup>102</sup>

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<sup>99</sup> Dreze p.40 ...."these regions have also experienced huge ecological problems (such as deforestation, soil erosion and falling water tables), and in this respect it is not at all clear that they have fared better than African countries."

<sup>100</sup> Subramanian p.244

<sup>101</sup> Subramanian p.245

<sup>102</sup> Brahmae pp.80-81

Draze has considered all prior calculations and put his remarks in this word “Numerous formal and informal reports testify to the fact that all over Maharashtra the actual per capita allocation of grain in fair price shops fell pitifully short of the initial official allocation of 12 kgs per month. The quantum of actual allocation naturally varied from place to place, but the reported figures vary from hardly 2 kgs per month ( Kulkarni 1974: Anon 1972) and 5 to 10 per cent of needs (Patil 1975) to 4 kgs per month (Brahame 1983). Subramanian (1975), who is not inclined to admitting government failure, concedes that “the public distribution system was able to supply hardly 3 to 4 kg. per month per adult (Subramanian ) and indeed, according to official statistics themselves per capita issues of food grains through the public distribution system were only 2.7 kgs per month in 1972 and 3.8 kgs in 1973. This could certainly not have appeased the hunger of the people.”<sup>103</sup> According to official statistics then, net food grain availability per capita in Maharashtra for the year 1972-73 was somewhat between 90 and 100 kgs and roughly 60% the average 1968-70 level. And NSS consumption survey show the consumption per capita per month is 12.6 Kgs for rural population and 8.9 kgs for urban population and per year per capita consumption was 153 kgs for rural area and 109 kgs for urban area this show the gap and discrepancy of 40 to 50 kgs. But according to Draze by considering all micro studies and surveys the reduction in consumption of cereal must be far smaller. Dreze further comments that “Attributing the whole of the discrepancy between the “ Net availability and the consumption estimates to illegal private trade amounts to putting around 2.5 million tones of food grains on that account over the same period, and suggest a picture of hundred of trucks crossing the state borders everyday “ illegally.” Thus while the most reasonable hypothesis seems to be to assign the bulk of the discrepancy to private trade, the other sources of inaccuracy discussed above may have played a non negligible role as well.

Jean Dreze proposed his thesis with putting evidences from all contemporary surveys that food grain supplied from state government through public distributions system felt

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<sup>103</sup> Draze p.76 Cff. Brahame observed that The quantum received was reported to be 3 kg. in 6 villages and as low as 2 kg. per month per adult in 16 villages, 11 of which were from Vaijapur and Parenda taluka., Pvt efforts also brought grains from outside state to Maharashtra p.81

short.<sup>104</sup> At this point Purchasing power generated by huge public works program was rapidly pushing up prices all over the state, and big price differential between Maharashtra and the neighboring states promised huge profits to illegal private trade. Interestingly enough private trade was also actively (though unofficially) encouraged by Government authorities.<sup>105</sup> Evidences suggest the import from other countries was absolutely at its lowest ebb. Even evidences suggest the food grain production of world during 1972 was lowest.<sup>106</sup> Government of India could not suffice the demand of Maharashtra government as there were other states also facing acute food shortage food production of India during 1970 was also lowest.<sup>107</sup> Government of India also nourishing refugees of Bangladesh at this time and could not import grains from friendly countries like Russia. Russia also faced acute food shortage problem during 1972-73. Russia also secretary purchased huge stocks of wheat from United States of America.<sup>108</sup> When India demanded grains from both these countries India could not secured the same. However, this year proved internationally deficit year of grain production. It was very difficult to make available grains instantly. Indian government at such instances had no alternative but to accept the proposal of Milio from American government. American government provided all information of about its contamination with Dhatura seeds and its harvesting method. Dhatura contamination further created chaos and controversies in Maharashtra

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<sup>104</sup> Dreaze Jean pp.75-76 Numerous formal and informal reports testify to the fact that all over Maharashtra the actual per capita allocation of grain in fair price shops fell pitifully short of the initial official allocation of 12 kgs per month. The quantum of actual allocation naturally varied from place to place, but the reported figures vary from hardly 2 kgs per month ( Kulkarni 1974: Anon 1972) and 5 to 10 per cent of needs (Patil 1975) to 4 kgs per month (Brahame 1983). Subramanian (1975), who is not inclined to admitting government failure, concedes that "the public distribution system was able to supply hardly 3 to 4 kg. per month per adult (Subramanian ) And indeed, according to official statistics themselves per capita issues of food grains through the public distribution system were only 2.7 kgs per month in 1972 and 3.8 kgs in 1973. This could certainly not have appeased the hunger of the people. (pp.75-76)

<sup>105</sup> Dreze Jean During interviews with former District Collectors of the worst affected districts, I have repeatedly heard the same story. : Smuggling of grain across state borders was tacitly approved by Government officials in Bombay and openly promoted at the district level. The state government also made representations to the central government in favor of the removal of zoning (p.76) This policy was not just the result of common sense and concern for the people in many cases its motivation arose directly from a strong anxiety about possible law and order problem ensuing from food shortage and price increases. Illegal private trade was therefore brisk throughout the drought period in spite of the official ban. The micro survey above cited above all confirms that the bulk of food purchase drew on the open market or black market rather than on the public distribution system. (p.76)

<sup>106</sup> World indices of agricultural and food production united state department of agriculture economic research service statistical bulletin number 669 July 1981 table no. 3 page 12. World food grain production indices were 103,102,108 and 108 for the years 1971,1972,1973 and 1974 respectively.

<sup>107</sup> Ibid table84 p.98 India's food grain production indices were 100,103,98,107 for the period avg. of 1969-71, and years of 1971,1972 , 1973 respectively

<sup>108</sup> Singh Mohinder Problems of hunger and malnutrition in developing countries Department of agricultural Economics the University of British Columbia Vancouver B.C.CanadaV 67 TWS 1975

legislature and outside it too. Food grain crisis has other dimensions as follows. India up to 1967 was dependent on the food aid of United States under program PL-480 on quiet large scale. 1967 onwards green revolution was under progress in India. Nineteen sixty nine to nineteen seventy India resolved to phase out food aid program of United States under PL-480 rather stopped it. United States also reduced its food aid program by 60%.<sup>109</sup> Up to 1970 on the eve of green revolution India was self sufficient in food grain production. However, the green revolution was limited to Punjab and Haryana at great extent. Other states and specially Maharashtra lag far behind in modern techniques of grain production also far behind in irrigation and adoption of high yielding varieties of seeds. 1971 to 1972 rainfall performance over Maharashtra was erratic. All these factors along with restrictions on food movement by zonal bans and monopoly procurement attributed to food crisis of Maharashtra. Efforts of union and state government could not fetch more improvement on the food supply front. Evidences suggest that bottlenecks in transportation due to strike of transporters and dock labors added pressure. At such instance, the food grain production over Punjab and Haryana was not affected. Even during such a colossal drought all over India, the food grain situation all over India marginally affected. It was just below 1968 level. It was due to green revolution in Punjab and Haryana. The available food grains on all India level if distributed judiciously and evenly, were able to overcome crisis. This principal actually saved Maharashtra from this crisis. Market forces, hoarding and withholding stocks these tendencies prevent equal distribution of grains and grain movements. However, as suggested by Dreze the purchasing power created in Maharashtra through relief works rose prices of grain over Maharashtra and this pulled grains to Maharashtra relieved Maharashtra from posing danger.

Elizabeth Oughten studied the 1970-73 drought of Maharashtra with respect to failure of entitlement, public distribution system demand and supply side attributes. To her mind and as matter of fact there was no issue of failure of grain supply. Last year i.e. during 1972-73 and 1973-74 people faced acute shortage of food grains and during October 72

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<sup>109</sup> Stevens Charles confronting world food crisis Occasional paper 27 ISSN 0145-8841, 1981. With the advent of world food crisis in the early 1970s the United states reduced its aid to range of 4-7 percent of its food exports, constituting approximately 60 percent of international food assistance support of multilateral food aid programs, as represented by the United states contribution to the world food program also declined during 1970s.p.11

to September 73 state experienced shortage of food as evidenced by records from legislative proceedings and news paper reporting. According Oughten there was failure and mismanagement on the part of public distribution system that it failed to supply grains to needy people to serve its basic objective.

“At this level it was a failure in the management and administration of the food system. Within the state government was unable to procure grain stocks were run down and by the final drought year the supply coming through the public distribution system in the rural areas was reduced to a trickle in relation to the need. The food grains policy failed to fulfill its aim of supplying grain at reasonable prices to population.”<sup>110</sup>

According to Elizabeth Oughten, farmers growing cash crops benefitted from cash crops and could gain food grain through exchange of trade entitlement. Farmers growing Jowar and other traditional food grains lost their food entitlement.<sup>111</sup> The stark evidence of this distress is seen in the mortality figures covering the period. The mortality rate across all age groups in rural Maharashtra rose from 13.0 per thousand in 1970 to 15.6 per thousand in 1973. Increases in mortality were particularly great in the most vulnerable groups, the youngest children and the old.<sup>112</sup> Similarly, consumption data collected over this period point to low intake. It is most likely that the increase in deaths was a direct result of starvation. It is argued that a famine may occur even without a shortfall in production.

The exact food centric assessment of Maharashtra drought 1970-73 can be summarized in best Manner in the words of Dreze as follows “The crisis was of extreme severity, famine was un- controversially averted. Sudden emergence of a frightening gap between food production and food requirements failed to develop into famine. This gap was, in the first

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<sup>110</sup> Oughten p.193

<sup>111</sup> Oughten p. 194

<sup>112</sup> There is no doubt that there was considerable mortality during the Maharashtra drought at least 70 thousand excess deaths. Both VR (Vital register) SRS (Special register) reveal a similar picture of demographic response at the state level. There was a pronounced reduction in birth in 1973 and probably in 1972. And death also increased in 1973 and probably in 1972. The cause composition of this mortality appears to have a broad similarity with what was generally observed during earlier Indian famines increased importance of cholera, dysentery diarrhea and fevers. The season pattern of mortality too appears to be in similar to that of the previous famines reflecting normal seasonal and environmental factors (e.g.post monsoon unavoidable conditions in shaping peak of mortality during the crisis. Similarly greater vulnerability of infants young children and elderly again has been established. Just as in historical famines with moderate excess deaths. Fact malnutrition among children is often seen as one to ht signs of the onset of subsistence crisis. Better targeting of relief in Maharashtra. pp.262-63 Maharatna

instance, considerably narrowed by the combined operation of the public distribution system and private trade movements the latter stimulated by the generation of purchasing power in the affected areas. Equally the remaining shortfall was very evenly shared between different socio-economic groups under the influence of progressive income support measures.”<sup>113</sup> He further pinpointed some attributes of the drought as follows. “Food consumption in Maharashtra during the drought was substantially lower than in normal years, but that starvation averted because the food deficit rather well distributed among different socio-economic groups. There are also some evidences to the effect that nutritional damage during the Maharashtra crisis was not very great.”

October 72 onwards the food grain situation over state became acute. Dreze, Oughten, Subramanin depicted real picture of grain situation over state. Pulling of grains from other states into Maharashtra proved real panacea on the food shortage of state. Officially all other states were not willing to get its grain supply to fade away from it, anticipating further danger in such a crisis situation. Grains stocks over India in visible and invisible forms were able to feed whole nation. As researchers thought that there was no conclusive evidence to suggest that there were starvation deaths over state. Grain hoarding, withholding grains by traders and other elements in anticipation of future profits all these factors pose hindrances in equal distribution of grains to needy people. During food grain crisis Maharashtra Dreze postulated that the distribution of grains and its deficit among all sections of society was reasonably even. This postulation seems correct.

### **3.20 Nutrition, Health and Nourishment**

The prevalence of nutritional deficiency signs in the sample of population examined are given in table No.AT-56 appended in Appendix-A. (see also table No. AT-55 to AT-57 Appendix-A ) The results showed that about 30% of children below the age of five years had one or more signs of nutritional deficiency. Protein-Calorie mal-nutrition (PCM) was widespread, with prevalence rate of four percent of severe forms like kwashiorkor and marasmus. On the basis of weight deficit for age, nearly 60% of children had moderate to severe degree of malnutrition (Grade 2 and Grade 3 mostly). Adults were relatively free

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<sup>113</sup> Drazee Jean, “Famine Prevention in India” World Institute for Development Economics Research (WIDER Helsinki) DEP No.3 The Development Economics Research Programme London 1988 pp. 67-68

from the more serious forms of malnutrition and no case of nutritional odema was encountered.

Signs of vitamin A deficiency were found in a large number of children and adults. While bitot's spot were present in about five percent of the subjects (below 15 years), a high proportion had cunmuctival xerosis. Sign of vitamin B-complex deficiency like angular stomatitis and glossitis were present in about 25% of subject. Anemia as judged by clinical pallor and the associated presence of koilonychias was widely prevalent. The incidence of the various deficiency signs is somewhat similar to that frequently seen among the poorest sections of rural population in many other parts of the country.<sup>114</sup>

This implies that the early sub-state of malnutrition is observed in some sections of population.

### **Dietary situation**

The results of the dietary survey are appended in table. The diet consisted mostly of cereals and millets like sorghum (Jowar), wheat and maize. Jowar is the predominant staple in the dietaries of the area in normal times. But at the time of survey maize and wheat comprised roughly three fourths of the total cereal consumption. This change in the pattern of food consumption was due to the fact that supplies of wheat and maize were made available at controlled prices. The consumption of protective foods like vegetables, fresh foods, milk as well as milk products was negligible. The intake of calories and proteins per consumption unit was 1600 Kcal and 55 g respectively. More than 80% of the households had calorie intakes below the recommended allowance. The mean Calorie and protein intake of preschool children were around 700 Kcal and 25 grams respectively as against the recommended allowances of 1000 to 1200 K cal and 20 grams of protein. It is thus clear that both in adults and children calorie intake was grossly inadequate while the intake of protein appeared adequate.<sup>115</sup>

### **3.21 Sukhadi**

Sukhadi is indispensable part of the 1972 drought of Maharashtra, as 1972 drought known for Sukhadi. Sukhadi implies dry and imperishable food in Marathi. An American

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<sup>114</sup> Food and nutritional situation the drought affected areas of Maharashtra a survey and recommendations 'The Indian journal of nutrition and dietrics (1974),11, 20 pp.20-27

<sup>115</sup> Ibid Loc.Cit



nongovernmental organization named cooperative for American relief everywhere provided initially all food grains and other cooking ingredients for Sukhadi. Shri Sadguru Seva Sangha the trust of Maftlal group bore expenses amounting total one third cost of preparation. It also took responsibility to prepare and distribute the Sukhadi. In mean time, the American NGO stopped to supply food material to state government in wake of Bangladesh war, as this NGO diverted food material for refugees of Bangladesh war. This nutritional supplement was provided to scarcity relief workers during February 71 to June 71. Maharashtra government with its own initiative started the scheme again on January 1973. This work again entrusted to Maftlal group trust's the Sadguru Seva Sangh. The expenditures on supervisory work and manufacturing the Sukhadi were borne by trust. The cost of 200 gms Sukhadi was 50 paise so objections were raised instead of Sukhadi hike in the wages of laborers would have been more benefited. It was neither useful as per nutritional norms nor as per cost was the objections by critique of the scheme. However, there were also people support to this scheme. It proved beneficial too and this drought is known for this supplementary diet.

### **3.22 Impact of drought on contemporary state politics**

Many studies on 1970-73 drought of Maharashtra are available. Through these studies many ramifications are revealed. One of such studies was carried by Department of sociology University of Pune.<sup>116</sup> These studies revealed the political impact of the 1970-73 drought of Maharashtra. At this time, it seems that Ms. Indira Gandhi tried to curb the ambitions of regional leaders and tried to establish regional leadership that owed allegiance and loyalty to her. It created two groups within congress. Issue of starvation was debated vigorously in the legislature that one faction of the congress supported the popular movements that arose in the wake of drought. It also helped in polarizing congress party. Thus, not only the Ms. Indira Gandhi's ploy but also the drought helped in polarization of congress party.<sup>117</sup>

In the wake of severity of drought Duskhal Nivaran Samati (famine alleviation committee) a non political forum for pursuing government to launch comprehensive

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<sup>116</sup> Special research project on employment guarantee scheme pursued by department of sociology university of Pune under guidance of Prof. Sujata Patel.

<sup>117</sup> Jadhav Vishal Economic and political weekly December 16, 2006 p.5158

scarcity relief program over state launched under leadership of V.M.Dandekar. This committee provided a stage on one hand for likeminded individuals, non-governmental organizations and even to political parties to come together and form new organization such as Maharashtra Rajya Shetmajoor Parishad. Additionally this committee provided a platform for discussion and debate on the political and economic conditions affecting the state and thus brought together politically active organizations such as Yukarand and independent leftist Lal Nishan Party<sup>118</sup> to evolve a common agenda to fight drought. It also worked on development of alternative programs for agriculture in Maharashtra. This committee saw itself as support group for other organizations who were members of this committee and who mobilized the rural poor and demanded initiation of employment generation programs, known as the Page schemes in rural areas. Finally, under pressure from various quarters the government introduced a drought relief program called the Employment Guarantee Scheme on the lines of Page scheme in 1972.

In addition, these organizations raised issues of nature of work amenities provided to workers, where a high number of women were working. While raising issues regarding rights of workers employed on drought relief works, these organizations raised demands that had implications for rights of women workers. It became important in the growth of feminist consciousness later.

These organizations wanted the government to ensure the equality of wages between women and men, provision of social security, pension, dearness allowance, crèches, and access to potable water, shelter, maternity relief, and issuance of identity cards. Contract method was used to run the scarcity relief program at initial stage. Many organizations with socialist leaning demanded abolition of contract system, provide permanent employment to muster clerks as well as other temporary employed people. They also demanded the introduction of wages in kind through food coupons.

Shetmazoor Parishad organized rallies for waving of loans at Solapur and Osmanabad. Its other demands were to start scarcity works immediately in sufficient in numbers and

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<sup>118</sup> Shetmazdoor Parishad was the offshoot of the Lal Nishan Party founded by Datta Deshmukh in Ahemednagar district. There are Sharmik Sanghatana at Dhule, Kashtakari Sanghtana at Talasari Sharamjivi Sanghtana at Dahisar and one coordination committee were mobilizing masses for comprehensive drought relief programme over state. studied and provided this information by Joseph Shaji in Marathi magazine Samaj Prabhodhan Patrika April-June 2006 pp.143-149 & EPW 16 Dec. 2006 pp.5149-5154

prevention of black-marketing, inflation and exploitation of people. Yukrand the youth forum was more aware of the caste ramifications. Their programs of drought relief were more anti-caste noted in the study carried by Shaji Joseph by quoting Gail Omvedt. Yukarand under leadership of Shantram Pandare and Pravin Saptarashi worked over Vaijapur Taluka for drought affected lower caste people.

Shetmazdoor Parishad in Ahemednagar district from the very beginning addressed the issue of equal wages and organized women for various demand such as opening of sufficient works, prompt wage payment , hike in the wages crèches, medical facility etc. Women participated in large numbers over drought issues corroborated through Shramik Sanghtan the journal of Lal Nishan Party.<sup>119</sup>

It is evident and corroborated in chapter 5 of this study that left parties' organizations with socialist leaning were very aggressive in the legislature as well as outside legislation. (See table) It also took violent turn at many places in 1971 at Vairag 1973 at Sinnar, Malegaon, Nagpur and Tumsar during 1973. People during 1970-73 never seem frustrated they were politically active. Left and socialist parties like communists, Lal Nishan Party and Peasants and workers party members such organization were actively participated in organizing rallies and protest marches. These organization demanded works and timely wages. Rightist party the Jansangh was not lagging behind actively mobilized masses on scarcity issues over Vidharbha region. People became aware of their rights and people from all political parties participated in scarcity advisory committees. People also participated enthusiastically in vigilance committees. People complained about hoarders and illegal practices of fair price shop keepers. People never lost battle against drought and scarcity they actively worked on scarcity works and earned their livelihood. They were never demoralized. Politicians and people always refer 1970-73 drought of Maharashtra on backdrop of recent farmers' suicide over rural Maharashtra.

### **3.23 Macro level economic impact of 1970-73 drought of Maharashtra**

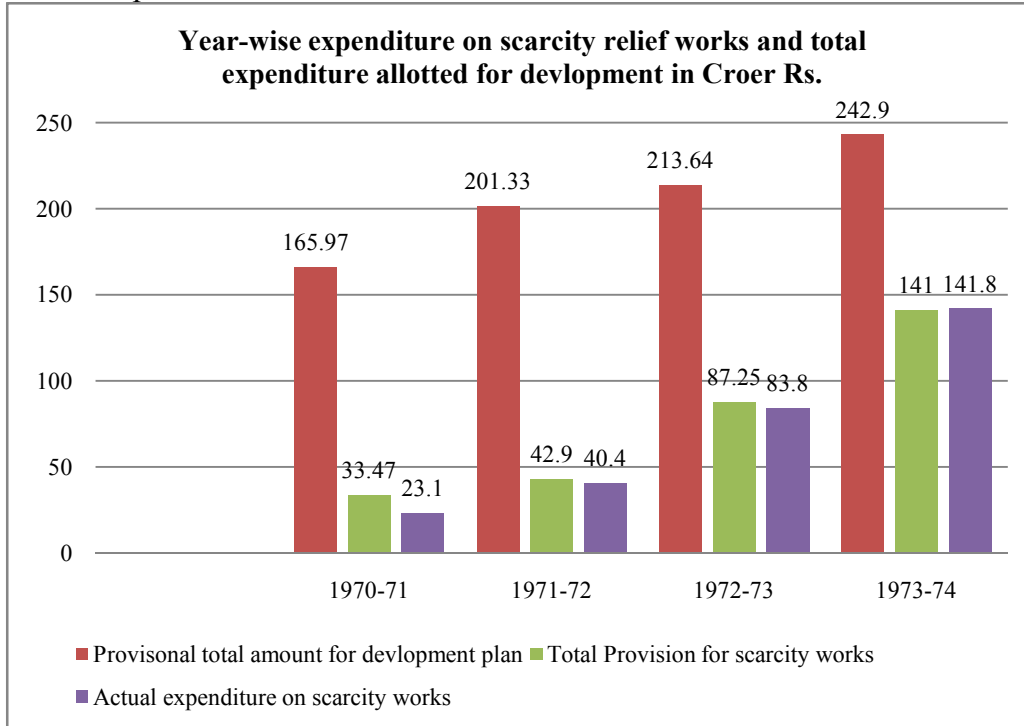
Nature and impact these two terms appear synonymous to each other while studying the 1970-73 drought. It is very difficult to demarcate boundaries between these two terms.

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<sup>119</sup> Chari Anurekha EPW 16 December 2006 pp.5142-45

Provision on relief works and actual expenditure on it itself reveals the nature and its impact on economy.

Chart 3.15 Year-wise expenditure on scarcity relief works and total expenditure allotted for development in Croer Rs



The bar diagram depicts the increasing expenses on relief works. From 1971-72 to 1972-73 the actual expenses incurred on it seems slightly less. In the year 1973-74 the expenses is slightly more. The proportion of allotment of budget for scarcity works seems went on increase, depicting the mounting severity of scarcity. Total allocations on scarcity relief works from total outlay were 20.16%, 21.30%, 40.83 and 58.04% for the years 1970-71, 1971-72, 1972-73 and 1973-74 respectively. It shows that government efforts were never short and as severity went on increasing government expenses on relief works also went on increasing. During last two financial years of scarcity such a huge expenses from state exchequer certainly created financial constraints on state government. It implies shortage of finances to other major development programs of state.

### **Maharashtra state economy during 1971-72 and 1972-73**

According to the estimate of state income for the year 1971-72 the income of Maharashtra state at current prices estimated at Rs. 4096 croers showing an increase of 6.2 per cent over the earlier year. The per capita income at current prices of Rs. 803 in

1971-72 was however, higher by 3.6%. The state income in real terms at 1971-72 registering a rise of about 2.% over the earlier year. Considering the per capita income at constant prices however, there is practically no change in level of 1970-71 which was to the order of Rs. 416.<sup>120</sup> According to the estimate of state income for the year 1972-73, the income of Maharashtra at current prices is estimated at Rs. 4315 crores, provisionally showing an increase of 4.4 per cent over the previous year. The per capita income at current prices is estimated at Rs. 825 in 1972-73 as against Rs. 810 in the previous year. The state income at constant prices of 1960-61 has declined to Rs. 2084 crores in 1972-73 from 2135 crores in 1971-72 i.e. by about 2.4%. Considering the per capita income at constant prices, there is a fall in 1972-73 over previous year. The per capita income was Rs. 399 in 1972-73 as against Rs. 418 in 1971-72 showing fall of about 4.5%.<sup>121</sup> The state income of Maharashtra at current prices for 1973-74 has been provisionally placed at Rs. 5756 crores registering an increase of 27% over the previous year. The per capita income is estimated at Rs. 1075 at current price in 1973-74 as against Rs. 867 in the previous year. On the basis of the estimates prepared at constant prices, the state income of Maharashtra worked out to Rs. 2395 core in 1973-74 against Rs. 2135 crores in the previous year. The state income 1973-74 thus registered an increase of 12.2% over the previous year. Correspondingly the per capita income at constant prices which stood at Rs.447 in 1973-74 also recorded a rise of 9.5% over the previous year. The increase in the state income was due to the recovery in agricultural production which had suffered badly due to drought in past years.<sup>122</sup>

Scarcity also affected on industry and mining sectors due to deficiency of power supply. There will be marginal increase in this sector. Years 1971-72 and 1972-73 showed its impact on other sectors too and following details shows impact of scarcity. Growth in industrial sector 71-72 was by 6% but 72-73 year estimated only 2%. The growth in tertiary sector was 5.5% during 71-72 and estimated 4.5% during 72-73.

Retail price index of food items is good indicator of prevailing economic conditions and it directly make impact on life of common citizen. This food group index was 211.27 in June 1972, rose continuously till July 1973 when it was 356.63 and declined to 343.74 in

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<sup>120</sup> Maharashtra Economic Survey 1972-73 p.2

<sup>121</sup> Maharashtra economic survey 1973-74 p.2

<sup>122</sup> Maharashtra economic survey 1974-75 p.2

October 1973. This was 63.7 per cent higher than the corresponding index in June 1972. As compared to October 1972, the index in October 1973 was 44.3 per cent higher. Both in the case of the urban and rural areas the weighted prices of rice, wheat, Jowar and Sugar were taken into consideration in compiling the retail price index. The main food commodities are particularly available through the public distribution system and through the open market.<sup>123</sup> This suggest that drought had adverse effect on Maharashtra state economy

### **3.24 Environmental Impact of 1970-73 Droughts and Concluding**

#### **Remarks**

1970-73 drought will not only remembered for its bitter experiences but also for serious and large scale attempts to erect and enhance soil and water conserving surface structures on land (See table appended in appendix). Aftermath of this drought also laid lot of policies and measures to make state further drought proof. Stagnancy in area and productivity in food grain resulted in to low production. This was due to some extent environmental degradation like over grazing, deforestation and desertification. Harnessing water resources in the form of construction of dams, major, minor irrigation projects surface wells and percolation tanks are also important in efforts towards drought proofing. During 1971-72 ultimate utilization of water and irrigated land was 181 thousand and 780 hectares.<sup>124</sup> The corresponding value in 1994 went to 2922 thousand and 106 hectares.<sup>125</sup> Official statistics cites that water shade development program covered 93.28 lakh hectares of land over Maharashtra.<sup>126</sup> This was the lesson from 1972 drought of Maharashtra. Certainly it has improved the agriculture of Maharashtra. 1972 drought changed the whole topography of Maharashtra. Productive versus unproductive works this issue was well debated in legislation as well as outside the legislation. Long before 1972 drought it well established fact among academicians, hydrologist and agronomist that Nalla bunding, continuous contour trench, terracing, percolation tank works are productive works and asset building works. The priority of productive works

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<sup>123</sup> Subramanian V., pp.459-60

<sup>124</sup> Brahame Sulbha p.41 quoting draft outline of the fifth five year plan (1974-79),1973,pp.108-109, 164-167

<sup>125</sup> Chitale and others Irrigation commission report of Maharashtra 1994 p.155

<sup>126</sup> Vyvhare V.S. Director soil and water conservation Maharashtra state Shetkari journal published by government of Maharashtra May 2008 p.2

ascertained in rules as well as in legislation while answering to the question. Stupendous work had been performed during 1970-73 drought of Maharashtra in asset building direction. (See also charts No.AT-49 to AT-54 appended in Appendix-A) It has changed the face of Maharashtra.

## Chapter 4

### STATE RESPONSE TO 1970-73 DROUGHT OF MAHARASHTRA

#### 4.1 Development of state policies to counter scarcity and famine

As the history of droughts and famines have long drawn antiquity, efforts of mankind to adapt, to situation, to overcome the same and to mitigate it has same age-old antiquity and legacy.

Famine relief policy has a very long history in India. One of the very first treatises on governance written more than two thousand years ago commonly attribute to Kautilya pronounces that when famines threaten a good king should institute the building of forts or water-works with the grant of food or share provisions or entrust the country to another king.<sup>1</sup> In early period as suggested in the works of Brahmae(1972 drought in Maharashtra) by referring Etheridge, Sinha and Srivastva pointed that, “the storage of food grains by the cultivators when the harvest was good as a cushion against the years of dearth.”<sup>2</sup> Famines of ancient and medieval period of Indian history were local in character and less severe.<sup>3</sup> The kings and nobles employed a number of villagers in different departments of the state, in infantry, cavalry, elephant and other branches of services.<sup>4</sup> As permanent measure, government undertook works of constructing irrigation canals and supplied loans for sinking wells.<sup>5</sup> Providing food grains, drinking water, fodder, ban on export of food grains, these measures were adopted by kings in early period in India. Remission in land tax, opening of public works, starting of public works, recruitment of men in military services these were other measures adopted by early rulers. Even some rulers were exploiting their subjects and sought as this as an opportunity of profit making<sup>6</sup> This is also testified from the Love day’s study stating from

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<sup>1</sup> Dre’ze Jean, Famine Prevention in India, ( London:The development Economic Reasarch Programme DEF No.3 January 1988)

(Arthshatra quoted in Chetty and Ratha 1987, p. 3)

<sup>2</sup> Brahmae Sulbha, drought in Maharashtra 1972 a case study of irrigation planning , GIPE, Orient Longman 1983 p.1  
13 Ibid p. 2

<sup>3</sup> Srivastva H.S. The history of indian famines; Shri Ram Mehara and Co Agra (1975)p.27,28

<sup>4</sup> Brahmae Sulbha, drought in Maharashtra 1972 a case study of irrigation planning , GIPE, Orient Longman 1983 p.2  
quoted from Etheradge report(on an average 3 to 5 persons were employed to service one army personnel).

<sup>5</sup> Brhame Opp.Cit. p,2 quoted from Etheridge A.T. Report on past famines in Bombay presidency Bombay(1868)

<sup>6</sup> Desai Datta The famines in Maharashtra (Marathi) Magao Publication Pune 1987 P. 12



the Rajtarngani that the ruler and his minister of Kashmir in 917-18 used the state granaries for profit making.<sup>7</sup> The government did not hesitate to purchase grain from surplus areas for sale at cheaper rate in famine areas and even maintained transport at government expenses for the purpose.<sup>8</sup> Shrivastava asserts that “in earlier periods adopted a much more human policy for famine relief than the East India Company, the latter being more interested in their own economic gains than in saving the life of the people”<sup>9</sup> The east India company adopted a policy which is similar to early Indian ruler. But their measures lacked a sympathetic tone and were limited in scope. They lay too much and unnecessary emphasis on economic doctrines like free trade and laissez faire, during famines, considerably increased the sufferings of the people.”<sup>10</sup> The suffering caused by famines under East India Company was greatly intensified by systematic over-assessment of land revenue and economic exploitation. Whatever limited policy measures adopted by the East India Company towards famine relief, lacked sympathetic approach.<sup>11</sup> Till the first decades of the nineteenth century the company did not formulate any general principle of relief. Each famine was regarded as an isolated unexpected phenomenon which was dealt with hesitatingly. Rack-renting and high assessment of land revenue during the second and third decades of the nineteenth century became the contributory factors for famine deaths. The Loveday cites the villainy of those engaged in relief operations during the last years of the company raj when “heaps upon heaps died from eating “adulterated food served as direct relief by the relief society.”<sup>12</sup> The famine commission report of 1880 contains a vivid account of the nature of relief efforts prior to the famine codes<sup>13</sup> “what often happens now is that they wander from their village crowd into towns, die about the roads, and otherwise attract the attention of

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<sup>7</sup> Loveday, A., The History and Economics of Indian Famines, (New Delhi Daryagaj Usha Publishing Company 1985 p.11

<sup>8</sup> Dre`ze Jean, Famine prevention in India, revised version of paper presented at the world institute of development Economic Research (WIDER Helsinki) in July 1986 DEP No.3 (The development economic research programme Suntory-Toyota International centre for Economic and related discipline 10 Portugal Street London : 1988), quoted from Shrivatva p. 28

<sup>9</sup> Srivastva H.S. The history of indian famines; Shri Ram Mehara and Co Agra (1975)p.28

<sup>10</sup> Shrivatva, p. 28

<sup>11</sup> Kulkarni S.N., Policy perspective for relief during droughts and scarcities A case study of Sinnar Taluka, Thesis submitted to University of Pune Ahmednagar College Ahmednagar p.44 quoted from Shrivastava p. 28

<sup>12</sup> Loveday, Opp.Cit. p.2(p.2 of introduction loveday)

<sup>13</sup> Report of Famine commission 1880(p.14,15)

the officials. Then a survey is made a relief work is started and then follows all the train of masses of wretched demoralized half-starved creatures to work and be paid after some sort of method. The work is generally started too late to save life ..... The wage is a hopeless dilemma; if you give a low rate, the people desert and die if you give a high one, you drain the labor market and thing gets beyond control.”<sup>14</sup>

“During the first quarter of the present century (19<sup>th</sup> century) the position of the British in the country was not such as either to create any sense of a general obligation to give relief or to supply the means of affording it. During the next 30 to 40 years as the country became settled and all branches of administration improved, the sense of this obligation was developed and more and more fully acted on, but there can be little doubt that on many occasions the wants of the people were very incompletely met and that much suffering and mortality must have ensured.”<sup>15</sup> This testifies the approach of East India Company towards its subject during droughts and severe famines.

The literature on 19<sup>th</sup> century famines is replete with statements such as the following

“What does a drought mean? It is not a question of food; the scarcity of food in district affected by drought is the least of the evils with which the government of India have to deal. There is nearly always a sufficiency of food in India to feed all the people within its limits and owing to the development of the railway the British government was able no matter what part or the country may be affected to pour in sufficient food to maintain the people of the district.” This is the statement made by Jorge Hamilton (Feb 3, 1902) and quoted by in S.C. Ray.<sup>16</sup>

Ancient and medieval rulers of India were very sympathetic towards their subject in reliving distress caused due to drought and famines. Knowledge of reliving distress and measures to be adopted during famine conditions were known to people from earliest period. Nineteenth century famines over India are result of colonial polices and in Indian context famines are not heavenly but due to lack of conviction on the part of state especially during colonial period to avert it. It is highlighted through above passages.

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<sup>14</sup> Draz, Opp.Cit. quoted from famine commission report pp.14-15(famine commission report 1880, appendix 1, P.113)

<sup>15</sup> Brhame Opp.Cit. p.4(Brahme P. quotaed from IFCR, vol, 1 1880 p. 27) (brhame)

<sup>16</sup> Draz Opp.Cit. pp9-10(1909 p.10) (p.9,10.)

### 4.2.1 Legacy of Famine Code

The first draft of famine code was submitted along with famine commission report of 1880. Each province was required to frame its own code by adopting the model contained in the draft code to its own circumstances. With the passage of time the state famine codes underwent occasional revisions, and in independent India received the name of scarcity manuals. In many part of the country the latter are no longer explicitly used today, but this is partly because the rules they embody have become a matter of routine response to threat of famine.<sup>17</sup>

The Madras government was the first to act on suggestions and draw up a detailed code for the presidency. The government of India asked other provincial government in 1883 to follow the example of Madras. Such code for Bombay Presidency was prepared in 1885.<sup>18</sup> They were told not to depart in any way from the principles laid therein.<sup>19</sup>

The collection of facts relating to conditions of agricultural community and the agricultural produce of the country these responsibilities delegated to agricultural department of every province by model code. In subsequent development, this responsibility was not shouldered on agriculture department both in provincial code and in practice. This responsibility was to be carried by district and divisional officer.<sup>20</sup> In actual administration of famine relief strict conformity to the provisions of the codes not found possible. Departure from them was both frequent and substantial. The famine code compiled in 1883 by provincial government of Bombay was guide book even after independence the same code was reprinted in 1951 this famine relief code of Bombay state was obtained from the Superintendent, Government Printing and Stationary Bombay or through the High Commissioner for India house, Aldwych London, W.C.2 . The famine code of 1885 was replaced in 1954 by the draft scarcity manual, which defines 'scarcity' as marked deterioration of the agricultural season due to the failure of rains or floods or damage to crops from insects resulting in severe unemployment and consequent

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<sup>17</sup> Ibid p.23 see foot note

<sup>18</sup> Report of fact finding committee appointed for survey and recommendation of scarcity affected area over Maharashtra report submitted to government of Maharashtra, Government of Maharashtra publication 1973 Sukthankar Committee Vol. I P.102

<sup>19</sup> Bhatia p.184

<sup>20</sup> Ibid 185

distress among agricultural labor and small cultivators.<sup>21</sup> Three important changes made in the scarcity manual. First, the marked difference made between famine relief work and scarcity work. Scarcity works comprises of works funded by local funds, works of Municipal Corporation, and extension of government works. Second difference was the provision of test works. To decide the severity of condition it was essential to start the test work. Third difference was in the wages. The wage difference between scarcity work and famine relief work abolished.<sup>22</sup>The famine relief works comprises of works on which more than 3000 laborers employed. The same draft manual modified and reprinted by Maharashtra government in 1966 named 'The Bombay Scarcity Manual' published by Revenue Department of Maharashtra State Government. This manual is elaborately worked out and all the past experiences are embedded in this draft. First time the word famine has been deleted from the manual.

#### **4.2.2 Published Booklet of Scarcity Rules of 1972**

In the wake of severe drought Maharashtra Government, further published another scarcity manual named "The rules of scarcity. "Aim of this publication was to know the government rules and efforts to common people of state. These rules are in abridged form; Published by the Revenue and Forest Department of Maharashtra Government on 14<sup>th</sup> December 1972 from central Press of Maharashtra Government. The principles and Philosophy of famine code underwent tremendous change since 1880 to post independence era. However, the basic framework of famine code remains the same even in the 1972 rules of scarcity. As a famine connotes altogether different meanings, no democratic government anywhere in world will accept easily existence of famine and starvation death.<sup>23</sup> Also as matter of fact after 1943 practically there is no incidence of famine anywhere in India. The United Nations Research Institute for social Development states in a document that a famine occurs when many people in the same place and at the same time lack resources that will provide them with command over food stuff, e.g. adequate income, interpersonal solidarity etc. and the institutional aid can no longer cope

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<sup>21</sup> Subramanian V., 'Parched Earth' The Maharashtra drought 1970-73 Orient Longman 1975 p.31

<sup>22</sup> Report of fact finding committee 1973 Sukhtankar and others Opp. Cit. pp. 101-102

<sup>23</sup> Mohiuddin Alamgir, towards theory of famine seminar paper no. 103, Institute of international economic studies s-106 91 Stockholm Sweden May 1978 p.1 The term famine seems to carry with it many overtones and undertones. Government and politicians do not like to use this term to describe a situation, unless they are forced to,

with the situation. The document continues “Famine is an economic and social phenomenon characterized by the widespread lack of food resources which, in the absence of outside aid, leads to the death of affected.”<sup>24</sup> There is marked difference of attitude on the part of government that government has theoretically and practically accepted that henceforth there could not be starvation death by deleting word famine from famine code and renaming it as “The Bombay Scarcity Manual”.<sup>25</sup>

### **4.3.1 Organizational changes or innovations made in draft provisions during 1970-73 drought**

The marked difference between draft provision of 1966 Maharashtra state government scarcity manual and the administrative innovations that government actually made during 1970-73 drought can be easily identified through government policies. Public Works Department and Irrigation Departments are now separated from previous Public Works Department hence there is no reference of irrigation department in draft manual.

The scarcity manual makes an attempt to formalize an administrative structure which could be operated into action during future emergency. Within basic administrative structure envisaged by manual new responsibilities and accountabilities are assigned to new offices and office bearer to expedite works. Above all the financial aspect and financial administration was aptly integrated with general administrative machinery and mechanism which helped state government to represent accounts and ground reality before central government.

First time during 1970-73 following changes were made in administrative structure or new set up of administrative mechanism emerged. The headquarters organization or the state level monitoring centre of the government there came up in the form of the cabinet sub-committee on scarcity consisting of the chief minister and the minister in charge of finance, revenue, agriculture, irrigation and building and communications. As step below, was the secretaries committee presided over by the chief secretary. The secretary revenue

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<sup>24</sup> “Famine Risk in the modern World” (mimeo) United Nations Research Institute for social Development , Geneva, 18<sup>th</sup> August 1975

<sup>25</sup> The Bombay Scarcity Manual 1966 Government of Maharashtra, Revenue Department Paragraph 42 p.16 scarcity is a marked deterioration of the agricultural season due to the failure of rains or floods or damage to crops from insects resulting in severe unemployment and consequent distress among agricultural labor and small cultivators.

and forest department was secretary of this committee which brought about the needed co-ordination and co-operation among the relevant secretariat departments.<sup>26</sup> There was no director of scarcity relief constituted in the scarcity manual,<sup>27</sup> but this role was being played by the revenue secretary who provided the vital link between the field and secretariat in all matters relating to scarcity relief administration and kept the government informed about the operations at the ground level. The revenue and forests department became the focal department at the secretariat level keeping an overall view of scarcity administration. Beside secretaries committee two more committees namely Cabinet Sub-committee on scarcity and the Central Coordination committee at secretariat were discharging very important work of coordination during scarcities at Mumbai. The cabinet sub-committee on scarcity formed for the co-ordination between different departments of state of which the chief minister was the chairman, enabled government to keep in touch with the progress of the relief measures to identify bottlenecks either in co-ordination between different departments or in the implementation of relief measures and to remove them. It also served as clearing house for important matters that came to light during the field operations and which required further action.<sup>28</sup> In order to coordination between different department ministries and department at the centre or even necessitating help from other state governments, such in the matter of supply of fodder, technical staff equipment for the supply of drinking water etc As per the recommendation of sixth central team a central co-ordination committee was constituted at the peak of distress. It consisting of the cabinet secretary of the government as chairman, secretaries of the ministries and departments concerned and important representatives of the state government were constituted. Problems pertaining central cabinet were addressed through this committee.<sup>29</sup> This institution was an innovation. It signified that both the

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<sup>26</sup> Subramanian V., Opp. Cit. p.62

<sup>27</sup> The Bombay scarcity manual Government of Maharashtra Bombay 1966 p.16 paragraph 44

<sup>28</sup> Subramanian, V. p. 61

<sup>29</sup> *ibid* p.62 Many matters which would have taken years to settle were decided expeditiously by discussion in this committee. The important questions such as increase in supplies of food grains, increase in the daily wages of laborers in the relief works assistance for the programme of wages of laborers in the relief works, assistance for the programme of supplementary nutrition to laborers in the relief works, employment of children, purchase and import of rigs and other machinery through the purchasing procurement of rollers and other machinery through the purchasing organization or through the army, were discussed in detail with the assistance of the highest administrative officers of the departments concerned and decisions taken were communicated to the state government after obtaining the orders of the government of India where necessary, so that the difficulties in the implementation of the relief measures could be overcome and the tempo of the relief operations maintained.

state government and the central government were thinking on the same line. The anxiety of the government to assist the state government to the maximum extent possible in implementing the relief schemes and enabling it to provide employment and succor to the million of persons who were affected by the drought was obvious from the attention given by this committee. It spoke very well for the co-ordination thinking and action between the central government and the state government in a federal polity particularly during an emergency of such vast dimensions.<sup>30</sup>

Below headquarter organization there were further two more implementing coordinating government bodies mainly collectorate at district level and office of Tehasildar at Taluka level. Many sub-ordinate and complementary officers like engineers, medical officer, soil conservation officer, agricultural officers and Panchyat Raj officers were helping to Collector and Tahesildar in discharging and dispensing their duties.

The administrative structure and set up emerged during 1970-73 drought was not laid down anywhere in government rules previously. However, it was the emergency and need of fast expeditions of works that automatically led to evolve this type of administrative set up. Right from Chief Ministers to council of ministers and from chief secretary to village clerk everybody realized their responsibility during such a colossal distress. Never in the history of India more than scarcity relief works on such large scale initiated and completed. When the scope for opening of new works was bleak new innovative and productive works like community wells started over state. Never before this distress anywhere in India total Rs.222.52 Croer central assistance sought by any state government. Maharashtra government was able to pull such assistance from central government due to efficient follow up and excellent maintenance of accounts by executive of state government.

Manual envisaged the government operated program and the role of rural administration was minimum. However, emergence of Zillah Parishad had brought about a radical change in the structure of administration at the district level. These were entirely new arrangement envisaged during 1970-73 drought emerged out of extraordinary critical

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<sup>30</sup> Ibid Loc. Cit

situation developed due to distress. Panchyati Raj institute was assigned major role during 1970-73 drought.

### **4.3.2 Role of Divisional Commissioner during 1970-73 Scarcity**

It is very important to note that the scarcity manual did not fix any specific responsibility for the commissioners. Foregoing description pertaining to divisional commissioner highlights his role during 1970-73 drought of Maharashtra. At the regional level, the divisional commissioner was made responsible for the supervision of relief programmers with the division. They were empowered to requisitions trucks from government departments within the divisions and place them wherever necessary and authorized to purchase tools required for scarcity relief works. For the distribution of tagai loan among the farmers funds were placed at disposal of the commissioners. They had to hold fortnightly meeting of offices at different levels to bring to the personal notice of the officers important orders issued by the government. The divisional commissioners were invited to supply data and information about field situation in secretaries committee.

The commissioners were to report periodically to government. His observation on overall relief administration was important. He was empowered to remove all the bottlenecks of relief administration within his division.<sup>31</sup> The commissioners of division who played a very crucial role in the implementation and overseeing of the progress of relief works within their divisions, were also required to co-ordinate the activities of the various regional heads within their divisions on matters which were beyond the purview of the district administration. But the core organization was the district.<sup>32</sup>

### **4.3.3 Relief advisory committee**

The scarcity manual provides a district relief committee consists of all members of the legislature from the district, the president of the district local legislature from the district, the president of the district local authority, the district officers concerned and such other non official members as may be approved. Provisions of such relief advisory committees were laid in the manual at taluka and village level. These committees were assigned duty to advice in relief operations, to supervise it in some extent and to stimulate private

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<sup>31</sup> Mathur and Bhattacharya pp. 29-32

<sup>32</sup> Subramanian p.71



charity for relief operations.<sup>33</sup> During the present drought however, the scope of these committees were considerably expanded. It was laid down that these committees should be consulted as often as possible in drawing up the relief plan for the district. The help of the members of these committees was to be taken in maintaining muster rolls, in supervising payment of wages. In acutely affected districts these committees used to meet frequently and made several suggestions with view to taking up works in the affected areas, assigned priority among works, making suggestions for proper measurement and prompt payment of wages and for provision of medical facilities and other amenities at the work sites. It is natural that since committees consisted of representatives of all parts of the district, several suggestions were made for improving the requirements of each area. It was impossible in many circumstances to accept all the suggestions because of the sheer limits of organizational inability or unavailability of funds. Discussions in these committees occasionally proved acrimonious and the chairmen of the committees namely collectors had often to do tight-rope-walking.<sup>34</sup>

#### **4.3.4 Vigilance Committee**

There was a provision of vigilance committee at sub-divisional level. These committees were constituted for supervision of relief works. Sub-divisional officer, Police officer and one non-official member were statutory members of these committees.<sup>35</sup> Some of these vigilance committees functioned very effectively and brought to light several malpractices on which urgent action was taken. However, as the vigilance committees were constituted in the later part of the last year, they did not get adequate opportunity or time to make a proper impact. In many cases, as a result of the detection of malpractices on the spot immediate action was taken, such as dismissal of officers in some cases cancelling of licenses of fair price shops.

#### **4.3.5 Other Statutory Committees**

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<sup>33</sup> Mathur and Bhattacharya Opp. Cit p.28

<sup>34</sup> Subramnian V., Opp. Cit.p. 69

<sup>35</sup> "Scarcity" compendium of government rules Forest & Revenue department government of Maharashtra Vol.2: p.67 G.R.,R. F.D.NO.( SCY) -1373/8867-J-3 27<sup>th</sup> April 73 vigilance committee be formed at sub-divisional level in the districts to detect the defects or mal practices in the execution of relief programme

There was district officers committee, district scarcity committee and district relief cell in collectorate to coordinate, implement, supervise and to monitor the scarcity works and other relief operations.

#### **4.4.1 Organization in Motion**

Scarcity organization consists of Revenue officials Panchayat raj bodies, all government agencies and private and non-official organizations the relief and other scarcity work organizations. The main controlling and supervising agency was the collectorate and its all district officers. The collector in consultation with the district officers' committee was allocating works to different agencies according to their specialization. The building and communication, irrigation, power departments were assigned work according to their expertise and capacity. Sometimes the implementing agencies showed resentment for allocation of more work beyond their capacity. Different tiers of the Panchyati Raj were assigned different tasks. As Panchayati Raj institute emerged as alternative agency to deal with scarcity situation the scale of scarcity organizations greatly helped the collector in choosing between alternative agencies. He could address the B.D.O. in addition to Tahsildar, lower down the organization, the wall between the Panchyat Raj set up and the revenue hierarchy had completely collapsed.<sup>36</sup> The collector would be freely writing to the B.D.O and while on tour would speak to the Panchyat Raj staff in the same vein as they would be talking to his own staff.

From all evidence, there did not seem to be much maladjustment or occasions for conflict between the revenue organization and the Panchyat Raj bodies. On the contrary, the perception of government officers has generally been that the Zilla Parishad's role in scarcity relief was commendable. One explanation for Zilla Parishad's subservience could be that both the organizations-collectorate and Zilla Parishad were headed by officers belonging to same service cadre, viz. I.A.S. All the collectors' who so ever are appointed as collector their just prior to this appointment happen to be the chief executive officer of Zilla Parishad.

The merger of these two administrative bodies was mutually advantageous. the collector received administrative support from the Zilla Parishad, and the latter in return got more

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<sup>36</sup> Mathur & Bhattacharya Opp. Cit. pp.43-44

resources with which to accommodate anybody who wanted more resources anything, be it a percolation tank, a road or a well. It seems that both revenue and Panchayat raj officers were working together without any prejudices, any ego or hierarchical taboos etc.<sup>37</sup>

Normal bureaucratic 'protocol' was not followed during this mounting distress. The bureaucratic hierarchy was considerably modified. During mounting distress officers of revenue and Panchayati raj institute were easily approaching to collector without consulting hierarchy of intermediary officers setting aside protocol and hierarchy in designing implementing and financing scarcity relief works. However, it was higher authority-the collector who was really calling the tune. When flexibility was not needed the collector would slide back to the normal mode of working and the Tahsildar would be asked to submit proposals say for community wells through the proper channel. In a period of hectic activities when everyone however placed in the hierarchy, was concerned about quick relief measures, the hierarchical character of bureaucracy did undergo a substantial change. There were more face-to -face contacts among different role incumbents.

There were frequent field visits by all the officers and office bearers right from the chief-minister to Z.P. member and secretary to Tahsildars. Scarcity administration also evolved its own informal pattern hierarchy. For instance as mentioned earlier the Tahsildar became an important point of reference at the sub-district level. Many a time he had assumed the position of a transmitter and distributor of information and instructions to the Block Development Officer and the Deputy engineer of the Zilla Parishid. Tehsildar being in constant touch with the collector he had come to enjoy some kind of a authority

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<sup>37</sup>Ibid p.45 president of the Zilla Parishad was as concerned about alleviating popular misery as the collector. Also the important members of the Zilla Parishad were taken on the district scarcity relief committee which was an important decision-making forum at that level. For those who were in operational charge like the engineers were not hamstrung in their jobs; even they seemed to have liked being called by a collector whose image in normal times has always been one of a natural superior. Last but not least, unification seems to have been compelled by the imperatives of field situation during scarcity. It was Tahsildar who would be approached by the affected villagers for relief. The Tahsildar would seek the help of the Sarpanchs, the Gramsevak, the B.D.O and deputy engineer of the Parishad for works to be undertaken. Since everybody had to serve the people, the organizational boundaries became superfluous when the emergent problem of saving life started looming large.

just like collector which was accepted by the B.D.O. and the deputy engineer. As per Mathur and Bhaatacharya's survey popular perception during drought was that the authority of the collector is congruent with the formal status assigned to him. The Tahsildar was placed second in the authority ladder followed by C.E.O. Zilla Parishad and the Executive Engineer, and then others.

In choosing the levels of administration from the performance point of view, most respondents have, however, placed the taluka as the level playing the key role in scarcity administration. The next most important level identified as the district.

The collector, as can be seen has been ranked as the most effective officer followed by the executive engineer during 1970-73 drought.<sup>38</sup>

There was complete blending of bureaucracies of Panchyati Raj establishment and revenue investment without which it was highly impossible to run scarcity relief programme on such a enormous scale.

#### **4.4.2 Delegation of power and stray cases of irregularities therein**

Collector's power to sanction the relief schemes during such distress was enhanced from Rs. 50000 to Rs. 1 lakh and at the height of drought up-to 10 lakh. Even collectors were empowered to sanction beyond his limit provided that the relief scheme was the part of district and taluka plan and due technical sanction had been issued. In order to fast disbursement of bills and advances to Zilla Parishad and village Panchyats collectors and chief executive engineers were made drawing and disbursing officers. . During peak scarcity condition the Executive Engineer's power to accord technical sanction in respect of original work was increased from Rs. 1 lakhs to 10 lakhs. It was however, provided that copies of plans and estimates for works amounting between Rs. 5 to 10 lakhs should be sent to superintending engineer for broad technical security.<sup>39</sup> In addition, officers lower down the line such as executive engineers of the Zilla Parishad, executive engineers of the Buildings and Communications Department and the Irrigation and Power Department, Divisional Soil conservation officers and the sub-Divisional Soil Conservation Officers of the Agricultural Department, were also similarly appointed

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<sup>38</sup> Mathur and Bhattacharya pp.47-48

<sup>39</sup> Government of Maharashtra the compendium of scarcity 1973 G.R. B & C.D. No., PDW-1273/10890-Q date 17 March, 1973.

drawing and disbursing officers. In fact even Deputy Engineers of the Zilla parishad in the drought-affected areas were given similar power in January 1973. This bold step on the part of the government to take the field officers into confidence and give them both the authority and the opportunity to use their initiative was more than any other step, responsible for saving the fair name of the state and preserving the image of an administration alive to its own responsibilities and succor. It was observed that there were instances in which action of the implementing officers resulted in financial commitments, which unfortunately came to notice only after these actions were taken. Some Zilla Parishad were allowed to incur expenditure from their own resources on account of shortage of funds from state government but it was assured on the part of collectors to get it reimbursed from government latter. Similarly some collectors authorized the implementing agencies to incur expenditure on relief schemes in excess of the allocations made by them to the implementing agencies. This was undoubtedly an irregularity. In some cases even without such authority, Zilla Parishads and other implementing agencies incurred expenditure on relief schemes. In a very few cases, it was noticed that the schemes had not even been formally sanctioned by the collector as required under the rules.

The irrigation and power department, the building and communications department etc, empowered field officers in drought relief programme to draw cheques on nationalized banks this provision was for departmental schemes with budgetary provision and limit. In regard with drought relief programme there was no such budgetary limits and provisions still the field officers if aforesaid departments were delegated such powers. However, in most of these cases, the actions of technical officers were taken either with the prior concurrence or with the knowledge of the chief coordinator of the relief programme in the district, i.e. the collector.<sup>40</sup> Collectors were empowered to appoint on temporary basis some technical and nontechnical staff to perform duties during peak scarcity period. Highly qualified engineer working in other organization rendered their help in planning and implementing relief plans and attempt to seek their help by state government made statutory arrangement by making government orders. To meet the requirement of further

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<sup>40</sup> Subramanian V pp107-110

technical staff fresh graduates and diploma holders of civil engineering and even other branches were appointed on temporary basis and collectors were empowered to do so. Even collectors were further empowered to appoint class 3 and class 4 employees on temporary basis.<sup>41</sup> Collectors were empowered to attach and depute government employees of different state departments for scarcity works. Collectors were also empowered to attach vehicles of other department for scarcity works. As suggested by Mathur and Bhattacharya delegation of power was necessary because new tasks were entrusted to different role-incumbents their normal-time formal authority had to be enhanced to match the new responsibilities. Along with this compulsion it was essential to enhance organizational capacity without augmenting as far as possible the already available resource structure. Delegation facilitated substantial restriction in normal bureaucratic hierarchy.<sup>42</sup> Delegation of power cut down procedural requirements and administrative delay. During scarcity operations the delegation of power to different levels of administration revealed the potentialities of field organization for flexibility and

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<sup>41</sup> "Scarcity" compendium of government rules; forest and revenue department government of Maharashtra Vol. 2 p.35 GCRFD collectors to create posts required for supporting staff of the Engineers on their own establishment and depute them to work for engineers. GCRFD: GRBCD p. 37 the powers of executive engineer to accord technical sanction to the original works enhanced to Rs. 10 lakhs when taken up as relief works subject to subsequent scrutiny of the plans and estimates by the superintending engineer in respect t of works amounting to Rs. 5 to 10 lakhs.P.73 GRRFD NOSCY 1373/46142-j Dated 7<sup>th</sup> May 73 the collector of Dhulia to exercise certain powers for creation of purely temporary posts till 31<sup>st</sup> July 73 Similar power to collectors of parbhahi. P93 GRR & FD NO. EST-SFC 1373/71836/J-2 dated 24<sup>th</sup> May 73 there is no objection to highly technically qualified engineers and technical persons offered by the Front for rapid economic advancement of India being employed on a purely honorary basis for scarcity relief works. The collator Beed is authorized to create temporary supernumerary posts of overseers for these persons. GRRFD 20 March 1973 collectors of Chanda and Bhandara districts authorized to take up road works from 1961-81 Road development plan GRRFD p.43### Overseers on temporary establishment are empowered to record measurement GRRFD20March 73\*\*\*p.88 powers of collector of Parbhani temporary posts p.108 GLRFD SWK when retired persons from revenue department are not available those from other department may be employed. P.110 GRRFD SCY (EST) 1373/46142/J-2 22<sup>nd</sup> June 73 Powers delegated to collector to create temporary posts upto 30<sup>th</sup> June 73Cf. Subramanian The divisional commissioners, collectors and other implementation officers were delegated adequate powers for recruiting and filling up vacancies of administrative and ministerial staff for implementing relief schemes, when it was noticed that the requirements were too large of overseers committee suggested that graduates in architecture other branches after a preliminary training of a few days with a view to orienting them for the work they would be required to perform. The services of retired engineers and othe private and governmental engineering department were sought by rendering their help. (tapped) In this manner the committee was able to obtain 1300 overseers and 100 scarcity assistant. The rising tempo of the relief works after September 1972 and the sprialling increase in the labor attendance at the relief works from 12:44 lakhs as at 1<sup>st</sup> october 1972 of 20:17 lakhs as at 1<sup>st</sup> April 1973, 40:19 lakhs as at 1<sup>st</sup> May 1973 and to 49:47 laks as 1<sup>st</sup> June 1973, would have thrown the entire administrative machinery out of gear and literally produced chaos and confusion with unimaginable consequences but for the prompt and pragmatic steps taken by the committees with the full support of Government.

<sup>42</sup> Mathur and Bhaatacharya p; 57-58

greater workload absorption. It facilitated manipulation of resource structure for emergency administration.<sup>43</sup>

#### **4.4.3 Collector's authority in practice**

His authority in practice was much less than what was formally envisaged. The ministers, the Revenue Secretary and others from the Secretariat were constantly visiting the field and passing instruction which in effect considerably modified the authority of collector. Instances were not rare when the collector would be invoking the authority of the chief minister to pursue the implementing agencies to do a work expeditiously. In the second place, his authority had to be exercised in the context of certain organizational imperatives. For instance, the selection of projects for scarcity works had to be done in consultation with projects for scarcity works had to be done in consultation with district relief committee and district officers' committee. Again in some instances the commissioner was acting as an appellate authority. In the third place, the old vertical linkages between the district heads of departments and their regional heads secretariat departments had not been eliminated. There was evidence of complaints about interdepartmental disharmony flowing up into the secretaries' committee from the district level. Instead of these limitations district collector and his office assume extremely important coordinating and executive statutory powers in handling relief operations during scarcity.

#### **4.5.1 Dynamics of Relief Operations**

The emergency administration during scarcity had evolve three layers of decision making namely the secretariat including the cabinet and the chief minister, the division including district and the taluka/village. It was given the authority to take immediate decisions in the matter of providing relief so that there was no delay whatsoever.<sup>44</sup>

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<sup>43</sup> Ibid Loc.cit

A few significant features of the top level decision-making during the 1970-73 crisis would include Secretaries Committee, Cabinet sub-committee and Central Co-ordination Committee. Later two institutes evolve out of need of expeditious and quick action during peak scarcity period of 1970-73 droughts of Maharashtra. Cabinet sub-committee helped secretaries committee. As the matters of coordination between different state government department and policy framing which cannot come under the purview of the secretaries committee in such matters aforesaid functioned were performed by it. This saved precious time of secretaries committee.

During peak of distress State Government required the help from central ministries, corporate houses, and army and from different states of Indian Union. At such instance co-ordination, follow of action was required and same fulfilled by Central Coordinating Committee. This committee was framed on suggestions of sixth central team which visited Maharashtra during September 1972.

As authentic information of distress came in the secretariat all above mentioned three committees worked with zeal and expeditious decisions were taken disbursed to the field.<sup>45</sup> The secretaries, committee under the chairmanship of the chief secretary created an environment of harmony, which coupled with situational need, encouraged the departments to take decisions through consultations collaborations.' Many a time decision on urgent issue would be taken on the spot at field level when the ministers and

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<sup>44</sup> Subramanian V. pp. 54-55 During its early stage, the committee used to meet often and take decisions which were implemented immediately without the tortuous bureaucratic procedure of tons of noting scores of signatures, all leading to the issue of government resolution. Follow up actions on the decisions taken in these meetings were reported to the committee from time to time. A salutary feature of these meetings was that excepting matters of fundamental policy which required the approval of the state cabinet, all other decisions of the committee had the imprimatur of government and immediate orders on the basis of the decisions taken at the meetings of the committee were issued by the Member-Secretary of the committee, namely the secretary of the revenue department which was responsible for coordinating the work of drought relief. The proposals before committee were previously discussed and prepared by various ministries with promptness. Priorities of the work decided on the merit of its productivity. Advances were made to collectors by this committee. Delegated power of purchase and appointment to collector and field engineers. Inter departmental disputes were resolved.

<sup>45</sup> V.Subramanian p.57 During scarcity administration, more realistic decisions were made with full knowledge of field situation from the secretariat; as information and authoritative field data were being poured into the secretariat from all directions through the commissioner collectorate field visits of ministers and secretariat officials. Committee of secretariats directed that all district officers of all departments should give the fullest co-operation to the collectors in the execution of schemes pertaining to relief employment guarantee and drought-prone area programs.



secretariat officials including chief minister and chief secretary would be visiting the districts. This is a kind of shifting secretariat directly to field.

The secretariat committee takes input in the form of information from all corners of the state this input get converted into output via revenue department to implementing agencies via revenue department. As suggested in public administration theories by Simon both routine and innovative decisions were taken during peak of scarcity. In the meetings of secretariat committee general discussion on situation, relief measures, review of agricultural condition, and supply of tools, food grains, tools, and resources were being discussed.

The divisional commissioners were invited to supply data and information about field situation, and sometimes more information would be sought from specific departments. Apart from seeking to iron out interdepartmental issues, it would very often suggest measures for promoting cooperation among the different executing agencies at the district level.<sup>46</sup> The committee lent considerable support to collector's coordinating role, and was always considerable proposals for helping to solve field problems such as lack of technical staff or equipments, resources mobilization delegation of power and so on. One gets the information that too many items concerning details of administration had come up before the committee.<sup>47</sup>

#### **4.5.2 Meetings of Chief Minister and Ministers**

During the drought many meetings of officers and ministers were held. Each one of these enabled speedier implementation and also removal of hurdles to action. Meetings of revenue minister in various districts enabled to take review of progress of relief work, solve the difficulties and even to suggest changes in policy.<sup>48</sup>

Chief Minister held several district meetings in which all problems relating to relief administration were discussed in the presence of all member consisting of all level people's representatives from district of relief advisory committees and important state

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<sup>46</sup> Mathur and Bhatthacharya pp.35-40

<sup>47</sup> Ibid Loc. Cit A sample of these items would include: (1) giving priority to candidates appointed in temporary, vacancies in filling future vacancies (2) absorption of temporary candidates in regular posts (3) payment of 10% supervision charge to Zilla Parishads (4) proposal of a collector for entrusting scarcity work to a municipality, (5) admission to cattle in the cattle camps and transport of fodder from other areas (6) proposals of a collector to have checks on candidates resigning from scarcity works, (6) deepening of private wells and (7) delegation of powers to deputy engineers.

<sup>48</sup> Subramanian P. 63

government officials. In such circumstances solutions were provided instantly for immediate implementation. At the peak of distress in order to save time and to know the situation of all the regions meetings at headquarters of divisions were conducted for respective regions with all public representatives and officials. The meetings became extremely productive of results because the decision making authorities were not only present at one particular forum but were anxious to see that the main objectives of relief administration, namely the provision of work and supply of food, water fodder and medicines were fulfilled without any impediments. Members of meetings with Chief Minister were visiting to relief works and were discussing with laborers on works. Therefore decisions regarding conduct of relief works and problems concerned with laborers were immediately resolved or otherwise appropriate steps in right directions were initiated.<sup>49</sup>

#### **4.5.3 Communications and implementation of decisions**

It was electrically charged environment as far as communications of the government orders, government resolutions, and decisions of the Chief Minister or ministers meetings concerned the meetings decisions were communicated immediately after the meetings from the venue of meetings in the form of orders. The general decisions of the meetings were communicated to press in the form of press notes. After that formal orders were issued.<sup>50</sup>

In a large number of cases, the divisional commissioners and the district collectors were informed of the orders on telephone to implement the same with immediate effect so that there could not be any discrepancies to such a wide spread, colossal relief operations which was indispensable part of common people and administration of that time.

#### **4.5.4 Communications to the field and off the field**

Unique system of communication evolved during distress. Secretariat committee at headquarter equipped with all information from the every coroner of the state. It reflected the unity of state administration and uniformity of administration all over the state. The divisional commissioner was not timely involved in operational intricacies, yet

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<sup>49</sup> Subramanian V Loc. Cit.

<sup>50</sup> Subramanian v, P.65

he was well placed to watch the operations in their broad outlines and detect major handicaps or distil important policy implications.

At one end, he was sending up his version of the field situation in broad policy terms to the secretariat at another he was holding meetings of the key functionaries in the field touring the division as frequently as possible and bringing to the notice of the collector any aberrations from principles or bottlenecks in the course operations. He was coordinating operations in the whole division, giving encouragement and suggestions and bringing to the field a subtle touch of the secretariat. From the perceptions of field level administration about the commissioner it appears that they had been using him as an intermediary between themselves and the secretariat. The district demands for food grains staff medicine vehicles, tagai funds tools and plant could best be put forward to the government through him. As some field administration put it "All problems requiring urgent government attention were handled by the commissioner he was the link man between the collector and the government since he could present the problems of the district more effectively at the secretariat level and the chief minister's level."<sup>51</sup>

At the level of the collectorate, the 'scarcity cell' within it was the repository of all field data coming in from the different operating agencies.<sup>52</sup> The collectorate was on the one hand acting as the distributor of decisions flowing down from the secretariat, and on the other hand it was taking certain decisions itself on what projects should be started in which place and who should undertake what kind of works.<sup>53</sup> Certain types of decisions

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<sup>51</sup> Mathur And Bhattacharya pp. 40-41 .

<sup>52</sup> During scarcity increasing interactions were evident between lower level officers also such as Tahsildar and Block Development Officer, the Talathi and Gram Sevak. Regarding field visits the district level officers have been making far more visits to the villages and work sites than what they are used to doing in normal times. Fifty percent of respondents have reported visits numbering eight times and above and one of them thought he was visiting more than 20 times. Frequent visits were not necessary in normal situation. Enhanced interpersonal contacts and better knowledge of the field situation have been direct outcome of the communication network evolved during scarcity.

<sup>53</sup> Ibid Loc.Cit. The general pattern of the decision-making system at the field level. The list of projects would come initially from the taluka level where the sub-Divisional officer in consultation with the Taluka relief committee and taluka level officials were preparing an inventory of suitable works that could be undertaken at different village centers. The lists of projects obtained from the different taluka would be consolidated at the collectorate level and the collector in consultation with the district relief committee would be finalizing the projects in inventory for the district as whole. At the next stage, the collector with the advice and suggestions of the district officers' committee was to select appropriate projects for actual commissioning. He was then to decide about the implementing agencies who would actually take up the works. The inputs for decisions were often flowing in by way of demands expressed by the local

were pushed down to the lowest level where the works were on. This was necessary, as those who were living closest to the actual field situation had far better knowledge with which to take those kinds of decisions. Also such system of decentralized decision-making relieved the collector of his administrative load. It provided for a filtration process which enabled the collector to avoid the local pulls and pressures in the raw. This can best be illustrated by the decision-making process in selecting sites for community wells.<sup>54</sup>

#### **4.6 Early response to emergency**

The famines before independence in 1947 were either under the period of colonial British rule or under the autocratic rules of the Indian states and they disappeared within the first two decades of free and democratic India. Economists, like Nobel Laureate Amartya Sen have put forth the hypothesis that democratic administration would not allow famine conditions to grow. His hypothesis states that serious hunger and famines do not occur in independent democratic countries with free press may be substantially correct.<sup>55</sup> Famine, scarcity and drought are the important terms have different shade of meanings. Scarcities after independence never resulted into famine after severe droughts. It was the 1970-73, which would have, resulted into severe famine but averted by prompt response and actions by state.

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village leaders either directly or through the local officials such as the Tahsildar and the block development officer. Other data gathering devices were the field visits of the collector, the sub-divisional officer and other's regular reporting system between the collectorate and the implementing agencies and field officials.

<sup>54</sup> Ibid p.42 The sites were initially selected by the members of village panchayat samiti. Next the block development officer and the deputy engineer were to verify the sites as regard their suitability in accordance with the guidelines laid down by the government. The block development officer in consultation with deputy engineer was authorized to reject a site and suggest an alternative one. This process provided for initiative by the village leaders, reference to higher-tier authority and final selection on the basis of technical soundness. Also the officers felt that they had been conceded some administrative direction. Responsibility for safe custody of tools and their distribution to the scarcity laborers was entrusted to the village Panchayat. The Sarpanch of the village was to decide about who should be given the tools as the scarcity labor of the village is much known to the village Sarpanch than anybody else.

<sup>55</sup> Sikka D.R. - Kulshrestha., Joint COLA/CARE technical Report No.6 Indian Drought in the context of history and climate Centre for Ocean-Land-Atmospheric Studies and Centre for the application of research on the environment Calverton October 2002.P.3

Prior to 1972-73, there were two years of drought over one or other parts of Maharashtra. Relief operations were in progress. 1972-73 was the third year of consequent drought it was severe drought which occurred almost every part of state. The deficiency of rainfall was ranging between 29.7 to 56 percent in different districts of Maharashtra.<sup>56</sup> Within first two years of droughts government machinery was on its toes and implementing various scarcities works in drought affected areas of Maharashtra. Monsoon failure further alarmed government machinery and government; it is reflected through the various government orders and government resolutions. As the severity of the distress went on mounting, urgency of relief works planning its implementation and execution and expectations reflected through government resolutions and orders as time and years progressed. Though there was famine relief code and draft scarcity manual before the government and bureaucrats, they did not follow the same with orthodox textual method, which lay down in manual. There was need of prompt and urgent execution of relief works. Bureaucracy and government rose to occasion they modified the rules of scarcities as per the need of time.<sup>57</sup> On the background of successful launch of green revolution program on nationwide scale and end of PL 480 program of American aid of food grains, performance of Maharashtra agriculture was very poor. There was no further significant growth in agriculture sector of Maharashtra. Season 1970-71 showed negative growth of food grains. There was need of creation of employment opportunities to large-scale population of the state. Government of Maharashtra quickly realized it.<sup>58</sup> This further testified from the number of works in progress, number of workers working on the relief works and expenses incurred.<sup>59</sup> Urgency, speed, expeditious and prompt action, was contemplated by state government from each department and officer. Higher authority performed supervision of work assigned promptly and keenly. Instructions pertaining to

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<sup>56</sup> Brahma Sulbha, 1972 Drought in Maharashtra Gokhale Institute of Politics and economics (Orient Longman, 1983)

the Table 4.1 p. 52

<sup>57</sup> Hari Govind Vartak, minister of revenue and forest department government of Maharashtra Preface to the booklet of scarcity rules. p.1 dated 14<sup>th</sup> December, 1972.

<sup>58</sup> 2<sup>nd</sup> January 1971 instruction to all superintending engineers only administrative approved schemes be executed. P.20 Immediately after 19 days government realized the gravity of situation and ordered to all superintending engineers Nothing should be done by the building and communication department officers that will have effect of slowing down the progress and delaying the commencement of works. G.C.M. B & C.D. No FAM-1071/130844-D, dated 21 January, 1971. p.24

<sup>59</sup> On 30<sup>th</sup> June, 1971 total labor attendance on the work was 4lakh 96 thousand and expenditure incurred 7 crores 35 lakhs rupees and 4779 works were in progress. V. Subramanian appendices table II-(vii) p. 567

preparation of plans, reporting, proper accounting, purchasing of equipment's, delegation of power pertaining to preparation of plans, delegation of power to officer regarding temporary and permanent recruitment of employees. Broadly, there were five types of government orders or instructions issued from secretariat to lower rungs of officers and collectorate. Demi official letter, Government circular, Government circular memorandum, Government endorsement, Government letter, Government memorandum, Government notification, Government resolution were the different types of official decisions, orders and other means of communications are embodied in the compendium compiled and published by ministry of revenue and forest of state government.<sup>60</sup> During the year 1970-71 from 21 districts 230061 villages among total 32006 villages declared scarcity affected villages. Among scarcity declared villages 16151 villages were Kharif and 6910 were Rabi villages.<sup>61</sup> Revenue minister claims that government was vigilant enough and government immediately took appropriate steps to alleviate the distress caused by drought of affected region. Revenue minister and chief minister visited drought affected districts and guided officers to deal with situation. It was directed to declare *anna* assessment of crops by end of November 1971 or before 15<sup>th</sup> of December 1971. Collectors of respective districts ordered to remit the land tax and suspension of taxes and revenue payment from peasants. It also ordered to officials of co-operative establishment not to take repayment of loan or other dues forcefully from farmer. Further, it was suggested that of all officials and representative of local self-government to formulate and plan schemes for relief works.<sup>62</sup> Red tapeism put to an end. To take action expeditiously, all the famine relief works sanctioned at once in the secretariat committee headed by chief secretary of state. Power to put administrative sanction up-to 1 lakh delegated to collectors. The heads of other department delegated appropriate order to take immediate action. <sup>63</sup>From the very beginning of the distress, bureaucracy of state government was aware of the draft provisions of scarcity manual as well as changes accommodated therein regarding relief operations. Bureaucracy of state government was

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<sup>60</sup> Revenue & Forest Department Government of Maharashtra, Scarcity and other calamities, A compendium of Government orders Vol. 1 and Vol. 2 1974

<sup>61</sup> Varatak Bhausaheb, Lokarajya 1<sup>st</sup> October 1971 p.16

<sup>62</sup> Loc.cit

<sup>63</sup> Ibid pp.116-117

very keen on getting maximum central assistance. Number of directions and instructions issued from state secretariat asking to furnish detailed information in prescribed Performa by every fortnight, further to keep the appropriate account of expenses incurred which are chargeable for central assistance under the head of “64-A famine relief.” Team of central government and even team of planning commission also praised bureaucracy for its efforts maintained the accounts with details. A complete dovetailing between the plan works and the relief works achieved at considerable extent during scarcity relief operations.<sup>64</sup>

It is clear from the compendium of government orders of 1973 that as the distress went on mounting government orders became more flexible and seeking more urgency and promptness from officials working at grassroots level and involved in planning and execution.<sup>65</sup>

#### **4.7 System of Rules**

One important feature of scarcity relief administration has been the issuing of rules on large numbers and instructions from the secretariat to regulate the operations at the field level. Between July 1972 and July 1973 there was a great outpouring of rules. Out of about 350 instructions issued during 1970-73, more than 250 were sent down between July 1972 and July 1973.<sup>66</sup> It was the peak scarcity period in terms of total labor force

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<sup>64</sup> Subramnian V p. 156 of Government issued order in August 1971 to the effect that the plan allocation and works should be opened as far as possible at scarcity affected areas. Again in February 1972, directions were issued to the effect that the implementing officers/ agencies should certify that provision for plan works in the drought affected areas have been deployed to the fullest extent possible for relief schemes in those areas. Unless such a clear certificate was issued, it would not be possible for government to reimburse the excess of expenditure from the relief grants placed at the disposal of the collector. (p.157)

Dovetailing was effectively implemented in soil conservation work and in irrigation works. The average daily worker attendance on major and minor irrigation project was 24400 during the year 1972-73. (p. 158)

<sup>65</sup> Government of Maharashtra ‘Scarcity’ Compendium of government of Maharashtra, revenue and agriculture department of Maharashtra following date wise orders will substantiate the conclusion: (1) Scarcity relief plan G.L., B & C.D. No. FAM-1070/130844-D dated 2<sup>nd</sup> January 1971. Addressed to all superintending Engineers of the Building & communication circle ; only administratively approved schemes, priority to only productive work, p.2 (2) Nothing should be done by the building and communication department officers that will have effect of slowing down the progress and delaying the commencement of the works. Executive engineers Buildings & communication department should help Zilla Parishad in preparation of plans and estimates promptly when approached Zilla Parishad in preparation of plans and estimates promptly when approached. G.C.M.B.&C.D.No FAM-1071/130844-D, dated January 1971, p.24

<sup>66</sup> Government of Maharashtra “Scarcity” Government of Maharashtra Department of forest and revenue compendium of government orders Vol. 1&2 precisely there were 247 rules published in that among the government orders 118 were Government resolutions. There were 97 government circular resolutions in both volumes of government compendium.

engaged in different kinds of works. Governments' resolutions are generally published in government gazettes and are binding on government as well as invariably enforceable. Government resolutions have thus higher statutory effect. Government circular resolutions are addressed to concern government officials and are binding on the government officials. This suggests seriousness, urgency and promptness on the part of state government while dealing with relief operations during scarcity. Demi official letters are also important government orders which are written by higher government officials to their respective subordinates asking immediate and prompt actions. Among these D.O. letters most of the letters are from secretary of revenue and forest department who himself was chief coordinating officer at centre. It shows the efficiency and dedications of chief of coordinating relief operations of state government in dealing with such a colossal task. Government endorsement government letters, government circular memorandum, government notification, are other type of government orders complied in the government compendium. A number of rules issued explaining what work or portion of it would entitle to draw from the expenditure head '64-A' famine.

A careful analysis of the government orders issued during 1970-73 reveals the objectives and in turn functions of these rules. Some of the rules serve authorization function authorizing persons to undertake particular jobs and to increase by delegation the competence of particular officers. Some of the rules satisfied objective to bring uniformity in scarcity administration, helps in impersonalizing administration by which malpractices and expenses can be checked and controlled. Instructions were often issued, to modify earlier orders expanding their scope or providing 'correct' interpretation. A number of orders were promulgated on new road works, construction of percolation tank and with regard to compensation for land acquisition. Some orders were issued with purpose of de-politicization. In this respect some orders were issued to aware lower authorities from pressure of local pressure group. It can be understood from following example. In order to ensure that the selection of the site for the community well is not made in such a manner as to unduly favor the bigger landowners or is otherwise on an



unsuitable land, the information about the site selected by the village Panchyat should be given by it to the Panchyat Samiti.<sup>67</sup>

In conflict situation the secretariat was acting as an arbitrator and sending down instructions to remove misunderstanding between the parties involved. The cumulative effects of number of rules seems to have been and abject dependence of the field officers on the secretariat. Every bit of operational norm was being set by the secretariat and the administrators down below were to follow the rules like automatons. As the rules were coming like an avalanche at peak of scarcity, one could appreciate the anxiety of the secretariat to reach out the problem situations. The rules were steadily spanning the normal psychological distance between the secretariat and the field.<sup>68</sup>

#### **4.8 Some Observations on Administrative Structure and Establishment**

The interaction between different functionaries produced inter-organizational integration and new interpersonal structure congruent with the task of emergency administration. Constant and elaborate rules issued from secretariat ensured conformance to standard procedures and accountability of the field level officers to state government. Close approximation to a management by objective model within which controls were more purposive and specific task oriented was sought during this distress. Delegation of power led to dispersion of great deal of controlling authority among lower level functionaries. Controls within scarcity organization increased more than in normal administration. The integration of diverse organizations of governments' different administrative limb produced new normative structure with realignment of roles and relationships. Hierarchical rigidity was modified to some extent. It is proved by the fact, that, when under a government order, the authority to make payments to scarcity labor was taken away from the engineering staff and given to the revenue staff instead, this was not liked

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<sup>67</sup> The Block Development Officer and the Deputy Engineer of the Panchyat Samiti should verify that in selecting the site the conditions laid down by government in this regard and in particular the selection of the landowners to be benefited by well had been adhered to. In case they find that there is any deviation from the direction given by government, the Block Development Officer in consultation with the Deputy Engineer shall have power to reject the site or to suggest an alternate site. Similarly, instructions were issued to accommodate the interests of the economically depressed classes by authorizing construction of some community wells specifically for the scheduled castes and schedule tribes.

<sup>68</sup> Mathur and Bhattacharya pp.50-54

the former. The increased emphasis on formal and informal meetings visits and face-to-face interactions among individuals taking part in scarcity operations produced a new interpersonal structure commensurate with the needs of emergency. In traditional bureaucratic frame and organization some changes took place hierarchical rigidity was modified and certain levels were eliminated. Division of labor and specialization of tasks were adhered to yet there were more intra-organizational interactions and across-the-boundary communication. Rules were sedulously issued and scrupulously followed. But, in emergency the tremendous rate of multiplication of rules provided for needed flexibility. There was sense of personal involvement in alleviating misery which has often been alleged to be lacking in normal times.

#### **4.9 Some observations on financial administration**

1970-73 drought operations were unique in many respect financial management and account keeping was one of such aspect. Policies of Center-State financial relation went on changing over the years in many respects including central assistance to state during natural calamities. People of Maharashtra and government of Maharashtra were very much fortunate during this calamity that during distress governments at centre and state belonged to same political party i.e. Congress. Annasaheb Shinde and Yeshwantrao Chavan were the ministers from Maharashtra in center. These both ministers were holding important portfolios Honorable Annasaheb Shinde was the minister of state for agriculture and food. Honorable Yeshwantrao Chavan was holding portfolio of finance. This helped in pooling central assistance to state. Even prime-minister Mrs. Indira Gandhi visited Maharashtra during peak period of distress. A government of India was very keen and prompts in assessing the situation through central assessment team and releasing the central assistance. It made state government and people of Maharashtra relieved. The pattern of central assistance for expenditure on relief envisages that the state government should bore 25% of cost of relief operations. The amount receivable for scarcity relief from centre amounted 75% of total expenditure incurred on relief operations. The amount thus receivable from centre was further bifurcated as two third in the form of grants in aid and one third as loans. Fourth finance commission laid down this procedure in 1966. For release of central assistance to state during calamity on the

spot assessment of situation by central team and it ceiling of amount made essential precondition.<sup>69</sup>

It was the promptness, efficiency, pragmatism and understanding of procedure of financial management on the part of bureaucracy of Maharashtra state that made them very prompt in record-keeping and account keeping. In order to enable the timely submission of information about the figures of expenditure from the districts and the timely reconciliation of these figures with the audit office, the state government appointed separate and special account staff for obtaining information from the districts, and verifying/reconciling this with figures in the audit.<sup>70</sup> Reimbursement from central government for the expenditure incurred by state government is depending on the submission of audited accounts and verifying entries from the treasuries.<sup>71</sup> Ways and means advances and ad hoc grants loans sanctioned by government of India from time to time to the state government are the other forms through which government of India assist the state government for the carrying the relief operations.<sup>72</sup> The work done by the accounts staff was in the nature of concurrent verification rather than a post facto one. This was a very wise step, because the expenditure incurred by the various implementing agencies during the three years of the drought was so heavy that if concurrent verification had not been undertaken, perhaps supporting records may not have been available after some time and it would have been difficult for the state government to send authentic figures of expenditure and for government of India to release assistance or close the relief accounts.

Year 1970-71 was the first year of distress in early days of distress there were plan works in progress at various levels in various villages. Budgets and financial arrangements to these works were already made and on the eve of such occasion scarcity conditions emerged due to underperformance of monsoon. Consequently scarcity works also progressed at such instance bureaucracy of Maharashtra devised new strategies in order to utilize plan expenditure that has been already arranged and scarcity expenses that has

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<sup>69</sup> Subramanian V., pp.85-86

<sup>70</sup> Subramanian V. Parched Earth Oriental Longman 1976 p.119

<sup>71</sup> Ibid p.118

<sup>72</sup> Ibid p.119

to be utilized from the drought and scarcity financial arrangement. It was decided that the plan works should started and implemented at fullest swing and the excess amount spent therein on scarcity works which was more than the allocated amount of plan expenditure should be spent on such works was to be reimbursed from financial provisions made for scarcity works. This type of arrangement is known as dovetailing between scarcity works and plan works and was effectively implemented during this calamity by state government. Central government was suspicious about Maharashtra state that government was might be using scarcity funds for plan works. However, the accounts were reproduced by state government on demand of central government and it was amply clear that there was no saving in expenditure of the plan provisions and was fully utilized.<sup>73</sup> Government issued order in August 1971 to the effect that the plan allocation and works should be opened as far as possible at scarcity affected areas. Again in February 1972, directions were issued to the effect that the implementing officers/ agencies should certify that provision for plan works in the drought affected areas have been deployed to the fullest extent possible for relief schemes in those areas. Unless such a clear certificate was issued, it would not be possible for government to reimburse the excess of expenditure from the relief grants placed at the disposal of the collector.<sup>74</sup> Dovetailing was effectively implemented in soil conservation work and in irrigation works. The average daily worker attendance on major and minor irrigation project was 24400 during the year 1972-73.

#### **4.9.1 Release of Central Assistance**

The statistics related with central assistance is appended in table in table No. AT-43 and T.No. AT-44 appended in Appendix-A. See also detail information appended in appendix-D.

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<sup>73</sup> Subramanian V. Governmetn issued order in August 1971 to the effect that the plan allocation and works should be opned as far as possible at scarcity affected areas. Again in February 1972, directions were issued to the effect that the implemeting officers/ agencies should certify that provision for plan works in the drought affected areas have been deployed to the fullest extent possible for relief schemes in those areas. Unless such a clear certificate was issued, it would not be possible for government to reimburse the excess of expenditure from the relief grnats placed at the disposal of the collector. (p.157)

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p.157

<sup>74</sup> Subramanian V. p,157

Government of Maharashtra incurred total 268.39 Croer on scarcity relief program out of that 222.52 corers were received from union government in the form of loans and grants in aid. Out of that 102.25 croers were in the form of grants in aid and remaining 117.27 croers in the form of loans. Substantial financing of the scarcity relief works came from union government. Same party government at centre and state, better follow up and records by state officials and representation of Maharashtra by able ministers Yeshwantrao Chavan and Annasaheb Shinde helped in pulling this much assistance from centre. As far as release of central assistance concerned up to the end of financial year 1972-73 it was smooth procedure. However, there was marked change of central team towards Maharashtra in expeditious visits and then releasing assistance to Maharashtra. The installments of assistance not only delayed but curtailed to large extent. The anxiety of drought and food condition all over nation was looming large and approach of members of planning commission towards of Maharashtra became suspicious and rigid in assessing releasing assistance. Financial constraints on union government due to prevailing drought condition over other states and sort of jealousy of planning commission of members the amount state government was pulling some of probable reasons quoted by Subramanin for centre's apathy. The follow up actions by executives in Delhi, repeated appeals of state council of ministers to Prime Minister and Maharashtra's efforts in drought alleviations by Maharashtra bore fruit and officials of union government and union government itself finally rose to occasion and helped Maharashtra government in fighting against such a colossal distress. The vivid description of release of central assistance is narrated separately in Appendix. From October 1972 onwards food situation worsened over state and for more quotas for state government had to make repeated appeals to union government for increase in grain quota. However, the situation on food grain front did not improved much.

#### **4.10 State Performance in Relief Operations during drought of 1970-73**

Of the 35800 (approx) villages in Maharashtra State, 23062 villages in 1970-71, 11828 villages in 1971-72 and 25488 villages in 1972-73 were declared to have been affected by scarcity. A population of nearly 2.5 to 3 croers in the rural areas was caught in the vortex of drought. Production of food grains was less than normal by about 18% in 1970-71,

29% in 1971-72, and 54% in 1972-73. The loss or damage to crops, if an attempt is made to quantify it, amounted to several crores of rupees. During the year 1971-72 at the peak of distress the labor attendance on the relief work was 14.60 lakhs in September 1971; at the height of the drought in 1972-73 the labor attendance on the relief works was mounted to 49.47 lakhs at the end of May 1973 when the intensity of the distress and the need for relief were at their highest. During 1971-72 a total expenditure of Rs. 40.33 crores were incurred on relief works in 1972-73 an expenditure of Rs. 75.71 crores were incurred and during 1973-74 up to 31 December 1973 a sum of Rs. 136.83 crores were incurred on scarcity relief operations. This valuable statistics is provided us by V.Subramanian.<sup>75</sup> He further provided information about works completed during scarcity as scarcity relief program. 21.68 lakh hectares were bunded, the construction of 4801 minor irrigation and percolation tanks was commenced and of these 1479 were completed during the drought period itself, 586 canal excavation works were completed, the total length of the canals excavated being 1859.5 km. 56686 community wells were commenced and 17468 of these water had been struck and steps were being taken to complete the wells so that they resulted in permanent accentuation of water resources mainly for irrigation. 78184 km of earthwork of roads were completed and 58798 km were brought to safe stage in large number of these completed roads State Transport services commenced operating thus adding appreciably to the infrastructural facilities of the several thousands of villages whose means of communication to the nearby markets and towns were either poor or unsatisfactory. Besides there were a number of villages tanks constructed, canals and wells de-silted and forestation works taken up. Wherever possible, drinking water sources were either created or improved and arrangements were made to supply drinking water by means of tankers, bullock-carts and jeeps to over 700 villages.

About 40000 tones of fodder were procured from all sources including forest plantations, Army sources other states, etc and distributed either for cash or against tagai to the need agriculturist. Over Rs. 1 croere was spent as subsidy for transporting fodder from various sources to the ultimate destinations, 43 lakhs of laborers in the relief works were

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<sup>75</sup> Subramanian V.p.515

provided with Sukhadi a highly nutritious supplementary food prepared and distributed by one of the most dedicated philanthropic organizations of this country Viz., the Shri Sadguru Seva Trust. Throughout the period of the drought there was not a single case of epidemic or death by water poisoning. Above all, in spite of the grimness of the tragedy and meager availability of food grains, not a single man, woman or child died of starvation during the entire period of drought and this brings out again the response of the people and Government of Maharashtra to the challenge.<sup>76</sup>

Bureaucracy and executives of state tried hard to relieve the distress and scarcity of essential needs of society. Ensuring sufficient food, fodder and drinking water to scarcity affected people is major aspect of scarcity relief programme. Statistics and figures appended in through Table No. to Table No. appended in appendix A testifies stupendous task that fulfilled by government. Following attempts and measures were taken during scarcity to fulfill the scarcity relieve operations.

### **Food**

Government took several steps to ensure food supply to every household. But the year 1972-73 proved all India food grain deficient year. It was also global drought year and therefore food grain deficient year. It was too difficult to pull food grains from other Indian states and from abroad. But still attempts on the part of state government were appreciable. There were three consequent years of rainfall deficiency. State government and people of Maharashtra were aware of the situation. It was acknowledged by government in August 1972 that the coming years may pose serious threat to food security. Therefore government posed certain restrictions like not to issue food grains to big and medium land holders.<sup>77</sup> Special concessions were granted to raise the food grains and fodder at river bed in fertile soil from 10<sup>th</sup> August 1972 onwards when it was cleared

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<sup>76</sup> Ibid pp. 515-56

<sup>77</sup> Scarcity Compendium of government rules G.R. Vol.2 (p.13) Those cultivators who hold wet lands and produce sufficient foodgrains should not be supplied foodgrains through fair price shops till such date as the foodgrains produced by them last for their bona fide personal consumption. (p.18) Those cultivators who hold wet lands and produce sufficient foodgrains should not be supplied foodgrains through Fair Price Shops till such date as the foodgrains produced by them last for their bona fide personal consumption. G.C., F & C.S.D., No. FGS-1072/23443-A, Dated 17<sup>th</sup> February 1973: GCF p.24 foodgrains to cultivators though having more than 5 acres of land where annewari is less than 6 annas.

that the Kharif prospects were looming.<sup>78</sup> In same effect Nala and River bed were thrown open to same purpose.<sup>79</sup> In order to strengthen the public distribution system number of fair price grain shops increased during 1972-73.<sup>80</sup> To grow more wheat during Rabi season it was decided to provide more water on priority basis.<sup>81</sup> Collectors were ordered to sanction loan not exceeding Rs. 2000 to village Panchyat if necessary, for opening fair price shop. In case of monetary difficulty concessions to cooperative society and Panchyats were granted. It includes supply of food grain to village Panchyat shops on credit for one month. This concession was extendable where shops allotted to village Panchyat because no cooperative or other agency is ready to run the shop.<sup>82</sup> It was also directed to collector that when received quota of food grain from state and central government not sufficient, then allot the stock of food grains equitably to all parts of his jurisdiction.<sup>83</sup> Collectors were also assigned job of ensuring effective functioning of supply of food grains to acutely affected scarcity area on priority basis than the irrigated area. The statutory provision of appointing vigilance committee was worked out to restrict the malpractices.<sup>84</sup>

## **Fodder**

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<sup>78</sup> Scarcity compendium of government rules vol.1 p.141 G.R.,I,&P.D. No. BKS 1072/p(4) dated 10<sup>th</sup> August 1972

<sup>79</sup> Government of Maharashtra Revenue and forest department Scarcity compendium of government rules vol.1 1973 P.144 G.R., R. F.D., No. LND-1072/38863-A-2 dated 14<sup>th</sup> August 1972

<sup>80</sup> Scarcity compendium of government rules vol.1 p. 145. There should be at least one fair price shops within a radius of 5 miles. More shops can also be opned if necessary G.L. F. & C.S. D. , No. FPS- 1072/ 17187-N, dated 18<sup>th</sup> August 1972, addressed to collector of Poona and copy to all other concerned officers.

<sup>81</sup> ibid vol.1 GR. &F.D. No. lnd 1072/38863 14/9/72GR., P.165

<sup>82</sup> Scarcity compendium of government rules vol.1 p.142 G.C., F.& C.S.D., No. FPS. 1072/12115-N, dated 11<sup>th</sup> August 1972.

<sup>83</sup> Ibid G.R. Vol.2 p.59GCFCS D if the supplies of food grains made are insufficient to meet the full requirements of the fair price shops collectors should distribute the stock amongst the shops on an equitable basis proportionate to the units attached to them. Distribution to the cardholders especially in the scarcity areas should also be on an equitable basis the collectors should ensure effective functioning of the distribution system by constant personal supervision.

<sup>84</sup> Scarcity Compendium of government rules G.R. Vol.2 p.82 G.C.F.C.D. No FPS-073/15703-N, dated 19<sup>th</sup> May 73 collectors to check malpractices in distribution of food grains and to set up vigilance committees at various levels to keep a close watch on the working of the fair price shops p.83GCF&CSD., No QNT-1071/21032-A dated 19<sup>th</sup> May 1973 The collectors should arrange for distribution of the available stock of food grains in such a manner that scarcity affected areas with less availability of food grains get preference over the irrigated areas or areas where crop conditions have been better. The collectors should also ensure that there is no delay in moving and distributing food grains to and in the



As agriculture was backbone of Maharashtra's economy. Mechanization of agriculture was far from common farmers of Maharashtra. Agriculturists were depending upon the bullocks for almost all agricultural operations. Dairy was important significant side business for agriculturist. These factors contributed to swell the livestock population of Maharashtra to 1.8 croers. Out of which 75 lakh cattle population faced the problem of acute scarcity of fodder. State government in its endeavor to fight against want did everything to save the cattle wealth of poor agriculturists. Age old legacy of famine code practices forest land and pastures opened to cattle to tap all forest sources.<sup>85</sup> As a result of these facilities 661 closed areas in eight forest divisions in eleven districts occupying an area of 39549 hectares were thrown open for cutting grass and foliage.<sup>86</sup> Transpiration of fodder from surplus area to deficient area and from surplus state to Maharashtra state, opening of cattle camps, to seek assistance from sugar factories for fodder in the form of cane top, growing of fodder crop wherever possible with help of government and chief minister's fund and nongovernmental agencies, were other measures followed.<sup>87</sup> Manufacturing of nutritious cattle feed,<sup>88</sup> from viable alternative and opening of cattle camps were measures adopted by state government. These measures were innovative and ensuring optimum utilization of scarce resources available. The measures adopted were economical implemented and sought which were not even contemplated by predecessors involved in framing famine codes.

A vigorous program of collection of grass was also undertaken by the forest department for supply to the acutely affected areas. Till the first week of July 1973, a quantity of 16266 tones of green grass was collected from Chanda, Amravati, Nagpur, Thana, Nasik and Poona and Aurangabad forest circles. The total net quantity of dry grass collected was 15033 tones. . An amount of Rs, 26.50 lakhs was sanctioned to the forest department

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<sup>85</sup> Ibid G.L.,R& F.D.No. MFP-1572/569014-Y dated 13<sup>th</sup> April72 p.115 Anjan foliage permitted free of cost. Pastures land to village Pnachyat allotted free of cost or at concessional rate. 190 pastures were given free while 537 sold at concessional rate for grazing purpose. The grazing in and around forest area where there are no trees free forestation porgramme carried out free of cost. Maximum number of cattle were allowed to graze. There are other measures suggested to grow fodder wherever possible including pvt. and trust lands.

<sup>86</sup> Subramanin V.p.229

<sup>87</sup> Ibid Opp. Cit. p.142 G.R.R., & F.D. No.LND-1072/3863 A-2 dated 14<sup>th</sup> August 72 Subramanin p.261 agricultural universities to raise fodder in their farms.

<sup>88</sup> Ibid p.14 G.C.R.,& F.D.No.SCY-1372/153809-J dated 12<sup>th</sup> February 1973.Instructions regarding preapartion and distribution of Bago-Molases the cattle feed should be given in cash or kind against Tagai loans to the needy agriculturist on no profit no loss basis. It should not be given free. Sugar factories to be given compensation for using furnace oil in lieu of bagasse spared for cattle feed.

for the work of collecting grass, out of which Rs. 27.11 lakhs have been spent. Assistance from charitable trusts and volunteer agencies was sought in collecting and distributing fodder with paying them appropriate management and transport charges.<sup>89</sup> If there were no any other charitable institute to carry such works collectorate of respective districts were assigned the job.<sup>90</sup> Fodder was distributed to agriculturists as Tagai loan. Attempts were made to sale the fodder to agriculturist at reasonable price in lieu of Tgai loans.<sup>91</sup> Charitable institutes who were involving in transporting and distributing fodder were also replenish with amount which they spent for the same.<sup>92</sup>

With the help of central government attempts were made to procure fodder from other states. However, only Gujarat state responded positively.<sup>93</sup> The military authorities had also helped by dispatching 2436.5 tones of fodder. These were assigned to the four acutely affected districts of Nasik, Aurangabad, Ahemdnagar and Osmanabad

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<sup>89</sup> Ibid p. 45 G.C. R. & F.D. No. SFD-1373/57422-J dated 21<sup>st</sup> March 1973. Collectors authorised to give advances to agencies undertaking distribution of fodder upto Rs. 10000 in each case recoverable in full immediately after the fodder operations are over. p. 255 G.C. R., & F.D., No. SFD-1372/243514-J dated 3<sup>rd</sup> December 1972. Institutions bringing fodder from places within the district for supply to the affected areas are eligible for subsidy on those bringing from out-side

<sup>90</sup> Scarcity compendium of government rules Opp. Cit. P. 199 G.C., R. & F.D., No. SFD-1372-24351-J dated 30<sup>th</sup> October 1972. p.141 G.R.,I,&P.D. No. BKS 1072/p(4) dated 10<sup>th</sup> August 1972 special concession regarding water from notified and other rivers for failing food crops and fodder.,

<sup>91</sup> P. 23 G.R., R.& F.D., No. TAG-1172/58530-S dated 22<sup>nd</sup> February 1973. During the current scarcity period, fodder tagai may be granted upto Rs. 300 in 3 equal instalments., p. 48 G.R., R. & F.D. No. TAG-172/247716-S dated 27<sup>th</sup> March 1973. Maximum period of 5 years for repayment of fodder Tagai by Tahsildar or assistant or deputy collectors.

<sup>92</sup> Ibid p. 255 G.C. R., & F.D., No. SFD-1372/243514-J dated 3<sup>rd</sup> December 1972. Institutions bringing fodder from places within the district for supply to the affected areas are eligible for subsidy on those bringing from out-side. P. 231 Subramanian Central relief fund purchased fodder from Dadara and Nagar Haveli and distributed the same to affected farmers Rs. 18 lacs for tagai loans sanctioned to sell the fodder to agriculturist which they have purchased from above mentioned area. 25000 bales of 100 kilos were purchased and sell to agriculturist against cash payment or tagi loans. The farmer were charged RS. 12.50 per bale or Rs. 125 per tonnes. the institution or social worker responsible for the distribution of the fodder paid Rs. 1.50 per bale as donations to the central relief fund. The price of the gras was RS. 12.50 per bale or Rs. 125 per tonne. The institution or social worker responsible for the distribution of the fodder paid R. 1.50 per bale as donations to the central relief fund. In regard to supply to Panjarpols, cattle camps or other institutions the price of grass was Rs. 12.50 per bale, and in addition a donations of Rs. 3.50 per bale was given to the central relief fund. All the doantions and the sale proceeds wer to be credited of the central relief fund was affected from these proceeds.

<sup>93</sup> Subramanian pp. 230-231 As a result of discussions between the chief minister of Gujarat and Maharashtra it was agreed that Gujarat should supply 1000 wagons of grass to the affected areas of Maharashtra. The government decided that 760 wagons might be earmarked for the needs of the acutely affected area and 240 wagons for the requirement of the government milk colony at Aarey. As a fist installment the Gujarat government released 500 wagons out of which 240 and 260 wagons loads respectively were dispatched Aarey milk colony and affected areas respectively. Out of the balance the Gujarat Government were able to supply only 120 wagons of grass and 350 wagon of paddy straw. The former was assigned to the collectors of six acutely affected districts proportionately and since the latter was not accepted by the affected areas it was transferred to Aarey milk colony. The arrangement for transport were made by the central relief fund which had previous experience in the field, and which was itself implementing a similar scheme for collecting grass from Gujarat and sending it to the affected areas in Maharashtra.

proportionately. Nearly 415000 sheaves of kadba and 5620 tonnes of kadbak-kutti were received by the affected districts from the better of districts.<sup>94</sup>

The total camps sanctioned were 376 with an intake capacity of 466910 cattle. Out of these only 156 camps were opened and the maximum number of cattle admitted were 40809.<sup>95</sup> Comparatively well-off districts were assigned duty to open cattle camps for severely affected districts. Such as Buldahana for Aurangabad Parbhani and Jalagaon district assigned duty to organize and host such camps.<sup>96</sup> Cattle camps were not successful scheme on account of number of reasons mainly wide spread distress and people were not ready to shift their cattle far from their homes.

For transportation of fodder across the state borders appropriate instructions and certificates were issued to transporting agencies and charitable trust whosoever involved in these exercise. Railway department provided the transportation at concessional rates.

A total expenditure of Rs. 1.13 crores was incurred on the payment of subsidy on transport and in other incidental measures from relieving scarcity of fodder during the period from 1<sup>st</sup> April 1972 to 31<sup>st</sup> December 1973. Tagai loans for purchase of fodder were sanctioned. Till 31<sup>st</sup> March 1973, an amount of RS 39572173 was disbursed on this account. During the year 1973-74, an allotment of Rs. 2.98 crores was placed at the disposal of the commissioners and collectors for the advancing fodder loans. Till 31<sup>st</sup> December 1973, an amount of Rs. 2.07 crores was disbursed. Fodder loans were made payable in 5 years, instead of 3 years. For purchase of bullocks 1000 Rs loan per

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<sup>94</sup> Subramanian pp. 230-231 The situation was extremely acute in the ten districts of Aurangabad, Beed, Osmanabad, Ahmednagar, Solapur, Satara, Sangli, Poona and Nasik and Dhulia. Some of the districts of the Bombay division and the eight districts of Vidharabha division were comparatively in a better position limited supplies of kadba were available after meeting the local requirements. The collectors of the acutely affected districts were therefore directed to persuade the co-operative and registered institutions and individual merchants with good reputation to obtain supplies from the better off districts and distribute them to the agriculturists in the affected areas at reasonable price to determined by the collector. It is a matter of gratification that in some of these better off districts, several generous-minded farmers came forward voluntarily to donate substantial quantities of fodder to the agriculturists in the affected areas and even to look after their cattle for the sometime.

<sup>95</sup> Subramanian p.233, But one of the magnificent feature of the relief administration during the drought in 1972-73 was the eager readiness with which several philanthropically minded individuals and non-governmental institutions came forward to help government in an almost adventurous endeavor of fighting a famine of unprecedented proportions. The cattle camps were generally opened in areas where facilities of drinking water and fodder were easily available. Similarly, accommodations was also required to be arranged for the cattle owners or the cattle attendants who came along with the cattle.

<sup>96</sup> Government of Maharashtra revenue and forest ministry 'Scarcity' Opp.Cit. p. 247 D.O. R. & F.D., No. SFD-1372-J dated 30<sup>th</sup> November 1972 from shri V. Subramanian secretary to all collectors of Vidharabha region. In Vidharabha where fodder position is much better useful cattle from neighbouring districts should be allowed to graze and cattle camps opened.

agriculturist were made available with interest rate of 5.5% per annum. The loan was made repayable in 7 years instead of 4 to 5 years as usual. In purchase of bullocks collectors formed the committees and through this committee purchase were made tactfully.

The state government did make heroic, almost Herculean efforts to tide over the situation by taking several steps. But these steps had their limitations and only the onset of a good monsoon during the year 1973-74, can be said to have saved the situation from terrible disaster.

### **Tagai**

During the year 1973-74, an allotment of Rs. 2.98 crores was placed at the disposal of the commissioners and collectors for the advancing fodder loans. Till 31<sup>st</sup> December 1973, an amount of Rs. 2.07 crores was disbursed. Fodder loans were made payable in 5 years, instead of 3 years. For purchase of bullocks 1000 Rs. loan per agriculturist were made available with interest rate of 5.5% per annum. The loan was made repayable in 7 years instead of 4 to 5 years as usual. In purchase of bullocks collectors formed the committees and through this committee purchase were made tactfully.

The state government did make heroic, almost Herculean efforts to tide over the situation by taking several steps. But these steps had their limitations and only the onset of a good monsoon during the year 1973-74, can be said to have saved the situation from terrible disaster. Measures taken by forest departments

### **Drinking water**

There were about 28000 villages in Maharashtra in which the attempts were made to solve the problem of water supply.<sup>97</sup> Every possible way to tap the all available source of

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<sup>97</sup> Government of Maharashtra p. 158 G.R., R.D.D. No. VWS. 3872/25762-F dated 7/9/72 the scheme of providing drinking water in rural areas should be accelerated and given high priority so as to ensure that every village stands covered by as adequate potable water supply facility before the close of the fifth year plan. While existing works may be continued and completed by zilla Parishad the new works should be entrusted to the groundwater survey and development agency. In difficult villages, which are certified by the groundwater survey and development agency as not having undergone water resources, the public health engineering organization of the state or the Zilla Parishad as the case may be should undertake normal water supply scheme. In villages with population less than 1000 the piped water supply scheme should be with bore as source one hand pump one power pump with storage cistern and stand posts near cistern. In villages having population more besides the facilities mentioned above normal distribution system on stand post basis should be provided. Individual hose connections should be provided only where the village Panchayat and village are willing to bear the entire capital of the scheme. The financial pattern for piped water supply schemes with bore as source should be 90 per cent government grant and 10% popular contributions.

potable water had been tackled by bureaucracy. With the help of 242 truck-mounted air-compressor blasting units obtained from the department of agriculture the agency carried out blasting operation in 5565 villages covering about 6 thousand drinking water villages from the acutely affected districts of Nasik Dhulia Ahmednagar Poona Sangali Satara Solapur Aurangabad Beed and Osmanabad.

Under the programme of revitalisation 58 mm diameter bore holes were drilled to depths of 50 to 60 feet from the bottom of existing wells to tap the deeper aquifers. The units could be operated by the same air compressors which were attached to the blasting units. Such drilling can only be done from the bottom of the existing wells, which are generally about 35 to 40 feet below ground level in depth so as to obtain the maximum benefit. Similarly 125 calex type of rotary-cum-drills were also deployed for drilling 4 to 8 inches diameter bore holes of a depth of 60 to 80 feet. The total programme encompassed 2617 villages and 87445 holes were drilled. It may be mentioned that of the 2617 villages nearly 1700 were from the acutely affected districts.

The groundwater survey of Maharashtra and development agency had procured 49 high speed air-hammer drilling rigs some of which were imported. By the end of June 1973, 30 air-hammer rigs were in operation in 20 districts. 1092 bore holes were drilled in 1042 villages covering a total footage of 180705 feet. Of these 1092 bores as many as 681 were successful. It is significant that nearly 70% of these bores were in the acutely affected districts of Aurangabad, Beed, Osmanabad, Solapur, Satara, Sangli, Poona, Ahmednagar, Nasik and Dhulia.

Nationalised banks provided assistance to sink new wells. Under this 22 schemes over 7 districts were operational.<sup>98</sup> The setting up of groundwater surveys and development agency in Maharashtra in July 1971, provided an adequate basis for the proper investigation of groundwater resources and potential.<sup>99</sup> Drinking water scarcity problem over some area became so severe that even attempt of rationing of drinking water brought into practice.<sup>100</sup> Even railway oil tankers usually used as wagons for supplying oils were

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<sup>98</sup> Subramanian pp.212-213.

<sup>99</sup> Subramanian p.211

<sup>100</sup> Government of Maharashtra, 'Scarcity' Opp. Cit. P.119 G.C. R. & F.D. No SDW-1372/56190-J dated 9<sup>th</sup> May 1972 supply of water per head per day should not exceed 9 liters a day.; . . , p. 205 G.R., U.D. P.H. & H.D. No. MWS-3672/76333-M 31<sup>st</sup> October 1972. Municipal areas where water supply falls below 3-5 gallons per head per day, should be given special treatment by the authorities concerned.

used for water supply where availability of water was not possible by any other means. This was the innovation in drought relief program which was sought by bureaucracy. Desilting of private wells and to make water available from such wells was also innovative idea. In order to augment and increase current potable water supply existing public wells were de-silted<sup>101</sup> and deepened,<sup>102</sup> new scheme of community wells introduced<sup>103</sup> Drilling of bore wells from ground surface to a depth of 200 to 300 ft. by powerful air-hammer drilling rigs some of which were donated by the UNICEF and some purchased by government.<sup>104</sup> For implementing these schemes easy and fast financial resources as cash help<sup>105</sup> or in easy installments or providing means of resources to local bodies were made or to village community.<sup>106</sup> In order to get appropriate and exact financial assistance from the centre it was made known to every concern which item is admissible for central assistance and how to keep accounts for that sake.<sup>107</sup> To tap the optimum availability ground water scientific and technical help from ground water survey was sought.<sup>108</sup> In

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<sup>101</sup> P.135. G.C.R., & F.D. No, SWK-1372/172377-J dated 14<sup>th</sup> July, 1972. Desilting of percolation/minor irrigation tanks should be taken up as scarcity works subject to certain conditions

<sup>102</sup> ibid P.110 ground water surveys and development agency G.C. G. A. D., No. GAD/DC/GSDA-72-73-CU, dated 4<sup>th</sup> April 1972. Intensive program for augmenting water supply Ground water surveys and development agency should initiate an intensive program for deepening of existing wells and the boring of new wells where feasible.

<sup>103</sup> p. 162 D.O., & F.D., No. SWK-1372 J dated. 9<sup>th</sup> September 1972, by shri V. Subramanian secretary to government to all collectors.;

<sup>104</sup> Subramanian p.212

<sup>105</sup> Ibid P.119 G.C. R. & F.D. No SDW-1372/56190-J dated 9<sup>th</sup> May 1972 government to reimburse to Zilla Parishad expenditure on supply of drinking water by tankers or bullock carts to scarcity affected villages

<sup>106</sup> For works in scarcity affected villages where water is required to be brought from a distance exceeding 3 K.M. The collector should make funds to the extent of Rs. 2000 per village available to the joint director from 64 Famine Relief: In other villages which are not declared as scarcity affected but where scarcity of drinking water is felt funds required deepening and boring of wells should be made available by the Zilla Parishad.

<sup>107</sup> Ibid p.114 G.C. R. & F.D. No. SOW-1372/56190-J dated 10<sup>th</sup> April 1972;; p. 242 G.C.R., & F.D. No. SCY-1372/247773-J dated 18<sup>th</sup> November 1972. Desilting of wells of individual owners should be taken up as relief program and expenditure should be met from “ 64-A famine Relief “ and the well should be kept open to all for drinking water purposes till scarcity prevails.; P. 234 D.O & F.D. No. SWK-1372/24747432J, dated 14<sup>th</sup> November 1972. By shri V.Subramanian to all collectors Expenditure on the removal of debris of the new wells for drinking water dug or old ones bored or deepened should be debited to the scarcity funds., p. 241 G.C., R. &F.D. , No SWK-1372/237480-J dated November 1972. Installations of pump after a new well is constructed or the old well deepened bored is a part of the program for the supply of drinking water and therefore expenditure on pump also should be debited to “ 64-A famine relief”; p.32 G.C. R., & F.D. No. SWK-1373/57419-J dated 14<sup>th</sup> March 1973. Cost of blasting and cutting of stones and their transport to the site of the community wells to be met from ‘64-A Famine Relief’ cost of transport of bricks for community wells also can be met from “ 64-A Famine Relief”

<sup>108</sup> p.110 G.C., G.A.D., No. GAD/DC/GSDA-72-73-CU, dated 4<sup>th</sup> April 1972. Ground water surveys and development agency should initiate an intensive program for deepening of existing wells and the boring of new wells where feasible. The collectors should supply to this organization a list of scarcity affected villages where acute shortage of drinking water exists or is anticipated. : The Joint Director, Ground water surveys and development agency should ensure in each affected village his geological assistants would survey more than one well and recommended a few wells for deepening take up work in the wells which are not currently providing water to the local people and endeavor to

order to reach the deep ground water beneath the hard basalt rock of Deccan new machines were imported. To take more bores even help of some volunteer agency was sought. Prevailing untouchability in rural Maharashtra noticed even in modern Maharashtra at common drinking water over rural Maharashtra. Maharashtra government issued clear orders to concern authority to provide facility of taking drinking water from common water outlet without any hurdles to all village community. Baba Adhav social reformer of Maharashtra launched special drive 'one village one common drinking water cistern.' The same policy is reflected in community well scheme and due cognizance of benefit to schedule caste and schedule tribe community has been taken. <sup>109</sup> Community well scheme was to conserve and tap the available local ground water in distress for drinking and agricultural purpose for all the community of that particular village. This scheme was more vigorously and intensely pursued by state machinery in state. This scheme was seen as making of sustainable asset and a more useful potential productive work in dearth of other productive work available at rural Maharashtra at that time. <sup>110</sup>

### **Medical Relief**

The Mumbai Municipal Corporation and its three medical colleges offered the free services of their doctors and interns for drought affected rural Maharashtra. These doctors with help of the civil department, pharmaceutical organizations, Indian Oil Corporation and other philanthropically-minded institutions set out for service in drought affected area. These medical teams were equipped with drug and mobile vans supplied by the Mumbai Municipal Corporation. Later government colleges in Mumbai city as well as government and Muncipal colleges in Pune, Miraj, Aurngabad and Nagpur joined them. This mission was put under directorate of medical and health services for drought affected areas under Dr. L.H. Hiranadani. Perfect coordination between existing district personnel and outside personnel was sought. Dispensaries, vehicles, medicines were

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complete the blasting and deepening work within 4 days at latest. : The district collectors and chief executive officers should extend the fullest co-operation and assistance to the fullest co-operation and assistance to the officers of the ground water surveys and development agency.

<sup>109</sup>p.253 G.C.R.D.D., No. VWS. 3872/51645-F-3 dated 2<sup>nd</sup> December 1972. The chief executive officers to ensure that all public wells and tanks in rural areas meant for drinking water are thrown open to Harijans, Buddhas Backward classes etc.,

<sup>110</sup> Subramanian p. 217

utilized properly with proper coordination.<sup>111</sup> Immunization, inoculation, disinfection of all drinking water, administration of doses of vitamin, distribution of drugs and medicines were assigned works to the medical students and medical units which were touring entire scarcity affected area of Maharashtra. After scarcity experience and on honorary director of medical relief's recommendation it was made compulsory to every medical intern to render his six month's service in rural area during his or her internship.

#### **4.11 Concluding Remarks**

1970-73 were drought years over Maharashtra. It was severe drought of latter half of 20<sup>th</sup> century over Maharashtra. Intensity of drought was more due to consequent droughts. Government of Maharashtra was aware of the scarcity arose due to failure of agriculture due to incessant rains in 1970 and subsequent drought over major part of state in 1971. It seems that people of state and government did not worry much from prevailing drought till August 1972. Scarcity relief programs were operational over major parts of state. In absence of environmental and ecological replenishing measures, absence of improved agronomic practices, unavailability of drought resistant varieties of seeds, absence of soil and water conservation techniques, absence of programs like water shade development and absence of major dams over Maharashtra, along with these factors moderate performance of rainfall in the sixties Maharashtra was facing drought condition over some parts or other every year. Reports of scarcity and drought elevation programs of almost every year reveal this fact. Thus, Maharashtra state was implementing drought relief programs over some parts or other every year. After measure drought year of 1971 dismal performance of monsoon in 1972-73 awakens people of state and government too. People realized that they have to face adversity in near future. To my mind this awakening created work culture in Maharashtra and saved Maharashtra from disaster. Grain situation on all India scale was satisfactory agriculture minister of state of union ministry spelled out the confidence that there was nothing to worry on grain front. However, somehow people of state and government realized the danger. Scarcity relief programs that were operational over some parts of state since 1971 picked up pace after September 1972. The experience of government and bureaucracy that had in preceding

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<sup>111</sup> Suramaniaan pp.276-277



years certainly helped them to chalking the new strategy and programs. Despite all available past literature in the form of famine code and scarcity manual on scarcity and famines; altogether different strategies followed. The new procedures and new administrative structures somewhere even institutions evolved which were not contemplated by anyone in advance. Secretariat and cabinet committees, central coordination committees are such institutes. Most significant feature of this drought is that Maharashtra government was successful in bringing substantial central assistance for its endeavor of fighting scarcity. However, after end of financial year of 1972-73 approach of members of planning commission in releasing assistance to state became rigid and tight. Certainly it caught government of Maharashtra in financially embracing condition. There were public protest for payment of their wages all around the state and government found very hard to carry further relief operations. Repeated representation of ministers and officers to centre finally paved the way for releasing further assistance to state. Union government at last realized the gravity and hardship that Maharashtra was facing at that time. At provincial level collector and his office's role in famine relief remain pivotal as laid down in old famine codes. First time in this drought public participation sought in preparing plans of scarcity works and suggesting new works. Democratic decentralization of this kind is evident from working of relief advisory committees and vigilance committees. It was first time in the administrative history of India administrative organization of Panchayati raj institute worked with revenue wing of administration without any friction. Major part of the relief operations was executed by officers of Panchyati raj institutes. Complete cooperation was sought from officers of all other wings of administration through district officers committee which was operating from collectorate. While commenting on the release of central assistance V. Subramanin asserted that union government helped Maharashtra because Maharashtra government helped itself. This implies that state machinery was on its toes while preparing, planning and keeping accounts for scarcity relief program. Administrative mechanism and works were so expeditious that there was no any hurdle in releasing central assistance. Another significant feature of relief administration was incorporating and encompassing assistance from private enterprises, personnel and nongovernmental organizations. Execution of relief program and scarcity works was inner urge of the administration of all

levels. It seems that from secretariat to talathi and from Chief Minister to Sarpanch everybody involved in relief operation with deep conviction. Two volumes of government rules produced during this scarcity itself evident that how much higher bureaucracy was keen to reach at grass root level. Frequent visits of officers and ministers from Mumbai to village and from taluka headquarters to Mumbai created electrically charged environment and created different pattern of communication. Formal hierarchical decorum and protocol in communication was never observed in expeditious execution of works. In the history of Maharashtra it was never seen such an expeditious execution of relief works. Though instances of irregularities and malpractices reported, it was herculean task of work performed during this drought. Every hurdle in execution in which ever form surfaced, was abolished. It was never in the history of Maharashtra that bureaucracy worked with such zeal and selfless motive. It was also first time in the history of Maharashtra scarcity works prolonged for such a long period. People were so accustomed to the relief works that they could not tolerate of stopping of work. There were public protests on closure of works after good performance of monsoon over some areas. The manner in which the relief operations were conducted offered excellent material to all those who witnessed the splendid exhibition of energy and enthusiasm which the administration displayed and wanted to give expression to it 1970-73 drought of Maharashtra will be remembered more for successful state interventions than its severity. In the famine history of India the efforts of Maharashtra Government and people of Maharashtra will be praised by coming generations. It was the patience, resilience, dedication, strong resolve to work hard on the part of Chief Minister, council of ministers bureaucrats and people of Maharashtra to overcome all these difficulties that led successfully to overcome distress.<sup>112</sup> The remarkable success of Maharashtra's war against want and misery achieved due to resilience and dedication of Maharashtra's

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<sup>112</sup> “ .... Maharashtra's Millions imperturbable like the Sahyadris faced the challenge of drought with confidence, courage and heroism; performance and compassion; bureaucracy by its alertness and efforts wiped away the stigma of ages attached to it; Zilla Parishads and other decentralized institutions lifted a tremendous load by taking a lion's share in the implementation of the relief measures; the conscience of entire community was stirred to go out of the rescue and the help of the suffering millions as a result of which money and other material help flowed lavishly.” V. Subramanian in Parched earth pp. 513-514

leadership. It was also due to stimulating positive response that this leadership was able to evoke from an administration.<sup>113</sup>

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<sup>113</sup> Subramanian V., p. 516

## **Chapter 5**

### **LEGISLATIVE RESPONSE TO 1970-73 DROUGHT OF MAHARASHTRA**

#### **5.1 Role of legislature within theoretical and constitutional provision**

Democratically elected government is a unique feature of modern state system prevailing over most of the countries of the world. Right from French Revolution onwards (1790) until date; ideas, techniques and methods of good governance in parliamentary form of government is being evolved. Although the legislatures exist in virtually every nation they vary greatly in their power and stability. Framers of the constitution contemplated supremacy of legislature over executive. Constitution has provided and sought harmonious blending of executives and legislature. Executives are the members of majority party of legislature and remain in power so long as they secure confidence of legislature.<sup>1</sup> Legislative bodies were empowered with varied rights, privileges and tools to make government more accountable. Legislative assemblies and councils are the source of power. Everything related with governance emanates from the legislature. Framing of governments, to direct governments to act judiciously and with public interests, to monitor governance, to bring no confidence motion, to keep check over the governance are some important functions of the legislative bodies in India.<sup>2</sup> As India had adopted British parliamentary form of government, India adopted the best practices of British parliaments. Questions, Adjournment motions, Resolutions, debates, and Legislative Committees are the instruments of legislative control over executive in India. Indian constitution had provided privileges to members of parliament and state legislature enumerated in the Articles 105 and 194 of Indian constitution. Member can remain absent as witness in the court while the house is in session. A member has sole freedom for his act behavior and speech in the house. Members are immune from prosecution and

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<sup>1</sup>Basu Durga Das Introduction to the constitution of India Prentice-Hall of India New Delhi 1993 p.193

<sup>2</sup> Ibid pp.199-200 Basu enumerates other functions of the legislative bodies like Providing cabinet, control of the cabinet, criticism of the cabinet, act as an organ of information, legislation and financial control are few significant and important functions of legislative bodies.

punishment for his any speech argument and debate in the house except judiciary. Financial control of legislature over executive attained through provisions laid down in constitution. Legislature authorizes the government to collect taxes and to spend them in a particular manner.<sup>3</sup> In theory, executive demands and the legislature approve. Budget and appropriation bill are two important instruments, which empowers legislators to guide economy on right path. It also empowers legislators for adopting benevolent schemes by allotting more funds for poor.<sup>4</sup>

The entire administrative machinery comes under the potential control of the legislature. This is because every action may provide a question; every question, an adjournment debate, and 'every adjournment debate a full fledged debate'. Besides, the Parliamentary Committees too, exercise control over the Government of the day.

## **5.2 Types of Proceedings that Keep Control over Executives**

### **Question hour**

By asking questions members can keep the entire administration on its toes. A question is an effective device of focusing public attention, in a striking manner, on different aspects of administration's policies and activities. A question usually asked with a view to getting information, obtaining ministerial opinion on a subject or hammering the government on alleged weak points. Many of the questions may be trivial, but some do cause tremendous harm to the Government.<sup>5</sup> This is a widely known, popular and commonly employed

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<sup>3</sup> Without legislative approval the amount cannot be appropriated or collected in any form. It can also abolish or decrease or levy taxes

<sup>4</sup> Therefore, before the government can work on its budget plan, it has to get it passed by the Parliament.

This is known as enactment of the budget. Discussions on the budget in Parliament provides an opportunity to the members, to review the working of various Departments and Ministries. It also enables them to obtain information on the progress achieved in the implementation of various programmes undertaken by the Government. The members get an opportunity to, Examine the relevance and efficacy of the social and economic implications of the new expenditure proposals included in the budget. After the budget is approved, the Appropriation Act is passed by Parliament, Authorizing the executive to incur expenditure against the allotments included in Various grants. Through the delegation of financial powers, the Ministry of Finance shares its responsibility for financial control with the administrative ministries during the implementation of the budget.

<sup>5</sup>the Life Insurance corporation episode of 1956 resulting in the resignation of Finance Minister arose from an answer to a question.

method of ensuring accountability from time to time members have been raising matters of great importance through their questions.

### **Adjournment Debates:**

The device of adjournment motion is a tool of day-to-day control, and may be utilized for raising a discussion in the House on any specific question of urgent nature and of public importance. If allowed by the presiding officer, an immediate debate takes place on the matter raised, thus suspending the normal business of the House.

### **Debates on Enactment of Acts and Amendments**

The various readings of a bill provide opportunities to the members of legislation to criticize the entire policy underlying the bill. The criticism may even make the Government change its mind.

### **Discussion on budget**

After the presentation of the budget, general discussion takes place. On this occasion the discussion relates to the budget as a whole or any question of principals involved therein. Similarly voting on grants provides the second opportunity. Discussion at this stage is confined to each head of the Demand, and, if cut motions are moved to the specific points raised therein, the discussion is sufficiently pointed and may be focused on specific points. Discussion on the Finance Bill provides an endless opportunity to discuss the entire administration. In the words of G.V. Mavlanker, "It is an acknowledged principle that any subject can be discussed on the Finance Bill and any grievance ventilated. The principle being that the citizen should not be called upon to pay, unless he is given, through Parliament the fullest latitude of Representing his views and conveying his grievances."

### **Audit**

Parliament exercise control over Public expenditure through the Comptroller and Auditor General who audits Government accounts to ensure that the money granted by parliament has not been exceed without a supplementary vote and money expanded conforms to rules. The accountability of Government to parliament in the field on financial administration is thus. secured Financial Control through the reports of the Comptroller and Auditor General. Parliament is mirror of public aspirations. However,

parliament has to perform various works in limited time span. Therefore, committee system is indispensable part of parliamentary democracy all over the world. This system saves valuable time of house and members' therein. Control of legislative over executive has prime importance in theory as well as in practice.

Legislative bodies in India have adopted the best methods and tools to make government more accountable on the floor of house. Policies adopted, actions taken, expenditure incurred each and every thing of governance is answerable by government to honorable members in the house. Government has to take some stand on its action. It is liable to criticism by members of ruling party as well as by members of opposition. Members have some immunities as well as privileges. Members could not get prosecuted or arrested for their action and speech on the floor of house. This provides members immunity of actions and also liberty and freeness for their any actions on the floor of house. This ensures healthy and essential sovereignty, efficiency, and effectiveness of legislature. Best methods to provide publicity to the working and proceedings of houses are adopted since its inception in India. Free and ensured access to press and electronic media for recording and briefing of the proceedings also make government accountable. Embracement of government on the floor thus provides mass publicity. It also makes government more alert and sensitive on important issues. Government has to provide authentic information to members of legislatures. Prior to right to information act true and relevant information about governance was accessible to public through legislature. The information that government collects either pertaining to question asked or otherwise is collected through very scientific method Performa and method to collect information is scientifically devised.<sup>6</sup> A record of proceedings of the houses thus is very authentic source of information to students of social sciences.

## **5.2 The Caliber and Milieu of Representatives of Both the Houses**

Most of the members of third and fourth legislative assemblies of Maharashtra were law graduates and graduates of other faculties. As the expansion of education picked pace new educated class emerged from agriculturist of rural Maharashtra after 1960. As these

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<sup>6</sup> District Registry office Government of Maharashtra, Manual of office procedure Nagpur government Press; 1970 p.31

natural leaders of society, people foresaw them as their leaders. Many young graduates from agricultural community sought this opportunity. During the scarcity and distress of acute severity caused due to consecutive droughts, congress was the major ruling party in Maharashtra. After formation of Maharashtra state second and third assembly were constituted and these assemblies performed its work. At both assemblies congress was the major political party. Congress secured 51.2% of votes and 203 seats in 1967 election. Similarly congress had secured 56.3% votes and 222 seats in 1972 assembly's elections.<sup>7</sup> It is very important to note that the qualifications, age and profession of honorable members. In third Vidhan Sabha 185 members out of 250 were between of 30 to 50 years of age. In this age group there were 23 women out of total 26 women members. The members of this Vidhan Sabha comprise quiet high number of graduates and post graduates with equally high numbers possessing professional degrees. Thus, graduates were 221 in numbers total out of 265. This age group is considered as efficient age group. The quality of debate and their performance testifies it. 121 members of this Vidhan Sabha were cultivators 50 were from legal profession 27 were political and social workers. There were sizable numbers of women members in the assembly i.e.26. Women members comprise 1 advocate, 2 doctors 4 entrepreneurs and 4 from education related field.<sup>8</sup>

Vidhan Parishad the lower house of Maharashtra legislature was also actively responding to drought situation and its proceedings is equally important to consider the legislative response. Therefore, it is imperative to go into detail background of members of this house too. Maharashtra Vidhan Parishad comprises of 78 members and some members finish their membership tenure after every two years. The house in 1975 comprises 78 seats and majority members were from 40 to 50-age group numbering 38. Among members only 3 were women. Academicians and teachers were more numbers comprising 11 and 12 respectively followed by entrepreneurs. Among the members 34

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<sup>7</sup>Shirisikar V.M., Politics of Modern Maharashtra Orient Longman 1995 p.245 table 10.8

<sup>8</sup> Government of Maharashtra legislative secretariat publication introduction to Vidhan Sabha and Vidhan Parishad 1975 pp.367-373.



members secured degrees of graduation and post graduation courses including courses such as law and medicine.<sup>9</sup> Members of such caliber were quiet aware of their responsibility. They often insisted on detail discussion. They were enthusiastic and always ready with meticulous study of every aspect of drought and drought relief works. They often visited the relief works and addressed the questions and difficulties on the floor of house. They didn't spare government and vehemently insisted government on vital important issues to act and to implement remedial issues. There were many members who were experienced with legislative proceedings like Dhondge, T.C.Karkhanis. These members were acquainted with skills of effective addressing of questions. They had ability to catch government in embracing condition by questioning government efficiency on public vital issues. In second assembly, K.N.Dhulup of Jansangh was leader of opposition.<sup>10</sup> During tenure of third assembly Dinkarrao Patil of peasants and workers party was the leader of opposition. Krishanarao Bhegade, Rambhau Mahalgi, Mrinal Gore, Keshavarao Dhondge, Anantrao Thopte, T.C.Karkhanis, Namdeorao Mate, and many others prolific parliamentarian addressed many vital issues. In legislative council there were equally towering parliamentarian includes Uttamrao Patil, N.D.Patil, Datta Tamahane and many others.

Congress government formed the government and Vasant Rao Naik was chief minister during these both assemblies. 1969 was the peak performance of Maharashtra's agriculture. However, three consequent years after that state faced acute scarcity during 1971-72 and 1972-73 and 1970-71 witnessed crop failures on account of untimely and incessant rains cause fall in agricultural produce. Drought created series of problems and consequences of it all drought related questions and issues were discussed and addressed. It revealed many dimensions aspects involved in respective issues. Best available solutions and alternatives were provided to issues and problems.

### **5.3 Evolving Rules of Proceedings and Its Impact**

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<sup>9</sup> Ibid Loc. cit

<sup>10</sup> He was elected on Kalayan assembly seat.

Since advent of constitution, there were many changes in the rules of legislative assembly of Maharashtra in accordance with the accepted and well-recognized principles of Parliamentary Practice and Procedure. Constitution has conferred powers to frame the rules of legislative assembly on speaker. <sup>11</sup>The question-procedure was revised so as to secure their more expeditious disposal. The new rules provided for the constitution and working of four more committees of the legislature viz., the rules committee, the business advisory committee, the committee on private member's bill, and resolutions and the committee on subordinate legislation. Representations to the members of the council also were given on the committee on subordinate legislation, the public accounts committee and the estimate committee. Parliamentary devices, such as notices for discussion for short duration on matters of urgent public importance and for calling attention to such matters, were also introduced in the rules for the first time. Committee on the government assurance and committee on absence of members from sittings of the houses were constituted. A new general chapter on committees containing general provisions applicable to the working of all committees was also inserted on the lines of the Loksabha (a committee to suggest changes was appointed the changes then incorporated and published in the gazette part IV-A, 1/10/1959.) The new rules empowered the speaker to treat a starred question as un-starred while admitting it in a certain circumstances. Other changes included a provision to enable the house to suspend temporarily, if necessary, the operation of any rule or rules; provision regarding registration of members; defining the scope of petitions; procedures for sending intimation of arrests, etc., <sup>12</sup> Since the publication of the 2<sup>nd</sup> edition of the rules, the said rules underwent further changes. There was another reorganization of the state in 1960. The speaker then referred the question of further changes, if any, in the rules to the Rules Committee in June 1960. The committee accordingly submitted its first and final reports

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<sup>11</sup>Government of Maharashtra Publication, Printed in India by the manager, government central press Bombay and published by the Director, government printing and stationary Maharashtra State Bombay-4 1972. While framing rules of Maharashtra state legislature changes in rules and approach came after reorganization of states on 1<sup>st</sup> November, 1956brought in its wake some significant changes in the Rule. On 24<sup>th</sup> July 1957, the speaker appointed a committee of 21 members to recommend any adaptation or modification that the rules may require. Committee's recommendations were accepted and incorporated by speaker.

<sup>12</sup> Ibid Loc. Cit.

to the House on the 8<sup>th</sup> August 1960 and 19<sup>th</sup> August 1960, respectively. Both these reports were approved by the House and the rules together with amendments as recommended in the two reports were adopted under article 208 (1) of the constitution. The salient features of the amendments then introduced in the rules were that the two financial committees viz., the Estimates and the public accounts committee would have a non-official as their chairman instead of the finance minister who till then used to be the ex-officio chairman of the these committees; powers were given to these committees.<sup>13</sup>

#### **5.4 All Pervading Drought**

As enumerated in previous paragraphs of this chapter best methods of parliamentary proceedings are included in legislative proceedings of the legislative bodies of the Maharashtra. Government bills and matters related to government, question hour and proceedings related with non-governmental matters were major parts of the proceedings in both the houses. Half hourly discussions, discussions on the adjournment motion and calling attention motion, honorable governor's address and discussion on the same, discussion on the budget, on supplementary grants, on appropriation bill, special resolutions on the drought and scarcity conditions, bill to postponement of Panchayat, Cooperative societies scheduled elections, number of starred un-starred questions and supplementary questions, debate arose in that regard on the floor of house, all such proceedings were full of concern and care for scarcity affected people throughout this scarcity. Pages after pages of proceedings dealt with only drought and scarcity. The discussion on the floor of both the houses were showing deep concern towards masses. Every aspect of rural life and every alternative of providing relief to rural masses was sought and discussed in the houses. Thus, scarcity famine like condition which was developed during 1970-73 was overshadowed over the legislative assembly and councils proceedings of Maharashtra at that time.

#### **5.5 Issues of Vital Importance**

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<sup>13</sup> Ibid. pp.4-5

Untouchability and drinking water issues highlighted existing untouchability over so-called progressive Maharashtra of that time. There were academic discussions on number of occasion over the concepts of scarcity, famine and drought in the both houses of state legislation. Price hike and measures to curb it was the issue of concern to everyone in the houses. There were resolutions in both the houses to discuss the issues related with prices of essential commodities and measures to curb it. Members vehemently addressed issues related with price hike and executive with equal promptness responded to issues. These issues had occupied sizable time and space of both the houses. Through the proceedings, it realized that the hikes in the prices were considered as major issues of the time. In order to check the restaurants rate; Grocery, vegetables grains supplied to restaurants and hotels were under controlled prices. There were frequent meeting of bureaucrats with the wholesalers and grain merchants to provide essential commodities under controlled rates same procedure was followed with vegetable merchants. Public distribution system and grain availability issue was most vigorously, frequently surfaced and stirred in the houses. Questions after questions with details ranging from supply to irregularities, misappropriation, transportation, hoarding black-marketing, and corrupt practices addressed in the houses. Starvation deaths occupied most important times of the proceedings. Maximum numbers of adjournment motions, calling attention motions were about alleged starvation deaths. Chief Minister's statement mentioning government would take care to avoid starvation deaths of men and animals and otherwise made impact on whole policies of scarcity relief. Members of opposition vigorously put cases of starvation deaths through questions, motions and debates of the houses. After starvation deaths incidences of police firing, latthi charges and broking of tear gases on public protest marches by police members of opposition raised and questioned with vigor in the house. Water scarcity and measures to solve it, productive works and unproductive works, grain sacking incidences, public protests these were other important issues addressed by opposition.

## **5.6 The polices**

Legislative workings though bound by various rules, regulations and time limit; the voluminous works it produced during 1970-73 have not comparison in the history of the Maharashtra legislations. As noted before the drought and scarcity of this period had deep impact and influence on the every type of proceedings that occurred in the house. The expressions, thoughts, discussions and even the response in the form of answers statement declaration by the executives in the house itself show the diligence the grace decorum and honor of the houses. However, it is evident from the proceedings that after bitter exchange of words on exceptional occasion, on very next movement the house came on normal tone with serious expedition of work. The members participated with zeal in every proceeding. Views expressed, issues addressed, suggestions made shows deep concern of members and their contemplations.

Complaints were made about the injustice in disbursing the scarcity relief funds to various districts.<sup>14</sup> However, chief minister clarified that these were not final installments the amounts for other districts were adjusted and disbursed according to the requirements of the state.<sup>15</sup> Complaints about the low wages were made from very early stage.<sup>16</sup> Suggestions were made about the land revenue.<sup>17</sup> The issues of untouchability and drinking water surfaced more often in the house in this regard one progressive and pragmatic suggestion was made right to water from untouchables by member.<sup>18</sup> Members stressed on augmentation of irrigation potential of state.<sup>19</sup> Many members objected the

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<sup>14</sup> Government of Maharashtra Publication, Printed in India by the manager, government central press Bombay and published by the Director, government printing and stationary Maharashtra State Bombay-4 Vidhan Sabha Proceedigs 25<sup>th</sup> March 71 p.376-77 K..Dhulup actually 21 districts were affected by scarcity whole disbursing the fund for scarcity relief the funds were not disbursed judiciously more fund were disbursed to influential leaders district. More fund diverted to Pusad. P.602 1.4.71 V.R.Patil Solapur less amount. P.1505 27th April 71 K.S.Dhondge complained about very less funds to Kandhar.

<sup>15</sup>Ibid VidhanSabha p.391 the rule of working land revue should be revised. V.R.Patil less amount to Solapur

<sup>16</sup> P.390 25<sup>th</sup> March 1971 N.V.Ugle laborers on scarcity works should get Rs. 2.50 wages per day. 25<sup>th</sup> March Udhvarao Patil (Osmanabad

<sup>17</sup> p.396 As demand came late so difernce in the amount allotted to different districts.

<sup>18</sup> Ibid Vidhan Sabha Vol. 36 p,1055-56 K.S.Dhondge Ban on untouchables ot take water from public wells at Mahausane taluka Kandahr district Nanded S.B.Patil protection against ban had been taken.

<sup>19</sup> March-April 71 P.1771 R.G.Gunjaj pursuaion of Karnjavane dam S./B.Jivtode on budget 15<sup>th</sup> April 71 use full irrigation potential of Vidharabha. 4.5.71 pp 1764-169-19 Upper Manyad, Upper Vardah and other irrigation projects should be completed earlier. V.C.Naik Kalumnari stressed need to tap all irrigation potential. P.1775 B.S.Kore to tap all irrigation potential

existing rules of scarcity were falling short to cope with emerging severity and providing relief to the people.<sup>20</sup> Many suggestions were also made to suffice the need of water.<sup>21</sup> There were also complaints and suggestions to implement the suggestions of Pardasani Committee in six talukas which were chronic drought prone.<sup>22</sup> Prabhugaonkar pointed out that major irrigation projects were not viable in the Konkan region as there are no hard rocks in Konkan. He further suggested that there was need of minor irrigation project and further research by engineers to develop techniques to pursue the major irrigation project.<sup>23</sup>

There were constant and frequent demands for revising the rules of anna valuations. As anna valuations, linked with the declaration of scarcity. Without declaration of scarcity the areas suffering from the scarcity could not receive any assistance from government.<sup>24</sup> Productivity of agriculture in Maharashtra is very low need to improve it was expressed by members.<sup>25</sup> Some members pointed out that there was mark demarcation between British policy and Maharashtra government.<sup>26</sup> The policy of issuing, more rice instead of the Jowar (Sorghum) in the wake of scarcity of the Jowar .<sup>27</sup> Plight of farmers was the major concern of the members as most of the members were themselves farmers and the representatives of the farmers. Getting easy loans, waving of the loans, relief from

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<sup>20</sup> Ibid Vidhan Sabha p.1426 20.4.71 the rule of scarcity change at once by K.B.Mahske

<sup>21</sup> P.631 K.S.Tidke 2.4.71. No ipmlimentation of esixting water schemes by government. P.1016 P.G.Kher Mahabaleshwar water scheme should be progressed.

<sup>22</sup> Ibid Vidhan Sabha P.318 23<sup>rd</sup> March 1971 G.A.Deshmukh (Sangola) explained background of Sangola taluka and its history of chronic scarcity due to drought. The implementation of scheme of scarcity and drought prone development programme of Sangola taluka of Solapur district and other five talukas. 23..3.71 p.322 chronic scarcity talukas are to be more attended.

<sup>23</sup> Ibid Vidhan Sabha p.1790 V.Prabhugaonkar:- there is need of minor irrigation project in Konkan as there is no hard rock for big dam in Konkan. Nginers should new research in this regard. (March-May 71 assembly session)

<sup>24</sup> Government of Maharashtra Vidhan Sabha Proceedigs. 21st April 71 p.1273 R.P.Valvi, March-April 71 P.1504 objections were raised by K.B.Mahaske on anna valuation in answer to this objection Vartak ansverd that declaration of scarcity justifies the validity of the anna valuation system. P.1471 S.T.Bamne complaidn about faulty assement of anna valuation p;1487 P.R.Sanap (mangaon) the open eye survey of crops in Kolaba did not conducted on Novemebr. In this regard complaint about faulty valuation lauched and some was not considered at the time of final announcement.

<sup>25</sup> Ibid Vidhan Sabha 7.4.71 p. 813 B.S.Kore The productivity of rice in Maharashta is 928 kg. per hectare while in other state it 100kgs.

<sup>26</sup> Ibid Vidhan Sabha P,1434-35 . Darade Chausala at the time of revenue ministers visit at our place revenue minister satated that government is very vigiland and prompt to adopt measures agaons tscarcity tit was not allowed privately by Britidsh government.

<sup>27</sup>Ibid Vidhan Sabha p.1294 21st April Vartak:- instead of Jowar rice and wheat in more quantity to the customer.

compulsory recovery and relief from the property confiscation therein were demands made in the houses.<sup>28</sup> Members questioned and forcefully as well as tactfully cornered government on many issues by asking the expenditure and judicious explanations.<sup>29</sup>

Managing and transferring required staff and materials from other departments for scarcity works and relief was sought questions in this regard asked in the houses.<sup>30</sup> There were instances of clashes and protests. At such instances, members tried to acquaint with the facts and policies of government.<sup>31</sup>

Some members like Prabhugaonkar, Khanolkar, V.D.Deshmukh specially pursued the theoretical study of the important concepts like drought, scarcity and famines, causes of famine, impacts of the scarcity and famines. They also suggested measures to overcome scarcity conditions. Members also collected data<sup>32</sup> pertaining to ongoing scarcity, budgetary provisions, ground reality at scarcity works, and scarcity of drinking water, fodder and food grains. They also made tours collected data pertaining to starvation deaths, incidences of corruptions, misappropriations of money, misappropriations of grains, black marketing fake musters for misappropriation of money. They suggested measures to overcome all difficulties to reduce malpractices.

Governor's speeches and expressing gratitude for that was an opportunity as well as tool of legislation to criticize government policies and make government accountable. The

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<sup>28</sup>Ibid Vidhan Sabha p.1042-43 D.B.Patil (Supplementary grants on agri) providing credit to farmers and agricultural labors.

<sup>29</sup> Ibid Vidhan Sabha P.963 30th April 72 T.C. Karkhanis (Kolhapur) Arid area development programme Mandrup centres expenditure(G.P.Pradhan in council)

<sup>30</sup> Ibid Vidhan Sabha p.2002 dt 6.3.73 question by Govindrao Adik (Shrirampur):- Answer by A.R.Antuly “- Sufficient technical staff from the BNC had been provided for scarcity works. there is no further need to provide other technical staff to scarcity works.

<sup>31</sup> Ibid Vidhan Sabha 6.9.73 p.2562 Questions were asked about scarcity works of Chittod village of Dhule taluka. The works were stopped during 1st December 1972 to 2nd January 73 was closed due to grievances of the labors. The laborers working on scarcity works were not following the rules and orders of authority.

<sup>32</sup> Ibid Vidhan Sabaha Feb-March 73assembly session p. 602 S.G.Patil (Shirpur) The population of 21 million came under the grip last year it was 10.5 million. 222 croers rupees expenditure on water supply schemes. Till January 31 government have incurred 2.7 million rupees on scarcity relief programmes. Agriculture minister of India have recently stated that last year there was 104.1 million tones of grain production in India this year the production will be 100 million tones. The all grain deficit this year is 4.1 million tones. In Maharashtra last year the production of food grain was .26 million tones. This year the stat deficit will be of 56% in terms values. S.B.Patil (Nilanga) :- the total laborers of 25lakhs on scarcity works on 15<sup>th</sup> January 73 and the expenditure was 38 croers. At the end of May 73 : 69 small irrigation schemes, 8 medium scale projects and 415 water irrigation schemes will be completed. In local area 150 small irrigation schemes, 31 medium projects will be completed. 250 cattle camps are opened.

speech of D.B.Patil on governor's speech in February-March 73 session is evident to substantiate the same.<sup>33</sup> Members suggested long term measures that government should adopt.<sup>34</sup> Members study is evident from their speeches delivered in lower house on governor's address during Feb-March 73 session of assembly. A.N.Thopte put number of complaints, mentioning no long-term planning and productive works to mitigate the danger of droughts, no rigs to deepen the wells. Thopte further complained about not mentioning number of cattle benefited from 250 cattle camps. Also there did not found mention of the number of cattle not adjusted to changed environment in camps. Issue of equal wages not yet solved. Excavation as well as construction of public wells was important for its durability. Expressed concerned about non transferring farmers' loan from short term to long term. So far rehabilitation of farmers affected from land acquisition did not took place. There were problems in implementing wells excavation program which financed by Land Development Bank due to criterion of distance of 1000 meters between two wells. V.G.Prabhugaonkar stressed on to change the famine code. Sursingh Rao Jadhav (Purandhar) Suggest to consider advance to farmers in the form of Taqavi and Khavati immediately. Wages were not encouraging hence laborers were not coming on this works they prefer metal breaking works. Tilling operations of land be provided free of charge as there were no cattle with farmers. Members also expressed, need to employ students having age above 14. A.R.Tope requested to provide more rigs and tankers. Navalkar complained that Governor had not mentioned hardship of scarcity laborers they faced. Some members presented issues of tree plantation as scarcity works

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<sup>33</sup> Ibid Feb-March 73 assembly session, P.627D.B.Patil:-the speech is not reflecting people opinions. The issue of border was also not reflected. The water distribution issues between states not addressed. The focus or emphasis was not on productive works during scarcity works of 1971. Scarcity is not natural but it is also manmade. No sufficient technical staff on the works, no consistency on the relief works. No regular wages to laborers working on the scarcity works, no works at nearby places, fake musters, very meager wages, no medicines to laborers, no drinking water to scarcity workers, no timely payments, number of cattle are dying, no fodder, many chiefs of the houses are migrating for employment, oppose to reduce the duration of assembly on account of scarcity, these were some issues addressed by D.B.Patil in his speech.

<sup>34</sup>Ibid Feb-March 73 assembly session, P.628V.K.Tembe (Chembur) stressed need of long term planning to counter droughts. R.K.Mahalgi suggested some measures as follows, Tilling of soil is to be considered as productive work in scarcity relief works. The wages should be increased to Rs.4 per day to laborers. The supply of grains should be 12 kg. per month.



on the hills.<sup>35</sup> Funds were not disbursed for the scarcity works over scarcity-affected area were the complaints. Answering to such complaints revenue minister answered that disbursing the funds for scarcity works related with declaration of anna valuation since declaration of anna valuation not commenced the funds were not disbursed.<sup>36</sup> Complaints and demands were also about making works available at nearby places.<sup>37</sup> Government policy of opening labor camps during the year 1971-72 implemented due to the water scarcity. However, the number of works increased so high in numbers that in subsequent days that the idea of opening labor camps automatically got terminated.<sup>38</sup> Productive versus unproductive works was the debate or contested issue during that time. Government from December 72 onwards became more economical to save the expenses other than scarcity works. It also curtailed its administrative expenses.<sup>39</sup> While putting statement on issues of migrants and migration over Pune and Mumbai H.G.Vartak revenue minister answered that the civic amenities were provided to migrants from Marthwada and other scarcity areas. However, government cannot encourage such type of migration on the contrary government was trying to avoid such migration and providing employment at rural places.<sup>40</sup> Thus, it is evident that official policies were to discourage villagers from migrating to big cities. In first year of scarcity the complaints were about the fewer wage on the scarcity and the contractors of scarcity works were exploiting laborers. The works get closed due to the meager wages because the workers get attracted wherever they get more wages. It in turn resulted into closure of works.<sup>41</sup>

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<sup>35</sup> Ibid Feb 73 assembly 20.2.73p.2918 :- Questions were asked by R.A.Patil (Walva) :- Questions were about the plantation on the hills under the scarcity relief programme. These types of works are being worked as Satara, Sangli, Solapur and Amravati districts.

<sup>36</sup>Ibid November-December 72 assembly session question by A.N.Thopte and answered by Vartak p.1263

<sup>37</sup> Ibid p.1264 by Wankhede, Bhegde, Adik

<sup>38</sup> Ibid loc.Cit.

<sup>39</sup> Ibid Vidhan Sabha Nov-Dec.72 assembly session p.1264-65

<sup>40</sup> Ibid Nov.-Dec 72 assembly proceedings pp.1264-65

<sup>41</sup> Ibid Vidhan Sabha March to May 71 (Vol32 Part ) p.389-90 during discussions in assembly N. V.Ugale of Ashti mentioned that the wages of laborers of the scarcity works should get proper wages. contractors appointed for execution of such works are paying very meager wages to the scarcity works. in due events somebody pay more wages

Equal wages was the issue during late stage of scarcity addressed by socialist party members, peasants and peoples party members which was upheld by all other party members latter but women members of the houses put it with more force.<sup>42</sup> “There are many irregularities in the scarcity relief works. Many works completed by private contractors. The expenditure incurred on scarcity relief works is not properly executed and there is also irregularity. The wages determined by government is also not paid. When there is hard work at work site the wages that received are too short for laborer. Irregularities or mismanagement in distributing gratuitous relief had been noticed. The rainfall from last three years are too less and last year it was lowest. The scarcity relief works stopped should be immediately started. Metal breaking work is not work of farmers many farmers are getting injured therefore it is requested that there should be substitute work for such metal breaking works. Digging of wells will be good project as far as relief strategy concerned. Sufficient loans be granted to farmers. Many people are facing acute water shortage.”<sup>43</sup> These were some comments and complaints surfaced about scarcity works in the house. As the severity of the scarcity getting more intense on failure of both Kharif and Rabi season of year 1971-72 the situation get reflected through the proceeding of the house in the words of the members can be experienced in the words of Wankhede as follows. “Maharashtra state is now facing acute problem of scarcity. 1970-71 was the year of incessant rainfall and this year rainfall failed short. From my district 30 thousand agricultural labors are migrated in search of employment in other district. As there are no scarcity works in my district laborers from my district are migrated in adjoining Jalagaon district. Whenever there was demand of 100 laborers 1000 laborers were present and demanding works. Applications were invited for Taqavi

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to the scarcity workers at such instances these workers usually goes to these works and on account of less attendance of laborers such works are usually get closed by government.

<sup>42</sup>Ibid Feb.-March assembly session p.1494 Kamlabai Ajmera (dhule-south) Kamala Raman (Matunga) Mrinal Gore (Malad) R.A.Patil (Walva) asked questions. Members questioned about the difference of wages between male and female workers. Raman objected that the digging and carrying the debris are equally important. D.B.Patil stated that the female workers are also performs digging work. In coming days the decision of equal wages will be solved.

<sup>43</sup> Ibid Feb.-March assembly session 72 on 28<sup>th</sup> March 72 by Sheshrao Deshmukh (Jintur) pp.201-204

loans in December. So far there is no response to Taqavi loans till date. So the expenditure incurred on scarcity relief works is not properly executed and some expenses are on useless items. Only works provided is metal breaking work. On metal breaking site there is hardly any provision of medicine and health. The expenses incurred on this is only 1.99 Crores and in other district and in Buldhana district it is 58 Lakhs. The infrastructure in Jalgaon district is better compare to Buldhana district there is no one to look after Buldhana district. Lastly I request that whatever expenses incurred on scarcity relief works should be reexamined whether the expenses met were right or wrong.”<sup>44</sup>

B.S. Chalukaya (Umaarga) expressed satisfaction over the scarcity works which were in progress in his constituency. He requested to start works which were stopped in March. Road works and metal works though provided employment to many people it was necessary to start minor irrigation works. The constituency, which he was representing, had 91 villages with 4 Anna valuations of crops. Every ministry of state has responsibility to deal with the scarcity relief works. In many villages the scarcity relief works started in his constituency. H.G. Vartak visited his constituency and as far as relief work and distribution of food grain concerned the works in his constituency was satisfactory. The relief works which were being in progress in January to March then sopped. Therefore, it was requested that these works should be started immediately. The road works now had been finished and the metal breaking works cannot provide employment to needy employee. It was therefore requested at that time that the works of minor irrigation works be started immediately. Wherever the Anna valuation went below 4 Anna request had been made that juncture to start scarcity works immediately . Many cattle including agricultural, sold to butchers. Those farmers who were creditors of bank due to fall in their income could not pay their loan installment. Therefore, request was made that government should declare farmers’ friendly policies. Policy of union government to provide employment to only 2-3 persons from the family would made life more stringent of rural masses. Whosoever demands the employment should be provided it immediately was constant demand. Appreciated Vartak’s efforts but stressed the

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<sup>44</sup> Feb.-March assembly session 72, speech on supplementary demand no 31 by Wankhede, p.205.

employment need of those farmers who had substantial land and never came to the scarcity works as they were in the need of employment. Fodder Taqavi loan were not sufficient to full fill the fodder needs of farmers. Government should try hard for providing drinking water to people.<sup>45</sup>

The issues of the meager wages to scarcity works was felt more seriously to the members and addressed in the form of adjournment motion by K.N.Deshmukh and H.R.Barkule.<sup>46</sup> ‘There are fake musters prepared by clerks of scarcity works and real wages earners are not getting proper wages.’ Such complaints were addressed. Mrinal Gore addressing on governor’s speech complained about very meager wages to workers. Some places some workers were getting one rupees wages. She further complained that the wages of 25<sup>th</sup> January works not received till 19<sup>th</sup> February of the villages Adewadi and Kalewadi of Purandhar taluka. For this wages people have to protest at Teahsil office. 21.2.73. Mrinal Gore (Malad) further complained raised the points rising prices of food grains. It was very hard to get 3-4 kg of food grains per head in villages. She questioned how vitamins A doses had been provided to scarcity workers. Wages are meager and tools are flexible and unworkable. She stressed the need of supplying all types of food grains to various regions of Maharashtra. She highlighted government responsibility to suffice the grains to every citizen. The energy of people was diminishing day by day she put it as most urgent complaint. On the assurance of equal wages and the employment to children between 14 to 18 so far government have not taken any action. She also complained about the recommendations of Pardasani committee had not been implemented so far.

“Government’s attitude towards scarcity relief program should be of life saving instead incurring expenditure. Laborers cannot attend the stipulated task of works within day. Hence they receives very meager wages. Wages of labors should be linked with inflation.” These were suggestion of A.T.Patil<sup>47</sup> K.B. Mahaske ( Ahmednagar) expressed his observations on finding in following words “Condition of drought this year is

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<sup>45</sup> Ibid pp.206-208

<sup>46</sup>Ibid Feb-March assembly session 73 p.715

<sup>47</sup>Ibid Feb-March session 73 on 28.3.73 p.209 A.T. Patil ( Pen) Supplementary demand speeches on revenue and food

different than the droughts previously faced. Government's efforts with respect to employment generation is appreciable. Previous scarcities affected only landless and agricultural labors. This long drought is also affecting farmers. Government has responsibilities to provide livelihood and feeding such a colossal population. This responsibility is ably shouldered by government at this juncture. Due to elections this poverty alleviation program had been undermined to some extent. Payments to laborers were delayed in some places. In some places these works were carried by ZP. But ZPs performed this task through contractors and contractors were paid less wages to laborers. Scarcity is not declared in some places. There is no concession provided in repayment of loans. There are no scarcity works in progress. My request to government is to start the new works immediately. Taqavi loans should be provided to farmers immediately for purchase of oxen and seeds. The halted works of percolation tank be started immediately. New scarcity works should be started immediately."<sup>48</sup> V.B. Langhe expressed his views, "Hon minister Vartak visited to Ahmednagr during last scarcity and he had declared in meetings of ZP member and local workers that the employment will be provided whosoever demands it. At that instance thousands of labors went to collector demanding employment. Government at that time expressed its inability due to lack of funds. The real beneficiaries of this scarcity are contractors. Contractors claimed higher rates for soft and hard *Murum*. The rate of soil was Rs. 3.00, Soft *Murum* Rs. 4.50 and Hard *Murum* was Rs. 6-11. They profit was 2 and 2.50 Rs. At scarcity works generally 1000 labors attend works. In such works contractors benefit is nearly equal to wages of all laborers. Government had incurred 33 croers last year. Out of it contractor may have gained nearly 10 croers. During scarcity as per policy contractors were not allowed. Still some ZPs. and Panchyat Samitis allotted works to contractors. People of Pathardi village are facing acute problem water scarcity. This is my request to government to make necessary arrangement for this 15000 populated village."<sup>49</sup> Shrimati Kesarbai Kshirsagar( Chausala) Beed appreciating government efforts asserted in the house that Governemnt had tried

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<sup>48</sup> Ibid p.211.

<sup>49</sup> Ibid p.212

best to provide employment within every village of Beed. There was no any starvation death in Beed district. Migration for employment was noticed and it is up to 50% in some places. She further added “Provision of employment to only two members of family would cause serious discrepancies in family income to full fill the needs of families. If ever we have to undertake the scarcity works we have to undertake lift irrigation, minor irrigation, schemes. Such works should be undertaken at large number in Beed district and particularly Chausala taluka of Beed. The fodder and oxen Taqavi loans be distributed immediately. Lastly I would like to point that district bans on Jowar had seriously hampered the purchase of Jowar. I will request to remove this ban and open fair price shops at every villages.”<sup>50</sup> Here are some other suggestions by members. “This is to be noted here that there should at least 5 works either of tank or roads, be started at least at one Taluka. There must be ample works at disposal of government so that it will be easier to provide works to people. The yardstick criterion for works should be given up.”<sup>51</sup>

“The provision of work for more than six months should be provided to landless laborers. To finance this scheme there is need of 300 croers of Rs. Out of enlisted laborers those who will not get employment should get 100Rs. unemployment allowance.”<sup>52</sup> “The issue of water scarcity was raised on various front including motion of extending gratitude towards governor for his speech in the house. There is constant demand from ruling party and MLA my friend Ratnappa Kumbhar to cooperate him. We are cooperating ruling party. We are not instigating people to go on strike for inflation. But there are many starvation deaths. Even in my constituency there is starvation death. There is confiscation drive for recovery. It is very much painful.”<sup>53</sup> K.S.Dhondge addressed these issues. These were some issues and feeling expressed by members on the

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<sup>50</sup>Government of Maharashtra Publication, Printed in India by the manager, government central press Bombay and published by the Director, government printing and stationary Maharashtra State Bombay-4 Feb-March 73 session P.213

<sup>51</sup> Ibid includes, R.A. Patil (Valva) p.351

<sup>52</sup> Ibid Krishnarao Bhegde pp.353-54:-

<sup>53</sup> Ibid K.S. Dhondge (pp.490-91)

floor of the house. One can adjudge the nature and severity of drought through this proceedings.

### **5.7 First Year of Scarcity Addressed In the Legislation**

March-April 71 sessions of both the houses in this regard generalizes the alarming situation at its early stage and emerging scarcities in every sphere of life. It also depicts concerns and worries of the representatives of the houses. The emerging picture of scarcity depicted in the speech of revenue and supply minister Shri H.G.Vartak's speech of 9<sup>th</sup> September 1971.<sup>54</sup> However, exact nature and ground reality reflected through the speeches of the honorable members on the supplementary grants demands of various departments and the discussion on budget and governor's speech of the sessions of legislatures during March-April 71. There were no scarcity works, this complaint addressed most of the time in house. Members complained about the works not sanctioned, works are too less to <sup>55</sup>incorporate all other employment seekers of the villages for employment, works sanctioned but not started yet.<sup>56</sup> After finishing one work workers have to wait for more than 15 days for work, labors from Buldhana are migrating to other states like Madhya Pradesh. These were other such type of issues addressed<sup>57</sup>. Works should be at nearer or within 2 kms of the employee was constant demand.<sup>58</sup> When scarcity was not at the alarming stage the crash employment program and employment guarantee schemes were also in progress in same as reflected through proceedings of the houses. Houses proceedings are the mirror of all round development. Gangman method was exploitative were the allegations of the members.<sup>59</sup>

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<sup>54</sup> Government of Maharashtra Publication, Printed in India by the manager, government central press Bombay and published by the Director, government printing and stationary Maharashtra State Bombay-4 August-September session of assembly 71. On 9<sup>th</sup> September 71 pp.232-255 cff. Vartak H.G, Lokrajya October 1-15, pp.16-20 &50

<sup>55</sup> Ibid November-December Session 72 p.267

<sup>56</sup> Ibid March-April 71 assembly session V.A.Darade addressed many issues p.1435

<sup>57</sup> Ibid March –April 72 assembly session 27th March 72 vol 34,. D.B.Patil For better employment opportunity in MP the people of Buldahana district were migrating there.

<sup>58</sup> Ibid p.1488 P.R.Sanap of the Mangaon addressed this complaint

<sup>59</sup> Ibid November December 72 session of the assembly p.264 V.C.Mahaske complained while talking on the no-confidence motion on 22.10.72

Krishanarao Bankhile in his speech on no confidence motion complained that gang-men were oppressing labor they are not even relieving scarcity women workers to breast- feed their babies. March-April 71 developed severe scarcity all round reflected through the questions asked in both houses of legislatures. These questions demanding declaration of anna valuation, scarcity declaration, asking details about the number of villages that scarcity affected, number of scarcity works in progress<sup>60</sup> and condition of scarcity works.<sup>61</sup> September-October session of assembly witnessed more questions enquiring about the anna valuation, number of villages scarcity affected and scarcity works and its nature status compare to March-April session of 71.<sup>62</sup> During 1969-70 the agricultural production throughout India including Maharashtra was on top. Food grains were easily available in open market through India including Maharashtra. This in turn resulted into the dislocation and dysfunction of the fair price shops and its grain distribution system over rural and urban Maharashtra. Gradually in the wake of alarming scarcity people demanded more grains through the fair price shops.<sup>63</sup> Thus, question about the fair price shops appear during March-April 71 sessions of both the houses and latter on in subsequent session too. Questions and discussions<sup>64</sup> pertaining to the new fair prices shops to appeared on the floor of houses. Village Panchyat and cooperative societies were permitted licenses to run such fair price shops. Even Rs.2000/- assistance provided to

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<sup>60</sup> Ibid March-April assembly session part 1 22<sup>nd</sup> March 71 pp.265-66 Burgute and G.A.Deshmukh asked questions about the number of scarcity works in Solapur district ,cff p.276(Kavathe Mahankal) p.276 (Gangakhed) p.279(Nanded district)

<sup>61</sup>Ibid Loc.Cit.pp.265-279 March-April assembly Session71 part 2 p;1487 P.R.Sanap (mangaon) the open eye survey of crops in Kolaba did not conducted on November. In this regard complaint about faulty valuation lauched and some was not considered at the time of final announcement.

<sup>62</sup>Ibid Sept-Oct. Session of assembly 71 p.529 (Nashik)p.553 (Amravati)p.559 (Mehakar taluka) p.557(Akole district)p.753(Chalisingaon district)p.1028(Nagpur district) p.1031 (Solapur) p.1032(Sinnar taluka)

<sup>63</sup> Ibid p.232-255 Vartak Speech on talking on scarcity motion

<sup>64</sup> Ibid March-April 71 assembly session part 2 pp.1268-69



each Village Panchyats to run shops. <sup>65</sup> Number of new shops opened during this period and questions in this regard were asked.<sup>66</sup> There were other issues like monopoly procurement of rice, restrictions on movement of grains and shopkeepers' inefficiency in bringing grains from government as well as zoning of the grains noticed in the session. Demands were to stop these measures.<sup>67</sup> The alarming scarcity of grains testified from this proceedings. <sup>68</sup> Under monopoly procurement, Jawar was being smuggled to Gujarat.<sup>69</sup> The rates of grains should be reasonable was another demand of members.<sup>70</sup> As the distress went on more severe the questions and issues pertaining to drought and scarcity acquired more other dimensions too. These question were like, types of scarcity works, the amenities to be provided to scarcity works etc. Employment to the children above 14 years and hike in the wages were other important demands during peak of scarcity. Latter part of the scarcity period the issues and questions addressed in the houses were about the taqavi loans, the grain quota, bullock taqavi, community wells and the dues yet to be paid of the wages.

### **5.8 Addressing the Inflation Inside and Outside Legislations**

It was the age of price control when most insufferable distress prevailed over Maharashtra. Right from the common person to the all members of legislatures and even executives were very sensitive to price hike and price rise. Price hike and to curb it was the issue of vital importance to everyone in the legislation. Through various types of proceedings and on number of occasions, issues of price hike and prices of essential commodities discussed in both the houses. Even executives responded to issues with equal promptness. These issues had occupied sizable time and space of both the houses.

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<sup>65</sup> Ibid Jun-July-August 72 assembly Session 20<sup>th</sup> July 72 p.2353

<sup>66</sup> Ibid March-April 71 assembly session Of.Cit. p.1284 by Dhondge.

<sup>67</sup> Ibid March-April 71 assembly session dated 21.5.71 by P.A.Kinalekar (Vengurla) p.1265

<sup>68</sup> Ibid March-April 71 assembly session part 2 pp.1268-1297 proceedings of supplementary grants on food and civil supply department. Demands to remove restrictions of grain movement, not to take levy from farmers having below 10 acres of paddy. P.1283 V.C.Naik(Kalumnuri) also complained about the monopoly procurement of grains as it took away 10 months stocks of the farmers.

<sup>69</sup> Ibid March-April 71 part 2 p.1273 addressed by R.P.Valvi cff. Patil C.N. (Dhule) p.1284

<sup>70</sup> Ibid p.1283

The extension of policy of supplying vegetables and other required materials to the Restaurants under control prices followed during Bangladesh war that continued during scarcity. There were frequent meeting of bureaucrats with the wholesalers and grain merchants as well as with vegetable merchants to provide essential commodities under controlled rates. Public distribution system and grain availability issue most vigorously and frequently surfaced and stirred issues in the houses. Questions after questions with details ranging from supply to irregularities, misappropriation, transportation, hoarding black-marketing, and corrupt practices addressed in the houses. This reflected through the proceedings of both the houses. On number of occasions, members come together and demanded discussions under various rules. One such discussions held in the assembly under rule 282 by prominent members.<sup>71</sup>

Number of questions pertaining to the price hike, consumer price index, commodity markets, and prices of food-grain articles and non-food grain articles were asked in both the houses.<sup>72</sup> The motion was initiated in the assembly on 10<sup>th</sup> of August 1972 to discuss the price rise.<sup>73</sup> More, serious notices put forth for motions like adjournment and calling attention notices<sup>74</sup> put for addressing the issue of inflation in both the houses of state legislations.<sup>75</sup>

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<sup>71</sup>Ibid Nov-Dec 73 assembly session 19<sup>th</sup> November 73 D.B.Patil, Mahalgi A.T.Patil Mrinal Gore A.T.Thopte, Promod Navalkar, Navneetbhai Barshikar, K.N.Deshmukh and K.D.Bhegde A.A.Wankhede put the proposal for discuss the issue fo rise fo prires of essential commodities. Under rule 282. p.496

<sup>72</sup>Ibid Vol 32number 1 March-April session council 1971 p. 241 ;Feb-March73 Council p824 Kanitkar Athwale rates of essential goods; July-August 73 details were demanded of the retail price of essential commodities p.473; Vol36 Nov-Dec 1972 session pat 2 of council.proceedings pp.166; Vol.36 council proceedings Nov-Dec-72 p435; P.325 V.R.Pandit price index during August 72 ;Nov-Dec 72 council proceedings p. 742 ;Feb-March73 Council p824; July-August 73 details were demanded of the retail price of essential commodities p.473;November-December session of aqssembly 72p.253-57; V.A.Deshmukh (Paranda) talked about the commodity market and speculations, which resulted into the price hike. November-December 72 session of assembly.290 23<sup>rd</sup> Novemebr 72 question by Kakhani Keshvaro Patil on price hike of essential commodities

<sup>73</sup>Ibid July-August 73 session of council P.216 scarcity of essential goods adjournment motion by Pandit Lahane and V.G.Deshpande and G.K.Athawale.

<sup>74</sup>Ibid Feb- March assembly 72 session assembly calling attention motion on rising prices of essential commodities by S.M. Thakare, R.K. Mahalgi, K.D. Bhegde, Vilas Savant, T.D. Memjade, V.G. Prabhugaonkar, T.C. Karkhanis. Discussions were mainly on sugar and edible oil. p.189-191

<sup>75</sup> Ibid July-August 73 session of council p.273 distribtuion of essential goods for reasonable price. Manohar Joshi put such notice for adjournment motion.

There were frequent meetings of the merchants with collectors to control the prices and was addressed in the houses.<sup>76</sup> As far as rising prices concerned issues addressed in the houses were mostly concerned with sugar and edible oil.<sup>77</sup> Real pressure of scarcity mounted after October 72 and same was reflected through the proceedings. Actual retail prices of essential commodities over rural and urban areas were enquired in both the houses by members every year. However, such question was asked particularly related with prices of essential commodities that they sensed hiked so much.<sup>78</sup>

Outside the legislation there were protest marches demanding to control the price rise. One such a huge and spontaneous march reported from Jalana on 22<sup>nd</sup> August 73 at Jalana city. This and other marches were addressed in the houses.<sup>79</sup> Question was asked about number of protest marches organized during scarcity period.<sup>80</sup> During March 1972 to September 1972 there were 26 protests March, 119 Morchas, 13 processions, 4 Hunger strikes, Dharna Andolan 7 Styagrahas 2 against inflation in state. questions were asked about the detail prices of the commodities over rural as well as over urban areas.<sup>81</sup> The

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<sup>76</sup>Ibid Nov-Dec. 72 assembly session question by R.K.Mahalgi and N.K.Patil (Jamner). Question was about the meeting called upon by collector of Nagpur of merchants and businesspersons of Nagpur to control the prices. Whether this information was right asked in the question. Answer was in affirmative. p.1269 It was is decided in the meeting not increase the rates of essential goods artificially and this meeting and its results were fruitful.

<sup>77</sup>Ibid Feb-March 72 assembly proceedings calling attention motion on rising prices of essential commodities by S.M. Thakare, R.K. Mahalgi, K.D. Bhegde, Vilas Savant, T.D. Memjade, V.G. Prabhugaonkar, T.C. Karkhanis. Discussions were mainly on sugar and edible oil. p.189-191, similar calling attention notice by A.P.Salve Feb-March 73 assembly calling attention notice by A.P.Salve :- the inflation in the rates of edible oil on account of fall in import of edible oil from outside. p.3873

<sup>78</sup> Ibid Feb-March assembly session 72 questions were asked by D.B.Patil (Panvel), P.B.Kadu (Rahuri), D.D. Padvai (Taloda), K.D.Bhegde, Hussen Dalvai (khedbandar) N.K.Patil (Jamner) Pratibah Tidke (Murtajapur) R.K.Mahlg, F.M.Pinto(Mahim), K.S.Dhondge, Kamala Raman(Matunga) :- The rate of essential commodities during October, November, December, 72 and January 73. What measures government are going to take to control the prices. p.966.-967 at urban areas

<sup>79</sup>Government of Maharashtra Publication, Printed in India by the manager, government central press Bombay and published by the Director, government printing and stationary Maharashtra State Bombay-4 July-August 73 council session 22<sup>nd</sup> August 73p.1007

<sup>80</sup> Assembly Session Feb.-March 73 assembly session question was asked by p B.S.Patil (Gadhinglaj) .p.1639

data thus put on the floor of the house is important to judge and assess the situation of that time.

## 5.9 Food Grain Availability

Members were well equipped with statistics. The questions asked were for acquiring facts and even international grain situations.<sup>82</sup> These facts in turn were used to corner the government and to know the ground reality.<sup>83</sup> Information used to quantify, needs and deficiency of grains. Different methods to fulfill the deficiencies were suggested by members.<sup>84</sup> In this regard questions were asked about the grain production supply by union government and grains purchased by state government.<sup>85</sup>

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<sup>81</sup> Ibid Feb.-March 73 assembly session questions were asked by A.T.Patil(Pen) F.M.Pintoo(Mahim), S.G.Gholap (Murbad), T.D.Memjade (Bhavani Peth) N.R.Mate (Mulshi) Leela Merchant (Kasba Peth) R.A.Patil (Walva) Ridwan Harris (Bhivandi), D.D.Padvi (Taloja), A.N.Thopte (Bhor) S.D.Mandlik(Kagal) D.B.Barge (Koregaon), V.J.Karlekar(Vardha) R.G.Mirashi (Deogarh), S.G.Kolhe (Shirdi), Smt.Pratibha Tidke (Murtizapur), S.S.Patil(Mohal) Ramnath Pande (Andheri) Prabha Shinde (Man). Questions were about hike in the prices of essential commodities. Questions were answered by Vartak. p.359

<sup>82</sup>Ibid Feb-March 71 assembly session S.K.Wankhde budget of 1971-72 all india grain production 99.5 million tons wholesale price index P.332 K.N.Dhulup there should be control on price rise and expenditure p.579 1.4.71 K.N.Dhulup very tardy growth on food grain front p.580.;cfff 1.4.71 K.N.Dhulup very tardy growth on food grain front and elaborated the food grain statistics. P.580-82 ;cfff March-April assembly session M.V.Sangvikar (Ahmednagar) the food situation of state compare to 1964-65 is sarisfactory. Provided grains carfully to rural area. P.1288 cff, June-July-August 72 session assembly F.M.Pintoo quoted all food grain production statistics p.3911 ; February-March 73 council proceedings p.622-31 Naik Fodder efforts, food grains :- even Russia Purchased30 million tones it was 55 doolar per tones now 155 in international market;cfff Dec 72 K.S. Dhondge Kandhar question state self sufficiency in food grain production and Varatak quoted statistics as follows, 'The population of Maharashtra during 1971 census is 504.12 lakhs i. e. 50.42 millions Per person need is 15 ounce cereals and 3 ounces pulses per person. Maharashtra is present need is 96.63 lakh tones and production is 60.86 lakh tones. States 47% land holders are holding land below 2 hectares. Only 8% of land is under irrigation. According to Maharashtra irrigation corporation it will take 1980 when by adopting all measures it will reach to 30%.' p.2040; June-July-August session 72 Assembly session F.M. Pinto a p. 3911

<sup>83</sup> Ibid Feb-March 71 4.71 B.S.Kore The productivity of rice in Maharashta is 928 kg. per hectare while in other state it 100kgs. p. 813

<sup>84</sup> Ibid Dec assembly session 72 K.S. Dhondge Kandhar question state self sufficiency in food grain production p.2040

<sup>85</sup>Ibid Vidhan Sabha Proceedings 31 March 73 p.3757 question was asked by Mrinal Gore (Malad) questions were about the purchase of food grains by state government during July 72 to December 72 from other states.

Maharashtra state was always deficient on the food-grain production front. 1969 was the year of surplus food grain production of India. However it was the year of all time high grain production year for Maharashtra state. Even then this production was not sufficient to fulfill the state grain need. Food grain production, distribution and shortage acquired sizable space in the proceedings of the houses. Government was quiet relaxed on food supply front up to October-November 72. The stance and language of state in answering questions pertaining to food supply, till that time seems quite confident. However, after October 72 from proceedings it reflects that government was not that much safe on food grain supply front. The grain supply during November 72 came up to 8-9 kgs per head from December 72 it got further reduced.<sup>86</sup> From November-December 72 onwards more questions pertaining to the shortage of supply, the quota sanctioned and about grain supplied asked by members. Questions of such types appeared till end of November-December 73 sessions of councils and assembly.<sup>87</sup> There was sharp decline in the supply

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<sup>86</sup> Ibid Vol.36 number 19 council session of Nov-Dec 72. Mohadi district Bandara meager supply of food grain S.B.Patil was due to the wagons unevacted in Manmad. P.1039, cff, 28.3.72 V.R.Katdare :- More attention should be paid to more chronic area. p.322.; Vol.36 Nov-Dec 72 Council session of Nov-Dec.72 C.R.Khanolkar asked question about the scarcity of grains over the Vengurla Kudal etc. p.184; Vol.36 Nov-Dec 72 Council session of Nov-Dec.72 questions about the grain scarcity over Konkan By C.R.Khanolkar p.185; February-March 73 assembly session questions were asked by N.R.Bhorkade (Yeole). Questions were about the quota of wheat, rice, and sugar sanctioned for Yeole taluka for December, the need of taluka for this month, the reasons of getting less quota than required quota. The quota was as per the need of people or usual quota. p.491; February-March 73 assembly session 16 February 73 P.475 p.491; November-December 72 assembly session Mrinal Gore's question about the food grain status. p.1395; Nov-Dec 72 council session part 2 of 28<sup>th</sup> November 72 the supply of grains at scarcity regions is 8-9 kgs. It should be 12 kgs. p. 286 No-Dec 73 Shshi Chalukaya (Umarga) the grain supply of Umarga during July-August-Sept 73 it was 5.3, 4.2 and 2.4 per capita. p. 859 Nov-Dec 73 council session P.338 the quota of the Nagpur city reduced Vartak yes because the centre's quota reduced considerably.cff.; Nov-Dec 73 council session P.341 Pandit Uttamrao Patil question about only 1 kg Milo in Malegao city per person and not other grains. Nov-Dec 73 council session question by Chaudhari The answer was that the grain quota was four kgs. P.341; Nov-Dec 72 assembly session question by Mrinal Gore about The status of food grains in government stores stocks on 30th April 72 . p.1395 November-December 72 assembly session calling attention motion in the Walve taluka of Sangli district in village Walve, Bavachi, Bagani, Motkhind, Islampur and Ashta no proper supply of food grains due that many starving. The charts of supply provided the supply was between 6367 quintal to 6607 quintals during September 72 to November 72. In the month of December 8000 tones of wheat and 5500 tones maize. The supply will improve soon and regular distribution of grains will come in to force. p.2140

<sup>87</sup>Ibid November-December 72 assembly session questions were asked by A.N. Thopte and Mrinal Gore. How much assistance of grains was demanded by state. What were measures taken by government if central assistance not received yet what measures have taken by government to solve grain crisis. p.1254; Cff. November-December assembly session 72 calling attention motion by S.M. Thakare "Reduction in distribution of rice and low quality rice to the citizen causing public anger. p.2135-36 ; cff Vol.34 part 1 number 1 March -April session council 1972 shortage of Jowar and supply to Marathwada and measures to overcome it. Vartak affirmed and 73 told issued license to import from MP. p.34 ; cff P.1359 Dec 73 council session the grain quota of the Osmanabad from 25<sup>th</sup> October 1973. P.1359 grain supply and quota of Ratangiri (Khanolkar); cff Feb-March 73 assembly session Mrs. Mrinal Gore pointed that There is on letter from Kudal taluka to us explaining the grave situation of food grain distribution in Kudal taluka of

of grains to consumers. Members of the houses were more anxious that they thought the quota of the state reduced and transferred <sup>88</sup>to other state. Questions pertaining to it appear in the houses.<sup>89</sup> From proceedings of both the houses questions were about the grain quota of districts and talukas of November, December, 1972 and January, February, March 1973 and actual supply of grains. For grains government was substantially dependent on union government it also reflected from the proceedings of the houses. Food grain production, supply from union government facts and figures pertaining to it were known by honorable members and reflected from the discussions and debates of the houses. Government sensed grave shortage of food grains and issued some innovative measure like not issuing of the grains to farmers having above 5 acres of land. Time and again when required and situation demanded; honorable supply minister enumerated government efforts with respect to supply. The measures suggested by honorable members were inculcated in official policies of scarcity relief. Series of questions with respect to food grains supply to fair price shops and quantity per person per month were asked at the time of acute distress. Questions were asked about alternative food adoption by villagers. As the distress went on increasing cases of bogus rationing cards came forth.

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Ratnagir district. The complaints of shortage or very meager distribution food grains in Vasi taluka of Thane district. People there are getting very meager amount of food grains. High quality rice of PDS is being sold out in Mumbai in black-markets. Harun Patil is involved in such business. Why only some societies are getting grain import and sales licensees. p.1903, Feb-March 73 assembly session, K.R.Patil (Shegaon) ; - instead of dozen of statements by Faqrudin Ali Ahmed and Annasaheb Shinde of sufficient stocks of food grains, it is very hard to get 3-4 kgs of food grains. Maharashtra state had 24 thousand fair price shops only. Fair prices are not functioning efficiently. p.1907; Feb-March 73 session p.2579 questions were asked by D.V.Purohit (Mahad) : questions were about the food grain quota per persons in Kolaba district for July to December 72. Questions were answered by Vartak. Feb-March 73 assembly session Gaganbavada taluka of Kolhapur p.2582 Nilanga p.2584 , cff16 February-march assembly session 73 P.475 p.491 p.497 Feb-March 73 council session Kolhapur grain supply status during Oct 72 to Dec. 72 by S.A. Shinde p.817, Nov-Dec 73 council session the grain quota of the Osmanabad from 25<sup>th</sup> October 1973. P.1359 council session of Dec 73 by Kanitkar and Lahane. P.1359 grain supply and quota of Ratangiri (Khanolkar)

<sup>88</sup> Ibid Nov-Dec 72 council session part 2 of 28<sup>th</sup> November 72 R.P. Chaudhari on the supplementary grants discussion pointed out that the employees of supply department are terminated and resulted into the delay into grain supply everybody of rural Maharashtra including the agricultural labor and peasants having below 5 acrs of land should get concession. p. 285

<sup>89</sup> Ibid Vol.36 Nov-Dec 72 Council session of Nov-Dec.72 enquired about the Maharashtra's quota will be shifted to Karnatak and other state Vartak answered no. p.185

Cases of grain sacking were reported and same were questioned in the houses. Protest Marches demanding sufficient grains at Barshi during first year of distress and at Nagpur, Sinnar, Malegaon and Tumsar turned into grain sacking and looting events. At Barshi protest march tried to sack government grain stores. Such incidences also occur at Malegaon and Sinnar. In Nagpur there were attacks by mob on grain shops for looting the grains. At Chandwad protest march demanding wages at first instance went to Panchyati Samiti office and then the mob sacked shops of cooperative marketing federation's shop. There were two instances of attacking rich farmers grain hoarding and distributing the grains to poor farmers. These events were addressed in the house. All these events and

Black-marketing, hoarding smuggling of grains, cross border trading of grains these issues were addressed by members of the houses. Illegal export of grains from bordering area of Maharashtra to Gujarat was affirmed by state and addressed on number of occasions by members.<sup>90</sup>

Honorable members tried to well equip with the information of food statistics. The issue of Bangladeshi migrants, heavy grain import by Russia, the cost of grains in international market, cropping and harvesting as well as availability of Milo from America these international events and knowledge of markets all such things were known to honorable members. Internal grain trade, effects of monopoly grain trade, black-marketing, hoarding these issues was discussed and even questions about these were asked in the legislation. On several occasions like discussion of supplementary grants, half hourly discussion resolutions on prevailing drought and scarcity situation the nature extent gravity solutions discussed about the grain supply provided many solutions and alternatives to government. Rabi crash scheme, growing of food grains on the banks of river bed and rivulets growing of wheat at northern Konkan such type of innovative ideas were suggested and implemented by government through official policies. Restricted supply to medium farmers and lifting of restrictions suggested and discussed in the house. Illegal export of grains from adjoining districts of Gujarat such as Dhule Thane were addressed officials also admitted the same and measures to curb it adopted latter.

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<sup>90</sup> Ibid March-April 71 assembly session C.N.Patil (Dhule) More attention should be paid to rural population smuggling of grains to Gujrat. P.1284; cff, 21<sup>st</sup> April 71 R.P.Valvi there is smuggling of jowar to Gujarat. p.1273

Separate establishment to stop this illicit cross border movement of grains and to monitor inter-district grain movement separate establishment of police officials was created. As the availability situation worsened number of bogus cards reported and members were quiet sensitive on this issue they presented this issue through debate as well as through questions. Discussion and questions with respect to composition of vigilance committee, food advisory committee substantially improved the supply side of the grains. Certainly discussions and questions removed impediments in the distribution mechanism and it improved food supply mechanisms. Corrupt officials, servants and shopkeepers were punished. However, it was absolutely essential to make food available within short time span. Some members also complained about the alternative diet habits. Tamarind the hard seed of legume fruit and its flour, seeds of wild grass and tube-roots were alternative sources of foods which were adopted members cited these examples in the house and urged government to make necessary arrangement of foods for poor sections of society. Judicious and equal distribution of grains to every member of society could avoid hunger of every one. All India food statistics of 1973 shows that the reduction of grain production during peak year was 1 million tones less than normal production. Very slight or marginal cut in the consumption at all India level and proper and judicious distribution of grains was able to suffice need of existing population of that time. Grain at such instance get deposited and stalked at untraceable area. Certainly black marketing and hoarding instead of strict restrictions on trade cannot stop such practices. This created scarcity situation over Maharashtra. Zoning of grains, restrictions on grain movement also added difficulties. Central government realized that there are surplus productions of potato in northern India could be used as supplementary source of diet to distress affected region of Maharashtra. Potatoes a perishable vegetable was purchased by state government and made available at very cheap rate to customers. However, members raised objections that government made it compulsory at fair price shops. At one place shopkeeper was making it compulsory. However government have clarified on the floor of houses that this was not compulsory. The scheme was implemented voluntarily and the rates were so cheap that people voluntarily purchased potatoes. There was only one complaint in regard with this.



At initial stages village Panchyatats were ordered to run fair price shops and even Rs. 2000 each to such Panchyats were provided. However, there were critiques of this scheme claiming Panchyat cannot expedite its day today work due to this administrative burden. The orders and government resolution came latter to relieve those Village Panchyats, from running such shops ; which are not able to dispense its other work expediently. At latter stage the fair price shops which were run by Village Panchyats stopped by government by special orders. The grain scarcity mounted high after November-December 72 onwards and it further increased until April 73. At the peak of distress the per person monthly grain quota was reduced up to 3-4 kgs. Over all grain scarcity attributed to number of factors. Honorable members chief minister were aware of the international grain situation. The international grain marked hike so much so that it was beyond reach of the India to purchase grains from there. 1972 was the year of the international drought year and it endangered the grain market. Even country like Soviet Russia secretly purchased food grains from America. All these event reflected through proceedings of both the houses. It seems that even knowing all facts regarding Milo the cattle feed in America infested with poisonous weed, government of India decided to bring Milo the red grain from United States of America for human consumption in India. Right from its decision to bring it in state, it created lot of anxious movement for government in both the houses. Legislators of both the houses discussed, enquired debated the issue vigorously through various types of the proceedings.<sup>91</sup> It appears that it was very difficult to government to purchase grains from abroad during peak of distress. However, United States of America offered Milo, which was cattle, feed there. Despite government's plea to provide grains America could not provide food-grains, as there was no grains with them also. American government well acquainted with the fact of contamination of Milo with poisonous weed. It was informed to government of India accordingly. Governments of India choose to take all labor to sieve it instead denial of it

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<sup>91</sup> Ibid Feb-March 73 assembly proceedings p.1522 Adjournment motion by Mrinal Gore:- The Milo which was imported from foreign country is adulterated by Dhatura.cff. Feb-March 73 council proceedings as there was also emergency discussion in the council during this discussion members asserted that honorable minister can be arrested under food and drug adulteration act. Other objections were the cost of sieving Milo was too high. The responsible executive should be punished pp.830-873

altogether. There were statements in both the houses regarding contamination of Milo in.<sup>92</sup> It created stir in both the houses. Even then grains distributed to rural Maharashtra. Though there were very few cases of alleged toxic infection from consumption of Milo it consumed by masses. It appears from the houses proceedings that government took utmost care to remove Dhatura seeds from Milo. At the end of distribution of Milo the stuff remained from sieving of the same was sold out through tender. It further resulted into toxic infection of some persons.<sup>93</sup> This, issue has occupied major time and space of the proceedings of both the houses. However, this created awareness among the masses about the adulterated and infested Milo with the poisonous weed. The members studied Milo background in detailed and raised various objections.<sup>94</sup> It was decided to make flour of the Milo. However, the flour mill owner were not ready to crush Milo for flour due to risk involved in it. There was one hour discussion in regard to this in the assembly.<sup>95</sup> At latter stage of the scarcity grain scarcity emerged major issue before houses.

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<sup>92</sup> Ibid Feb-March council session p.794

<sup>93</sup>Ibid Feb-March 73 assembly session question by K.D.Bhegde, R.K.Mahlgi about the epidemics broken due to the consumption of Milo Roti in Ambejogai taluka. In the months of February and March of 1973 two thousand tones of Milo disbursed to the Beed district. As far as Milo consumption concerned the strict orders have been issued to collectors to clean the Milo and after cleaning only to distribute the same. As far as Ambajogai concerned so far no Milo had been disbursed and distributed too. Therefore the allegation itself get automatically cancelled. p.3864

<sup>94</sup> Ibid Feb-March assembly session 73 R.K.Mahlgi, cited the contents from Science Toady stating that dahtura causes death within 24 hours. Consumption of Dhatur in traces can also results into vomiting. It also results into sleeplessness. In these seeds there are contents of soyacine. Soyckerimine and Android alkaloids. Referred periodical Vivek and other news papers. In his statement he further informed that he enquired with the officer who was related with the American embassy and that person revealed the information that union government before two months demanded food grains from America. On that America informed that the commitment of supplying food grains to Russia China and othere countries there was no wheat with America then. It was further informed that there was Milo but it was specially prepared for animals. The Milo adulterated with Dhatura is nutritious feed to goat and sheep. Therefore it is usual trend in America to cultivate Milo along with Dhatura. Both crops are harvested simultaneously. Therefore the seeds of Dhatura usually get mixed with Milo. American government further informed that Dhatura is inseparable from Milo. Even then union government demanded and informed to send such Milo immediately. This information was corroborated from the news article written by Parshuram in Indian Express.

Mahlgi further cited reporting of Indian Express reported by Parshuram. “ Americans pointed out that a percentage of what they call ‘Jimson weed’ is normally mixed in the grade of Milo which India bought for human consumption, but which is given to cattle here.” “ Unlike in India, there is grain for every need and there is a broad distinction between foodgrains and feed grains.” As this is cattle feed government of Maharashtra should informed to union government that we are not going to distribute this Milo to the people and arrange food grains from anywhere to people of Maharashtra. p.2049

<sup>95</sup> Ibid. p.1522

The issues addressed in the houses about food grain supply were like very meager supply of food grain, supplied grains of inferior quality etc. The levy of grains should be stopped was significant demand. Questions pertaining to the hoarding black marketing appear more in numbers. Sacking of the grain markets and godowns were addressed in the houses more. Even sacking of market places appeared in the proceedings of the houses. Misappropriation of grains of the public distribution system noticed and addressed in the house more intensely. There were demands regarding quick actions against the shops and persons including supply officers or clerks whosoever involved in the misappropriation or corrupt practices. Government was not able to improve the supply of food grains with immediate effect. However, government adopted measure to advertise alternative food by public, providing potatoes at cheap rate to consumer.<sup>96</sup> This policy also came under strong criticism in the house. Government pursued policy of taking compulsory levy of grains from the bigger farmers, not to issue grains to the farmers having more than 5 acres irrigated land. It also includes providing import licenses to the traders, merchants and cooperative societies to bring grains from outside state.<sup>97</sup> Government adopted polices of growing more grain crops on the rivulets and river water. Even attempts were made to grow more grains at government bungalows.<sup>98</sup> The food supply in the form of

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<sup>96</sup> Ibid February-March 73 session calling attention motion by K.D.Bhegde, A.N.Thopte, Keshvarao Patil, Mrinal Gore and other members like P.B.Kadu and Vakilrao Langhe. For compulsion made on the fair price shop keepers of the Pune and Ahmednagar districts to sell the perishable vegetables. 6March73/p.1889 ;cfr Feb-March73 Council session potato purchase M.T.Kulkarni, V.R.Pandit, calling attention notice Vartak answered. p. 709 cfr; Feb-March 73 assembly session Vartak explanation on potato purchase and distribution through PDS It was not made compulsory on the shopkeepers was the answer of H.G.Vartak. Vartak in his statement provided following information. It was difficult to suffice the need of grains of people due to shortage of grains. The production of potato in UP was good, It was therefore decided that to bring the potato from UP at lower prices and sell out it through PDS at very lower prices as supplementary food. 3.5 thousand tones of potato were bought and sold out. At such instance to buy new stocks is under consideration. One instance of compulsion to sell yet was noticed at Lonvala. Honorable members cited instances of compulsions and perished potatoes. Vartak agreed that some of the potatoes were perished. However, affected potatoes were removed and good and clean potatoes were sold out. The rate of potatoes at fair price shops was 65 paise per Kilo but instead of buying perished and affected potatoes it was good to buy good potatoes at the rate of 80 paise per kilo.

<sup>97</sup>ibid Feb-March73 assembly session vartak explained In answer to the proposal H.G.Vartak Calling attention motion p.596

After October 73 state government had been pursuing central government to supply more grains to Maharashtra. There was ban posed by Punjab government on the transport of food grains. The import licenses were issued to the traders to import food grains. However the import of grains was too meager. Government has no permission to purchase grains in open market of other states. There is ceiling on the sales rate of grains. It is fixed at 130 Rs. maximum 5% profit is permitted. Total input of food grains up to February is 28 thousand tones and the yearly requirement is 73 Croers.

<sup>98</sup> Ibid Vol.34 part 1 number 1 March –April session council 1972 utilization of government bungalow for growing food grains. p.401

processed food from outside state was stopped by respective state and it was demanded to pursue to relive restrictions on the same by members.<sup>99</sup> It also pursued policy of the issuing of raiding hoards of grains of big farmers and black marketers and government too pursued it.<sup>100</sup> People should avoid unnecessary free dining on various ceremonies was enactment of government and issues of such type reported and addressed in the houses.<sup>101</sup> There were constant demands from state government to union government regarding food grains. What measures government took to bring grains from other state governments and purchases of grains from other states? Such questions appear in the house.<sup>102</sup> At very late stage of the scarcity questions pertaining to the per person grain quota and actual supply in that regard of grains appeared more in numbers from almost all members of assembly and council. This highlights the severe scarcity of grains at late stage of the scarcity. It also shows the concerns of members for the people of their constituency.<sup>103</sup> Mrinal Gore also addressed the issue of non-availability of grains to the scarcity works. She also questioned diet and nutrition of the workers and asked question about their vitamin doses.<sup>104</sup>

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<sup>99</sup>Ibid Nov-Dec 72 council proceedings G.P.Pradhan Restrictions on import of Pohe and Kurmure from MP. Contact to MP govt. p. 715

<sup>100</sup>Ibid November 73 Maniben Desai from 1<sup>st</sup> January to 30<sup>th</sup> September 73 Black marketers and adulterators of the food number of cases. P.31 the quantity and weight of the grains received from Nagpur godowan is short. R.F.Chaudhari and V.G.Deshpande p.31 S.A.Shinde the grain confiscated from Kolhapur 235 kgs

<sup>101</sup> Nove-December council session 73.P.317 beside shortage of food at the time of Onam the free dining to the people in Mumbai in ceremony. Rice was not from PDS.cff; November-December 73 council session the restrictions on the public dining in Mumbai Bap Pujari and at 3 places. Pp.343 agitation against rising price in MUMBAI P.341cff. Feb-March 73 assembly session Question was asked by Smt. Pratibha Tidke (Murtizapur) :- questions were about the ban on public dining ceremony on account of marriage or other family functions. The orders were issued on 1<sup>st</sup> September 1972 and immediately came into effect that there could not be public dining of more than 100 people on account of marriages and other religious or family functions. One cannot give meal to more than 25 people. In any ceremony or dining programme one cannot use more than one dish of rice. From 11.12.72 the rules were strictly followed. One dish of rice and two dishes maximum of Farsan is admissible more than that is not admissible. p.3795

<sup>102</sup> Ibid June-July-August council session pp.478-79 questions were asked by G.P.Pradhan.

<sup>103</sup> N.D.Patil quantity over Walve taluka P.1470 Feb-March 73 assembly Session p.1984 Supply of PDS from Nov. 72 to Jan. 73 over all parts of Buldhana

<sup>104</sup>Ibid Feb.-March 73 assembly session p.715

‘Missionaries are taking undue advantage of tribal and poor people as they are providing free grains thinking that these poor people will succumb to the missionary appeal of conversion.’<sup>105</sup> Such were complaints from members in both the houses. Grains from surplus state usually arrive in the month of May in Maharashtra. Up to 1972 such grains were coming in the state. However during 1973 grains from such states not came in the state was complaint and concern addressed by Vartak in the house.<sup>106</sup> Februar -March 73 state faced acute shortage of food grains and actual picture emerged from the discussion in the houses emergency discussion was sought by members in the houses.<sup>107</sup> The Sukhadi<sup>108</sup> and Milo<sup>109</sup> were the issues pertaining to the grain supply debated with vigor and for longer time.<sup>110</sup> The questions and issues pertaining with Sukhadi were about the nutrition value of Sukhadi and its cost. It was recommended by many members by citing expert studies that instead of Sukhadi the wages should be hiked by 50 paise to scarcity workers. In 50 paise workers could purchase more wheat and had high calorific value as

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<sup>105</sup>Ibid Feb-March73 Council p.1656 27<sup>th</sup> March 73 Conversion at Rahuri Naik affirmed complaint at Police station but no conversion by cheating.

<sup>106</sup> Ibid February-March 73 council session Vartak Response If government would have fall short then blame to government would have been justified. Two years back this country on the grain front became self sufficient. It was decided then that hereafter the country would not import grains from outside country. The grains from Punjab, Haryana, and Utter Pradesh normally arrives in May. Last years also during scarcity grains were coming. However, this year there is no sufficient stocks of the grains. p.1688

<sup>107</sup>Ibid Feb-March73 Council emergency resolution on insufficient supply of food grains by V.G.Hande and C.R.Khanolakar; Central reduced quota.November72 94 thousand tones grains. Decembr72 88 thousand tones and Millo 23800 tones. Fifty thousand tones short to quota, January73 75thousand tones and Feb-March 73 the shortage was 90-95 thousand tones. p.1675

<sup>108</sup> Ibid Feb-March 73 assembly session p.1528 Calling attention motion by K.D.Bhagde, N.K.Patil, Mrinal Gore, A.N.Thopte. The Sukhadi was not received to people of Beed. There are 226999 laborers on scarcity works in Beed district. Among them 38532 are in Asthi aluka, 34244 in Patoda Taluka 45075 are in Beed Taluka and total of all these talukas 117851 laborers are receiving Sukhadi. In Gewarai taluka the distribution of Sukhadi will commence on 25<sup>th</sup> February 1973. 28.2.73}Feb-march 73 council session p.604 calling attention motion by M.U.Lahane

<sup>109</sup> Feb-March 73 council session on 1<sup>st</sup> March 73 Vartak made his statement. P.794

<sup>110</sup> Ibid 2<sup>nd</sup> march73 February-March 73 council proceedings p.830 Uttamrao patil and R.P.chaudahri calling attention notice about Dhatura and Millo.

Februrary-March73 council session p.870 emergency discussion on Dhatura and Milo Datta Tamahane why did Supply minister should not be arrested u/s food and drug adulteration act for violation of the same. 5<sup>th</sup> March 73 proceedings from Feb-March council proceedings 73 p.867-70 G..P.Pradhan what is our use if we would not solve the common people problem. To remove all Dhatura seeds from the Milo will cost 1 croer of Rs.p.872 N.D.(J) Patil whosoever is responsible for bringing Dhatura should be punished. P.873 who ever noticed dhatura is eligible for honor.cff. February-March 73 assembly session D.B.Patil notice of encroachment on special privileges for denial of grinding the Milo by mills. Grinding mills are not denying to grin Milo and cleaning the same therefore this could not be encroachment of special privileges of the members of house. p.2639

well as proteins compare to 200 gms Sukhadi of same cost. At latter stage of scarcity suggestion of Bajara disbursement through fair price shops came at fore-front.<sup>111</sup> As scarcity situation became more severe malpractices went on increase. There were grain riots at Sinnar, Malegaon, Tumsar and Nagpur.<sup>112</sup> This issue was volatile issue and addressed seriously by members in the houses. There were also cases of market looting and from proceedings it came to know that 98 cases of looting of weekly markets all over state reported this information revealed through legislative questions.<sup>113</sup> In order to take more food from public distribution system there are cases reported from many cities that many people tried to took fake ration cards is also mentioned in aforesaid passage.<sup>114</sup> To ease the pressure supply to the severely affected districts more attention was paid and questions were asked in that regard in the houses.<sup>115</sup> The strikes of dockyard workers and transport workers added in the difficulties in timely supply of food grains at close of the year 1973 questions pertaining to this issue also appear in the houses.<sup>116</sup>

### **5.10 The issues pertaining to Public Distribution System**

On the very onset of three-year drought establishment of public distribution, system over Maharashtra was distracted and disorganized. H.G.Vartak then revenue and supply minister explained that due to large amount of grain imported till end of June 1971 in Maharashtra and grain production over Maharashtra was satisfactory during 1969-70. During first year of distress, questions were raised about the insufficient number of fair

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<sup>111</sup>Ibid Nov.-Dec-73 council session The bajara through PDS from October 73 p.1214-15

<sup>112</sup>July –August 73 council session Malegaon grain riots question by Dani, police firing 1 killed and 4 injured. For proper supply of threads and grains the Socialist party unit of Malegaon arranged the protest march mob became violent and pelted stoned at Rslly station and on SDO then the firing orders were issued. p.157 Tumsar grain riots firing 3 killed and 6 injured. P.158; council proceedings 6 September 73 p.1631

<sup>113</sup> Ibid November-December council session on 28 November 73 p.662

<sup>114</sup> Ibid Nov-Dec 73 the bogous cards at Dhule City. U.L.Patil and Lahane p.1209 11 dec 73 Lahane the smuggled grain from to Gujrat and MP. 43 cases reported. P.1209cff, November-December 73 P.332 bogus rationing cards are noticed from Nagpur, Mumbai, Solapur, and Aurangabad. Question by Kanitkar and Pandit, Nagpur 3712, Solapur 25044, Auranabad 8562.

<sup>115</sup>Ibid July-August-September 73 council session on 29<sup>th</sup> August 73 grains imported from northern India to be supplied for nine severely affected district of Maharashtra total 158625 tones of wheat 62734 was for the scarcity affected districts.p.1175

<sup>116</sup> Ibid November-December 73, council session p.1208 the grain scarcity and the dockyard labors strike. Vartak yeas between 11 to 18<sup>th</sup> October 73.

price shops over rural Maharashtra. As food grain production in state and all over India was satisfactory and grains were easily available in open markets. No one came to sought grains from fair price shops just prior to distress years. This resulted into closing of existing fair price shops over rural Maharashtra. But alarming condition emerged due to failure of agricultural seasons of 1970-71.<sup>117</sup> In addition to this employees of supply department were reduced it added inconvenience in the grain supply mechanism.<sup>118</sup> Issues addressed on the floor of the houses to start new fair price shops over rural Maharashtra by members of the houses. As many people did not found more profits from fair price shops, very few people were willing to such shops. Therefore, government assisted to cooperative societies and village Panchyats to run the fair price shops. Provision of Rs. 2000 assistance was provided to these institutes to run such fair price shops. Government and also some members realized that the running of fair price shops hampers the working of village Panchayat and such responsibility was taken from them.<sup>119</sup> Monopoly procurement of rice should be stopped at once was demand from many members.<sup>120</sup> Questions also appeared pertaining with the number of fair price shops opened in particular taluka.<sup>121</sup> As such type of questions signifies that government

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<sup>117</sup> Ibid September-October session 71 assembly session Supply minister Varatk addressed the house contain references to fair price shops.pp.232-255; Feb-March 73 assembly session,p.1980

<sup>118</sup>Ibid Vo wl 33number 9 Vol 32number 1 March-April session council 1971 At middle of the scarcity the employees of supply department were terminated. p.105

<sup>119</sup> Ibid Feb-March 73 assembly session p.1988 questions were asked by H.M. Dalwai (Khedbandar) :-Power of village Panchyat to run fair price shops was taken away by government. Classification of owner of fair price shops. Vartak stated in his statement that the villages Panchyat which are efficiently running the fair price shops without any hurdles in regular works of Panchyat such villages Panchyats are allowed to run their fair price shops. The village Panchyat which have misused Panchyat funds while operating such shops then such Panchyat's shops are withdrawn from them.

<sup>120</sup> Ibid March-April assembly session 21<sup>st</sup> April 71 P.A.Kanalekar (Vengurla) p. 1265;cffS.K.Athalye (Murbad) p. 21.4.71 levy should be stopped at once. It had removed the domestic stocks of the farmers. p.1250

<sup>121</sup>Ibid Feb-March 71 assembly session Collector. Dhondge New fair price shops over areas.p.284,cff Lahane Nov-Dec 73 council session p.340 districtwise shops in Vidharabha Ram Meghe.; Feb.-March73 assembly session questions by A.T.Pawar (Surgana) Questions were about the number of fair price shops on 31<sup>st</sup> December 1971 and 30<sup>th</sup> September 1972 to cooperative societies. p.3157; Feb.-March73 assembly session question was asked by S.D.Natu Guhagar about the number and type of fair price shops in Ratnagiri district. p.3399; Nov-Dec 72 assembly session The number of fair prices shops of Walve Taluka p.1819, Nov-Dec. 72 assembly session. question was asked by B.M. Gulpude (Brhamapuri) number of fair price shops have been sanctioned permits up to September 1972 in Brahamapuri taluka of Chandrapur district p.1821.,

pursued new policy of opening new fair price shops to cater the need of people.<sup>122</sup> During 1971 Shorgum (Jowar) shortage noticed in the state. Monopoly procurement and zoning of Jowar and Rice was in vogue. Demands to remove it appeared.<sup>123</sup> However, Sorghum (Jowar) procurement suspended during 1971 but rice procurement was continued. Restrictions on grain movement were also in practice. There were zoning of the grain movement. Jowar was getting smuggled from Gujarat border to Gujrat state. As a result there were complaints against the zoning of grains and compulsory levy as well as against the government resolution of not issuing grains to the farmers having more than 5 acres of land.<sup>124</sup>

Government monopoly procurement of rice and Jowar was in practice during 1971. However, Jowar production failed during 1971 and government could not procure Jowar during that year. Rice procurement was in practice. During 1973 government took over wholesale trade of the wheat and started monopoly procurement of grains.<sup>125</sup> Private traders were obligated to declare their stocks and sold out their stocks in stipulated prices. Questions pertaining to that appear in the houses.<sup>126</sup> Private traders were banned from purchasing and selling of grains. However, cooperative societies were freely allowed to

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<sup>122</sup> Ibid September-October session council 1971 G.P.Pradhan asked question about the number of fair price shops in Pune district. p. 305

<sup>123</sup> Ibid March-April 71 assembly session Shri Homi J.H.Taleyarkhan plead the case of cancellation of zoning of grains. P.1276

<sup>124</sup> Ibid March-April 71 assembly session 21st April 71 R.P.Valvi Anna valuation is faulty therefore the government decision not to issue grains to medium farmers is injustice to them. Similarly compulsory leavy also do not keep domestic consumable grains with farmer. p.1273

<sup>125</sup> Ibid Vol37 Number 32 p.1915 Feb-March council session73 session of councils stament of minister under rule 46 relaxing the restrictions of wheat and Jowar Sorghum sales and transportation. Taking over the trade of the wheat and for that sake the monopoly procurement of the wheat. This resolution or move was for easy supply to rural areas.

<sup>126</sup> Council session June-July August 73 Dani and Kanitkar :- enquired about the stock declaration by merchants. The confiscation of wheat 5 quional in Mumbai and 43 quintal at Nashik. P.190-91 Levy recovery of wheat from Jalgaon, Ahmednagar, Vatak provided details. 15480 A'nagar, 16657 Jalgoan and 3170 Buldhna recovered. P.168 cff, July-August 73 council session the grains confiscated from Selu by Vaimsahpayan total 486 bags confiscated. p.318



bring grains from outside state and purchase it at stipulated prices.<sup>127</sup> Gothi the member of council purchased grains from Orissa through cooperative societies and sold at lower prices.<sup>128</sup> This was his claimed while there was debate about it in the upper house. Government could not purchases all the stocks of farmers and questions in that regard appeared in the houses. Questions regarding all concerned points of the state trading and monopoly procurement were asked in the houses.<sup>129</sup> Questions from all over Maharashtra demanding details of classification of fair price shops and functioning of it were asked in the houses. Fair price shops are not nearer to the residence, the number of fair price shops too small to cater the need of people, change the shopkeeper and attached the cards to other shops such were other demands of people addressed in the houses.<sup>130</sup> Running of fair price shops hampers day to day functioning of Villagae Panchyat was main complaints after few days from the members of the houses. This resulted into taking away the responsibility of fair price shops from the village Panchyats as mentioned earlier. Some Panchyats also incurred losses. There were even complaints against fair price shops run by Village Panchyats.<sup>131</sup> When pressure on public distribution system mounted, the staff of supply departments reduced or transferred to other departments. It

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<sup>127</sup> Ibid July-August 73 council session G.P.Pradhan questions about the misuse of licenses of grain import in Ahmednagar district. P.199

<sup>128</sup> Ibid July-August 73 council session The allegations made by food and civil supply minister about Gothi:- Gothi explained his social works at very cheap he had provided graisn to trials for that he bought grains at very cheap rate from Orissa. P.341

<sup>129</sup> Ibid Feb-March 73 assembly session p.3159 questions by Ramchandra Harinkhede (Goregaon) Under Monopoly procurement of rice, after purchasing of rice the rice was not immediately taken into possession due to that there was loss in the weight. Questions were answered by Vartak and he had answered that the purchased rice was taken immediately into custody except Gondia and Bhandara districts. After purchasing of rice if it remains for more than with sub agents then the fare of godowans, defict and freight price is get compensated to them.cff, November-December 72 questions regarding monopoly procurement of grains asked by R.A. Patil and Mrinal Gore.. what targets were set by government and what are rates of purchase. Whther government have planned to increase in the purchase rates. p.1266

<sup>130</sup> Ibid Nov.-Dec. 73 council session Vghala Vardha Chaudhari and V.G.Deshpande the place of the fair price shops temporarily changed from Vaghala to Kharagna due to rainy season river flooding. p.882

<sup>131</sup> Ibid Feb-March Session Council 73 13 th Feb 73. Tamhane Kopar Khairane Village Panchyat misappropriation of money from PDS Shop run by Village Panchayat. P.76

further added pressure on the public distribution system.<sup>132</sup> There were number of complaints about fair price shops involved in various corrupt practices<sup>133</sup> like, misappropriation of grains, selling grains in open market, non issuing of grains to card holders, irregularity in maintaining registrar, not displaying stocks and rates of grains, irregularity in purchasing government stocks and disbursing the same.<sup>134</sup> There were also complaints from untouchables that they did not issued fair price shop cards and same was addressed in the houses. <sup>135</sup>Government sought public advice and participation in improving the supply at various places. Food supply and advisory committee formed to suggest various measures, like opening of new fair price shops, etc. questions pertaining to performance and constitutions of these committees were asked.<sup>136</sup> There were

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<sup>132</sup> Ibid June-July-August 72 assembly session question was asked by Shri Vasantao Karlekar ( Vardha) regarding the employees of food and supply department had reduced their staff and some staff had been transferred to other departments. p. 3562

<sup>133</sup>Ibid Nov-Dec 73 council proceedings 4<sup>th</sup> Dec 73 Tayde Black marketers fair price shopkeeperprs shops Kuhepran Bhusawal (All category shopkeepers found) p.876

<sup>134</sup> Ibid 20<sup>th</sup> July 72 assembly session PDS shopkeepers usually did not takes grains from government to distribute some people. (PDS Shopkeepers did not took grains from godwans) Nov-Dec 73 council session P.340 the committee on reducing corruption from the Nagpur supply department; Feb-March Session Council 73 16th Feb 73. C.R.Khaolkar Nirwade village Panchyat PDS shop grains was sold at Sawantwadi the shop was taken from the panchayat P.220; Feb-March73 Council At Khed Shivani Talulka Sakoli complaints against PDS shop keeper No display, No distribution etc. by citizens p824

<sup>135</sup>Ibid Nov.-Dec 72 calling attention motion by D.B. Patil, K.S. Dhondge, S.D. Mandlik, A.N. Thopte, Not issuing of rationing cards to un-touchable persons of Mahlungi tal. Karvir Dist. There should be overall requirement of 58 rationing cards to Dalits of Mahlungi but only 8 were issued cards. This year 50 card holders were asked to renew their cards. But these Dalits they don't want to attach their cards to existing society and want to attach with other shop. p.2137

<sup>136</sup>Ibid Nov-Dec72 assembly Taluka Food and civil supply guidance committee structure , . Thasildar Chairman, three social worker out of that one female member, one member of fair price shopkeeper, one member of private merchant, one member of private wholesale dealer. One member( Chairman) of agriculture produce market committee, Taluka sale and purchase committee ( chairman), Chairman taluka Panchyat Samiti, residing members of state legislature. District food and civil supply committee structure All members of district representative of parliament, all state legislature members, chairman of ZP, two municipal members, two taluka Panchyat Samiti Chariman, one member of traders, private and cooperative fair price shop keepers representative, one wholesalers representative, one woman representative, if collector feels one representative of district collector. Two social workers. District collector should be the chairman  
Dec72 p.2122

complaints reported from Purnandar Block Pune district by Sursingh Jadhavarao member of legislative assembly about insufficient supply of grains from state and black marketing i.e. the atta was transported to gray market etc.<sup>137</sup> Government decided to appoint vigilance committees to monitor and to redress the grievances of customers of fair price shops. There were number of questions pertaining to vigilance committees regarding its formation, members and it's working. There were raids on big farmers in Panvel taluka, and it was addressed through adjournment motion in the house. The Powder like Sukhadi also found in the same taluka and reported and addressed in the houses. Similar raids on farmers also noted elsewhere in the state. Government took actions against such complaints.<sup>138</sup> Group politics of villages created suspicion and allegation against the fair price shops of cooperative societies which were under control of certain groups of villages.<sup>139</sup> Deprived and underprivileged group at such instances made complaints of such fair price shops. There are instances reported where public itself took stringent actions against corrupt fair price shop owners.<sup>140</sup> Government could not produce grains as per demand of people or representative. However, redressed the grievances reported about the corruption of shopkeepers or bureaucrats immediately which was possible within government's authority. Licenses of many shopkeepers cancelled on account of

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<sup>137</sup>Ibid Nov.-Dec 72 assembly session calling attention motion proposed by Sursingh Jadhav and Mrinal Gore about the improper distribution of food grains this resulted into starvation of some parts of the Purandhar Taluka of Pune district. " foodgrains were not received since last 10 days in fair price shops in Purandhar Taluka it resulted into starvation of people of Purandhar Taluka. p.1279, cff Government had decided that from 1.11.72 the per head quota of grains fixed as 8kg per person per month. Only at the scarcity area the quota is extended by 1kg. The food grains which Maharashtra receives get imported from Punjab and Haryana. To get such food grain from such a distant part it takes time. This type of difficulties occurred in the first fortnight of October and November. Problem is communicated to central government. In response to that central government solved the problem in second fortnight of both these months. Valhe and Daundaj villages didn't received sufficient grains. There was not wheat stock throughout the month of November in one of the fair price shops out of three fair price shops of Valhe village. there was not stock at other two shops of Valhe and Daundaj village of Purandar taluka. In the beginning of this month sufficient stocks of month is provided to these shops.

<sup>138</sup>Ibid February-March 71 assembly session Date 29.3.71 Mahlgi fair price shop of cooperative society at Davdi taluka Vartak \_this shop taken away due to complaint sand irregularities. p.383-84

<sup>139</sup> Ibid Nov.Dec council session 73 Varud district Aurangabad U.Patil and Lahane about the society shop the enquiry is going on. P.341

<sup>140</sup> Ibid Nov-Dec 73 council proceedings Lahane taluka Patoda district Beed at Loni villagers closed fair prices shops irregular distribution. villagers did not take grains from the alleged shops. Demanded to change the shop. p.871, Feb-March 71 assembly session Mahalgi fair price shop was run by handloom weavers taken over by government.

irregularity or misappropriations.<sup>141</sup> State government not allowed by centre to procure grains from outside state. At middle of the distress other states banned to export grains from their state to outside state this added difficulties of Maharashtra state. However, Jean Drazé and other experts believed that grain at acute scarcity came in Maharashtra from outside state illegally through private traders. Questions pertaining to import licenses, profits of cooperative society, profits of other private persons, misuse of licenses were asked in the houses.<sup>142</sup> Issue of bakery and atta i.e. refined flour of wheat came in lime light. Many bakery owners misused their bakery licenses for obtaining more wheat flour and even some of them misused old licenses.<sup>143</sup>

Raids on the black-marketers, hoarders of grains, and even big farmers were one of the significant aspects of the policy adopted by state government to make available more grains to the consumer.<sup>144</sup> Government officials and vigilance committees raided fair price shops and government took necessary action against such shopkeepers.<sup>145</sup> Public and government were vigilant to look after illicit transportation of grains.<sup>146</sup> The issues related<sup>147</sup> with government grain warehouses like mismatching of stocks and sells, supply

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<sup>141</sup>Ibid July-August 73 council session Khanolkar asked about number of licenses of the PDS shops cancelled. p.469

<sup>142</sup> Nov-Dec 73 council session p.336-37 from Vasi taluka merchants brought grains : Vartak according to import licenses

<sup>143</sup>Ibid July-August 73 council session Sinnar bakery owner misused old license to get Atta. P.121 ; Nov-Dec 73 session council 3Dec 73 Bakery's atta and wheat supply reduced. p.844

<sup>144</sup> Ibid Ibid July-August 73 the grains confiscated from Selu p.318 by Vaimsahpayan total 486 bags confiscated.,cff November-December 73 council session 13<sup>th</sup> November 73 Maniben Desai from 1<sup>st</sup> January to 30<sup>th</sup> September 73 Black marketers and adulterators of the food number of cases. p.11

<sup>145</sup> 6<sup>th</sup> September 73 V.G.Deshpande the raid on the fair price shops of Akola district on RSS complaint the raids were on 25 shops. In one shop wheat from fair price shop was found. p. 1569, November-December assembly session 73.,30<sup>th</sup> November 73 At Nagpur Jari Patka region Vigilance committee stop the sale of rice due to irregularity in the functioning of the shop. p.1536 ; July-August 73 council session Khanolkar number of licenses of the PDS shops cancelled. Five licenses were cancelled. p.469

<sup>146</sup> Ibid July-August 73 council session Vaimshapayan question about the illicit traffic of the grains by truck from Parbhani to Beed. P.355 July-August 73 council session Two trucks on 14<sup>th</sup> April and another on 8<sup>th</sup> May 73. To evidence this from Sonpeth(Parbhani district) the grain exports' 25 cases registered by police. P.461

<sup>147</sup> Ibid November-December 73 the council session the quantity and weight of the grains received from Nagpur godown is short. P.31 Nov.-Dec.73 council session adulterated food of the Nagpur city p.1386

of low quality grains and its contamination with iron particles and died rats etc were addressed.<sup>148</sup> At latter stage of the scarcity there were complaints and allegations about the adulterated food grains appeared in the houses.<sup>149</sup>

### **5.11 Starvation Deaths**

No government in modern days will easily accept the deaths of starvation this finding of Almgir Muhamad of renowned theorist of famine get confirmed from the proceeding of Maharashtra state legislature.<sup>150</sup> Incidence of starvation death addressed through whichever type of proceedings suddenly made government alert and defensive and argumentative. It made other people legislator curious and worried. Issues related with starvation death found place almost every type of proceeding of both the houses of legislation during 1971-74. As soon as scarcity situation emerged over Maharashtra issues of starvation, deaths surfaced on the floor of legislation.<sup>151</sup> This alarmed government as well as public of Maharashtra. It also made government to remain always alert on food supply front. Efforts of government in that regard is reflected through frequent explanation and measures adopted and stated on the floor of house both by supply minister and chief minister of state. It was the commitment of government to

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<sup>148</sup>Ibid November-December 73 Council Khanolkar and Uttamroa Patil while the grains were distributed from the godowans of Malegaon two bags were extra distributed. p.330

<sup>149</sup>Ibid July-August 73 council session questions about the argot,mixed wheat and other adulterated grains March to May 73 the care government taken. p.169 Pawar in 54 bagas the iorn found No answer to the infection through perished food. (Toxicities food)  
July-August 73 Vaisampayan p.1175 ; Nov-Dec 73 assembly session Zakeria ergot caused the toxicity of the bajari. p.893-94

<sup>150</sup>Ibid Nov-Dec assembly session 72 Vartak while answering to the no confidence motion said that the starvation death at Aundhya Nagnath was due to illness and not starvation deaths as such. Vartak further calarified allegation made by honorable member claiming 17 starvation deaths from Ahmednagar was not actually starvation deaths and was due to the snake bites. Kesharbai Kshirsagr while discussing on same motion also supported government that the alleged starvation deaths are not actually starvation deaths. On 21<sup>st</sup> Novemebr 71p.198-99 ; Feb-March 73 council session Appasaheb Jadhav V.R.Pandit at Akola PDS shop que 27<sup>th</sup> April 73 one death Vartak denied starvation death. p.114; Feb-March 73 assembly session Mahske “ To prove the starvation death a person of such quality yet to born. p. 1919

<sup>151</sup> Ibid Sept-October 71 assembly Session Kalmunuri on 8<sup>th</sup> September 71 R.M.Ghangare (Vardha) mentioned that at Kalmnuri taluka village Giraswadi one blind man Shankar Hanumanta was working on scarcity works. He did not receive his wages and he was died. He ate wild tubers (Sindhi) and it resulted into his death. At Karanja Dhabha one person died due to heavy work. Third death occurred in the village Nishana. Shankar Hanumanta vicim of starvation was from Biramvadi near to his village reported by Kalmnuri M.L.A. pp.228-29

avoid deaths of men and animal in the house and for that sake opposition sought this commitment as an opportunity to corner government. Opposition never missed opportunity to embrace government by initiating adjournment and calling attention motions. In that, regard members of opposition party tried to put cases as they sensed were starvation deaths.<sup>152</sup> Severity of scarcity increased day-by-day amid it seems that every death from poor family censed by members of legislation and people in general as starvation death. Drazé commented that the food situation of Maharashtra after Dec 73 worsened so much so that it created critical situation. Allegations of starvation deaths came almost from every part of state.<sup>153</sup> Most of the cases addressed were from Marthwada region.<sup>154</sup> The addressed and reported alleged cases of starvations were from chronic drought prone areas.<sup>155</sup> Deaths at scarcity work due to the overwork and of

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<sup>152</sup>Ibid Sept-October assembly session 71 Dhulup in his speech stressed that government is not acting on the assurance that honorable chief minister commitment regarding government would prevent even single death of the people and even cattle. Also everyone want work will be provided the same p.130

<sup>153</sup>Ibid Feb-March 73 council session. Khanolakar notice of adjournment motion Solanke:- at Bailkadi wadi of Shapur taluka of Thane district Janu Bhau Gavantha's starvation deaths. V.R.Pandit and R.P.Chaudhari death on 27Feb 73p. 919. Vol.38 number1 July-August 73 council session R. P.Chaudhari, G.K.Athawale, Asaram Sadguda's starvation death on 19<sup>th</sup> April 73 at Pavnar Khadi of Bhandara distirct. Vartak denied as starvation death. p.114-15, cff. June-July-August 72 assembly session starvation death of Muka Goma Maral on 22/10/72 of Navargaon of Brahamanpuri of Chandrapur district.p.503 Feb-March 73 assembly session N.K.Patil (JamnerBrahmanpuri of Chandrapur district p.503Feb-March 73 assembly sessionAdjournment motion proposed by A.A.Wankhede, G.R.Shende, :- Starvation death of Seeta Kolhatkar at Khapa Taluka Tumsar District p.1429;Calling attention motion by R.K.Mahalgí, K.D.Bhegde, Mrinal Gore, This point of order calling attention motion was proposed by R.K.Mahlgí according to rule 104. This calling attention motion was about the 5 starvation deaths at Valunj and Potul of Gangapur taluka of Aurangabad district. p.2021; adjournment motion by D.B. Patil, K.S. Dhondge " At Tasgaon dist Sangli p.1186; Feb-March 73 assembly session Adjournment motion by K.S.Dhondge, D.B.Patil, K.D.Bhegde, D.D.Padvi, S.D.Natu, notice of adjournment motion. " Alleged starvation death of Devamma Shivappa Kamble on 13<sup>th</sup> March 193 at Village Diggi Taluka Umerga district odmanabad. p.2498

<sup>154</sup> Ibid Sept-Oct.71 assembly session Nathapur Beed the death of Eknath Baburao Jogdand was died due to starvation pp.593-94,Septeber-October71 session Mr.Mornale of Deogad Sangvi of Kandhar taluka p. 593 but suggested to put as calling attention motion. Motion denied by speakerSepteber-October71 session by Dhonge for alleged starvation death of the woman at Solapur of Kandhar taluka pp. 1149

<sup>155</sup>Ibid Nov-Dec 72 council proceedings Gunat Shirut starvation death of Krishanabai Satpute V.R.Pandit and Lahane. p.719 Nov-Dec 72 council proceedings N.D.Patil at Mohal taluka district Soapur 10-15 starvation deaths adjournment moition notice by N.D.Patil. p.719,June-July-August 72 assembly session 23<sup>rd</sup> August 1972, starvation deaths from Martahwada region addressed starvation deaths from village Shivankhed Mulki Khamasvadip of Osmandabd districts

pregnant women accidental deaths and suicides were also starvation deaths was the argument of some of honorable members.<sup>156</sup> Government had never admitted single case of starvation.<sup>157</sup> However, at one or two instances even government caught in awkward situation. Most of the alleged starvation deaths were addressed through adjournment motions. However, adjournment motions are censure motions very few motions allowed by speaker for debate. Speaker of both houses at such instances directed to H.G.Vartak then revenue minister or government to make statement in that regard in respective houses. At some instance speaker directed to members whoever put the notices of adjournment motion to put it as calling attention motion which did not considered as censure motion.<sup>158</sup> As it was too difficult to collect the evidences in time for starvation deaths to address it as adjournment or calling attention motion such cases were addressed through the questions and through debates. Questions in that regard appear late or after few months in the houses.<sup>159</sup> Addressing starvation deaths through debates and questions

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p..3734 pp.3826-28,cff, Nov-Dec 72 assembly session p.986P.987 p.989 p.992;cff Feb-March 73 ; November-December 1972 assembly session . Adjournment motion by on the starvation deaths of Ms. Krishnabai Maruti Satpute and her three year old grandson Gunat village of taluka Shirur. p.1455  
 Nov-Dec 72 Ibid assembly session The adjournment motion by D.B.Patil, K.S.Dhondge, and the statement on it by revenue minister of state shri S.A. Salunke. On the starvation death of Ms. Sakharubai Chavan of Tasgaon district Sangli. p.1542  
 assemblysession Adjournment motion by K.S.Dhondge, D.B.Patil, K.D.Bhegde, D.D.Padvi, S.D.Natu, notice of adjournment motion. “ Alleged starvation death of Devamma Shivappa Kamble on 13<sup>th</sup> March 193 at Village Diggi Taluka Umerga district odmanabad. p.2498

<sup>156</sup> Feb-March Session Council 73 13 th Feb 73V.G.Deshpande due to lower wages Dhondabai Atmaram Suicide with three children. . P.275 cff, Nov-Dec 72 assembly session Suicide of Mr. Chonde at Chondi taluka Kandhar p.986

<sup>157</sup> June-July-August 72 assembly session 23<sup>rd</sup> August 1972, starvation deaths from Martahwada region addressed starvation deaths from village Shivankhed Mulki Khamasvadip of Osmandabd districts p..3734 pp.3826-28

<sup>158</sup> Septeber-October71 assembly session death of Kashinath Beemrao Hammappalle of Aurnagabad an activist of the PWP was in the jail for his scarcity works activity and alleged improper treatment in jail he suffered lot and resulted to his death. Suggested to put calling attention motion after ruling Dhonge in protest left house p. 875.

<sup>159</sup> November 73 assembly session P.1528 28<sup>th</sup> November 73 Metal breaking scarcity works at Kalamb-Latur road starvation death of Kedari Nana Ambeer. Denied by Vartak. 30<sup>th</sup> Novemebr 73 At gondur airport as the person who was on scarcity work was died due to starvation question was by S.S.Mali (Dhule), D.D.padvai(Taloda), N.K.Patil(Jamner) Vartak No by natural death. P.1528; cff. Feb-March 73 assembly session starvation death of Rama Kalu Chavan of Devghat village died due starvation. p.2587

was easy task. However, in such cases government accountability and effective redress did not expected that much seriously.<sup>160</sup>

There were allegations leveled against government that government failed to provide dole to needy people and that resulted into deaths. One such case reported from Islampur after the stopping of dole to deceased victim after 45 days resulted into death. Government officials feel safe to admit that the dole stopped as per norms of union government as the town had a municipal corporation. More cases of alleged starvation came in the form of notices of calling attention motion.<sup>161</sup> However equal or sizable number of cases also addressed in non-confidence motion, debate on the governor's address, discussion of supplementary grants. As government never admitted any starvation death members tried to convince government to admit the same. Even members tried to give different definition to starvation deaths and forced government to accept the same as official definition. There was typical pattern of government officials to prove alleged starvation deaths are not starvation deaths. For that sake in every case official enquiries were being held. Immediately the government officials were recording the statement of witnesses. There was usual method of recording statements of close relative stating economic condition of deceased was good. Deceased was suffering from deceases and the said death was not starvation death<sup>162</sup> there was enough food in the house.<sup>163</sup> There was

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<sup>160</sup> Ibid September-October assembly session 71 question by Nihal Ahmed, Ramchandara Ghangre V.R.Patil starvation deaths of Bilkot village. Vartak answered that these deaths are not starvation deaths. There are 3 months stocks with every district. Per person quota determined was 12kg per person. Bajara and Maize had been taken from FCI.p.769

<sup>161</sup>Ibid Feb-March 73 council session 29<sup>th</sup> March73 question by Lahane to revenue minister about the persons died on account of not receiving dole explanation sought.

(1)Pandu Chemte Shingori taluka Shengaon

(2) Shankar Boli Shitur taluka Namkhed

(3) Gopi Bhaga –Chincholi

(4) Dada Bhalerao- (Khasepuri)

Died due to non receiving dole up to Dec 72 Vartak answered that the dole was paid. Solunke the deaths were due to various deceases. p. 1797

<sup>162</sup> Ibid September-October assembly session 71 Vartak on 9.9.71 Alleged starvation of Jankibai and Nana Bhusahan Sonawane of Malegaon Taluka death due to TB and Hashba Vitthobha Malahari died due to old age p.235



enough food provided from the fair price shops of the village.<sup>164</sup> There were enough works being in progress to the vicinity of decease's village. Almost in every case government followed same procedure and same inference was drawn. However, opposition at every occasion counters government argument and raised objection to government argument stressing the death was starvation death. Even allegation of starvation deaths of migrants from scarcity-affected village to Mumbai was addressed. These cases addressed in the house by members with the help of information they got from the telegraphs, the applications they received from close relative's information received from political leaders. Many times the applicants and close relatives usually reversed their complainant and statement in fresh recording before government official. Usually investigating officers were Tehsildars and Sub divisional officers. There were occasion when influential local political leaders made necessary application to collectors and to member of opposition to address the cases. At such instances at the time of official enquiry the signatories and close relatives of deceases' had reversed their statements. Frequent such presentation of alleged starvation deaths on the floor of houses made government more responsive. As scarcity went on more acute the number of starvation cases addressed in the house through various types of legislative proceedings went increased. At such instance supply and revenue minister Vartak and Chief-Minister V.P.Naik tried to convince that any death during scarcity cannot be labeled as starvation death, however government tried its best to avoid starvation and starvation deaths. Government declared a policy to avoid starvation deaths funds and responsibility handed over to village Panchyat.<sup>165</sup> Members of opposition made demand of change in the

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<sup>163</sup>Ibid Feb- March assembly session 73 p.3295

<sup>164</sup> Ibid Feb-March 73 assembly session statement by S.A.Salunke revenue and cooperative minister on starvation death of Mrs. Devappa Shivappa Kamble. p.2754

<sup>165</sup>Ibid Feb-March73 Council C.R.Khanolakar question answered by Solunke, The responsibility of starvation death is delegated to Village Panchyat and expenses incurred on this scheme is chargeable to 64 relief fund. p.1455

definition of starvation death. Members also enforced government to pursue more vigorous measures to avoid the same.<sup>166</sup>

## 5.12 Drinking water

Drinking water is always the typical problem that rural Maharashtra faces each summer. There are many villages of drought prone Maharashtra even during normal monsoon season faces acute shortage of water. Intensification of scarcities get noticed when drinking water scarcity shows its first sign. 1971-72 and 1972-73 seasons recorded substantial low rainfall. The question answers and proceedings of the year 1971 shows that systematic attempts were being made to create drinking water resources and pipe line arrangement for small towns and big villages.<sup>167</sup> During June- July 1972 most of the questions were pertaining to the water scarcity appear in the month of June- July. It alarmed the coming severity of water scarcity it also highlighted the developing grim situation of rainfall. As in July most of the rural Maharashtra receives good rainfall and the drinking water scarcity diminishes.<sup>168</sup> It is amply clear that until these days state

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<sup>166</sup> Government of Maharashtra Publication Legislative proceedings Council session Nov.72 The definition of starvation death must be changed. V.R.Pandit on scarcity motion of 29<sup>th</sup> Nov.72

<sup>167</sup> Government of Maharashtra Publication legislative proceedings Vol.32 part 1 March April May 71 assembly session question and answers 16<sup>th</sup> March 1971 Water supply p.21, March April May 71 assembly session Pusegaon water supply scheme. P.26 March April May 71 assembly session Pintoo Unicief Fund and sinking of wells, March April May 71 assembly session . 17.3.71 p.17 Hasu Advani PM tour expenses. March April May 71 assembly session , March April May 71 assembly session 18.3.71 Namdeorao Gunal p.156 March April May 71 assembly session Ahmednagr city water p.239 19.3.71 pipe water scheme of Buldhana district.

date 23.3.71 Deshmukh (Sangola) Permission by Solapur to sink tube wells A.V.Nimbakar N.M.Tidke:- western India. missing taking bore wells in ZPS of Maharashtra. If ever sweedihs Hindusatn Machine is ready to tube wells in Solpaur district by the solve rate of western India machines rate permissions will granted. P.1057 5ht May 71 S.R.Raut (Kolhapur) asked about water supply scheme of Cahuk village.P.1125 5.5.71 pipe water scheme by Hussien Dalvi.7.5.71 the suppl of watr at Bahadurpura Mansapura by Dhondge tank works and the source of water from Manyad to be augmented for the drinking water. P.1242 Ramchadra Ghangre Vardan city drinking water scheme

<sup>168</sup> Ibid June-July 72 Assembly proceedings Drinking water :-

13 th June 72 p. 163 N.K.Patil D.D.Padvai Drinking water villages of Jamner are 104. 27<sup>th</sup> June 72 p. 893 S.M.Thakre Rajapur:- water scarcity, pp.199-the provision for drinking water,p.163 Jamner water scarcity p.893 water scarcity Ratnagiri p.894 Mukhed and Deglurp.900 Panhala, p.1291 Akkalkor.p.1293 the villages at the bank of Indryani river Mavl, p.1684 Khatav p.1685 Vol. 32 number 39 p.891 28<sup>th</sup> April 71 Keshavarao Dhondge (Kandhar) Kandahar water scarcity. J.G.Ambike p.894 27<sup>th</sup> June 72 Number fo villages facing water scarcity Billoli, Mukhed, Deglur, p. 900 D.Y.Patil Wate scarcity problem of Pnahala. p.1445 6<sup>th</sup> July 1972 R.S.Sabane(Deglur) K.S.Dhondge (Kandhar) question about the number fo village declared scarcity villages over Naded district. 303 Kharif villages. P1684 11 July

government has to make careful and vigilant attempts to full-fill the need of difficult villages in respect to drinking water deficiency. Real water scarcity surfaced through proceedings of March-April 72 session of assembly the acute scarcity was addressed through following words, “The cost of 12 liter water is 50 paise in Jejuri.”<sup>169</sup> “ Wide spread water scarcity over Satara, Solapur, Ahemadnagar, Sangli, Pune, Kolhapur and Akola districts which resulted into severe distress of potable water, severe crop loss and scarcity of fodder, the measures to be adopted and being adopted by government I would like to address the issue to government by this calling attention motion.” These were some remarks from the members when water scarcity during first measure scarcity year showed its impact. S.B.Patil then the rural development minister of state elaborated all government efforts to fulfill the same.<sup>170</sup> The villages facing problem of drinking water be provided with excavation of new wells or supply through closed pipelines was the policy and proposal of the members. In order to give impetus to such government policy, the resolution proposed by Shri Ali Hassan Mamdani (Darhva) as in following words, “ Where ever water scarcity persist in villages, in all such villages excavation of new wells or closed pipe water supply scheme be started by government within two years this resolution is referred to government by this legislative assembly.” He further in his motion added that out of 25 districts 13 districts received deficient rain. The wells that were perennially water self-sufficient, even such wells dried out. There is special provision of supplying water to villages which were having anna valuation below 4. But there were villages have more than 6 Anna valuations and still these villages were facing acute water scarcity. Government claim of creating new wells in water deficient villages,

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72 Keshavarao Patil Water scarcity villages of Khatav. P.1685 V.R.Mahaske 11<sup>th</sup> July water scarcity villages 25 villages are water scarcity villages.

<sup>169</sup> Ibid March-April session 72. A. Khaire (p.204) People are facing acute problem of potable water due to scarcity. 28.3.72

<sup>170</sup> Ibid March-April 1972 assembly session of assembly: 30<sup>th</sup> March 1972: S.B. Patil p.321 “Government is adopting different measures like construction of new wells, digging of new wells, repairing old wells, and providing water through closed pipes.”

but this claim could get endorsed after ratifying the potential water source of the particular wells. In the discussion of this resolution K.B. Kotwal, D.V. Purohit ( Mahad) R.G. Mirashi participated and addressed the water scarcity problem of their respective constituency<sup>171</sup>

Widespread water scarcity all over Maharashtra was developing into grave problem and same was addressed and presented for debate in the form of calling attention motion by T.C. Karkhanis, B.G.Patil, K.D.Bhegde, Dilawarsingh Padvi, P.B. Kadu, R.K. Mahalgi, K.S. Patil B.S. Patil, R.A. Patil, B.B. Khanjire, K.S.Dhondge and Ms. Pratibha Tidke on 7<sup>th</sup> April 72.<sup>172</sup> S.B.Patil answering to this calling attention motion elaborated the government efforts while putting explanation to the issue.<sup>173</sup> K.S.Dhondge questioned whether government would take responsibility to support poor village Panchyats to its endeavor in providing drinking water. The response of the government was quiet positive to this question. Panchuyat Samiti and Zilla Parishad shouldered the support to village Panchayats to provide drinking water was the response of respective minister.<sup>174</sup>

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<sup>171</sup>Ibid Feb-March 72 pp.330- 336 . D.V. Purohit ( Mahad) addressed in his speech, “out of 250 villages 130 villages of my constituency is facing problem of water scarcity. district local boards have incurred Rs. 35 lakhs on well excavation programme in such wells from January onwards there is no water. Excavation of lakes in villages is important measure to augment the water resources of villages on Konkan region.” R.G. Mirashi ( Deogad) addressed in his speech, “It is directed that to implement water supply scheme of Deogad, it is mandatory on Village Panchyat to pay 10% amount for the said scheme to government. However, it is not possible to village Panchayat to pay the same. It is therefore requested that 10% amount to be paid by village Panchyat should be remitted.”

<sup>172</sup> Ibid Feb-March 72 session of assembly 30.3.72; p.612

<sup>173</sup>Ibid The survey and report of 1<sup>st</sup> April 1969 there were 12485 villages which were facing water scarcity problems. This survey states that the question of water supply of these villages could be solved by simple measures. For 19188 villages where water scarcity problem is to be solved by digging of wells and through piped water the expected expenditure is 93.36 croers. There is scheme in which government provide Rs. 1 Lakh as grants in aid for pipe-water scheme and grants for excavating wells in the villages through the ZP. . The pipe water schemes are sanctioned for 1196 villages and the schemes and actual works for 558 villages are in progress. 253 new schemes of pipe water supply are newly sanctioned for 472 villages. In order to fulfill all needs of the villages government have devised phased programme. In which LIC of india have decided to provide 10 Croers Rs. in the form of loan to finance this scheme. LIC have sanctioned 4.89 Croers for this scheme in this year and next year it will sanctioned further 4 corers. There is programme excavation of tube wells. As Bombay scarcity manual the villages which are having anna valuation below 4 are to be declared scarcity villages at such villages there is provision of supplying water by tankers and bullockcarts. There is also provision of financing Rs. 2000 for deepening of wells of villages.

<sup>174</sup>Ibid Feb-March 72 Session p.616

Throughout scarcity period honorable members were quiet anxious to address the water scarcity of their own constituency and number of question in that regard surfaced in the houses.<sup>175</sup> Some more questions could be sited as follows. Questions were asked about the water supply problems countered on account of technical problems.<sup>176</sup> Questions were asked by V.B.Kahadiwale (Udgir) about difficult villages in respect with water scarcity of Udgir Taluka.<sup>177</sup> Questions were asked by Sharad Tasure (Chandur) number of villages faced water scarcity problem.<sup>178</sup> From last 5 years over Chandur taluka of Amravati districts 77 villages were facing drinking water problems. In 48 villages deepening of wells or excavation of new wells were under progress. 29 villages were difficult villages where pipe water schemes was operational told by Sarnayak.

Some typical questions with respect to water shows that intensity, popular perception of the issues gravity of the problem and its implications. B.B. Khanjire raised question some villages have paid half of the popular contribution what were the schemes to assist such villages devised by government. S.B. Bendre asked to name these districts. Whether it was possible to implement, the scheme of pipe water in Melghat area was the question

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<sup>175</sup>Ibid pp.617 Pratibha Tidke, S.D. Natu, R.A. Patil, K.B. Mahaske, Namdeorao Mate; : Feb-March 73 assembly- p.1741-44;- S.D.Mandlik (Kagal) :- What measures are taken to supply drinking water to Kagal city. p.2395 question by Mrinal Gore about the drinking water status of Vinchur Village. Answered p.2586 question by R.A.Patil (Walva) :- questions were about the drinking water scarcity of Bagani, Bavachi, Gotkhind, Kameri, Bhavaninagar and Kalamwadi villages. p.2934 10th August 72:- Question was asked by R.G. Bhoie (Javar) how many villages of Javar and Mokhada Taluka are water scarcity affected villages:-p.3363 questions by Kesharbai Kshirsagar about the Kej, Patoda, Beed talukas scarcity about the drinking water. How many villages are water scarcity villages in these talukas? 1 to 15Dec 72p.1060 question was asked by T.M. Savant ( Gangakhed) How many villages of Parbhani district are facing drinking water scarcity problems. Whether due to scarcity many villagers are J.G. Ambekar ( Biloli) :-How many pipe water scheme have been started, completed and finished and in under progress in Degluar taluka of Nanded district. T.M. Savant ( Gangakhed) How many villages of Parbhani district are facing drinking water scarcity problems 15<sup>th</sup> December 72 p.2025 J.G. Ambekar (Biloli) K.S. Dhondge (Kandhar) 952 villages water scarcity villagesp.2026 Suleman Khan Pathan (Kamathi) Nagpur district 320 villages water scarcity villages deepening of wells under the scheme WS-6 at the coast of rivers digging of trenches and water supply by bullock carts.

<sup>176</sup>Ibid Vidhan Sabha proceedings 30.3.72 Assembly p.756

<sup>177</sup> Ibid p.766 answered by S.B.Patil. The 98 villages were

<sup>178</sup> Ibid p.773

appeared in the house. K.D. Bhegde asked question whether there was information of migrated villagers to government due to scarcity of water and number of cattle sold to butchers. Due to insufficient rainfall big cities like Aurangabad also faced many problems.<sup>179</sup>

Water scarcity could take such an acute condition that could even result into shifting of villages or the village settlements were sensed by some expert like V.M.Dandekar. Calling attention notice in that regard put by K.D.Bhegde, Mrinal Gore and A.N.Thopte.<sup>180</sup> Water scarcity took acute stage one example cited in the house depicts real picture which explains how a child had to get down at the bottom of 90 feet deep well by tiding a rope around his waist.<sup>181</sup>

### **5.13 Public Protest**

Protest marches for scarcity works and grain was one of the important aspects of political economy of scarcity. Peasants and workers party was one of the important political forces of Maharashtra. It showed exemplary resistance to government in and outside legislation for better scarcity relief policies. Most of the protest marches were either organized for grains, scarcity works, and wages; or influenced by ideology of peasants and workers party. Just after initial sign of the distress the protest marches for the scarcity works were organized all over Maharashtra.<sup>182</sup> Protest marches for scarcity works reported from Daund, Chandwad, Varud, Nanded, Osmnabad, Balapur Teshsil, Shendurni of Pachora

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<sup>179</sup> Ibid p.623

<sup>180</sup> Ibid Feb-March 73 Session p.907 /21.2.73}

<sup>181</sup> Ibid 5.3.73 Speeches on supplementary grants p.819 K.N.Deshmukh (Ahemedpur)

<sup>182</sup> Ibid September-October assembly proceeding part 2 without questions answers 1971 session on 13th July 1971 protest marches at Daund demanding scarcity works. Socilaist party at Deglur, K.S.Tidke complained that there were protest Marches at his home demanding scarcity works. pp.187-216. Assembly proceedings Sept-October session 71 The scarcity workers at Chandwad organized protest march for wages on Teshsil office and Panchyat Samiti. The mob then went to marketing federation grain shop and then sacked the shop. pp.253-54

taluka reflected through proceedings of both the houses.<sup>183</sup> There were protest marches all over Maharashtra even at latter stage of scarcity. However, these protest marches were for the Taqavi loans,<sup>184</sup> grains and better wages.<sup>185</sup> At latter stage of scarcity, payment of wages were not regular and protest marches for the immediate payment organized and same were addressed in the houses.<sup>186</sup> After three consequent years of scarcity people sensed unbearable inflation. People could not bear such pressure of inflation and it erupted through the protest march at Jalna city. The students of Jalna organized such protest march as there was hike in rates of their day-to-day meal.<sup>187</sup> This event was addressed through calling attention motion. Even at the last stage of the protest scarcity incidences of protest reported and mostly were for hike in the wages.<sup>188</sup>

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<sup>183</sup> Ibid Sept-October 71 assembly proceedings part 2pp.119-20 cff, September-October council session 71 Session council part 1 questions and answers:- p755,cff Septeber-October71 council session pat2 pp.1885, September-October 71 council session proceedings p.134 G.P.Pradhan cited protest march of Shendurni. ,At Osmanabad there was stone pelting and encircling of revenue minister while he was on the tour to review the scarcity situation Sept-October 71 assembly proceedings part 2p.81

<sup>184</sup> Ibid September-October council session 71 Session council part 1 questions and answers:- Mukund Kulkarni questions protest rally on Unmerkhd Tehsil for Taqavi Loan. p755

<sup>185</sup> Ibid Feb-March council session 73 workers at Shirala(Jaisinghpurrter headquarter of taluka) encircled the officer Tehsildar on 31<sup>st</sup> Jane of 1<sup>st</sup> Feb 73 The demanded more wages. Protest marh was whole night at Tehsil office p.535 Feb-March 73 council proceedings 20<sup>th</sup> March 73 21 January Jaisingpur Morcha p.1353; Feb-March73 Council the portest march at Armori district Chandrapur march was for more wages p. 696 Feb-March 73 assembly proceedings p.1289 R.K.Mahlg, A.A.Wankhede(Malkapur) B.N.Madvi(Armori) R.P.Valvi(Nadurbar) K.R.Patil (Shegaon) T.C.Karkhanis (Kolhapur) Promod Navalkar (Girgaon) Vishweshwar Atram( Gadchiroli) Mrinal Gore (Malad) these members asked questions about the police firing on the scarcity works mob on 5<sup>th</sup> January 1973 at Armori Panchyat Samiti district Chandrapur. Answered by S.G.Pawar the scarcity workers came into mob and they surrounded the Panchayat Samiti. Some people the scarcity workers were having sticks and inflamed torches they tried to burn the godowans they were shouting slogans. What were their demands? Asked in sub questions by members. 2.50 Rs. per person without any measurement of their work performance. The mob was quiet violent and agitating mood. Two persons were injured and total 114 people were arrested

<sup>186</sup> Ibid July-August 73 council session At Dhamangaon and Pathardi A'nagar district there was no salary for more than three weeks. p.945

<sup>187</sup> Ibid July-August 73 council session 22<sup>nd</sup> August 73p.1007

<sup>188</sup>Ibid September-October 73 council session; At Malegaon the scarcity workers protested but was not march their demand was to increase the wages. p.1568; February-March 73 assembly session proceedings; 'adjournment motion notice by P.B.Kadu for latthi charge on the protest march of communist party by P.B.Kadu. Even after conclusion of march police had ruthlessly beat communist leader Nathu Kinhikar and injured him. Finally, adjournment motion ruled out by speaker. p.796 (2.10.73)

As soon as people sensed severity of distress the protest marches began demanding scarcity works and regular supply of grains even turned violent on 6<sup>th</sup> of September 1971 there were incidences of police firing at Varig and Nagpur. At Vairag communist party organized protest rally demanding scarcity works and regular supply of grains. At Nagpur weavers came on the street in protest rally demanding supply of sufficient cotton fiber. Cotton fiber supply felt short to demand because of prevailing drought. Both protest rally of Vairag and Nagpur turned violent and Police opened fire at both the rallies. There was allegation that at Variag mob of rally tried to sack government grain stocks there. These incidences created anger in the mind of people and members of legislation. Members of opposition addressed the issues by putting adjournment motions. Handful of adjournment motions permitted for discussion by speakers in both the houses and these motions were among and permitted motions.<sup>189</sup> There were hot discussions on both the issues members of opposition challenged benevolent role of the government and blamed government for such a painful incidences. However government defended police firing as mob turned violent. Another such incidence occurred at Islampur in Sangli district. On 18<sup>th</sup> of October 1972 peasants and workers party organized a rally demanding more scarcity works. Police opened firing at such mob. This incidence addressed in the houses. Prominent leader of peasants and works party Shri N.D.Patil led the rally after police firing two workers of peasants and workers party died. One of the victim was Shri N.D.Patil's nephew. N.D.Patil also suffered injury and same addressed in the houses. The reference of this incidence pointing apathy and insensitive behavior of government through number of proceedings in the houses. The notice of adjournment motions put by R.K.Mahalgi and S.D.Natu about the police firing on protest march demanding works and regular and secured supply of grains by peasants and workers party at Islampur

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<sup>189</sup>Ibid September-October1971 assembly proceedings vol.33 part 2 adjournment motion for Vairag pp.112-130 at Varig 5 people died 54 injured due to bullet and 47 were injured due to latthi charge. September-October1971 assembly proceedings vol.33 part 2 adjournment motion for Nagpur pp.135-155 September-October 71 council session part 2 pp.82



district Sangli. The notice for this adjournment motion came on 20<sup>th</sup> November 1972 and speaker denied permission.<sup>190</sup>

There was delay in the wage payment of scarcity workers encirclement of concerned officers and Satyagrah incidence noted over delay in wage payments<sup>191</sup>

There were number of protest marches and rallies all over Maharashtra and incidences of violence and police firing reported. Numbers of legislators were distracted by government approach and violence and police firing in due course of protest marches. To tackle such situation members of legislation expected different kind of approach and mechanism of government. For that, sake notice of adjournment motion put in council during November 1972 session.<sup>192</sup>

There were incidences of encircling Tehsildar and other officials for payment of wages of scarcity workers at late stage of scarcity. At 26 places all over Maharashtra protest marches for grains were organized between 1<sup>st</sup> April 73 to 15<sup>th</sup> June 73.<sup>193</sup> Even more violent grain violence broke at Malegaon,<sup>194</sup> Nagpur, Tumsar<sup>195</sup> and Sinnar<sup>196</sup>. These incidences addressed in the houses. Grain sacking event of Akola district was enquired by members and there were four such events reported from the district.<sup>197</sup> Discussion regarding this grain violence conducted in council on 6<sup>th</sup> September 73 V.G.Deshpande, V.G.Hande and other participated in the debate. Stone pelting on Tehsildar at Sinnar,

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<sup>190</sup>Ibid Secretariat of state legislation Maharashtra state brief summary of Vidhan Sabha Proceedings for November-December 1972 p.86

<sup>191</sup> Ibid June-July-August council proceedings 73 p. 803 the staygrapha at Tandulwadi district Sangli was addressed by G.P.Pradhan. p.945 The Sarpanch of village Dhamangaon of Pathardi block was encircled and protest march to Tehsil office of Pathardi

<sup>192</sup>Ibid November-December 72 council proceedings p.74

<sup>193</sup> July-August-Sept 73 assembly session. p.274

<sup>194</sup> Ibid July-August 73 council session p.157 reported violence on 17<sup>th</sup> April 73 and addressed in the proceedings of 3<sup>rd</sup> August 73 cff. July-August-Sept 73 assembly session. p.274

<sup>195</sup>Ibid July-August 73 council session p.158

<sup>196</sup>Ibid July-August-Sept 73 assembly session. p.274

<sup>197</sup> Ibid p.672

attempt to burn legislative assembly member at Tumsar reported and informed by home minister for state. He further informed that such attempts to inflame the grain violence were made at Nagpur and Mumbai.<sup>198</sup> Violence broke at Nagpur was due to scarcity of cotton and grain. Incidences of sacking liquor and other shops took place. Incidence of such nature reported during 16<sup>th</sup> April to 21 April 73 period. At Tumsar such grain violence reported and graver incidence of attempt to burn member of assembly reported.<sup>199</sup> Incidences of beating social workers after revealing the corruption at scarcity works in Solapur district by persons involved in corrupt practices occurred.<sup>200</sup>

### **5.14 Loan Recovery**

There were number of complaints regarding compulsion and tyranny of the bank officers on farmers to recover loans from cooperative banks.<sup>201</sup> Special resolution put in the assembly to extend the short-term loan in to the long term loan in the wake of consequent three long years of scarcity.<sup>202</sup> Honorable cooperative minister Y.G.Mohite stated that government was planning to convert loan payment duration for 10 years. He further stated that Reserve Bank's rules and regulations are putting limits on the government endeavor in that regard as Reserve Bank is not permitting to granting concessions to debtors. A.A.Wankhede requested to suspend recovery till the discussion with Reserve Bank get finalized.<sup>203</sup> In answering to calling attention notice it was answered that in loan

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<sup>198</sup> Ibid September-October council session p.1631

<sup>199</sup> Ibid July-August-Sept 73 assembly session. p.278

<sup>200</sup> Ibid At Kevad, taluka Mahada, district Solapur the laborers Shri Pandurang Naryan Dharm and Dashrat Tukaram Nirgane these two laborers were brow beaten by Sandipan Nimbaji Patil. This was revenge action by accused Patil on suspicion of providing news of false attendance at muster roll or attendance roll of scarcity relief work. The complete was launched in respective police station one accused got bail on the very first day and two other accused got two day magisterial custody.

<sup>201</sup> Ibid Government of Maharashtra publication 'Proceedings of Vidhan Sabha of Session June-July-August 72' proceedings of 30<sup>th</sup> June 72(Marathi Version) p.1135 Honorable member K.B.Mahaske, Mahalgi and Bhegde asked question. However official answer that the drive of recovery was voluantry only recovery of debtors of Rs. 2000/- was in progress.; 28<sup>th</sup> March 73, assembly proceedings p.195,(Calling attention motion)

<sup>202</sup> Ibid Vidhan Sabha Proceedings Februray-March 1973 (Marathi version) p.432

<sup>203</sup> Ibid p.439

recovery cases nationalized and cooperative banks have to follow Reserve Bank's guidelines.<sup>204</sup>

Calling attention motion put in the house on 28 March 73 with respect to the suspension of loan recovery drive and tyranny of property confiscation for dues that had not been paid by agriculturists of rural Maharashtra.<sup>205</sup> Sundrao Solunke then state minister stressed that land development bank's recovery was absolutely necessary as this bank depend for its resources on recovery. He further added that loan incurred for irrigation enhances the power and capacity of the farmers. Such indebted farmers can pay the required installments they cannot spare from the drive. However, the farmers who did not have capacity to repay for them the concession of suspension could be granted.<sup>206</sup>

Waving of loans is constant demand of agriculturists in recent years. However, during distress of such a colossal nature over Maharashtra during 1970-73 when agricultural production was at its lowest ebb, no constant and forceful demand came from either from agricultural community or from opposition leaders. However, waving of the loans of small farmers was addressed and such demand presented in the house without forceful constant demand.<sup>207</sup> On the contrary, despite dismal performance of agriculture there were constant forceful drives of loan recovery. Confiscation of property and galvanized metal sheets of house roofs, domestic utensils took place. Members of houses demanded relief to agriculturist in that regard. Concerned ministers stated that orders had been passed to deal patiently with indebted farmers. There was usual policy of suspending loan recovery of villages having anna valuation below 6 anna. The recoveries of loans get

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<sup>204</sup> Ibid 28<sup>th</sup> March 73, assembly proceedings p.195,(Calling attention motion) Shri S.A. Salunke answered the question, He stated that the amount raised by this way by government through various agencies the viability of Banking of this bank solely depend upon the recovery. The recovery of such banks is equally important. The farmers who have taken loans from such banks and utilized the amount for augmenting and harnessing water resources as well as developed irrigation and developed land would not face the problem of water and production as such. But there are some farmers who have capacity to repay and even they are not willing to repay at such instance whenever the recovery performed under section 137 of cooperative act is not extortion or tyranny of farmers on part of government.

<sup>205</sup> Ibid proceeding of 28<sup>th</sup> March 73 p.195 Due to recovery and confiscation drive farmers are facing severe inconvenience and these extortions on farmers should be stopped was addressed by R.A.Patil, K.B.Mahske,

<sup>206</sup> Ibid Loc .Cit.

<sup>207</sup> Legislative council proceedings September-October 1971 Vol. 32 Part2 p.256-57 Krishnarao Dhulup then representative of Kalyan constituency demanded that the loans of poor farmers should be waived.

suspended for two years and short term loan get converted into long term loans. However, during such colossal distress farmers were in dire need of great relief on loan recovery front. After declaration of anna evaluation the villages having below 6 anna valuation of crops at such instances the loan recovery get suspended. Short-term loan get converted into long term loan and the amount to be paid get added.<sup>208</sup> There were demands like at some time farmers should be relived from the repayment of loans. Land development bank should cut its recovery from 50% to 33% demanded by B.G.Jadhav of Chandur constituency.<sup>209</sup> Calling attention notice compulsory recovery of loans from scarcity affected region the calling attention notice by A.R.Jadhav . He mentioned in his motion and speech that instead of more loans to farmers, they caught in the grief of scarcity. They should get relief by further loans. As per Mumbai agricultural loan recovery rule 9, on reasonable guarantee the taqavi get sanctioned. Government issued an order not to recover loan with force.<sup>210</sup> Government declared its policy regarding taqavi loans. Farmers with dues to be paid and having enough security should be sanctioned fresh loans in such distress. Instead of these orders if loans are not sanctioned cases reported then government will make probe in it and appropriated action will be followed. This condition is only applicable to bullock taqavi and fodder taqavi. From beginning of the distress means from 1971 itself the questions and cases of the loans reported in the houses.<sup>211</sup> Farmers were misusing the taqavi loan and such misuse should be stopped.<sup>212</sup> There were incidences of protest in the form of protest rally for Taqavi loans in some part

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<sup>208</sup>Ibid Legislative council proceedings of September-October 1971 Vol.33 part of question answers only p.22 7<sup>th</sup> September 1971. P.22; pp172 Jeevanlal Chandak (Katol):- the loan burden on peasants should not feel them burdensome. The interest on loan should be waived.

<sup>209</sup>Ibid Sep-Oct 71 assembly proceedings. P.206

<sup>210</sup> Ibid Vol.32 number 15 council proceedings March-April-May session 71. p.446

<sup>211</sup>Ibid Vol.32 number 15 council proceedings March-April-May council session 71. P67 V.G.Deshpande per capita wages Rs.70 per person. Farmers above 20 acres land lost galvanized roof sheet and other goods in loan recovery and confiscation drive of banks. p.446

<sup>212</sup>Ibid Sept-October 71 council Session p.108

of state.<sup>213</sup> There were questions pertaining to the amount sanctioned and the problems in the sanctioning of loans. At latter stage more questions regarding bullock taqavi were asked. This highlights the shortage of the bullocks and its need in agricultural operations ahead. There were issues addressed about the compulsory loan recovery at one such instance government answered that there was no compulsion and forceful recovery.<sup>214</sup>

### **5.15 Untouchability, drought and scarcity**

Untouchables should get right to water from the public wells was very early demand during scarcity. It itself signifies the vitality of the issue.<sup>215</sup> Neo-Buddhist community of that village was not allowed to take water from the well reserved for potable water for the high caste Hindus reported from very beginning of the scarcity.<sup>216</sup> Number of such types of issues addressed through number of proceedings.<sup>217</sup> At one instance, the drinking

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<sup>213</sup> Ibid September-October 71 Session council part 1 questions and answers:- Mukund Kulkarni questions protest rally on Unmerkhd Tehsil for Taqavi Loan. Vartak:- affirmed the same but denied the delay in disbursing taqavi. p755

<sup>214</sup> Ibid September-October 6.9.71 council Session council part 1 questions and answers question by V.G.Deshpande Buldhana coopeertive bank recovery amount out of 278.67 lakh only 1.30 lakh recovered. Up to 30<sup>th</sup> June 71. Mohites answers. No compulsory or forceful recovery from the scarcity area where the anna valuation is below 6. However the recovery drive is going on through the society and cooperative sugar mills of the debtos having dues of more than Rs. 2000/-. There were instances of property confiscation and members pointed out it that the recovery was being pursued forcefully. (V.G.Deshpande& R.P.Chaudhari dues below two thousand with example) Minister replied RBI preconditions p.22

<sup>215</sup> Ibid March-April Seesion71 assembly 15<sup>th</sup> April 71 V.R.Patil p.603

<sup>216</sup> Ibid Vol. 36 March-April 71 K.S.Dhondge Ban on untouchables to take water from public wells at Mahausane taluka Kandahr district Nanded S.B.Patil protection against ban had been taken. pp.1055-56;cff Feb-March session assembly session 73 question by K.N. Deshmukh:- there is no facility available to the untouchable villagers of Hobharna of Ahemedpur taluka of Osmanabad. Untouchables having their own well still the mud of this well is not cleared. Answered by Pratibha Patil the drinking water facility was available to them. The well of said community visited by concerned authority and the desilting of well is in progress. p.1111

<sup>217</sup> Ibid June-July-August 72 assembly session, 10<sup>th</sup> August 72 assembly proceedings calling attention motion by A.A. Vankhade Malkapur and D.D. Padavai addressed the issue of untouchability and drinking water In Nagpur district at Sataara village of Umred taluka there was ban( boycott ) on Nava Bavadha community not to take water from community well. The question was answered by Smt. Pratibha Patil incident of 5.6.1972 Gopikabai and her female friends after public well exhausted its water resource went to the Shiva Banats well to pour water in their pots. N.F. Gadhawe of Manhal lost ZP elections he instigated to Gopikabai to draw water from well though it was expected that other than untouchable should draw water for untouchable from well at such instance Gopikabai herself withdrew water for herself Hari Shende saw this and stop her taking water from the well take away her pot. 7 people from untouchable community and 7 people from upper caste were detained for public security. p.2952

water source of untouchables infected by caste Hindu peasant while irrigating his field through untouchables well.<sup>218</sup> Instead of accepting, the fact of prevailing untouchability executive of states stated that the untouchables were having their own well and not willing to take water from the common well of high caste people of that village thus, hiding prevailing untouchability over state.<sup>219</sup> Framers' of constitution sought eradication of untouchability by laying different provisions in the constitution. These provisions were being implemented in urban area and untouchability reduced considerably over these areas. Rural Maharashtra despite tradition of social reformers did not influenced by their thoughts. V. Subrahmanium author of well-documented work Parched earth on this topic mentioned at one instance that this drought brought all sections of society on equal footing scarcity proved great leveler. However, from the evidences it seems that public wells and public water sources were not open to untouchables during this scarcity. There were incidences observed over all parts of Maharashtra that high caste Hindus were not ready to offer common water resources to so called untouchable castes. Government though seems quiet sympathetic towards schedule castes and tribes did not pursued vigorously to open public water resources to everyone in the villages. State was neither admitting prevailing untouchability over rural Maharashtra nor acting forcefully to eradicate the same. This is reflected from the proceedings of both the houses of legislature.<sup>220</sup> Untouchability the social evil was prevailing all over Maharashtra and same was addressed from various motions<sup>221</sup> and proceedings of both the houses covering

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<sup>218</sup> Government of Maharashtra Publication Vidhan Parishad Proceedings Nov-Dec.73 The incidence occur at Kolegaon taluka Jafarabad district Aurangabad between 10<sup>th</sup> September 73 to 20 September 73 where 12 persons from Neo-Buddhist community died due to gastro-intestinal infection after consuming infected water. p.341

<sup>219</sup> Ibid Vidhan Parishad Proceedings Nov-Dec.73 However government have admitted that the farmer from high caste was taking water from that well for agricultural purpose the ditch which he excavated for the purpose caused infection in the well. p.341

<sup>220</sup> Ibid Feb-March73 Council:- Alegaon Solapur water to untouchables question in this regard was asked by M.U.Lahane p.1525 April-May 71 councils session at Mahsane tal Parner district Ahmednagar issue was addressed , p. 1055, over Kandhar taluka district Nanded p.1056

<sup>221</sup> Ibid Feb-March 73 council session Calling attention motion on Avsar Vadapuri region Feb-March 73 council session motion notice by U.L.Patil, V.G.Deshpade, S.G.Pawar incidence due to the rivalry clashed on the work and not due to the feeling of untouchability (touching of water at scarcity works by untouchable) p.1712

issues from all over Maharashtra. <sup>222</sup>Untouchables themselves were using separate wells for drinking water purposes and refraining from taking water from common wells this was official stand<sup>223</sup> of state while answering the issues emerged on the floor of houses pertaining to this. By this government was hiding its inefficiency inability to act on prevailing untouchability within the state. Government officials caught into awkward situation over these issues many times. It seems that state was evading from shouldering this responsibility. Untouchables banned even touching of the wells of high caste Hindus and common people. There were incidences of beating of untouchables by high caste Hindus on number of occasions after taking water from the public wells of high caste Hindus or even touching the wells.<sup>224</sup> At one such instance-concerned minister Ms.Prathibha Patil then answered that untouchable who took water from the public well of high caste Hindus was instigated by someone to take water. However, honorable minister herself was not aware that instead of espousing cause of social justice and eradicating untouchability she was indirectly supporting the same.<sup>225</sup> An incidence of

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<sup>222</sup>Ibid Feb-March 73 Council at Tamdalghe Village of Shirol the social boycott on the untouchables for they poured(drawn) potable domestic water from the common well. Calling attention notice on this issue by V.L.Ralekar p.1601; July-August 73 session of council :- G.P.Pradhan the untouchables of village Soni of Sangli district have to go away from their home to another 1.5 kms away for scarcity work. This type of complaints came but it was not correct added by Vartak. ; July-August-September 7<sup>th</sup> September 73 session Khanolkar at village Harichari the boycott on well as used by cobbler community of the village. p.1695; Vol.32 number 36 assembly proceedings 5<sup>th</sup> May 71 At mahasane taluka Parner district Ahmednagar public ban on the untouchable community to take water from the public outlet of drinking water at public well. Five persons were arrested in this regard 100 Rs. Fine imposed on the untouchables. P. 1055; 5<sup>th</sup> May 71 assembly proceedings K.S.Dhondge (Kandhar):- Ban on untouchables to take water from public wells at Mahusane taluka Kandhar district Nanded. S.B.Patil protection of untouchables and all necessary precautions against ban had been taken. p.1055-56 Feb-March 73 council proceedings M.U.Lahane asked questions about the untouchables of Alegaon district Solapur were not allowed to take water from public well.p1523

<sup>223</sup> September-October 73 council session p.1695 at the village Harchari of Ratangiri where the cobbler community used the common drinking water well the high caste Hindus then banned or stopped taking water from such well.

<sup>224</sup> Nov-Dec.73 council session 19<sup>th</sup> Nov.73 proceedings a girl child of the Pardhan community the untouchable community went to pour water from public well, she was stopped with slang language the adjournment motion notice was put by K.S.Dhondge then. The incidence was of the village Bordi taluka Vani district Yeotmal. Incidence occur with the daughter of headmaster Damodar Ramji Podam named Tara. p.492

<sup>225</sup> June-July-August assembly session calling attention motion addressed the issues; In Nagpur district at Sataara village of Umred taluka there was ban( boycott ) on Nava Bavadha community not to take water from community well.

violence broke at Avasar Wadapuri of taluka Indapur district Pune where scheduled caste scarcity workers and common workers were working together. There were attacks of violence on each other between two groups of the scarcity workers. There was allegation that this violence broke due to touching of drinking water by untouchable. However statement issued in this regard by home minister of state that the allegations made on the ground of untouchability was not correct. By studying history of incidences it was amply clear that there was no any intention of any one that provoked out of psyche of untouchability.<sup>226</sup> Untouchability was so deep rooted in the minds of people that one untouchable bought land with temples of Hindu gods. Some anti social element convinced that such a heavenly wrath of scarcity was due to the purchasing of temple land by untouchables. This resulted into the frequent stone pelting(throwing) incidences on untouchable settlements.<sup>227</sup>

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The question was answered by Smt. Pratibha Patil incident of 5.6.1972 Gopikabai and her female friends after public well exhausted its water resource went to the Shiva Banats well to pour water in their pots. N.F. Gadhawe of Manhal lost ZP elections he instigated to Gopikabai to draw water from well though it was expected that other than untouchable should draw water for untouchable from well at such instance Gopikabai herself withdrew water for herself Hari Shende saw this and stop her taking water from the well take away her pot. 7 people from untouchable community and 7 people from upper caste were detained for public security p.2952

<sup>226</sup> Feb-March 73 council session Calling attention motion on Avsar Vadapuri region Feb-March 73 council session motion notice by U.L.Patil, V.G.Deshpade, S.G.Pawar incidence due to the rivalry clashed on the work and not due to the feeling of untouchability (touching of water at scarcity works by untouchable) p.1712 cff; February- March 73 assembly session calling attention notice p.3297

<sup>227</sup>Nov- Dec assembly session72 assembly Calling attention motion By P.B.Kadu and Vakilarao Langhe Shri Eshwarbhau Trimbake at Mirajgaon, Taluka Karjat, District Ahmednagar of un-touchable community i.e. HARIJAN purchased the land of survey No. 554&555 with the temples of Lord Datta and Mahadeo which resulted into heavenly anger of god in the form of severe drought was the perception of villagers. Patil of village i.e. headman provoked other villagers of village. Therefore villagers were attacking the untouchables' settlement in the villages occasionally, suddenly at night times with stones. In the assembly the story was affirmed by government. It was state in assembly that Mr. Trimbake went to Mirajgaon out post police station complaint orally but officer on duty asked him to launch written complaint. Mr. Trimbake did not wait and went away. But after that Karjat Police sub inspector and taluka magistrate visited Mirajgaon immediately and restored peace in the village. Eight persons of the said villages were being prosecuted under section 143, 149,440 and anti un-touchable law. On 31<sup>st</sup> October 1972 the case went to court of law. The case was thus under adjudicator. p.2132



There were incidences of social boycott on untouchables on many occasions after they used the public wells.<sup>228</sup> At some places utensils of water of untouchables were thrown away reported and addressed.<sup>229</sup>

### **5.16 Women Issues**

Scarcity does not differentiate between men and women. Rather women were measure sufferer during these scarcities. Many anemic, ill health, pregnant and even just child delivered women worked for their survival on scarcity work. There were cases reported that such weak anemic women worked for their survival on the scarcity work and they died while working on scarcity works.<sup>230</sup> Among total number of reported alleged starvation deaths numbers of women were sizable. Number of women died on scarcity works and such cases reported through proceedings. There were cases of exploitation of women. Women labor exploited and same were reported in the houses. Even Sarpanch of one village misbehaved with scarcity worker women.<sup>231</sup> There were even exceptional cases of sexual harassment<sup>232</sup> of women and two incidences of rape reported ; at Roha in Raigad district and other at Wembala river in Amaravati district.<sup>233</sup> Women legislators

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<sup>228</sup> Feb-March 73 council proceedings in Shirol taluka Tamdalge village p.1601

<sup>229</sup> Nov-Dec.73 session of the council 27<sup>th</sup> November 73 p.647

<sup>230</sup> Vol.38 number 22 3 Septemebr 73 .pp.1309-10 one pregnant woman of the Rahuri named Shakuntals Shirole died on the scarcity work; July-August-Septemebr 73 Hasni tlauka Nanded Sonubai a scarcity woman was died on the work itself but the incidence was denied by Vartak (Khanolakar) p.1568

<sup>231</sup> July-Augusn73 council session Village Sardgaon Ambone of Beed district p.1178 by Lahane and U.L.Patil (Saradgaon Ambejogai Beed) Scarcity women of the scarcity women complaint against the Sarpanch who was misbehaving with them.

<sup>232</sup> Nov-Dec 72 assembly proceedings p.1591 questions were asked by S.D.Natu and R.K.Mahalgi about the molestation of one Rajastani female laborer at Kavathe Guland in Shirol taluka of Kolhapur. Question was answered by S.G. Pavwar then home minister for state that the laborer and her husband were not scarcity workers. They were wonders. The police enquiry was on the progress.

<sup>233</sup> Feb.March assembly session 73 questions by S.D.Natu (Guhagar) R.K. Mahalgi, Promod Navalkar (Girgaon) Mrinal Gore (Malad) H.R.Barkule(Partur) T.C.Karkhanis (Kolhapur) At **Roha** distict Kolaba woman seeking scarcity employment was raped on 25<sup>th</sup> December 1972 whether this news is right or wrong. What is the progress of prosecution. One police constable and some persons committed this heinous crime. Police station in charge registered

and other members raised such issues in the houses. Women legislators constantly demanded equal wages to men and women. it actually came into effect during last year of scarcity.

### **5.17 Distinct Issues**

At the peak of distress the elections of Municipal Corporation,<sup>234</sup> Village Panchyat<sup>235</sup> and cooperative institutes were postponed.<sup>236</sup> Metal breaking was the major exercise of this scarcity. There were heaps of the metals on roadside. Though this exercise provided employment to many people at peak of distress, numbers of questions were asked about the utilization of this metal in the houses. Other questions pertaining to selling price of the metal also appeared in the legislation.<sup>237</sup>

After three consequent years of scarcity, one strange observation came to notice that number of people working on scarcity suffered from night blindness. Majority of such cases were reported from chronic scarcity areas.<sup>238</sup> Over some places vasectomy

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the crime in diluted form non cognizable offence. The said police officer suspended.. p.1276; September-October council 73 proceedings Vembala river a contractor and his men raped a scarcity worker woman in Amravati district incidence reported on 23 rd May 73 p.1382

<sup>234</sup>Ibid Nov-Dec 72 assembly proceedings p.1555 a bill to provide for the postponement of the elections to certain Municipal Councils

<sup>235</sup>Ibid Feb-March 73 assembly proceedings p.424 village panchyat electing bill

<sup>236</sup>Ibid Nov-Dec assembly sessionP 1013:-.4<sup>th</sup> December 72 S.A. Salunke: A bill to provide for the postponement of elections of committees fo specified cooperative societies because of widespread scarcity conditions in the state. The orders which have been passed before to conduct the elections of cooperative society dated 31<sup>st</sup> December 1972. D.B.Patil

Patil raised objection that ruling party always tries to avoid the discussions on the floor of house

<sup>237</sup> Ibid Feb-March 73 assembly question p.3062 Feb-March 73 assembly question p.3152

<sup>238</sup>Ibid Nov-Decm72 assembly proceedings p.1462The adjournment motion by S.J. Jadhavarao, R.K.Mahalg, K.D.Bhegde and Mrinal Gore on the overlabor and food that are devoid of nutritious value causing large-scale night blindness.( 8<sup>th</sup> December 1972) :- In answer to the objection G.S. Sarnayak health minister for state said that the infirmity caused due to deficiency of vitamin A. the provision of providing doses of Vitamin A and D with capsules and injections is already made. The special drive in this regard by ZP and team of rural health had been undertaken. 16000 capsules of vitamin A and D had been distributed. 200 injections are performed. There are 2000 cases and total 50000 laborers are on work. Therefore the tablets distributed and the injections performed are too meager. What

operations made compulsory and compulsion in that regard were made in the houses. Two such incidences addressed in the house by legislators of Vardha and Sangli.<sup>239</sup> Questions pertaining to vitamin A doses appeared in the house in that regard. Questions pertaining to supply of medicines and medical check-up of workers were asked in the houses.<sup>240</sup> Medical college students of Mumbai rendered their valuable service and toured rural Maharashtra and examined number of rural people. As signs of scarcity on the verge of finish, government reduced the rates of wages and stopped the employment of children between age 14 and 18. Only two persons from family were allowed to work on scarcity works. Further, there was phased out program of cutting scarcity works. At such instance, there was resistance of people to close scarcity works.<sup>241</sup> There were fasts for protest on closure of scarcity works and also for the payment of dues of wages of scarcity works at Shriur taluka of Pune district.<sup>242</sup>

At latter stage of the scarcity most of the questions were related to delayed wage payments, bullock taqavi, grain quota, poisoning of bajra with ergot and corrupt practices surfaced about the community wells. It was reflected through proceeding of both the houses.

From March-April 73 onwards many people including legislators, farmers and social workers realized there could be shortage of bulls for agricultural operations after three years consequent drought and scarcity number of measures like tilling of the farm through private tractors, providing extra bullock taqavi to farmers and even adoption of

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measures government are going to take? These objections were raised by Mrinal Gore. Hon.Memebr shir Loke asked question about the proposed sukhadi distribution program

<sup>239</sup>Ibid Feb-March assembly 73 calling attention motion by T.C.Karkhanis (Kolhapur) by Rule 104 . In Sangli district the laborers who are not ready for vasectomy undergoes tyranny of authority. It was agreed by the state health minister G.S.Sarnayak that concern department and officers involved in vasectomy drive are even proceeding on scarcity works sites to pursued people to be ready for the vasectomy drive. But there are no instances of compulsion and force administered on scarcity workers for vasectomy. p.518

<sup>240</sup> Ibid. Feb -March 73 question was asked by Mrinal Gore regarding the sufficient supply of medicines to scarcity workers. In answer to this question it was informed by Rafiq Zakeria that orders have been issued to concern collectors to purchase sufficient medicines for scarcity workers. P.691

<sup>241</sup>Ibid June-July-August 73 council proceedings proceedings of 16<sup>th</sup> August 73 p.612

<sup>242</sup>Ibid June-July-August 73 council proceedings p.704

bulls these measures suggested by experts.<sup>243</sup> Documentaries and news trailers were produced to publish the government efforts and question in that regard were asked in the legislation.<sup>244</sup> There were number of accidents on scarcity sites such issues were addressed through various motions enquiring the status of injury compensation to the victims etc.

Persons involved in corrupt practices of scarcity works beat some other persons who tried to reveal the corruption.<sup>245</sup> There were accidents at works site and question with respect to asked in the house.<sup>246</sup>

One very interesting observations put by Ulahasrao Patil in council while demanding more sorghum instead of maize because maize aggravates the injuries.<sup>247</sup> Questions pertaining to the artificial rains were asked in the houses. While discussing on the various scarcity policies artificial rain one of the measure was suggested by members.<sup>248</sup> Throughout the scarcity period there were actions against black marketers and the traders

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<sup>243</sup>Ibid Feb-March 73 assembly proceedings Question by Govindrao Adik (Shrirampur) :- Questions were about the adoption of ox (bullock) in Pune district. In answer to this question Vartak answered that this policy was being run by privately. This scheme was not under the consideration of government. p.3162

<sup>244</sup> Ibid Feb-March 73 assembly proceedings (23<sup>rd</sup> March 73) The schemes which have devised for the scarcity relief by publicity department. Questions were asked by N.R.Mate. There was one documentary and two news trailers were formed p.2924-25

<sup>245</sup>Ibid November-December 72 assebly proceedings Calling attention motion moved by Mrinal Gore, S.J. Jadhavarao, R.K. Mahalgi and K.D. Bhegde “ At Kevad, taluka Mahada, district Solapur the laborers Shri Pandurang Naryan Dharm and Dashrat Tukaram Nirgane these two laborers were brow beaten by Sandipan Nimbaji Patil. This was revenge action by accused Patil on suspicion of providing news of false attendance at muster roll or attendance roll of scarcity relief work. The complete was launched in respective police station one accused got bail on the very first day and two other accused got two day magisterial custody p.2129-20

<sup>246</sup>Ibid November-December 72 questions was asked by N.K.Patil and K.D.Bhegde about the death of two workers while working on the Mahur dam and compensation. The incident was corroborated by minister and to compensate the workers efforts were taken to communicate commissionaire of workmen compensation as per act as the incident took place at contractors site. Same question was latter asked by Sursingrao Jadhav Purandhar p.669; Nov-Dec 72 p.1118 adjourment motion by P.B.Kadu, and Vakilrao Langhe: One youth was working on scarcity work the percolation tank works. But he was injured during the work. He did not received medical relief on the spot. He suffered from tetanus and he died in due course.

<sup>247</sup>Ibid Jan-Feb 73 council proceedings pp.490-92

<sup>248</sup>Ibid Nov-Dec 72 assembly session p.1807

fetching profit by hoarding and hiking unnecessary the prices of goods.<sup>249</sup> Stocks with a merchant Laxmichand was sold at stipulated prices as per government direction questions pertaining to that was asked in the house.<sup>250</sup> At very last phase of scarcity most of the issues were concerned with bullock taqavi, taqavi loans, grain quota, grain supplied, community wells and corruption on public wells.

During February-March 73 there were violence of grains reported all over Maharashtra. One very interesting issue addressed while discussing on budgetary provision in council on March 73 by N.D.Patil that every scarcity labors have to attach 10 paise revenue stamp and 10 paise scarcity stamps for his scarcity wage payments.<sup>251</sup>

### **5.18 Long Lasting Impressive Members**

Behavior of the members in the house and their participation in proceedings raised the standard of proceedings and honor of the houses. There were experienced members in the third and fourth assembly of state. Congress was ruling party and secured more than 2/3 of seats. However, opposition members were far less than the ruling congress, they did not appear as negligible entity. Opposition leaders and members thoroughly participated in the house proceedings kept government always alerts pin-pointing lacunas in government policies. Role of media plays important role in parliamentary form of democracy. Transmission of proceedings through radio an effective medium of publicity

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<sup>249</sup> Ibid Feb-March 73 assembly questions p.841-47 questions were about the raids on the shopkeepers for hoarding illegally the stocks of food grains. Questions were answered by F.M.Pintoo(Mahim), S.B.Patil(Nilanga), Ridwan Harris(Biwandi) Gajanan Loke (Paral), Smt. Mrinal Gore (Malad), Leelabai Merchant (Kasba Peth) T.D.Memjade (Bhavani Peth) N.R.Mate (Mulshi), Pramod Navalkar(Girgaon)S.G.Gholap (Murbad):- Pawar answered the question over all there were 569 raids on 545 hoarders. Out of that against 201 hoarders criminal cases were filed in the court of law. Out of that 174 were convicted and 27 were pending. The enquiries against 344 offender are going on. The orders have been issued to collectors and police officers that hoarding of more than 10 quintals of grains is not permitted without license.

Cases against inflation 155, In Mumbai the there were highest cases of prices rise against the trader (79) cases followed Yeotmal (20 ) cases, Pune (20 ) cases, hoarding of commodity highest number of cases were in Thane (15) Mumbai(10) Pune(5) there were highest case of adulteration in Mumbai 30 cases. These cases were registered during the 1971 war with Pakistan.

Prices hiked by traders cases 155 total, hoarding 139 cases, total black marketing cases,74 total cases were 335+74

<sup>250</sup> Ibid Feb-March 73 assembly questions p.851

<sup>251</sup> Ibid Feb-March 73 council proceedings p.1010

was providing wide publicity to the proceeding of the houses. Exclusive coverage of proceedings in daily renowned news papers was also keeping the proceedings of the houses in limelight. This in turn made executives in general and members of opposition more sensitive to their work. Participation in the houses and produced their best performance. It seems that more than 50% of questions came from Rambhau Mahalgi and Krishnarao Bhegde of Jansangh. One can notice it while going through the pages of proceedings. They equally participated and presented calling attention notices and proposed adjournment motions. Issues they addressed ranging from starvation deaths to community wells and expenses incurred on Prime-Minster's visit to difficulties encountered in getting Taqavi loans. Question or calling attention notices did not appear so easily on the floor of house, it need meticulous preparation and speedy disposal and written communications with legislative secretariat. Speaker of house normally belong to ruling party. At this situation it is extremely difficult to bring various motions and issues for discussions. Speaker many times denies the discussions and even questions which have potential of creating embracement to honorable minsters. Beside above mentioned members of Jansangh Keshavarao Dhondge, Mrinal Gore , D.B.Patil, Pratibha Tidke, S.D.Nat, Keshavarao Patil, T.C.Karkhanis, Udhavrao Patil, Krishnarao Dhulup T.D.Memejade, Banatwala, A.N.Thopte, Sadashivrao Mandlik were very assertive in the lower house. At upper house Shantibai Dani, Datta Tamahane, V.G.Hande, G.P.Pradhan left their long lasting impression.

### **5.19 Proceedings in the Councils**

Council proceedings were nearly similar to the assembly proceedings. There were exactly same questions and same motions place in the council that were placed in the assembly. It seems that the members of both the houses were very close to each other. They were consulting to each other and even they may put notices together in legislative secretariat.

### **5.20 Outcome of Proceedings and Concluding Remarks**

#### **Statistics of the Proceedings**

“It will be seen that as many as 115 calling attention notices, 12 short notice questions, 77 resolutions, 20 no-day-yet discussions and 29 adjournment motions were moved during 1970-73, the majority of them during last two years i.e. 1972 and 1973, the Maharashtra

legislative assembly and council discussed the drought situation separately and on almost every occasion; for two consecutive days. Above all, 1226 questions on drought were asked in the assembly and the council during these years. Of these as many as 321 questions relate to the year 1972 and the colossal number of 696 to the year 1973. All these are inclusive of the questions asked on civil supplies matters and matters concerning law and order problems with particular reference to the drought, perhaps there is no parallel instances of any parliamentary democracy in the world in which a matter of public importance was so constantly in the public eye for such a continuous length of time. Apart from the fact that this was spur to the administration to be always alert, it was also an opportunity to the government to project a proper image of its concern for the relief of drought. But more than all this it was visible proof of the virility of democratic institutions in this country and in Maharashtra in particular.”<sup>252</sup>

### **Government Response in the legislature**

With some exceptions, ruling party members did not seem actively participated in the proceeding of the house. Whole burden of accountability on part of council of minister weighed by two ministers H.G.Vartak and V.P.Naik. Government of Maharashtra took serious cognizance of the scarcity and scarcity relief by stating all details of the scarcity relief and government actions on 9<sup>th</sup> September 1971 at the very first session after droughty condition of 1970-71.<sup>253</sup> There were statements issued after every adjournment and calling attention motions in both the houses of legislations. There were statements issued under rule 46 in both the houses after every important decision that government took with respect to employment, wages, Sukhadi or Milo. Arranging debate in full sessions throughout scarcity was cumbersome exercise. Without getting embarrassed, it was difficult to government to run such an exhaustive work of proceedings. Almost every question was answered in both the houses. There were sub-questions and instant questions and minister tried their best to answer it. Speakers of both the houses were esteemed personalities of modern Maharashtra. They themselves were involved in rural

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<sup>252</sup> Subramaniam V p.478

<sup>253</sup> Government of Maharashtra publication September-October assembly session assembly session 71 pp.232-255

development program and actively involved in scarcity relief operations. They monitored the proceedings judiciously by allowing every essential issue gets addressed. There were lots many adjournment motions. As adjournment motion requires speaker permission and it being censure motion very few adjournment notices allowed by speakers of both the houses. However, speakers directed members to put it as calling attention motions. Members then addressed their respective issues through calling attention motion. With meticulous study and statistical information Vartak answered in detail all question promptly. Specially on grain supply condition on supplementary grants of supply department his honesty style of dispensing s works expeditiously witnessed through legislative proceedings.<sup>254</sup> Chief Minister himself answered to the scarcity motions, on supplementary grants, on motions of inflations etc. He came to rescue of many ministers. He intervened in many debates and questions and answered the question by quelling all curiosities of oppositions.

### **Ruling Party Members**

There were many ruling party members without any logic in their arguments appreciated government efforts in scarcity relief. There were speeches of many members came in support of government irrespective of merit of issues. Their support was more inspired by party spirit than by inner urge. They tried to lower down the tone and pitch of opposition members. However, they succeed in some extent to blunt the sharpness of the opposition criticism of government policies.<sup>255</sup>

### **Financing the Scarcity**

Government of Maharashtra tried its best to make sufficient budgetary provision for scarcity relief operations. However, the budgetary provision felt too short to mitigate the expenses. However, it is clear that all legislators discussed in positive frame of mind

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<sup>254</sup>Ibid September-October session assembly session 71 p.286

<sup>255</sup> Ibid Vol.33 part1 Sept.October session 71 number2 P.142 ;30<sup>th</sup> March 71 C.N.Patil (dhule) appreciated government efforts of providing nutritious food to scarcity stricken area. p.524;M.T.Patil 21.4.71 Prasied Vatak for his efforts. S.G.Gholap P.1279Mrs. Leelabai Merchant 6.3.73 :- Appreciated government efforts with respect to distribution of food grains p.1902



while discussing annual financial statement and vote on account and granting supplementary grants for scarcity relief. The table appended below shows the heavy budgetary provision and more heavy supplementary provision to scarcity relief by legislators.

Table No. 5.1

Budgetary Provisions for scarcity relief (Rs. In lakhs)

Year	Budget Provision	Supplementary provision	Total provision	Actual expenditure
1970-71	53.26	281.48	334.74	231.00
1971-72	936.54	3353.96	4290.50	4040.00
1972-73	404.14	8321.00	8725.14	8380.00
1973-74	5959.44	8148.70	14108314	14188.00

(Source: V. Subramanian Parched Earth p.110)

Heavy supplementary provisions have come in adverse comment by some experts. However, three consequent years scarcity went on increasing year by year it was very hard to predict the degree of severity and therefore budgetary provision seems so large. Government did not fail short in providing employment and relief operations due to such supplementary provision. All members of legislation voted for such a huge amount it is very much appreciable.

Revenue minister Mr. H.G. Vartak who was in charge of drought relief operations and his colleague, the minister of state for revenue Mr. Sundrarao Solunke, carried operations efficiently and answered every questions of opposition in legislature. Some there were bitter exchange of words. There were sue-motto statements issued by ministry in public interest in the house many times. Chief Minister and his team many time cornered in the house by opposition. At the peak of outrage, some members blamed and named Chief Minister even as villain. However, one can notice the sincerity and commitment of ministers from their statements put in both the houses. The revenue minister and the chief minister had answered alleged charges level against them with real facts and fullest of

information with great conviction. It showed great commitment and honesty of both of the minister in the houses. On the issue of starvation death government never agreed any such incidence. Assembly and council where ruling party had overwhelming majority at such instances handful opposition members representing different groups came together in the houses. Many of these groups had contradictory political ideology still they came together and on many occasions jointly initiated adjournment motion notices. Many times insisted and pursued government to make statements on certain issues. It indirectly made government to take policy stand on certain intricate issues. Every government decision and resolution was outcome of debates of legislature. Employment to children between 14 to 18, increase in wages, equal distribution of grains, issues of Sukhadi, community wells, productive works these number of decisions were resulted from the popular perception and academic discussion in the legislature. Issue of starvation deaths was well insisted and persuaded in the houses and government considered all cases decided to delegate responsibility of avoiding such deaths on village Panchyat. For this purpose government allotted some amount to Village Panchyat. The members of opposition showed extreme efficiency during this scarcity. Though the opposition members were very few in numbers, they addressed enormous issues through motions and question along with speeches and debates covering every aspect scarcity and area of state. To address issues through questions and motions, it needs extreme hard work from the members as rules of proceedings are stringent. Members have to collect all proofs of that issues and problems which they want to address. In the history of legislative spirit, this period will remember forever. There were incidences where members never show any impatience to finish the proceedings earlier rather members with passion work hard and demanded more discussions. This led to well thought solutions long tern as well as short term to the problems. Many members showed their academic excellence in the discussion while dealing with scarcity and famines. Many members had authority on the subject of soil conservation, water shade management and agriculture. Members studied the nature of drought, scarcity and famine its ramifications. Many members made tours all over state saw the ground reality of scarcity and relief operations. The chief minister himself had to intervene very often during these discussions lowering high pitch tone of the

opposition members acquainting them with ground reality. During this period, there were no- confidence motions against the Government and one of the principal planks on which the no-confidence motion rested was the government's handling of the drought situation. These proceedings were not only significant for strong traditions of parliamentary democracy; but also for drought and scarcity management. Finally, the presiding officers of both the houses gave full justice to the very vital issue of the period. Thus legislative response translated in many government scarcity relief operations and policies. These proceedings made government more responsive and helped in many ways in effective implementation of scarcity relief program.

## APPENDIX-A

Table AT-1 1969-70 District wise area in production during 1969-70

1969-70 district wise area production			
Sr. No.	Districts	Total food grain area	Total food grain production
1	Thane	1921	2323
2	Raigad	1749	2047
3	Ratnagiri	2347	2067
4	Nasik	6942	2827
5	Dhule	5275	2362
6	Jalgaon	4073	2761
7	Ahmednagar	10717	3985
8	Pune	7037	2794
9	Solapur	10824	3565
10	Satara	4595	2210
11	Sangli	4502	1919
12	Kolhapur	2094	1714
13	Aurangabad	10106	3419
14	Beed	6703	2893
15	Osmanabad	8008	3567
16	Nanded	4417	2385
17	Parbhani	6453	2655
18	Buldhana	4091	2527
19	Akola	4251	2527
20	Amravati	2987	1585
21	Yavatmal	4117	2335
22	Wardha	2298	1196
23	Nagpur	3763	1679
24	Bhandara	4568	3496
25	Chandrapur	5944	4022
	<b>Total</b>	<b>129782</b>	<b>64860</b>

Source: Government of Maharashtra Publication on crop and production photocopy of it from GIPE

Table No. AT-2 District-wise Food Grain Production Area and Productivity in 1968-69

Sr.No.	Districts	Total food Grain Area in Ha	Total food Grain Production MT	Total food grain productivity Kg/Ha
1	Thane	1954	2265	115
2	Raigad	1769	2249	1271
3	Ratnagiri	2363	2118	898
4	Nasik	7441	3523	473
5	Dhule	6275	2362	448
6	Jalgaon	6183	3104	616
7	Ahmednagar	10831	3432	317
8	Pune	7829	2485	330
9	Solapur	1161	3924	352
10	Satara	4609	2356	511
11	Sangli	4557	2152	472
12	Kolhapur	2133	1734	813
13	Aurangabad	9711	3360	346
14	Beed	6240	2768	444
15	Osmanabad	7798	3891	499
16	Nanded	4398	2748	625
17	Parbhani	6221	2791	449
18	Buldhana	4198	2781	662
19	Akola	4303	2756	640
20	Amravati	3055	1862	608
21	Yavatmal	4206	2355	560
22	Wardha	2287	1503	657
23	Nagpur	3791	2028	534
24	Bhandara	4534	3215	709
25	Chandrapur	5921	3585	605
	<b>Total</b>	123768	67347	13954

Source: Government of Maharashtra Publication on crop and production 2002 photocopy available at GIPE

Table No. AT-3 Food grain area and production during 1971-72

Food Grain Area and Production during 1971-72		
<b>Districts</b>	<b>Total food grain area in Ha</b>	<b>Total food grain production</b>
Thane	1918	2548
Raigad	1609	2097
Ratnagiri	2143	2125
Nasik	5881	1922
Dhule	5121	2661
Jalgaon	4630	1716
Ahmednagar	9455	2109
Pune	6926	2287
Solapur	10734	5400
Satara	4604	2021
Sangli	4574	1887
Kolhapur	2064	2070
Aurangabad	8240	1828
Beed	5630	1324
Osmanabad	7662	2022
Nanded	4701	1449
Parbhani	6183	1410
Buldhana	4015	1730
Akola	4260	1751
Amravati	2904	1200
Yavatmal	4177	1995
Wardha	2286	1036
Nagpur	3714	1375
Bhandara	4645	3310
Chandrapur	5925	3262
<b>Total</b>	<b>124001</b>	<b>52535</b>

Source: Government of Maharashtra Publication on crop and production 2002

Table No. AT-4 1972-73 food grain area and production

<b>1972-73 food grain area and production districtwise</b>			
<b>Sr.No.</b>	<b>Districts</b>	<b>Total food grain area</b>	<b>Total food grain production</b>
1	Thane	1808	1116
2	Raigad	1655	1751
3	Ratnagiri	2200	1794
4	Nasik	6009	909
5	Dhule	4760	1087
6	Jalgaon	5187	2800
7	Ahmednagar	9663	1157
8	Pune	6202	1328
9	Solapur	5787	664
10	Satara	3879	881
11	Sangli	3208	383
12	Kolhapur	1954	1165
13	Aurangabad	8049	884
14	Beed	4566	421
15	Osmanabad	7285	1482
16	Nanded	4636	933
17	Parbhani	6315	1369
18	Buldhana	4006	1311
19	Akola	4151	1256
20	Amravati	2879	1267
21	Yavatmal	4072	1662
22	Wardha	2238	944
23	Nagpur	3584	1222
24	Bhandara	4645	3310
25	Chandrapur	5783	2274
	<b>Total</b>	<b>114521</b>	<b>33370</b>

Source: Government of Maharashtra Publication on crop and production 2002

Table No AT-5 Production of principal kharif and rabi crops in Maharashtra during 1970-71-1973-74

Production of principal kharif and rabi crops in Maharashtra figures in thousand tonnes						
Sr.No	Crops	Normal procuction	1970- 71	1971- 72	1972- 73	1973- 74
1	Rice	1318	1662	1395	757	1637
2	Kharif Jowar	1856	888	1080	907	1289
3	Bajri	639	824	263	226	850
4	Ragi	180	163	149	81	197
5	Maize	30	26	23	16	42
6	Kodra	19	14	12	12	20
7	Other kharif cerels	57	36	28	26	62
8	Total Kharif Cerels	4100	3613	2950	2025	4097
9	Tur	301	271	228	180	322
10	Other Kharif pulses	384	271	185	163	375
11	Total Kharif pulses	685	542	413	343	697
12	Total kharif Foodgrains	4785	4155	3363	2368	4794
13	Rabi Jowar	1398	670	802	407	1530
14	Wheat	413	440	496	251	547
15	Other Rabi millets	2	14	15	1	3
16	Total Rabi cerels	1813	1124	1313	659	2080
17	Gram	118	87	132	49	129
18	Other Rabi pulses	41	48	48	28	42
19	Total Rabi pulses	159	135	180	77	171
20	Total Rabi Foodgrains	1972	1259	1493	736	2251
21	Total Foodgrains	6757	5414	4856	3104	7045
22	Cotton lint	1450	485	1296	1121	1120
23	Sugarcane (Gur)	1508	1641	1429	1449	1544
24	Tobacco	4	5	5	4	6

Ref:-Epitome of agriculture Government of Maharashtra publication 1985-86



Table No. AT-6 labor attendance in eight acutely affected scarcity districts

labor attendance and expenditure on draught relief works in eight acutely affected districts from 1st April 1972 to 31st October 1972					
figure in actual numbers					
Name of the district	soil conservation	Tanks&Canals	Roads	Metal breaking	Total
<b>Beed</b>	52594	10346	26046	56700	145686
Osmanabad	58501	6240	56760	36491	157992
Ahmednagar	16565	47990	91022	44201	199778
Pune	8882	25099	29703	11363	75047
Sangli	6146	12070	11500 2	1923	135141
Satara	3831	8930	1622	2864	17247
Solapur	11828	25463	24150 0	35029	313820
Nashik	1956	16597	40257	19136	77946
Labour expenditure in lakhs					
Name of the district	soil conservation	Tanks & Canals	Roads	Metal breaking	Total
<b>Beed</b>	65.45	9.87	80.59	inc	155.91
Osmanabad	76.51	16.59	93.35	inc	186.45
Ahmednagar	28.76	26.1	102.84	43.33	201.03
Pune	26.7	14.76	30.04	1.55	73.05
Sangli	14.05	5.16	72	0.9	92.11
Satara	0	0	0	0	29.14
Solapur	21.13	21.68	8.2	2113.18	2164.1 9
Nashik	18.28	27.37	21.28	16.01	82.94

Source: Subramanian p.557

Table No. AT-7 Action against Black Marketers March 1969 to May 1972

No.	Name Of District	Cases revealed		Merchants arrested		Stocks confiscated	
		Grains	Kerosene	Grains	Kerosene	Grains Kgs.	Kerosene Liters
1	Ahmednagar	22	3	60	5	1134.20	126.0
2	Dhule	2	5	1	4	267.35	12.976
3	Jalgaon	17	5	25	6	318.97	421.00
4	Kolaba	7	---	9	---	133.35	-----
5	Nashik	3	----	7	---	138.35	-----
6	Thane	261	29	432	35	4727.59	1464.00
7	Kolhapur	5	3	6	4	165.64	1464.00
8	Pune city	24	2	25	2	250.52	00
9	Pune rural	4	2	25	2	250.52	--
10	Pune railway region	-----	-----	-----	-----	-----	-----
11	Ratnagiri	-----	-----	-----	-----	-----	-----
12	Sangli	-----	---	-----	-----	-----	-----
13	Satara	-----	-----	-----	-----	-----	-----
14	Solapur	5	1	5	1	30.72	300.00
15	Aurangabad	3	1	7	----	122.00	1000.00
16	Beed	-----	-----	-----	-----	-----	-----
17	Nanded	10	3	19	3	220.50	223.00
18	Osmanabad	2	---	7	----	88.00	---
19	Parbhani	1	1	5	1	14.00	180.00
20	Akola	-----	-----	-----	-----	-----	-----
21	Amravati	33	---	70	---	10.23	----
22	Bhandara	-----	-----	-----	-----	-----	-----
23	Buldhana	11	5	21	6	65.00	13.00
24	Chandrapur	-----	-----	-----	-----	-----	-----
25	Nagpur city	2	1	3	1	32.95	12.500
26	Nagpur rural	-----	-----	-----	-----	-----	-----
27	Nagpur Railway region	-----	-----	-----	-----	-----	-----
28	Vardha	-----	-----	-----	-----	-----	-----
29	Yeotmal	-----	-----	-----	-----	-----	-----
30	Greater Mumbai	5774	-----	63000	-----	10066.83	-----

Ref: - March 73p.3819 Assembly Proceedings answer to the question of Shankarrao Kale illegal hoarding of grains and kerosene March 1969 to May 1972

Table No. AT-8

Anna Valuation Satara District

Sr.No	Name of Taluka	Range of Anna Valuations and number of villages		
		Below 4 anna	4 to 6 anna	Above 6 ana
1	Mahableshwar	56		
2	Wai	91		
3	Satara	153		
4	Javali	172		
5	Patan	176	16	
6	Koregaon	76		
7	Khataav	90		
8	Mann	71		
9	Khandala	46		
10	Phaltan	29		21
11	Karad	107		9
12	Total	1094	16	30

Ref:- Anna valuation satara Assembly August 73 p.781 questions were asked about scarcity conditions of Satara district. Questions were asked by K.S.Patil (Khataav). The anna valuation of Satara district was as above mentioned by Vartak in his answer.

Table No AT-9 Labors on the scarcity works in Ahmednagar district.

Sr.No	Name of the Taluka	Labor attendance on the scarcity works			Labors on metal breaking centers		
		Male	Female	Total	Male	Female	Total
1	Sangmner	4069	6115	10184	297	462	759
2	Akole	343	205	548	160	184	344
3	Shrirampur	3360	5002	8362	40	102	142
4	Kopargaon	5383	35898972	30	23	23	53
5	Rahuri	1252	1784	3036	45	90	135
6	Nevase	6167	8554	15122	760	1104	1868
7	Shegaon	6568	8554	15122	760	1104	1864
8	Pathardi	12872	19129	32001	7854	11345	19199
9	Parner	7850	10513	18363	130	200	330
10	Shrigonda	7306	8887	16193	1407	2032	3439
11	Karjat	12117	5574	17691	2097	820	2917
12	Jamkhed	3789	4882	8671	929	1389	2318
13	Nagar	6800	6714	13514	189	234	423
14	Total	77876	79678	167554	16040	23206	39246

Ref:- March 73 np.2600 laborers on the scarcity works of Ahmednagar district. Question by K.B.Mahaske in Assembly

Table No. AT-10 Ahamednagar District Scarcity Affected Villages During 1969-72

Sr.No	Name of the district	1969-70		1970-71		1971-72	
		Kharif	Rabi	Kharif	Rabi	Kharif	Rabi
1	Akola	---	-----	-----	-----	11	-----
2	Sangmner	-----	-----	08	-----	41	57
3	Kopargaon	-----	-----	-----	32	-----	57
4	Shrirampur	-----	-----	-----	55	-----	58
5	Rahuri	-----	-----	5	24	----	3
6	Nevasa	-----	-----	5	24	-----	3
7	Shevgaon	-----	-----	-----	59	-----	81
8	Pathardi	---	-----	3	46	----	92
9	Parner	-----	-----	14	87	4	110
10	Shrigonda	-----	-----	-----	85	----	85
11	Karjat	-----	-----	-----	81	-----	81
12	Jamkhed	-----	-----	-----	55	----	55
13	Ahmednagar	-----	-----	----	102	4	100
14	Total	-----	-----	-----	636	60	930

Ref:- Assembly proceeding Dec.72 p.1832 question by K.B. Mhaske ( Ahemednagar North) :-The questions were asked about the Kharif and Rabi villages which were scarcity affected during last three years within scarcity period. Out of that in how many villages the scarcity.

Table No. AT-11 Purchase of cereals in May-June 1973

Purchase of cereals in May-June 1973 in two villages (Aurangabad district, Maharashtra)				
Quantity purchased Kgs/Head/month				
House class	Adul Kg.	% purchase at PDS Shops	Bhadji Kg.	% purchase at PDS Shops
50 acres and above	14	25	15.4	25
25-50	15	25	12.6	25.7
15-25	14	25	17.3	26.6
10 to 15	15	22.8	14.5	23
5 to 10	15	24.3	18.5	31.2
less than 5 acres	15	23.7	18.7	31.45
agricultural labours	15	25.5	16.4	24.4
artisans	14	26.6	15.2	29.6
others	13	28.4	0	0
all house holds	14	24.9	15.4	26.9

Ref:-Dreze p.121

the authors note that in May and June, when they reported peak employment and earning through scarcity works, the households purchased slightly in excess of their current requirement because of the expected rise in the prices of food articles and the decline in their income in the immediate future (due to discontinuance of scarcity works. (Borkar and Nadkarni 1975 p.58

Table No. AT-12 Rainfall and food grain production during 1972-73

Districts	Rainfall % of 72 to average	% production of food grains in 72-73 in comparison to 69
Thane	64.5	49.3
Raigad	59.9	77.9
Ratnagiri	65.9	84.6
Nasik	60.9	25.8
Dhule	67.8	44.2
Jalgaon	69.3	65.1
Ahmednagar	38.4	33.7
Pune	62.2	53.4
Satara	61.7	37.4
Sangli	54	17.8
Solapur	39.4	16.9
Kolhapur	54.1	67.2
Aurangabad	43.4	26.2
Parbhani	49.4	49.1
Beed	37.5	15.2
Nanded	49.5	33.9
Osmanabad	46.2	38.1
Buldhana	70.2	47.1
Akola	86	45.6
Amravati	86.5	68.1
Yavatmal	63.9	70.6
Wardha	64.9	62.8
Nagpur	59.4	60.3
Bhandara	61.6	52.7
Chandrapur	54.8	63.4

Ref:-Sulabha Brahme chart p.52

Table No. AT-13 Cattle camps are opened During 1972

Sr.No	Name of the district	Numbers
1	Thane	8
2	Dhule	22
3	Jalgaon	26
4	Pune	2
5	Ahmednagar	2
6	Satara	2
7	Sangli	1
8	Kolhapur	5
9	Beed	2

Ref:- Assembly Dec 72 p.1820 questions were asked by G.V.Adik (Shrirampur) F.M.Pinto (Mahim) K.N.Deshmmukh (Ahmedpur) Mrinal Gore (Malad):- in the scarcity period where the cattle camps are opene? How much money is being incurred on it?

Table No. AT-14 Average annual income per family

Brahme average annual income per family			
Size of land-holdings	Incoem of normal period	Income of drought period	percentage change
Landless	1140	1100	96.49
upto 2 hecatres	1641	1345	81.96
2.1 to 4.0 hectares	2110	1830	86.73
4.1 hectares and above	4367	2773	63.50

Ref:- Brahme p.76

Table No. AT-15: Coefficient of variations of rainfall

Coefficient of Variability over Maharashtra		
Sr.No.	Districts	Coeficetn of variation
1	Bombay	20-30
2	Ratnagiri	20
3	Raigarh	20
4	Thane	20
5	Sindudurg	20
6	Ahmednagar	30-40
7	Dhule	30
8	Jalgaon	30
9	Nashik	30
10	Kolhapur	20-30
11	Sangli	30-40
12	Satara	30-40
13	Pune	30
14	Solapur	30-40
15	Aurngabad	30
16	Parbhani	30
17	Osmanabad	30-40
18	Nanded	30
19	Beed	30-40
20	Latur	30-40
21	Jalna	30
22	Akola	20-30
23	Amravati	20-30
24	Buldhana	20-30
25	Nagpur	20
26	Wardha	20-30
27	Yeotmal	20-30
28	Chandrapur	20-30
29	Gadchiroli	20-30

Ref:- Assembly Proceedings P.G.Gore and K.C.Sinnha Ray pp.533-542

Table No. AT-16 Classification of drought and famines

Year	Severity of drought	Area extent of India affected	Homogeneous Regions affected simultaneously
1873	Mild	33%	Central NE India, NE India and S. Peninsular India
1877	Phenomenal	67%	Central India, West Central India and Central NE India
1899	Phenomenal	62%	Northwest India, West Central India and Central NE India
1901	Severe	66%	North West India and West Central India
1905	Severe	41%	North West India, West Central India and South Peninsular India
1911	Moderate	42%	Northwest India, West Central India and South Peninsular India
1918	Phenomenal	69%	Northwest India and West Central India, Central NE India
1920	Severe	37%	West Central India
1925	Mild	31%	North West India and North East India
1941	Moderate	38%	West Central India
1951	Moderate	37%	NW India, West Central India and Central NE India
1965	Severe	42%	North West India, West Central India and NE India
1966	Moderate	35%	West Central India and Central NE India
1968	Mild	25%	North West India, West Central India and Central NE India
1972	Severe, close to Phenomenal	46%	NW India, West Central India, S. Peninsular, NE and Central NE India
1974	Close to Moderate	32%	NW India West Central India and Central NE India
1979	Severe	43%	West Central India and Central NE India
1982	Moderate	41%	North West India and NE India
1985	Mild	30%	NW India and West Central India
1986	Moderate	35%	NW India and NE India
1987	Severe	53%	NW India, West Central India, Central NE and S. Peninsular India

Source:- Table 2.2 By Sikka Cola report p.14



Table No. AT-17 Amount spent & sanctioned by each district by central government.

Sr.No.	Name of the district	Total expenditure incurred during 1971-72	Employment generated during year 1971-72
1	Thane	11.96	3.05
2	Kulaba	.96	0.02
3	Ratnagiri	2.94	0.69
4	Nashik	6.65	1.78
5	Dhule	4.13	1.21
6	Jalgaon	5.95	2.00
7	Pune	10.36	3.52
8	Ahmednagar	7.07	2.15
9	Satara	4.42	1.20
10	Sangli	5.76	1.78
11	Solapur	6.18	1.95
12	Kolhapur	8.09	2.62
13	Aurangabad	3.74	1.34
14	Parbhani	6.06	1.97
15	Beed	3.21	0.70
16	Nanded	6.17	2.34
17	Osmanabad	6.28	1.26
18	Buldhana	2.38	0.70
19	Akola	6.44	2.39
20	Amravati	3.97	1.11
21	Yeotmal	6.53	1.83
22	Vardha	3.88	1.25
23	Nagpur	.94	0.15
24	Bhandara	2.90	0.83
25	Chandrapur	.96	0.17

Ref:- Assembly proceedings Dec 72 p.871-72: The question was asked by shri K.D. Bhegde and A.A. Wankhede with respect to central government's crash scheme for rural employment. The question was about the amount spent by each district and amount sanctioned by central government district wise. The amount to be spent in each district is Rs. 12.50 lakhs.

Table No. AT-18 Number of laborers registered & Employment provided For EGS and

S.No	Name	Number of laborers registered	Number of employed
1	Thane	56760	1960
2	Kolba	45316	-----
3	Ratnagiri	14240	-----
4	Nashik	59395	171
5	Jalgaon	44923	3855
6	Dhule	42933	20403
7	Pune	80939	-----
8	Ahmednagar	63862	474
9	Satara	23214	4932
10	Sangli	45772	-----
11	Solapur	89462	4000
12	Kolhapur	58745	2366
13	Buldhana	81900	292
14	Akola	68091	7454
15	Amravati	57618	687
16	Yeotmal	49090	13080
17	Nagpur	53635	6604
18	Vardha	28900	23
19	Chandrapur	45834	446
20	Bhandara	56297	539
21	Aurangabad	171518	---
22	Beed	46990	-----
23	Nanded	34885	428
24	Parbhani	54477	335
25	Osmanabad	181232	-----
26	Total	156028	68049

Ref:- Assly proceedings DEC 72p.1852 question was asked by J.K. Aher( Chandor) and Smt. Mrinal Gore (Malad) Questions were asked about EGS and number of laborers registered therein district wise. How many among them were provided employment?

Table No. AT-19 Number of persons employed at the end of September 1972

S.No	Name of District	Number of persons employed At the end of September 1972
1	Thane	7322
2	Kolaba	1763
3	Ratnagiri	1570
4	Nashik	391
5	Dhule	---
6	Jalgaon	153
7	Ahmednagar	332
8	Pune	---
9	Satara	----
10	Sangli	3676
11	Solapur	57
12	Kolhapur	----
13	Aurngabad	----
14	Parbhani	-----
15	Nanded	-----
16	Beed	-----
17	Osmanabad	----
18	Buldhana	421
19	Akola	204
20	Amravati	1231
21	Yeotmal	3270
22	Vardha	2969
23	Nagpur	2133
24	Bhandara	6334
25	Chandrapur	1527
26	Total	47025

Ref:- Assly proceedings, March 73 assembly proceeding

p.1650-51 questions were asked by S.A.Deshmukh (Jintur) T.C.Karkhanis (Kolhapur) questions were about the amount sanctioned and handed over to village Panchyat under EGS. How many unemployed got employment district wise.

Total expenditure sanctioned was Rs. 36500000 and amount actually handed over to village panchyats is 17500000 Rs. 7 lakhs of rupees were allotted to every districts. 47025 people were employed the district wise information as follows.

Table No. AT-20 Type of fair price shops During 1973

Sr.No	Type of fair price shop	Numbers
1	Shops run by Village Panchyats	1116
2	Shops run by cooperative societies	9740
3	Shops run by private individuals	12683
4	Shops run by other institutes	2081
5	Total	25624

Ref:- March 73 assembly proceedings p.1988 questions were asked by H.M. Dalwai (Khedbandar) :-Power of village Panchyat to run fair price shops was taken away by government. Classification of owner of fair price shops. Vartak stated in his statement that the villages Panchyat which are efficiently running the fair price shops without any hurdles in regular works of Panchyat such villages Panchyats are allowed to run their fair price shops. The villages Panchyat which have misused Panchyat funds while operating such shops then such Panchyat's shops are withdrawn from them.

Table No. AT-21 The quota to be decided by other states.(Figures in the tones)

Name of states	Rice	Kani	Coarse grains	Atta	Total
Madhya Pradesh	2500		9000	-----	11500
Uttar Pradesh	----	-----	17000	-----	17000
Tamilnadu	10000	-----	-----	2000	12000
Panjab	-----	5000	5000	2000	12000
Haryana	-----	2250	2750	500	5500
Total					58000

Ref:- p. 375 Assembly August 73

Table No.22 Figures in the tones the grains expected from the state.

Name of states	Rice	Kani	Coarse grains	Atta	Total
Madhya Pradesh	1500	----	5000	-----	7500
Punjab	5000	-----	23000	2000	30000
Haryana	1500	750	10000	500	12750
Total					50250

Ref:- p.377 food grains supplied through Chiplun godowan question by H.N.Trivedi (Walkeshwar) questions were about the food grain supplied from Chipluan Godowan during last and current year.

Table No.AT-23 The grains expected by fair price shops and the grains supplied from the godowans.

Figures in tones

Months	Demand sought by fair Price shops	Actually grains supplied
March 73	1731.5	932
April 73	1761.5	961
May 73	1761.5	902

Ref:- p.516 questions were asked by F.M.Pintoo (Mahim) :- Questions were about the Kahrif production.

Table No. AT-24 Purchase of in May-June 1973

Purchase of cereals in May-June 1973 in two villages (Aurangabad district, Maharashtra)				
Quantity purchased Kgs/Head/month				
House class	Adul		Bhadji	
	Kg.	% purchase at PDS Shops	Kg.	% purchase at PDS Shops
50 acres and above	14.2	25	15.4	25
25-50	14.8	25	12.6	25.7
15-25	14.1	25	17.3	26.6
10 to 15	14.9	22.8	14.5	23
5 to 10	14.5	24.3	18.5	31.2
less than 5 acres	14.7	23.7	18.7	31.45
agricultural labours	14.7	25.5	16.4	24.4
artisans	13.7	26.6	15.2	29.6
others	13.3	28.4	0	0
all house holds	14.4	24.9	15.4	26.9

Ref:- Borkar and Nadkarni 1975 p.58 the authors note that in May and June, when they reported peak employment and earning through scarcity works, the households purchased slightly in excess of their current requirement due to discontinuance of scarcity works.no indication of existance of home-grown stocks but these were most negligible for most households.

Table No. AT-25 Grain From Central Government

Months	Demand from state to union for food grains government figures in lakh tones				Actual food grains provided by union government to State figures in lakh tones.			
	Rice	Wheat	Coarse grains	Total	Rice	Wheat	Coarse grains	Total
November 72	0.40	1.70	0.19	2.29	.26	1.26	0.03	1.55
December 72	0.28	1.70	0.30	2.28	0.27	1.51	0.14	1.92
January 73	0.18	1.70	0.55	2.43	0.15	1.39	0.25	1.89
Total	0.86	5.10	1.04	7.0	0.68	4.16	0.42	5.56

Ref:- March 73 assembly proceedings

p.1980 questions by F.M.Pinto (Mahim) S.D.Mandlik (Kagal) Mrinal Gore (Malad) Kamla Raman (Matunga) Pratibha Tidke (Mritajapur) K.S.Dhondge (Kandhar) A.A.Wankhede (Malkapur) S.D.Natu (Guhagar) S.N.Desai (Vengurla) Pramod Navalkar (Girgaon) Ridvan Haris (Bhivandi) November 1972 to January 1973 the demand of food grains from state to the union government and the response of state government to them.

Table No.AT- 26 Rice was provided by state government to PDS in Mumbai during August 72 to December 72.

Sr.No	Months	Quantity of rice provided In tones
1	August 72	1774
2	September 72	19575
3	October 72	19115
4	November 72	18897
5	December 72	13430

Ref:- Assly proceedings P.1982 question by Mrinal Gore How much rice was provided by state government to PDS in Mumbai during August 72 to December 72.

Table No. AT-27 Purchase of food grains by state government during July 72 to December 72

Sr.No	Months of year 72	Rice in tones	Wheat in tones	Maize & Bajara tones	Total tones
1	July	5966	10278	-----	16244
2	August	6333	17548	-----	23881
3	September	3303	8188	-----	11491
4	October	2500	22790	230	25520
5	November	6495	23736	1776	32007
6	December	--	64808	14029	78837
7	Total	24597	147348	16035	187980

Ref:-Arch 73 Assembly p.3757 question was asked by Mrinal Gore (Malad) questions were about the purchase of food grains by state government during July 72 to December 72 from other states.

Table No.AT-28The condition of hybrid rice seeds purchase and sales

Sr.No.	YEAR	Hybrid Rice	
		Purchase Rate	Sales prices
1	1966-67	62.50 to 81.25	74.14 to 93.69
2	1967-68	59.36 to 76.32	71.80 to 88.76
3	1968-69	59.36 to 76.32	71.80 to 88.76
4	1969-70	59.36 to 76.32	71.80 to 88.76
5	1970-71	-----	-----
Sr.No.	YEAR	Hybrid wheat	
		Purchase Rate	Sales prices
1	1966-67	110.98 to 135.68	123.28 to 147.98
2	1967-68	138.97 to 163.24	151.41 to 175.68
3	1968-69	127.62	140.06
4	1969-70	-----	-----
5	1970-71	-----	-----

Ref:- Dec 72 Assembly proceedings p.1376

Table No. AT-29 Grain looting and sacking of shop markets

Grain Looting Sacking events of Shop Markets			
Name of the district	Date on which incidence occurred	Number of cases	Remark
Nagpur city	16/04/1973	8	
	17/04/1973	5	
	18/04/1973	18	
	19/04/1973	7	
	20/04/1973	8	
	21/04/1973	2	
	Sub total	48	
	Nagpur rural	18/04/1973	3
20/04/1973		1	At Kamathi
20/04/1973		1	At Kamathi
21/04/1973		1	At Kamathi
22/04/1973		7	2 at kamleshwar, 4 Umred, 1 Bela
24/04/1973		1	At Parshivani
25/04/1973		1	Ramtek
Sub total		14	
Bhandara	21/04/1973	1	Market sacking At Pavani
	01/05/1973	1	Bhandara city shop sacking
	02/05/1973	1	Bhandara city shop sacking
	Sub total	3	
Amravati	22/04/1973	1	At Varud
	25/04/1973	1	At Morshi
	07/08/1973	1	Chandur Railway
	Sub total	3	
Nashik	17/04/1973	2	At Malegaon
Dhule	13/05/1973	1	market sacking At Sakari
Ahmednagar	09/08/1973	1	At Rahuri
	16/08/1973	1	At Shrimpur
	18/08/1973	1	At Shrimpur
	Sub total	3	
Kolhapur	25/05/1973	4	At Kolhapur city
Sangli	04/06/1973	1	At Jat shop sacking
Kolaba	04/08/1973	4	At Roha
Nanded	24/08/1973	4	At Nanded city shop sacking
Parbhani	12/08/1973	1	At Khandvi Shop sacking
Mumbai	01/08/1973	1	Paydhuni
	31/01/1973	1	Nagpada
	29/07/1973	1	Naygaon
	29/07/1973	2	Wadala
	31/07/1973	1	Wadala
	29/07/1973	1	Parel
	29/07/1973	1	Delile
	31/07/1973	1	Kurla
	01/08/1973	1	Vile Parle West
	Sub total	10	

Ref:-pp.662-63 sacking of grain shops and dates question asked by appasaheb jadvav 28th November 73 information pertaining to end of Sept. 73

Table No.AT-30 Maharashtra state cooperative sales and purchase quantity in quintals

Sr.No	YEAR	Hybrid Sorghum (Jowar)		Hybrid Bajari		Hybrid Rice		Hybrid wheat	
		Purchase	sales	Purchase	Sales	purchase	sales	purchase	sales
1	1966-67	22427	5645.	2734	64	14664	13412	3836	4928
2	1967-68	57112	21843	6132	3409	9811	5655	2716	3279
3	1968-69	81281	15685	21255	5019	3303	7298	42	2162
4	1969-70	44728	17709	8125	8406	21	242	----	528
5	1970-71	-----	28686	-----	10713	----	---	-----	----
6	1971-72	-----	19734	-----	4463	-----	-----	-----	----

Ref: - Dec 72 Assembly proceedings p.1376

Table No. AT-31 House hold income per capita/per month Ahmednagar district and Satara districts

Type	Ahmednagar district	Year	Satara district	Year
	Latest normal year	1972-73	Latest normal year	1972-73
large cultivators	36	24	32	23
small cultivators	33	24	16	20
agricultural laborers	23	24	16	22
Village Artisan	18	17	18	24

Ref:-suple size:- 27 house- holds for each households class in each district. Source: Subramanian (1975) pp.436, 596

this table presents the results of a survey carried out by the Directorates of Economics and statistics, Government of Maharashtra

Small cultivators are those possessing less 7.5 standard acres.

income per capita/per Rs./per month

Table No. AT-32 Income of Nashik district

Income of Nashik district		
land holding	Normal year	Income 72-73
10 acres	481	206
5 to 10 acres	274	168
1 to 5 acres	202	146
landless labourers	138	152
other landless	212	205
all house holds	293	175

Ref:-calculated from Kulkarni table 7.21 and 7.25 table C-9 Drazé p.129



Table No. AT-33 Injured scarcity labors working on scarcity works period  
1<sup>st</sup> October 1972 to 15<sup>th</sup> June 1973.

Sr.No	Taluka	Injured scarcity workers	Deaths of scarcity workers
1	Miraj	1	2
2	Vita	3	2
3	Tasgaon	13	3
4	Kavathe Mahankal	8	---
5	Valva	3	1
6	Total	28	8

Ref:- P.361 assembly proceedings August 73 questions were asked by B.G.Patil(Tasgaon) :- Questions were about the compensation met to the injured scarcity labors working on scarcity works. Vartak provided the information pertaining to the questions. The information of injuries and deaths of scarcity workers was asked for the period of 1<sup>st</sup> October 1972 to 15<sup>th</sup> June 1973.

Table No. AT-34 Loss of Live stock

Live Stock Loss							
live stock	% loss small cultivators	Loss in value of S.C.	% loss of other cultivators	Loss in value of other cult..	% of households reported loss	% of lost live stock	loss in value
District Ahemadnagar							
Bullock	24.24	164.58	9.84	74.14	16.13	14.28	65.59
Cows and Buffaloes	31.25	91.67	22.53	136.21	19.35	22.63	66.13
Other livestocks	1.69	9.37	3.39	48.28	16.13	4.91	26.08
District Osmanabad							
Bullock	20.83	59	19.28	185	20	20.37	76.47
Cows and Buffaloes	52	112	42.22	253	35	42.63	114.5
Other livestocks	2.08	9	28.12	24	11.67	9.55	32.35
In Ahmednagar district agricultural laborers and village artisans were in possession of other live stocks. 33.33 % households of agricultural laborers' family and 12.50 households of village artisans house holds lost their other live stokes. There % loss was 17.86 amd 14.29 respectively.							
Ref:-Subramanian p.614 Table IV-3 (ix) pp.614-15							

Table No. AT-35 Land Holding Classification of Maharashtra

Land Holding Classification of Maharashtra								
The number is in thousands from Vidhan Sabha Proceedings								
Name of district	2 to 4 hect	4 to 8 hect	8 to 10 hect	10 to 12 hect	12 to 20 hect	20 hect	over 20 hect	Total
Thane	131	31	20	4	3	4	2	195
Kolaba	190	30	15	2	1	2	1	241
Ratnagiri	383	69	42	8	5	6	2	515
Nashik	105	63	55	11	7	10	2	253
Dhule	58	50	48	8	5	5	1	172
Jalgaon	123	69	46	8	4	5	1	256
Total of Mumbai Div.	990	312	226	41	25	32	9	1632
Ahmednagar	129	75	65	14	9	14	4	310
Pune	171	69	58	12	8	11	4	333
Satara	195	57	36	7	3	5	2	305
Sangli	132	43	32	7	4	7	3	228
Solapur	67	52	59	14	10	17	5	224
Kolhapur	228	47	24	4	2	3	1	309
Total of Pune Div.	922	343	274	58	36	57	19	1709
Aurangabad	49	47	61	17	14	22	7	217
Parbhani	28	35	46	14	11	18	7	159
Beed	35	40	44	12	8	15	5	159
Nanded	35	38	44	11	7	11	3	149
Osmanabad	34	44	57	16	13	21	8	193
Total of Marathwada	181	204	252	70	53	87	30	877
Buldhana	74	48	41	9	6	10	3	191
Akola	65	42	36	9	6	9	4	171
Amravati	96	52	39	8	4	7	2	208
Yeotmal	23	35	45	11	9	11	6	140
Vardha	37	30	25	5	3	5	2	107
Nagpur	69	47	36	6	4	5	4	171
Bhandara	169	39	20	3	2	3	1	237
Chandrapur	147	61	41	7	4	6	2	268
Total of Vidharbha	680	354	283	58	38	56	24	1493
Total of Maharashtra	2773	1213	1025	227	152	232	82	5714

Ref:- Assly Proceedings p.933-36 30th April 71 question was asked by M.D. Tumpalliwar (Chimur) about the landholders' classification accordign to their landholdings

Table No. AT-36 List of black marketers. Feb 73

Sr.No	Name of District	Number Of cases of Inflation	Number Of cases hoarding	Number of cases Adulteration	Number Of cases Black marketers	Total	On going enquiries	Criminal Cases sent Into court	Convicted cases	Departmental Enquires ongoing
1	Thane	4	9	5	4	22	17	5	-----	
2	Kolaba	--	---	14	2	16	16	---	----	
3	Ratnagiri	12	---	7	--	19	19	--	---	
4	Nashik	2	1	56	--	59	15	43	---	Warning in 1case
5	Dhule	2	---	---	----	2	2	--	-----	
6	Jalgaon	5	---	47	---	52	31	21	----	
7	Ahmednagar	11	10	----	9	30	25	4	-----	Warning in 1case
8	Kolhapur	3	---	8	---	11	4	4	---	Warning in 3case
9	Pune	13	----	3	4	20	4	9	--	Warning in 7case
10	Sangli	--	1	4	1	5	5	---	----	
11	Satara	4	4	16	7	31	24	6	---	Warning in 1case
12	Solapur	1	-----	46	6	53	16	37	---	
13	Aurangabad	2	1	10	---	13	10	2	---	Warning in 1case
14	Beed	----	----	3	4	7	6	1	---	
15	Nanded	----	1	11	2	14	12	--	---	Cancellation of license 2 shops
16	Osmanabad	1	6	2	1	10	9	--	---	Warning in 1case
17	Nagpur	5	3	19	3	30	7	21	---	
18	Parbhani	---	---	11	4	15	15	---	---	Cancellation of license 1shop
19	Chandrapur	5	----	4	---	9	5	2	-----	Warning in 2case
20	Buldhan	---	---	9	4	13	13	--	---	Cancellation of license 4shops
21	Amravati	4	----	31	2	37	36	1	---	Cancellation of license 1shops
22	Akola	1	2	6	1	10	9	1	---	-----
23	Bhandara	7	2	2	---	11	8	3	--	--
24	Vardha	1	3	18	9	31	12	19	1	--
25	Yeotmal	1	--	3	--	4	--	4	---	--
26	Greater Mumbai	40	72	70	--	182	133	48	3	1 case adulteration warning
27	Total	124	115	405	63	707	453	232	4	

Table No. AT-37 District wise number of new fair price shops opened

Sr.No	Name of the district	Number of shops newly opened on December 1973
1	Thane	27
2	Kolaba	32
3	Ratnagiri	Figure was not separately mentioned Total 758 shops were there
4	Nashik	53
5	Dhule	55
6	Jalgaon	10
7	Ahmednagar	272
8	Pune	67
9	Satara	Figure was not separately mentioned Total 939 shops were there
10	Sangli	19
11	Solapur	233
12	Kolhapur	36
13	Aurngabad	14
14	Parbhani	304
15	Beed	378
16	Nanded	144
18	Buldhana	30
19	Akola	147
20	Amravati	56
21	Yeotmal	2
22	Vardha	65
23	Nagpur	39
24	Bhandara	239
25	Chandrapur	208
26	Total	2619

Ref:-Feb 73 assembly p. 467 how many new fair price shops have been opened district wise at the end of December 1972 in Maharashtra? Question was asked By K.D.Bhegde, Krishnachandra Bhoite, R.A. Patil and D.D. Padvi the question was answered by H.G.Vartak

Table No. AT-38 Osmanabad Assets Decreased or Changed During Draught

Description	1.7.71	1.7.72	1.7.73	% house holds Decrease during 1972-73	per-capita decreased
Small cultivators land	628	628	628	0	0
Small cultivators other assets	279	307	233	63.64	98
small cultivators total assets	907	935	861	63.64	98
Other cultivators land	3018	3018	3018	0	0
Other cultivators other assets	649	688	609	66.67	82
Other cultivators total assets	3667	3706	3627	66.67	82
Agri. Laborers land	12	12	12	0	0
Agri. Laborers other assets	134	142	123	20.83	24
Agri. Laborers total assets	146	154	135	20.83	24
Village Artisans other assets	197	219	208	25	44
Village Artisans total assets	197	219	208	25	44

Table No.AT-39 Percentage of high yielding variety compare to total crops

Percentage of high yielding variety compare to total crops					
State	Rice	Jowar	Bajra	Maize	Wheat
Andhra Pradesh	83.9	4.9	5.7	5.5	-----
Assam	9601	Nil	Nil	3.9	-----
Maharashtra	14.8	10	2.2	6.1	53.3
Punjab	4.4	Nil	6.7	3.8	85.3
Haryana	3.3	Nil	22.9	11.7	72.1
All India	34.5	6.3	10.5	3.8	44.9

Table No. AT-40 Rates of retail sale of the essential commodities

Rates of retail sale of the essential commodities								
Sr.No	Commodity	Jan-71	Feb.71	Mar-71	Apr-71	May-71	Jun-71	Jul-71
1	Wheat	1.23	1.21	1.14	1.06	1.03	1.04	1.07
2	Bajra	0.87	0.84	0.81	0.8	0.79	0.81	0.82
3	Turdal	2.01	1.77	1.69	1.6	1.66	1.77	1.9
4	Chanadal	1.31	1.26	1.2	1.2	1.117	1.24	1.27
5	Mugdhal	1.72	1.73	1.72	1.77	1.79	1.83	1.88
6	Udiddal	1.84	1.92	1.98	2.02	2.05	2.17	2.37
7	Edible oil	4.86	4.72	4.81	4.68	4.57	4.55	4.49
8	Gur(jagg)	1.18	1.12	1.18	1.32	1.36	1.47	1.66
9	Tea	10.29	10.45	10.45	10.47	10.53	10.53	10.56
10	Sugar	1.88	1.88	1.88	1.93	2.03	2.01	1.97
11	Soap	2.1	2.1	2.1	2.1	2.1	2.12	2.12
12	Chilli dired	9.77	9.11	8.62	8.26	8.06	8	7.78
13	Coconut oil	9.77	9.11	8.62	8.26	8.06	8	7.78
14	Rice(open Market)	1.39	1.29	1.39	1.55	1.55	1.59	1.64
Ref:- p.291 Vidhan Parishad question * question V.G.Hande (Vidhan Sabha) Rates of retail sale of the essential commodities in Urban Area per kilo								

Table No. AT-41 Public protest against inflation

Sr. No	Name of Party	Nidarshane	Morchas	Processions	Dharn e	Hunger strike	Total
1	Congress	4	6	2	--	1	13
2	Jansangh	10	12	5	5	--	32
3	Left communis ts	-----	8	2	1	--	11
4	Socialist Party	2	10	1	---	---	13
5	Other Parties	10	83	3	1	3&2 Satygraha	102
6	Total	26	119	13	7	4+2	171

**Protest against inflation**

Ref:- 6<sup>th</sup> March 73 and onwards Vidhan Sabha

p.1639: Protest against inflation :- The questions were asked by B.S.Patil (Gadhinglaj) Answers were by V.F.Naik. During March 1972 to September 1972 there were 26 protests March, 119 Morchas, 13 processions, 4 Hunger strikes, Dharna Andolan 7 Styagrahas 2 against inflation in state. These are classified as follows. P.1639

Table No. AT-42 Table showing the area under irrigation in Maharashtra

Table showing the area under irrigation in Maharashtra Area in thousand hectares						
Sr.No	Year	Surface irrigation	Well irrigation	Total net area irrigated	Area irrigated more than once	Gross irrigated area
1	1960-61	4769	5953	10722	1476	12198
2	1961-62	4704	6108	1082	1524	12336
3	1962-63	4942	6315	11257	1525	2782
4	1963-64	4996	6506	11502	1636	13138
5	1964-65	5080	6826	11906	1733	13639
6	1965-66	4956	7107	12063	1817	13880
7	1966-67	5090	6982	12072	1961	14133
8	1967-68	5541	7210	12751	2011	14762
9	1968-69	5781	7964	13745	1823	15548
10	1969-70	6101	8211	14312	1970	1632
11	1970-71	5790	7679	13469	2234	15703
12	1971-72	5765	7707	13672	2544	16216
13	1972-73	5629	7133	12762	1913	14675
14	1973-74	6318	8399	14717	2921	17638

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Table No. AT-43 Release of central assistance during each financial year  
Amount in Crores Rs.

Year	Loan	Grant	Total
1970-71	2.50	0	2.50
1971-72	22.79	6.50	29.29
1972-73	42.32	34.32	76.64
1973-74	49.66	64.43	114.09
Total	117.27	105.25	222.52

Source:- V.Subramanin 'Parched Earth' Appendices Table No.II 2(i) p.547 The amount of Rs. 6.79 crores received in the financial year 1972-73 against the claim for central assistance for expenditure incurred in the year 1971-72 has been included in the year 1971-72 and corresponding reduction has been made in the total grant for 1972-73 Short term loan of Rs. 2 and 3 crores received on 18<sup>th</sup> January 1971 and 15<sup>th</sup> March 1971 respectively for seeds and fertilizers.



Table No.AT-44 Release of Central assistance  
During 1970-71, 1971-72, 1972-73 and 1973-74

Financial Year	Date of Release	Loan	Grant	Total
1970-71	8.1.1971	2.50	0	2.50
Total	Year 1970-71	2.50	0	2.50
1971-72	1.5.1971	2.00	0	2.00
	8.6.1971	1.00	0	1.00
	30.6.1971	2.00	0	2.00
	23.7.1971	1.00	0	1.00
	16.7.1971	00	2.50	2.50
	8.10.1971	00	3.00	3.00
	29.11.1971	3.00	0	3.00
	28.12.1971	5.0	0	5.0
	27.3.71	1.00	1.00	2.00
	29.3.72	1.00	0	1.00.
Total	Year 1971-72	16.00	6.50	22.50
1972-73	23.9.72	3.00	00	3.00
	13.10.72	00	6.79	6.79
	17.11.72	4.00	3.00	7.00
	25.11.1972	0	4.00	
	3.1.1973	0	10.00	10.00
	1.2.1973	15.00	0	15.00
	17.2.1973	10.00	0	0
	17.3.1973	2.32	10.32	12.64
	24.3.1973	8.00	7.00	15.00
Total	Year 1972-73	42.32	41.11	83.43
1973-74	8.5.1973	10.00	5.00	15.00
	2.1.1973	10.00	00	10.00
	12.6.1973	00	5.00	5.00
	22.6.1973	5.00	5.00	10.00
	9.7.1973	10.00	00	10.00
	23.9.1973	00	12.00	12.00
	1.10.1973	7.00	8.00	15.00
	7.11.1973	5.00	5.00	10.00
	20.12.1973	0	5.00	5.00
	7.1.1974	0	5.00	5.00
	6.2.1974	0	5.00	5.00
	30.3.1974	2.66	9.43	12.09
Total	Year 1973-74	49.66	64.43	114.09

Source: V.Subramanian Parched Earth Table No. II-2(i) pp.546-547 The amount of Rs.6.79 crores received in the financial year 1972-73 on 13.10.72 adjusted against claim for central assistance for expenditure incurred in 1971-72

Table No. AT-45 Retail prices of urban area

Sr. No	Name of Commodity	Rate per kilo or per liters in the Year 1973					
		January	February	March	April	May	June
1	Rice	2.15	2.32	2.61	2.73	2.92	3.08
2	Wheat	1.36	1.40	1.52	1.72	1.92	2.24
3	Sorghum(Jawar )	1.24	1.29	1.44	1.67	1.75	2.03
4	Bajra	1.27	1.33	1.46	1.58	1.76	2.02
5	Turdal	2.38	2.46	2.67	2.66	2.79	2.65
6	Channadal	1.81	1.85	1.97	1.99	2.10	2.16
7	Mungdal(per3.06 kgs)	3.07	3.07	3.16	3.18	3.24	3.29
8	Udiddal per3.06 kgs)	3.14	3.12	3.15	3.11	3.16	3.13
9	Milk	1.68	1.67	1.75	1.81	1.86	1.88
10	Groundnut oil	5.75	6.41	6.78	7.06	8.06	8.12
11	Coconut oil	7.64	8.39	8.95	8.94	9.56	9.74
12	Vanaspati	6.74	7.04	7.34	7.34	8.09	8.92
13	Jaggary Gur	2.11	2.07	2.09	2.10	2.20	2.32
14	Sugar	3.71	3.74	3.69	3.61	3.84	3.99
15	Dry chilli	5.10	4.90	4.99	4.96	5.15	5.55
16	Washing soap	2.10	2.10	2.10	2.10	2.10	2.10
17	Tea leaves	11.25	11.23	11.26	11.15	11.15	11.15

Table No. AT-46 Scarcity Declaration Dates

Scarcity Declaration Dates			
Name of the district	Scarcity affected villages	Second lot	declaration of scarcity
Sangli	331	144	21/10/1972
Ahmednagar	314		29/11/1972
Kolhapur	242		02/01/1972
Aurangabad	894	163	23/11/1972
Beed	530		01/01/1973
Dhule	777		02/01/1973
Ratnagiri	351		03/01/1973
Jalgaon	10		27/10/1972
Ref:- p.192 16th February 73 question by datta Tamahane (Vidhan Sabha) questions were about the number of villages scarcity affected			

Table No. AT-47 Village Bhadji income of Auranabad district

Village Bhadji Income Aurngabad						
Sr.No.	Land holding size	Relief measures	Farming	Other income	Total income	Number of household survyed
1	above 50	188	61	1	250	1
2	25 to 50	94	104	88	286	5
3	15to 25	167	-21	43	189	5
4	10to 15	138	-24	181	295	6
5	5 to 10	193	-1	21	213	7
6	1 to 5	259	-11	1	249	4
7	agricultural labour	193	13	168	374	4
8	Artisians	183	63	65	311	4
9	total households	153	28	76	257	36
Ref:- Dreze C-5 p.125 income in two villages of Aurngabad district Maharashtra 72-73 Village Adul						

Table No. AT-48 wells in Maharashtra 1965-71

Wells sunk in Maharashtra during last five years 1965-71.							
District	Coll.loan	ZP loan	Land.Devol.	Slef.Fin.	Total wells	Govt.Taqavi	Unsuccessful
Thane	238	1211	122	2506	4077	1429	14
Raigad	1	214	1210	1874	3299	215	8
Ratnagiri	10	156	168	1195	1529	166	35
Nasik	750	1520	7682	0	9952	2270	0
Dhule	0	4825	2781	0	7606	4825	298
Jalgaon	179	447	9382	5889	15897	626	1060
Pune	0	215	11091	0	11306	215	21
Ahmednagar	46	618	12657	3368	16689	664	252
Satara	0	535	11016	10777	22328	535	1623
Sangli	36	579	7576	5936	14127	615	84
Solapur	3832	10	9293	4452	17617	3842	150
Kolhapur	191	210	5894	587	6682	401	64
Aurangabad	34	636	16087	0	16757	670	53
Parbhani	310	0	3839	0	4146	310	53
Beed	0	324	12301	0	12625	324	964
Nanded	1691	24	6838	0	8553	1715	272
Osmanabad	84	410	11009	0	11503	494	143
Buldhana	0	149	4432	2298	6879	149	194
Akola	34	97	8308	944	9383	131	49
Amravati	0	139	7962	92	8193	139	39
Yavatmal	0	715	9940	347	11002	715	1022
Wardha	0	78	3418	4292	7788	78	2200
Nagpur	43	214	11357	4601	16215	257	284
Bhandara	11	277	2116	584	2988	288	0
Chandrapur	0	610	5388	227	6225	610	2
Total	7490	14216	181867	49999	253569	21703	9127

p.1274-75 seven May 71 Vidhan Parishad question asked by Nihal Ahmed and answerd by P.K. Savant question was about the wells struck in Maharshtra during last five years. Total wells struck were 253569 out of that 21703 wells were issued taqavi loans and 9127 wells were not struck water.

Table No. AT-49 Water arrangement during drought years.

Category of work	Subcategory of work	Number of works
Drinking water( total 11 thousand  Villages faced Water scarcity problem )	(a)Wells excavated by mine explosion	35264
	(b) Wells excavated by drilling	970
	(c) Wells reused	3275
	(d) Bore holes in the wells by deep drilling	793
	(e) Water struck bore wells	520
	(f) Wells Deepen by Zila Parishad	800
	(g) Public wells project started	56680
	Water struck wells in the category of public wells	18915
	(h) Villages which are provided with bullock carts or tankers	600
	(i)Number of tanker purchased by government for distribution and storage of water	400
	(j)Assistance from army establishment	
	(1) Tank trailers	80
	(2) Canvas tanks	172
	(3) Steel tanks	32
(4) Water tanks	120	
(5) Water boozers	32	
(k) Trucks purchased from the water supply programme funds	260	
(l)Trucks available from the Mumbai truck owners association and from other companies	31	

Source:- Lokrajya 1November, 1974 p.26

Table No.AT-50 Achievements or Relief works performed during three years of droughts of Maharashtra

Total Banded agricultural land hectares	lakh
2)For agricultural irrigation purpose works of number of Dams and Percolation tank initiated	4800
3) Number of works completed	1536
4) Number of canal works initiated	586
5) Number of canal works completed	1860.50 kms.
6) Number of community wells works initiated	56680
7) Number of wells struck water	18915
8) Number of road works initiated	74440 kms.
9) Number of road works brought into safe stage	60630 Kms

Source: Lokrajya 1 November 1974 p.28

Table No.AT-51 Labor attendance or employment generated during scarcity period

Sr. No.	On the date	Laborers on the work
1	1.6.1971	5.87 Lakhs
2	15.9.1971	14.60 Lakhs
3	1.9.1972	10.48 Lakhs
4	31.12.1972	20.17 Lakhs
5	31.3.1973	35.04 Lakhs
6	31.5.1973	49.46 Lakhs

Source: Lokrajya 1 November 1974 p.24-25

Table AT-52 Medical Relief

Sr. No	Description	Number or expenses
1	Mobile units	More than 30
2	Mobile Hospitals	36
3	Expenses incurred on medical relief	8.4 million Rs.
4	Beneficiaries or persons who sought medical relief	4 million persons

Table No. AT- 53 Arrangement to avail fodder to the cattle of Maharashtra

Sr. No	Description of arrangement	Arrangement in number
1	Provision of cattle camps	376
2	Provisions of number of cattle in the camp	4.65 Lakhs
3	Number of camps opened in the event of local unrest	156
4	Provision of number of cattle in the cattle camps	40809
5	The fodder collected by forest department	17000 metric tones
6	Fodder made available by army	5000 tones
7	Number of grass bales made available from central relief funds	25000 (100kg.each)
8	Fodder made available by Gujarat Government	981 wagons
9	Fodder made available by cooperative society	18618 metric tones

Source: Lokrajya 1 November 1974pp.26-27

Table No. AT-54 Sukhadi Some Facts

<ul style="list-style-type: none"> <li>Quantum of Sukhadi (a) Up To 15<sup>th</sup> May 1973</li> <li>(b) from 15<sup>th</sup> May 1973 to 31<sup>st</sup> July 1973</li> </ul>	<p>200 gms</p> <p>100 gms</p>
<ul style="list-style-type: none"> <li>Name of the Agency</li> </ul>	Shri Sadguru Seva Sangh Trust
<ul style="list-style-type: none"> <li>Amount of 100 gms Sukhadi</li> </ul>	25 Paise
<ul style="list-style-type: none"> <li>Number of beneficiaries of this work</li> </ul>	40 lakhs
<ul style="list-style-type: none"> <li>Period of implementation of this scheme</li> </ul>	up to 31 <sup>st</sup> July 1973
<ul style="list-style-type: none"> <li>Expenses incurred on this scheme</li> </ul>	<p>5.63 Croers Rs. (1972-73)</p> <p>7.68 Croers (1973-74) up to 31.12.73</p>

Source Lokrajya 1 November 1974 p.2

Table No. AT-55 Nutritional Survey carried over area by National institute of nutrition Indian council of medical research, Hyderabad

Sr.NO.	Name of the district	Name of the villages surveyed	Degree of drought	Population covered under nutrition survey
1	Ahmednagar	Kumbephal*and Shirur	Severe	156
2	Aurangabad	Malvida*	Severe	85
3	Beed	Bag-Pimpalgaon* and Manjarsumbha	Severe	204
4	Pune	Nahvare and Uralgaon	Severe	146
5	Total	07		591

Source:- The Indian journal of nutrition and dietaries (1974), 11, 20

Table No.AT-56 Percentage of nutrition deficiency signs in various age group Nutritional Survey carried over area by National institute of nutrition Indian council of medical research, Hyderabad

Sr. NO.	Description	0to 5 years	6 to 15 years	16 years and above (254)		
				Males	Females	Total
1	Number of examined	151	186	107	147	254
2	Without any clinical signs	69.1%	27.7%	22.0	28.2	25.5
3	Marsmus	2.4	-	-	-	-
4	Kwashiorkar	1.6	-	-	-	-
5	Protien calorie malnutrition with 2 or more signs	6.4	1.7	-	-	-
6	Keratomalacia	-	0.5	-	-	-
7	Bitot's spots	4.0	6.0	-	2.8	1.6
8	Night blindness	0.8	2.7	-	0.7	0.4
9	Xerosis	30.0	34.8	1.8	1.4	1.5
10	B-complex deficiency	12.8	35.4	-	-	-
11	Anaemia	27.2	40.2	44.9	59.9	53.4
12	Angular stomatitis	-	-	8.3	2.8	6.2
13	Glossitis	-	-	27.5	19.7	23.1
14	Nerolabial dysebaca	-	-	46.8	16.2	29.5

Source: Source:- The Indian journal of nutrition and dietaries (1974), 11, 20

Table No. AT-57 Nutrient intake for consumption Unit ; Nutritional Survey carried over area by National institute of nutrition Indian council of medical research, Hyderabad

Sr. No.	Description	Calorie	Protien
1	Home diet	1615	53.6
2	Contribution from "Sukhadi"	126	2.8
3	Total	1741	56.4

Source: Source:- The Indian journal of nutrition and dietaries (1974), 11, 20



Table No AT-58 Drought years with percentage area of the country affected by drought rank as per the area departure of ISMR and rank as per the % departure

S.No.	Year	Areas affected in percentage of total area of the country			Rank as per drought area	% Departure of ISMR	Rank as per % Departure of ISMR
		Moderate drought	Severe Drought	Total			
1	1877	30.6	28.9	59.5	3	-33.3	1
2	1891	22.4	0.3	22.7	24	-6.3	26
3	1899	44.1	24.3	68.4	2	-29.4	2
4	1901	19.3	10.7	30.0	16	-13.1	16
5	1904	17.5	16.9	34.4	14	-11.8	18
6	1905	25.2	12.0	37.2	9	-17.4	10
7	1907	27.9	1.2	29.1	18	-10.0	20
8	1911	13.0	15.4	28.4	21	-14.7	12
9	1913	24.5	0	24.5	22	-10.0	21
10	1915	18.8	3.4	22.2	25	-9.4	22
11	1918	44.3	25.7	70.0	1	-24.9	3
12	1920	35.7	2.3	38.0	8	-16.7	11
13	1925	21.1	0.0	21.1	27	-3.3	27
14	1939	17.8	10.7	28.5	20	-8.7	23
15	1941	35.5	0.0	35.5	10	-13.3	14
16	1951	35.1	0.0	35.1	12	-18.7	7
17	1965	38.3	0.0	38.3	7	-18.2	9
18	1966	35.4	0.0	35.4	11	-13.2	15
19	1968	21.9	0.0	21.9	26	-11.3	19
20	1972	36.6	3.8	40.0	6	-23.9	4
21	1974	27.1	6.9	34.0	15	-12.0	17
22	1979	33.0	1.8	34.8	13	-18.4	8

Table No. AT-59 Figures in Kg the grain stocks confiscated in months of April and May 73.

Name of district	Rice grinded	wheat	Sorghum Jawar	Rice husked	Bajara	Rava Wheat processed	Mil o	Kard i	Oat or Barley
Gt.Mumbai	20674	405	-----	----	-----	-----	----	----	---
Pune city	4902	3354	241	-----	---	25	10	-----	----
Nagpur City	4100	1700	440	-----	-----	-----	----	----	----
Pune rural	13960	3600	4200	1040	2800	---	400	---	---
Ratanagiri	1536	1500	----	-----	-----	-----	-	----	----
Kolhapur	-----	15772	-----	-----	----	-----	-----	-----	-----
Sangli	20155	2550	36913	-----	----	-----	-----	-----	---
Solapur	100	4100	1200	400	----	-----	---	----	----
Jalgaon	900	26500	20188	-----	-----	-----	-----	----	----
Kolaba	15711	----	----	38991	-----	-----	-----	----	----
Nashik	482	3887	--	----	----	-----	---	----	---
Thane	5447	5045	9058	9951	-----	91	-----	----	---
Akola	362	12116	16917	----	----	-----	-----	---	---
Chanda	1200	100	2000	---	----	----	-----	----	---
Nagpur rural	1400	8800	8000	-----	-----	-----	----	----	---
Yeotmal	-----	----	464	-----	-----	-----	-----	----	---
Vardha	-----	2000	----	----	----	----	---	---	---
Osmanabd	-----	400	9300	----	-----	----	-----	----	---
Beed	----	9926	36500	-----	-----	-----	----	---	---
Total	90929	101755	145321	50382	2800	116	410	2600	49600

Ref: - Black confiscated stock Assembly August 73 proceedings.

P.841-47 questions were about the raids on the shopkeepers for hoarding illegally the stocks of food grains. Questions were answered by F.M.Pintoo(Mahim), S.B.Patil(Nilanga), Ridwan Harris(Biwandi) Gajanan Loke (Paral), Smt. Mrinal Gore (Malad), Leelabai Merchant (Kasba Peth) T.D.Memjade (Bhavani Peth) N.R.Mate (Mulshi), Pramod Navalkar(Girgaon)S.G.Gholap (Murbad):- Pawar answered the question over all there were 569 raids on 545 hoarders. Out of that against 201 hoarders criminal cases were filed in the court of law. Out of that 174 were convicted and 27 were pending. The enquiries against 344 offender are going on. The orders have been issued to collectors and police officers that hoarding of more than 10 quintals of grains is not permitted without license.

Table No AT-60 Coverage under hybrid and high yielding varieties in Maharashtra from epitome of agriculture

Coverage under hybrid and high yielding varieties in Maharashtra from epitome of agriculture													
Year	Total kharif crops						Rabi and summer crops						% increase or decrease
	Paddy	Jowar	Bajara	Maize	T.Kharif	Jowar	Wheat	Maize	T.Rabi	Total summer	Grand total		
1966-67	0.55	0.11	0.11	0.05	0.92	0.03	0.08	0.03	0.14	0.02	1.08	Nil	
1967-68	0.62	2.1	1.04	0.07	3.83	0.18	0.13	0.03	0.13	0.06	4023	29.17	
1968-69	1.29	5.07	2.71	0.09	9.16	0.28	0.95	0.02	95	0.01	10.42	146.3	
1969-70	1.82	3.08	3.03	0.06	7.99	0.19	1.59	0.01	1.59	0.03	9.81	-5.9	
1970-71	2.12	4.87	4.81	0.05	11.85	0.13	2.09	0.01	2.09	0.05	14.13	44	
1971-72	2.25	3.2	1.98	0.03	7.46	0.09	2.07	0.01	2.07	0.07	9.7	-31.4	
1972-73	2.28	3.3	2.96	0.02	8.56	0.12	3.1	0.01	3.1	0.07	11.86	22.3	
1973-74	3.67	5.08	8.23	0.08	17.66	0.32	0.32	0.02	3.77	0.25	21.42	80.6	
area under lakh hectares													
source epitome of agriculture													

Table No. AT-61 February 73 July to Dec.73 grains demanded and supplied by state government.

February 73 July to Dec.73 grains demanded and supplied by state government.													
Sr.No.	Month	Demand 72 Rice	D.72 Wheat	D.72 Corase	D.72 Total	Supp, 72 Rice	S.72 Wheat	S.72 Coarse	S.72 Total	S.71 Rice	S.71 Wheat	S.71 Corase	S71 Total
1	July	0.18	0.58	0	0.76	0.22	0.59	0	0.81	0.18	0.55	0	0.73
2	August	0.18	1.4	0	1.58	0.23	1.29	0.02	1.54	0.14	0.43	0	0.57
3	Sept.	0.45	1.5	0	1.95	0.49	1.53	0.02	2.04	0.17	0.62	0.09	0.88
4	October	0.18	1.7	0	1.88	0.15	1.32	0.01	1.48	0.16	0.58	0.01	0.75
5	November	0.4	1.7	0.19	2.29	0.26	1.26	0.02	1.54	0.22	0.51	0.01	0.74
6	December	0.28	1.7	0.3	2.28	0.27	1.51	0.14	1.92	0.12	0.45	0	0.57
	Total	1.67	8.58	0.49	10.74	1.62	7.5	0.21	9.33	0.99	3.14	0.11	4.24

Ref:- Assembly Proceedings p.209-10 16th February 73 July to Dec.73 grains demanded and supplied by state government.  
Questions by Datta Tamahane (Elected by assembly on council)answered by Vartak at figures in thousand tones

Table No. AT-62 Purchase of cereals in May-June 1973 in two villages  
(Aurangabad district, Maharashtra)

Quantity purchased Kgs/Head/month				
House class	Adul Kg.	% purchase at PDS Shops	Bhadji Kg.	% purchase at PDS Shops
50 acres and above	14	25	15.4	25
25-50	15	25	12.6	25.7
15-25	14	25	17.3	26.6
10 to 15	15	22.8	14.5	23
5 to 10	15	24.3	18.5	31.2
less than 5 acres	15	23.7	18.7	31.45
agricultural labours	15	25.5	16.4	24.4
artisans	14	26.6	15.2	29.6
others	13	28.4	0	0
all house holds	14	24.9	15.4	26.9

Ref:-Dreze p.121

the authors note that in May and June, when they reported peak employment and earning through scarcity works, the households purchased slightly in excess of their current requirement because of the expected rise in the prices of food articles and the decline in their income in the immediate future (due to discontinuance of scarcity works. (Borkar and Nadkarni 1975 p.58

Table No. AT-63 Economic Indexes

Base year year 1960-61 = 100 food bulletin										
Date	labour attendance	expend on scr.	food price index AVG	consumer(M) price(M) general index	consumer food price index	consumer(I) price general index	consumer(I) food price index	wheat whole sale A'nagar	wages M	Wage sF
31.3.71	350.9	222.8	200	207	192	200	187		2.79	1.86
30.9.71	1371.5	2224.6	222	226	206	217	201	110	2.85	1.92
31.3.72	125.4	4032.9	223	227	208	215	200	92	2.87	1.97
31.3.73	3504.9	12791.9	265	294	260	251	229		3.12	2.19
30.11.73	92.1	13619.88	308	304	271	300	272	150	3.35	2.35
Ref:- WPI Bi\ul.75 pp.156-57 mothly avg.										

Table No. 64 EGS Employment- 2 March 73

Sr. No.	Name of district	Registration For Employment During 1.5.72 to 31.12.72	Number of person actually employed during May to December 72											
			May	June	July	Aug	Sept	Oct	Nov	Dec	Total			
1	Thane	68993	8205	4928	108	4915	5417	6028	10243	17658	57502			
2	Kolaba	60512	790	--	1540	497	217	---	---	---	3044			
3	Ratnagiri	36003	---	---	--	---	---	41	9067	14711	23819			
4	Nashik	68084	--	121	243	793	265	9718	339	373	11852			
5	Dhule	54490	1087	892	350	2459	302	1479	1183	1237	8989			
6	Jalgaon	154266	2165	1795	159	6305	5188	6094	4856	6752	33314			
7	Pune	76246	--	--	98	1359	1139	5103	5982	12183	25864			
8	Ahmednagar	100654	178	235	239	1104	9741	30928	37967	1649	82041			
9	Satara	37882	232	---	---	134	894	2228	2728	2844	9060			
10	Sangli	45154	49	3074	6653	4790	7728	4080	3659	11080	41293			
11	Solapur	122557	1788	3506	28689	70377	43589	53679	---	---	201628			
12	Kolhapur	65367	2346	20	--	---	---	1998	3683	5260	18682			
13	Buldhana	75578	164	127	143	964	555	513	299	305	3070			
14	Akola	67636	164	10095	1605	915	1494	709	211	262	18646			
15	Amravati	68760	118	569	225	--	743	5518	7320	3943	18436			
16	Yeotmal	90361	8817	10156	7718	8946	23253	29036	16119	15630	119675			
17	Nagpur	64678	939	5022	8366	9604	6449	5829	4261	5833	46303			
18	Vardha	28920	8	19	--	--	1261	16198	11586	9813	39397			
19	Bhandara	56279	448	91	--	--	1261	16198	11586	9813	39397			
20	Chandrapur	85696	1400	446	---	243	8431	2115	9865	4610	27080			
21	Aurangabad	197414	---	---	---	---	---	---	---	---	---			
22	Beed	98611	---	---	---	---	---	---	---	---	---			
23	Parbhani	89901	132	1126	2748	3891	6391	---	---	---	14288			
24	Nanded	34926	451	362	4079	338	441	---	---	---	5671			
25	Osmanabad	181232	---	---	---	---	---	---	---	---	---			
26	Total	2030200	32672	42584	61428	116725	134617	209027	151845	115274	864172			

Ref:- P.2498 Adjournment motion by K.S.Dhondge, D.B.Patil, K.D.Bhedge, D.D.Padvi, S.D.Natu, notice of adjournment motion. " Alleged starvation death of Devamma Shivappa Kamble on 13<sup>th</sup> March 1973 at Village Digg Taluka Umerga district Pune. On 10<sup>th</sup> and 11<sup>th</sup> March Tehsildar himself visited and expressed the need to help that woman. Registration during May to December 72 and actually employed during this months for EGS

Table No. AT-65 February 73 July to Dec.73 grains demanded and supplied by state government

February 73 July to Dec.73 grains demanded and supplied by state government.													
Sr.No.	Month	Demand 72 Rice	D.72 Wheat	D.72 Corase	D.72 Total	Supp, 72 Rice	S.72 Wheat	S.72 Coarse	S.72 Total	S.71 Rice	S.71 Wheat	S.71 Corase	S71 Total
1	July	0.18	0.58	0	0.76	0.22	0.59	0	0.81	0.18	0.55	0	0.73
2	August	0.18	1.4	0	1.58	0.23	1.29	0.02	1.54	0.14	0.43	0	0.57
3	Sept.	0.45	1.5	0	1.95	0.49	1.53	0.02	2.04	0.17	0.62	0.09	0.88
4	October	0.18	1.7	0	1.88	0.15	1.32	0.01	1.48	0.16	0.58	0.01	0.75
5	November	0.4	1.7	0.19	2.29	0.26	1.26	0.02	1.54	0.22	0.51	0.01	0.74
6	December	0.28	1.7	0.3	2.28	0.27	1.51	0.14	1.92	0.12	0.45	0	0.57
	Total	1.67	8.58	0.49	10.74	1.62	7.5	0.21	9.33	0.99	3.14	0.11	4.24

Ref:- Assembly Proceedings p.209-10 16th February 73 July to Dec.73 grains demanded and supplied by state government. Questions by Datta Tamahane (Elected by assembly on council)answered by Vartak at figures in thousand tones



## APPENDIX-B

### FAMINE CODE

British response to the droughts and to the famines arising mostly out of the drought and crop failure evolved in due course and finally canonized in final shape in the form of famine commission report of 1880.

Prior to famine code British policies, influenced by experiences of Indian rulers and followed the same methods, which Indian rulers' adopted in early period of British Raj.<sup>1</sup> As stated by Indian famine commission of 1880 sense of obligation developed and more and more fully acted on, British efforts towards alleviation of miseries that faced by Indian people were hap-hazardous. As nature of British power in India was semi democratic and semi authoritarian,<sup>2</sup> British efforts were influenced by same logic. British policies also influenced by individual viceroy's perception, existing government in Britain, the role played by British media, the role of party that ruled during that particular period in England and the public opinion in England. It reflected in the various measures adopted by British administrator. The colonial status of the country and the imperial obligations that status involved were thus directly the essence of the food and famine problem of the country.<sup>3</sup> British administration was quite aware of the situation arose out of the drought and crop failure. They were also well acquainted with the measures to adopt during the famine and distress. Fine example of famine avertation can see in the form of famine relief and food policy adopted and set by British administration itself during 1873-4 famine of Bengal. <sup>4</sup> At the time of 1873-74 famine the whole population was divided into four classes in a manner very similar to that initiated in 1860. The able-bodied were employed by the public works department. The less capable were left to the control of the collectors on smaller undertakings, those who were unable to travel were supplied with such employment as could be found in the immediate vicinity of their villages; and the emaciated and the sick were nursed in the public infirmaries.

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<sup>1</sup> Shrivastva off.cit p. 28

<sup>2</sup> Chandra Bipan, Indias Struggle for independence 1857-1947, edt Bipan Chandra and others, (Penguin Book: 1989) p.506

<sup>3</sup> Bhatia p.110

<sup>4</sup> Bhatia pp.84-86, The prompt action of the Bengal government in undertaking imports began to exercise in arresting influence on prices and after April 1874. The relief policy of the Bengal government also during this famine differed from the earlier policy in the matter of liberality of the wages scles on relief works. It was also significant due to indirect relief in the form of advances of grains and cash to zamindars for the relief of their tenants. During early period of the famine the policy on relief works was to offer employment ot any one who sought it at the normal rate of wages and exact full normal performance of task from him. The relief works proved attractive and 1.2 million laborers were employed on them in April 1874. About 4 lakh persons are estimated ot have been relieved by advances of grain and cash to zamindars, traders, and ryot. A total of 2623663 persons were relived gratuitously by doles of grain cahd and cooked food between January and November 1873, the maximum in any month being in July when the number reached the high figure of 885595.

There was nothing essentially original in the system; but its comparative success is tribute to the methods already approved. Indeed surprising as it may seem at first sight in view of the fatality of former calamities it is nevertheless true that every departure made in 1878 from the officially recommended system proved disastrous in its effects. The guiding principles in the formulation of the famine relief policy in India during the British rule can be briefly summed up with the help of a few citations from the report of the Indian famine commission of 1880. "The government, when it has to deal with calamities such as famines should so frame its measures as to avoid every tendency to relax in the people the sense of obligation which rests on them to provide for their own support by their own labor, to cultivate habits of thrift and forethought and as far as possible to employ the surplus of years of plenty to meet the wants of years of scarcity." ( Indian famine commission report , 1, 1880. P. 35 ) p. 105 <sup>5</sup>The compiler of the model famine code of 1880 kept in mind aforesaid principle.

The failure of famine prevention during the period 1858-1880 was not a complete one. A measure of inverse correlation between the determination of relief efforts and the intensity of distress was noticeable even at that time. In particular during the panic famine of 1873-74 in Bihar massive relief efforts were quite effective preventing worst. However, the shortcomings of ad hoc responses were increasingly evident, and while the relative success of relief efforts in 1873-74 were recognizes they were also regarded as excessively costly.

This period of trial and error on the part of British administrator was for serving both ends of saving lives and colonial economic interest. This came to end after the famine commission of 1880.(A remark on same line by Shrivastava)This commission was keenly aware of the vital importance of prompt actions in matters of famine relief, recommended the promulgation of famine code which would contain authorities guidelines to the local administration for the anticipation recognition and relief of famines. <sup>6</sup> The famine relief policy that was embodied in famine codes in 1883 based upon the guidelines provided by famine commission of 1880 was founded on two postulates : first that the state could not undertake to interfere in every individual and isolated cases of distress but that it would apply its resources only when, " a natural calamity affecting a material portion of the population of a locality" occurred and second that an Indian famine being a problem of temporary lack of employment for the mass of agricultural

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<sup>5</sup> Brhame p.105

<sup>6</sup>Draze, pp.21-22

population, the principal form of relief needed was the opening of relief works and offer employment to those needed it.”<sup>7</sup> The code contained detailed instructions and rules for the guidance of the provincial administration in the matter of dealing with famine. These include the establishment of system for continuous flow of information from every local area to the provincial government, bearing on the onset of scarcity or famine: the type and nature of relief works to be constructed: the classification of relief labor and the scale of wages to be paid; the organization of gratuitous relief and the establishment of a system of village inspection, suspension of revenue grant of *taccavi* loans relaxation of forest laws for the duration of the famine and protection of cattle. <sup>8</sup>“The duties involved in relief measures are complicated and multifarious their successful performance necessitates the utilization of large stores of accumulated experiences and a carefully considered and prepared plan they cannot be safely left to individual energy and resources or be dealt with on system improvised only when the emergency has arisen. Prompt and decided action in carrying out these measures is of primary importance and by considering well beforehand the principle that should guide them, much of that hesitation and uncertainty of purpose, which have been found to be so detrimental in the past, will be avoided in the future. We recommend, therefore that the government of India should as soon as possible issue a set of rules embodying the main principle that should govern the administration of famines relief and that rules should be authoritative in all parts of the British India”(famine commission code 1880)<sup>9</sup>

The provision of the famine codes are much too comprehensive contains everything one can contemplate in distress relief. Time saving tactic, detail procedure, ready guide to administrator, delegation of authority and responsibility to government officer, making of alternative arrangement of employment without making extra budgetary provision, alternative nutritional arrangement, exploration of forest sources without any burden on exchequer are the main provisions imbedded in the famine code of 1880. In addition, early information of drought and crop conditions, early steps to be taken by various authority, preparing plans of relief work, to be ready with the list of works to be carried during the famine, organization of relief camps, arrangement in the camps, preparation and precautions to be taken by medical officer were other

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<sup>7</sup> Bhatia p.184

<sup>8</sup> Ibid p.185

<sup>9</sup> Drazé quoted from the famine commission p.22

provisions laid down in the code. Following thought of famine commission is reflected through the famine code.

The backbone of the famine relief strategy embodied in the famine code was of the organization of massive public works. More precisely, the first and foremost aim of this strategy was nothing less than to provide employment at subsistence wages at reasonable distance from their homes to all those who came forward for it. Gratuitous relief for those unable to work<sup>10</sup> the promulgation of the famine codes had undoubtedly represents an essential step towards the successful prevention of famines India. Actually, the report of the famine commission of 1880 itself deserves to be regarded as much as the famine codes it gave birth to as landmark in the history of famine in India. It was admittedly influence by ideology as well a self-interest e.g. in it s advocacy of free trade a outrange of its condemnation of gratuitous relief as demoralizing. But the famine commission report was also by any standard an administrative intellectual masterpiece, and it embodied a considerable dose of experience, scholarliness and wisdom. The brief of the famine commission was to collect with the utmost care all information which may assist future administrative in the task of limiting the range or mitigating the intensity of these calamities. The commission applied itself vigorously to this task and its report remains to this day a goldmine of information on previous famines in British India as well as a most edifying treatise on the possible measures to prevent them.<sup>11</sup>

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<sup>10</sup> Ibid p. 24

<sup>11</sup> Draze p.23

## APPENDIX-C

### A brief summary of proceedings during 1971-73 in Vidhan Sabha

#### March-April Session 1971

This session commence on 15<sup>th</sup> March 1971 and concluded on 7<sup>th</sup> May 1971. On 15<sup>th</sup> March 1971 his highness honorable governor delivered his speech. The copy of governor's speech was kept on the floor of house on the same day. Motion to propose vote of thanks to governor for his speech was initiated and seconded by honorable member D.R.Khaire , A.P.Salve respectively. Budget of the state was put on the floor on 24<sup>th</sup> March 1971 and the motion for vote on account was initiated on 26<sup>th</sup> March 1971. The discussion on budget held on 1,2, 5, 7, 8 April 1971. During this March-April 71 session, 6 notices for half hourly discussion registered all of them dismissed. 10 notices for adjournment motion registered and none of them qualified for the discussion. 12 notices for emergency discussion came and none of it sanctioned. Total 316 notices of calling attention motion registred and 113 notices sanctioned for discussion. <sup>1</sup> There was substantive motion in the form of resolution by F.M.Pintoo stating price hike of essential commodities in state that in turn resulted in to many public protest marches. This resolution was accepted by house. <sup>2</sup> Honorable member V.R.Kaldate initiated resolution about emerging scarcity situation over state and government is not taking cognizance of the same that in turn adding misery of agricultural labors.<sup>3</sup> A notice of adjournment motion issued by Hashu Advani on 12<sup>th</sup> April 1971 on account of terminating more than 1500 employees from public distribution department from their service. However, this not did not translated into full fledged adjournment discussions as speaker disqualified issue for adjournment motion. The calling attention notice was served by R.B.Jayswal, A.S.Deshmukh and G.B.Burgute on 6<sup>th</sup> April 1971 on account of compulsory loan recovery from farmers of Buldhana, Jalna and Solapur district of district cooperative banks of respective districts.<sup>4</sup> Honorable members Smt.Pratibha Tidke, A.P.Salve and G.B.Burgute issued calling attention notice on 12<sup>th</sup> April 1971 as grave situation arose over Akola, Chandrapur and Solapur district due to scarcity condition prevailing over these districts.<sup>5</sup> Another calling attention notice surfaced on the floor of house on the same day on account of

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<sup>1</sup> Secretariat of Maharashtra legislature Vidhan Bhavan Nagpur ' A brief summary report of proceedings of Maharashtra state assembly of March-April Session 1971 pp2-6

<sup>2</sup> Ibid p.89

<sup>3</sup> Ibid p.90

<sup>4</sup> Ibid p.98

<sup>5</sup> Ibid p.98

refraining scarcity workers to join scarcity works until they performed vasectomy operation on themselves. Notice of this calling attention motion was proposed by K.S.Dhondge, T.C.Karkhanis and B.S.Patil.<sup>6</sup>

### **September-October Session 1971**

This session commenced on 6<sup>th</sup> September 1971 and concluded on October 1971. There were 10 notices for half hourly discussions on miscellaneous public important issues and out of that 3 sanctioned. On vital public important questions 39 half hourly notices registered and out of that 15 accepted. Seven notice of no-confidence motion on council minister came. These notices jointly translated into motion on and discussed on 11<sup>th</sup> October 1971. This motion was dismissed by house by voting. 39 notices of adjournment motion registered and out of that one was sanctioned for discussion in the house. 47 notices for short duration notices came to secretariat and 16 accepted for discussions. 349 calling attention motion notices recorded out of that 97 were accepted.<sup>7</sup> On same day there were two important statements on notices of honorable members Dhondge and B.D.Killedar. First was with respect to death of peasants and workers' party's member of jail in jail on account of alleged mistreatment in jail. Second statement on Killedar's notice by home-minister for state on breaking of tear gas and latthi charge on students march.<sup>8</sup> During this session on 7<sup>th</sup> October 1971 discussion held on the resolution as substantive motion on price hike of essential goods which created discontent among masses and measures to adopt it. This resolution was proposed by C.S.Savant, F.M.Pintoo, Ramchandra Ghangare, K.S.Tidke and A.P.Salve.<sup>9</sup> Discussion was held on equally important resolution put by Honorable members; Mahalgi, L.V.Mankar, B.S.Patil, Gulabrao Ganacharya, K.S.Dhondge, S.D.More, Smt.Pratibha Tidke, K.A.Pardhi, Ramcnadra Ghangare, A.P.Salve, Y.R.Deogad, G.A.Deshmukh, Jeevanlal Chandak, Suresh Deotale. This resolution was about prevailing scarcity condition over Maharashtra and suffering of people on account of that. Discussion was held on 6,8, and 9<sup>th</sup> of Septemeber 1971.

Two adjournment motions on 7 September 1971 accepted and short duration discussion held on both the motions. One motion was police firing on protest march of weaver because of not getting cotton threads on reasonable prices due to scarcity. Second motion was on police firing at

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<sup>6</sup> Ibid *Loc.cit.*

<sup>7</sup> Legislative secretariat government of Maharashtra ' Vidhan Sabha proceedings of Septemebr-October 71 session' Marathi version Mumbai pp.1-3.

<sup>8</sup> Ibid p.53

<sup>9</sup> Ibid p.93

Variag on protest march organized by peasants and workers' party for scarcity relief works and availability of grains from fair price shops at reasonable prices. Notice of first motion was proposed by B.D.Killedar, Ganachraya, Jeevanlal Chandak, V.R.Kaldate, L.B.Mankar, K.S.Tidke, Ramchandar Ghangare. Second motion was proposed by G.A.Deshmukh, S.B.Patil, D.B.Patil, S.S.Savant, D.N.Patil, Ram Mahdik, Nihal Ahmed, R.K.Mahadik, Mahalgi, Hashu Advani.<sup>10</sup> In the wake of scarcity there were many adjournment motions that came on the floor of house but denied by speaker to accept as adjournment motions. 21<sup>st</sup> September alleged starvation death of one women named Mahale at Peth dist Nashik was pointed through adjournment motion by Ramcahndar Ghangare. However, notice was denied by speaker. On 23<sup>rd</sup> September there were two adjournment motions. One was about the students protest regarding waving of fees of October exam of Marthwada University. This resulted into educational losses of students. The Udhavarao Patil, A.R.Gavane, and D.N.Patil proposed this notice of this adjournment motion. Other notice was regarding starvation death of Mr. Jogdand of village Nathapur of Beed district this death occurred on 16<sup>th</sup> February 1971. K.N.Dhulup, A.R.Gavane, S.S.Savant, D.B.Patil proposed notice of this adjournment motion. Another adjournment motion came on the background of scarcity. This was regarding the protest march of farmers and agricultural labor of Arvi, Vardha, Hinganghat and Katol area of Vidharabha for their demands. This notice was issued on 27<sup>th</sup> September 71.<sup>11</sup> On 1<sup>st</sup> October 71 there were two adjournment motion notices and both were dismissed by speaker. These both motions were proposed by K.S.Dhondge. One was about the death of peasant workers party activist involved in scarcity related activity Shri. Hampalle's death in jail. Another was about the alleged suicide of Babarao Mornale of Kandhar who committed suicide to relive himself from the troubles of scarcity.<sup>12</sup> On 8<sup>th</sup> October 1971 adjournment notice of K.S.Dhondge read out by speaker in the house with respect to alleged starvation death of Parvatibai Priaji Patil of village Sekapur of Kandahar taluka and this death was immediately followed after alleged starvation death of Baburao Martale of Kandhar. Dhonge claimed that this was failure of government and government did not kept its promise to avoid starvation deaths. This adjournment notice was disallowed by speaker.<sup>13</sup>

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<sup>10</sup> Ibid p.105

<sup>11</sup> Ibid pp.106-107

<sup>12</sup> Ibid Loc.Cit.

<sup>13</sup> Ibid p.51

On 4<sup>th</sup> October 1971 B.D.Killedar proposed adjournment motion notice for the lathi charge and breaking of tear gas on the students protest march to get relief from government to the students. Another, alleged starvation death of Parvati Patil of Kandhar taluka was pleaded as starvation death by Dhondge in the form of proposed notice of starvation death and same was denied.<sup>14</sup> Short duration discussion was held on 24<sup>th</sup> September 1971 on alleged starvation death in Nathapur of Beed district and the controversy emerged after that. Notice for this proposal was put by K.N.Dhulup, A.R.Gavane, S.S.Savant, D.B.Patil and S.D.More. There was another proposal for short duration notice on price hike of the grains due to releasing restrictions of grain trade. However, this discussion was not held due to shortage of time. On 23<sup>rd</sup> September 1971 S.K.Athalye, V.R.Kaldate put calling attention notice on the back-clash of Vairag firing in the form of Solapur city closer and the clashed between congress and communist party activists. Calling attention notice of Dhondge for death of his party's activist in jail was responded by statement by government on 8<sup>th</sup> October 1971. B.D.Killedar put calling attention notice on students protest march at Pathardi asking relief to scarcity affected students resulted into grave situation due to injury to students due to lathi charge on students. Government responded on it by putting statement on the floor of the house.

### **March-April 1972 Assembly session**

This session commenced on 20<sup>th</sup> March 1972 and concluded on 7<sup>th</sup> April 1972. On 22<sup>nd</sup> March 1972 governor delivered his speech on joint seating of both the houses of Maharashtra legislature. Ratnappa Kumbar on the same proposed vote of thanks to governor for his speech in the form motion this proposal was seconded by Sushial Balraj. There were 105 suggestions to governor's speech but none of it put in the house. Total 33 members of house delivered their speech in this regard. Supplementary grants proposal for the year 1971-72 was put to house on 23 March 1972. The budget for the year 1972 was put on 24<sup>th</sup> March 1972. On 27 March 1972 motion for vote on account initiated and sanctioned on same day. Notices for adjournment motions were nine in numbers and none of them selected. 194 notices were recorded for calling attention motion and out of that, 52 were sanctioned.<sup>15</sup> An adjournment motion pertaining to scarcity was proposed by Sheshrao Deshmukh on 6<sup>th</sup> April 1972 about suicide of an old person Mr. Khandu Abbaji on account of poverty the notice was undermined and rejected by honorable

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<sup>14</sup> Ibid p.108

<sup>15</sup> Secretariat of Maharashtra state legislation brief summary of Vidhan Sabha Proceedings March-April 1972 session of Vidhan Sabha Mumbai pp.4-6



speaker.<sup>16</sup> There was short duration discussion on water deficiency in the wells of Kolhapur district which resulted into halting of water supply to the agriculture.<sup>17</sup> Calling attention motion by K.D.Bhegde, S.M.Thakare, R.K.Mahalgi, Villas Savant, T.D.Memjade.V.G.Prabhugaonkar, T.C.Karkhanis, D.B.Patil about the rising prices of essential commodities on 28<sup>th</sup> March 1972.<sup>18</sup> Calling attention motion notice issued on 28<sup>th</sup> March 1972 by R.A.Patil and K.B.Mahaske about the loan recovery drive and confiscation of property therein by land development bank on the background of adverse agricultural season adding misery and difficulties of agriculturist.<sup>19</sup> Water scarcity problem raised its head even Mumbai evidenced from the calling attention motion notice proposed by Mahalgi, Natu, Vials Sanvant, S.M.Thakre and Ramnath Pande.<sup>20</sup> Droughty condition began show its impact noticed from notice issued for calling attention motion on 7<sup>th</sup> April by T.C.Karkhanis, B.G.Patil, K.D.Bhegde, Dilawarsingh Padvi, P.B.Kadu and R.K.Mahalgi, R.A.Patil and others. This motion was stating grave scarcity situation all over Maharashtra emerged expected government measures to overcome water and fodder scarcity.<sup>21</sup>

#### **June-July-August 1972 Assembly Session:**

This session of the assembly commenced on 12<sup>th</sup> June and concluded on 26<sup>th</sup> August 1972. Additional budget for the year 1972-73 was presented on 13<sup>th</sup> June 1972. Total six days had been spent on the general discussion on the budget. Half hourly discussion on 21 notices discussed in the house. There were total 59 notices for the discussions. Such half hourly discussion on public important issues emerged from discussions while answering questions in the houses. There were 37 notices and out of that 15 notices were considered and 11 notices actually discussed in the house. 46 notices for adjournment motions received and 2 were accepted as adjournment motion. For short duration discussions 40 notices were accepted and out of that 12 were accepted and 11 such notices were actually discussed. 557 calling attention notices for calling attention motion recorded and 157 such notices accepted.<sup>22</sup> One resolution on 10<sup>th</sup> August 1972 by A.A.Wankhede pertaining to the miseries and difficulties that people are facing due to prevailing scarcity all over state and also about government efforts to overcome scarcity condition. The

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<sup>16</sup> Ibid p.75

<sup>17</sup> Ibid p.76

<sup>18</sup> Ibid p.77

<sup>19</sup> Ibid p.78

<sup>20</sup> Ibid p.79

<sup>21</sup> Ibid p.80

<sup>22</sup> Legislative secretariat secretariat government of Maharashtra brief summary of Maharashtra Vidhan Sabha Proceedings June-July-August 1972, pp.2-5.

resolution discussed in the house.<sup>23</sup> Another resolution pertaining to rising prices of essential commodities proposed by F.M.Pintoo discussed in the house on 11<sup>th</sup> August 1972.<sup>24</sup> The resolution proposed by Rambhau Mirashi about the re-sowing operations of seeds in Konkan and government assistance in regard that as the first sowing wasted due to deficient rainfall not discussed in the house due to time shortage.<sup>25</sup>

Number of adjournment motions notices pertaining to scarcity registered in the house and same were disallowed. V.A.Deshmukh Proposed notice of the adjournment motion on 7<sup>th</sup> August 1972 stating that the scarcity situation at Osmandabad district passed into alarming stage. It resulted into migration of thousands of people. There are no resources at disposal to save men and animal may cause starvation deaths. Speaker did not took cognizance of notice and denied to consider as adjournment motion. On same day another notice of same kind of motion denied which was put by R.K.Mahalgi and K.D.Bhegde for alleged starvation deaths two at Nanded district and one each at Ahmednagar and Aurngabab districts. Grave and serious prevailing scarcity situation over Maharashtra, rising prices of essential commodities and unemployment these were other points cited in same adjournment motion. Notice pertaining with same issues of alleged two starvation deaths in Nanded district on same day put by Haribhau Barkule was denied by speaker to consider as adjournment motion.<sup>26</sup> Mr.D.B.Patil and Sheshrao Deshmukh put notice on same issued of Ahmednagar district on same day and got same treatment by speaker.<sup>27</sup> On 23<sup>rd</sup> and 24<sup>th</sup> August 1972 two notices for adjournment motion pertaining to starvation deaths registered. K.N.Deshmukh, D.B.Patil, K.S.Dhondge, Sheshrao Deshmukh, Haribhau Barkule put notice on 23<sup>rd</sup> August. It was about no availability of scarcity works in and around villages Shivankhed and Mulki of Ahmedpur talukas of Osmanabad district resulted into starvation death of Lala Bande Haidar Ali of Village Shivankhed (BK) . One starvation death also reported from village Mulki. A woman from village Khamasvadi taluka Kalmab was also claimed victim of starvation death from same district in same notice. Rajabai Garad a woman who had delivered a child recently was said victim.<sup>28</sup> On 24<sup>th</sup> August 1972 K.S.Dhondge issued notice for suicide of villager along

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<sup>23</sup> Ibid p.128

<sup>24</sup> Ibid Loc.Cit.

<sup>25</sup> Ibid p.130

<sup>26</sup> Ibid p.136

<sup>27</sup> Ibid p.137

<sup>28</sup> Ibid p.139

with his wife and two children as they did not get sorghum due to scarcity. For this terrible incidence government is only responsible with such allegation the notice was issued.<sup>29</sup>

Number of calling attention notices were issued in this session pertaining with scarcity related issues. On 16<sup>th</sup> June 1972 V.G.Prbhugaonkar, S.D.Natu and D.D.Padvi put calling attention notice pertaining to water scarcity problem over Aurangabad division which in turn grave situation of migration.<sup>30</sup> Notice for calling attention motion by Vimal Rangnekar scarcity of water causing migration at Javar, Dahanu, region of Thane district.<sup>31</sup> Calling attention notice with respect to lifting of water by lift through lift irrigation from river as the wells of Tasgaon, Walva region are dried. At such instance the water lifted from river should be charged minimum charges. <sup>32</sup>On 12<sup>th</sup> July 1972 K.R.Patil's notice for calling attention notice issued stating in Buldhana district taqavi loans were disbursed only for hybrid jowar it resulted into decreasing sown area in the district.<sup>33</sup> Another notice for calling attention motion addressing question of prevailing untouchability at Kasur village of Udgir taluka district Osmanabad where high caste people beat untouchables for taking water from common water outlet.<sup>34</sup> Calling attention notice of 10<sup>th</sup> August 1972 addressing the issue of untouchability and keeping away untouchables from public water outlet from common source of public wells. A.A.Wankhde, D.D.Padavi put this notice.<sup>35</sup> Another calling attention notice addressing issues untouchability at public water outlet where state itself indirectly putting its consent to untouchability at public water outlet.<sup>36</sup> 13<sup>th</sup> July notice of Karkhanis , P.B.Kadu and D.B.Patil addressing issues of stopped works of 100 percolation tanks in Ahmednagar district led starvation of many scarcity worker.<sup>37</sup> Delay in the payments and meager wages these complaints of scarcity workers working at Nandgaon Pimprale percolation tank were addressed by Dhondge, Karkhanis, Prabhugaonkar, P.B.Kadu and J.N.Bantwala.<sup>38</sup> Calling attention notice by R.K.Mahlggi and D.D.Padvi addressed issue of prevailing untouchability at public water outlet and public wells. The complaints of beating of

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<sup>29</sup> Ibid Loc.Cit.

<sup>30</sup> Ibid p.142

<sup>31</sup> Ibid p.143

<sup>32</sup> Ibid p.146 this calling attention motion notice by B.G.Patil, R.A.Patil on 7<sup>th</sup> July 1972.

<sup>33</sup> Ibid p.148

<sup>34</sup> Ibid.Loc.Cit.

<sup>35</sup> Ibid p.153 one untouchable woman was beaten.

<sup>36</sup> Ibid p.154 the notice was put by D.D.Patil and N.K.Patil. The issue relate to providing caste wise separate outlets to people at public wells in Shirpur taluka of Dhule district. These wells were constructed by Zilla Parishads

<sup>37</sup> Ibid p. 149

<sup>38</sup> Ibid Loc.Cit.

one untouchable student reported from village Bellur of Deglur taluka of Nanded district was the subject of that motion.<sup>39</sup> Shortage of fodder supply from Dahanu, Palghar region to government cattle of Mumbai affected milk production. This issue was addressed by calling attention notice by Mahalgi, Natu, Karkhanis etc. on 22<sup>nd</sup> August 1972.<sup>40</sup>

### **Maharashtra Assembly Session Novemebr-December 1972**

This session commenced on 20<sup>th</sup> November 1972 and concluded on 15<sup>th</sup> Decemeber 1972. For half hourly discussion of public important issues 45 noitces registred 31 such notices sanctioned. However, only one 6 notices discussions held. For short duration discussions emerged out of questions 13 notices were put. Seven such notices were accepted and only on 4 notices discussions effected.

For no confidence motion 6 notices came. All such notices grouped together to put this motion on floor of house. Discussion on this motion held on 21 to 23 November 1972. Total 25 notices for adjournment motion reported and none accepted as adjournment motion. For short duration discussion, 19 notices received and none discussed. Four hundred and ten notices for calling attention motion reported and 46 sanctioned for discussion.<sup>41</sup>

The decades of 1970s and 1980s were decades of extraordinary control over prices sought by government legislators and people too. In same spirit, state legislators attempted to control prices. In that endeavor one of such resolutions was put on 13<sup>th</sup> December 1972 by D.B.Patil, K.D.Bhegde, R.K.Mahlgı and Sheshrao Deshmukh, Smt. Mrinal Gore and V.G. Prabhugoankar stating price rise and failure of governments to curb it may led to unrest among masses. The resolution was agreed by speaker and discussion held.<sup>42</sup>

The notice of adjournment motions put by R.K.Mahalgi and S.D.Natu about the police firing on protest march demanding works and regular and secured supply of grains by peasants and workers party at Islampur district Sangli. The notice for this adjournment motion came on 20<sup>th</sup> November 1972 and speaker denied persmission.<sup>43</sup> Honorable members Bhegde and A.A.Wankhede put notice regarding deaths of scarcity workers at Nevase taluka of Ahmednagar

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<sup>39</sup> Ibid p. 154

<sup>40</sup> Ibid p.155

<sup>41</sup> Secretariat of state legislation Maharashtra state brief summary of Vidhan Sabha Proceedings for November-December 1972 pp.2-4

<sup>42</sup> Ibid p.83

<sup>43</sup> Ibid p.86

district.<sup>44</sup> Mahalgi, Padvai and Bhegde put another notice for adjournment on incidence of alleged starvation death of Parogabai Dhondiaba Sutar of Hingne taluka Ashti district Beed. The notice was put on 29<sup>th</sup> November 1972 and was declined by speaker. Dhondge put notices for adjournment motion pertaining to starvation deaths on 4<sup>th</sup> December and 11<sup>th</sup> December 1972. Both notices denied as adjournment motion by speaker. First notice was about the alleged starvation death of Ms. Manabai Dhondiba Bhalerao at Kanjur marg migrated from Aurangabad. Second incidence of alleged starvation death at Tasgaon district Sangli of Ms. Sakhrubai Chavan. Bhegde, Natu and Wankhede addressed alleged starvation death through same type of notice on 14<sup>th</sup> December 1972. The incidence of alleged starvation deaths of Krishnabai Maruti Satpute and her son Adhikarrao at Gunat Tlauka Shirur district Pune.<sup>45</sup> on 14<sup>th</sup> December yet another notice by Dhondge about the starvation death at Panhala forwarded and denied by speaker. N.R.Dharpalkar put notice for providing relief to handicaps people during scarcity on 15<sup>th</sup> December but was denied by speaker.<sup>46</sup>

There were calling attention notices by R.K.Mahalgi K.D.Bhegde F.M.Pintoo and A.A.Wankhede about the migration of people in Pune and Mumbai cities. This notice was specifically addressing the issues of the impact of such migrants on the urban people.<sup>47</sup> Notice for adjournment motion of K.D.Bhegde.Karkhanis, Bandkhile, Navalkar, D.B.Patil and S.D.Jadhavarao on 30<sup>th</sup> November 1972 stating milk producers demand of increasing prices of milk was not satisfied by government due to that milk producers denied to supply milk to government. This in turn resulted discontent among people.<sup>48</sup> Under such other notices the complaints regarding absolute no supply of grains in Valhe village of Purandar Taluka of Pune district by Gore and Jadhavarao on 7<sup>th</sup> December 1972.<sup>49</sup> Issues related with under nutrition causing night blindness pointed by Jadhavarao, Gore, Mahalgi using notice of calling attention motion.<sup>50</sup> Ms.Gore S.J.Jadhavarao pointed through calling attention notice that the scarcity condition may aggravate deceases over Chandrapur district due to deficiency of medicines in government public hospitals.<sup>51</sup> Dhondge and Gore enquired details of meeting of Maharashtra's

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<sup>44</sup> Ibid Loc.Cit.

<sup>45</sup> Ibid p.87

<sup>46</sup> Ibid p.88

<sup>47</sup> Ibid p.93

<sup>48</sup> Ibid.p91

<sup>49</sup> Ibid p.93

<sup>50</sup> Ibid Loc.Cit notice put on 8<sup>th</sup> Dec 1972.

<sup>51</sup> Ibid Loc.Cit. Notice of date 1<sup>st</sup> Decemeber1972

chief minister with prime-minister of India with respect to scarcity relief programme and railways routes by calling attention notice.<sup>52</sup> Scarcity situation turned food grain supply front very volatile. Incidences of volatile nature occurred and reported from all over stat. one of Such incidence occurred on 22<sup>nd</sup> November 72 at Talaja taluka Panvel the grain stocks of rich farmer was being confiscated exactly at that time 200 persons with offensive behavior tried to sack the confiscated grains this issue addressed by D.B.Patil and Natu and Bhegde by notice of calling attention motion on 13<sup>th</sup> December 1972.<sup>53</sup> Calling attention notice by Navalkar and Natu about the beating of untouchable youth by high caste Hindus because of polluting public well by touching it at Titwala.<sup>54</sup> Government action and response was demanded on the protest of March of students of Marthwada region demanding waging of fees through calling attention notice by Gore, Jadhavaro, Mahalgi and Bhegge.<sup>55</sup> Alleged fake informer of fake musters of scarcity workers to news paper reporter by a person and same was beaten by concerned persons. This incidence was presented in house through calling attention notice by Gore, Jadhavarao, Mahalgi etc. The statement on calling attention motion by Dhondge with respect to taking examination earlier to due to grave scarcity situation was issued by government on 15<sup>th</sup> December 1972.<sup>56</sup> Issues of untouchability and superstition among people surfaced in the house. One of such issues addressed by Vakilarao Langhe and P.B.Kadu on the floor of house and government issued stamen in regard that.<sup>57</sup> Government's action was contemplated through notice of calling attention motion by D.B.Patil, Mandlik and Thopte to issue ration cards to untouchables of village Mahulungi taluka Karveer district Kolhapur. There was complaints about not issuing cards to them.<sup>58</sup> R.A.Patil member representing Valva taluka addressed irregular insufficient supply of grains to some villages of Valva taluka through notice of calling attention motion.<sup>59</sup> A.N.Thopte addressed issue of banning to take water of Shivganga river to Kelwade Village of

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<sup>52</sup> Ibid p.95

<sup>53</sup> Ibid Loc.Cit.

<sup>54</sup> Ibid p.95 Incidence occurred on 14<sup>th</sup> December 1972.

<sup>55</sup> Ibid.p96 notice put on 15<sup>th</sup> December 1972.

<sup>56</sup> Ibid p.97

<sup>57</sup> Loc.Cit. Shri Eshwar Bhau Trimbake of village Mirjagaon taluka Karjat district Ahmednagar with Hindu deity temples. Villagers of that village thought the prevailing scarcity is due to this incidence which polluted the temples and deity. This resulted into beating of new owner of land and other untouchables of villagers. Incidence of throwing stones at night time at untouchable settlements.

<sup>58</sup> Ibid p.98

<sup>59</sup> Ibid. pp.99-100

Bhor taluka. Government issued explanation.<sup>60</sup> One resolution regarding to construct big storage tanks to overcome scarcity situation was taken by honorable member.<sup>61</sup> Food and civil supply minister issued statement and read in the house about the measures adopted and to be adopted to effective saving and distribution of grains.<sup>62</sup>

### **February-March 1973 Session**

This session commenced on 12<sup>th</sup> February 1973 and concluded on 31<sup>st</sup> March 1973. On 12<sup>th</sup> February 1973 his highness Governor of Maharashtra delivered his joint speech at joint seating of both the houses of legislature. General discussion on the speech held on 20-21 February 1973. Total 27 members participated in the discussion and the proposal of vote of thanks passed in the house. Discussion and voting on the supplementary grants held on 22<sup>nd</sup> and 23<sup>rd</sup> February 1973. Budget was presented on 1973. Chief minister and food supply minister put one and four statements on the floor of house. Forty three notices for half-hourly discussion arose from other than questions registred and actually on 7 notices discussion effected. There were 40 notices for half-hourly discussion registered and on seven discussions held on the topics emerged out of question-answers. Five notices on no-confidence motion came and all were considered in one notice. The discussion was held on 31<sup>st</sup> March 1973 and voted out. 30 notices on adjournment motion registered and one was sanctioned to initiate and discuss on the house. Eighteen notices registered for short discussion and there were no discussion on any single notice. Total 501 notices were registered and 71 sanctioned.<sup>63</sup> Resolution of no-confidence motion on council of ministers put by D.B.Patil, R.K.Mahalgi, A.T.Patil, G.N.Banatwala and V.A.Deshmukh was discussed and dismissed by house through voting on 31<sup>st</sup> March 1973. Another general resolution initiated by Bhegde, A.A.Wankhede, Govindrao Shende and Padvi. Farmers of the state should be provided seeds and fertilizer before 30<sup>th</sup> April 1973 considering detoritaion scarcity situation over state. The resolution was discussed on 30<sup>th</sup> March 1973 in the house.<sup>64</sup> Prabhugaonkar, Dalvai, Keshvarao Rane, Shivaji Savant and S.N.Desai proposed resolution regarding starting Konkan Railways work as scarcity works, which raised aspirations of people and the statements issued by various agencies latter created doubts in the minds of people. Same was also discussed

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<sup>60</sup> Loc.Cit.

<sup>61</sup> Loc.Cit.

<sup>62</sup> Ibid p.102

<sup>63</sup> Legislative secretariat government of Maharashtra Mumbai brief summary of Maharashtra Vidhan Sabha Proceedings February-March 73 pp.1-5

<sup>64</sup> Ibid p.108

in the house.<sup>65</sup> Discussions on the resolution put by Mahalgi, Bhegde and others on adulterated Milo grains with Dhattura seeds took place on 12<sup>th</sup> March 1973.

Number of issues addressed as the notice of adjournment motions. Many of them denied as adjournment motion one of such notice for motion put by Mandlik, Thopte and others was on insufficient supply of food grains.<sup>66</sup> On 19<sup>th</sup> February 1973 notice of K.N.Deshmukh and H.R.Barkule for adjournment motion read regarding the disorganization in coordination and mess in scarcity relief works adding discontent among people. This led to explosive situation in the form of public protests. Notice was denied for adjournment motion.<sup>67</sup> Accidents on scarcity relief works reported and it addressed in the house. P.B.Kadu and Vakilrao Langhe pleaded the case of Kosabai Sadashiv of village Pimpri district Beed who met an accident while working on metal breaking work. She lost her eye as she did not receive medical relief within time.<sup>68</sup> Similar case addressed through similar kind of notice in the house by P.B.Kadu and Vakilrao Langhe. As one youth of village Supe of Parner taluka district Ahmednagar met an accident and died.<sup>69</sup> Attempt to address two cases on 5<sup>th</sup> and 6<sup>th</sup> March 73 of alleged starvation deaths at Kinhaveni district Thane of Janu Gavatha and second at village Khapa near Tumsar of Bhandara district were made of Seeta Kolatkar.<sup>70</sup> Rising discontent among people due to adulterated Milo grains addressed by Bhegde, Padvi and Natu.<sup>71</sup> Another concern over adulterated Milo expressed through notice for adjournment motion by Mrimal Gore. Making of flour of such Milo would endanger thousands of lives expressed in the notice which read on 5<sup>th</sup> of March 1973.<sup>72</sup> Incidence of accident on scarcity work at village Shagapur of Kopargaon taluka district Ahmednagar reported and addressed. In this incidence Baban Lahanu Gavali died and his wife along with Appa Nana Gavali met injury.<sup>73</sup> Starvation death occurred due to negligence on part of government at village Diggi taluka Umarga of Osmanabad district such grievance was made by Dhonge, D.B.Patil and Bhegde in the form of notice of adjournment motion.<sup>74</sup> In sufficient supply of grains complained in the form of adjournment notice put and read on 28<sup>th</sup> March 1973

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<sup>65</sup> Ibid. p.109

<sup>66</sup> Ibid p.111

<sup>67</sup> Ibid p.112

<sup>68</sup> Loc.Cit.

<sup>69</sup> Ibid p.113

<sup>70</sup> Loc.Cit. S.D. Natu and Padvi and A.A.Wankhede and M.R.Shende put notices for these cases respectively.

<sup>71</sup> Loc.Cit. notice for this motion was read on 2<sup>nd</sup> March 1973.

<sup>72</sup> Ibid p.114

<sup>73</sup> Ibid. p.114 on 6<sup>th</sup> March 1973 the notice was read and put by P.B.Kadu and Vakilrao Langhe.

<sup>74</sup> Ibid p.115 notice read on 20<sup>th</sup> March 1973 in the house.



in the house by Sheshrao Deshmukh, Gore and Dhondge. This notice was regarding death of Gopinath Vadar of village Pasandara district Auranabad. Gopinath Vadar was burnt live at the village after his clashes with fair price shopkeeper. Notice of adjournment motion pertaining to alleged starvation death of Rama Dagdu of Shriru taluka put by Dhondge stating the responsibility lie on the government complained in it. Notice was read on 29<sup>th</sup> March 1973.<sup>75</sup>

Calling attention notices:- Calling attention notice put by Krishnachandra Bhoite, F.M.Pintoo, A.P.Salve, A.T.Patil, S.D.Mandlik, Anantrao Thopte. T.C.Karkhanis, Bhegde etc. Pointed complaints about very meager supply of grain that is around 3-4 kgs per person deteriorated the health of people and caused starvation developed into explosive situation through this notice.<sup>76</sup> Compulsion of vasectomy to get employed on scarcity works at Sangli district causing concern and discontent among people. Such notice of calling attention motion put by Karkhanis, Thopte and Mandlik.<sup>77</sup> Chaotic situation emerged among masses on denial of food supply on request of state government to other surplus states and union government. Explanation with respect to measures adopted on such a back ground was demanded through this notice.<sup>78</sup> Alleged conversion to Christianity of scarcity affected people at Rahuri through false promises. Karkhanis, Gore, Thopte and Mandlik Stated this in the notice and further added that this created discontent among people.<sup>79</sup> Central scarcity relief committee recommended that, to overcome acute drinking water scarcity in coming days government should prepared plan of large scale migration of villages at suitable places. Through calling attention notice government's response enquired by honorable members.<sup>80</sup> Konkan Railway work was about to begin as scarcity work on 5<sup>th</sup> February 1973 but still work not commenced to know the government's response in this regard calling attention notice was put by Natu, Mahalgi, Gore, Thopte, Mandlik and F.M.Pintoo on 2<sup>th</sup> February 1973.<sup>81</sup> Gore and S.G. Nakhate addressed dacoits in Parbhani and murders due to that in calling attention notice.<sup>82</sup> Sukhadi the nutritious food supplied by government was not then provided in 197 Beed district till 5<sup>th</sup> March 1973 and this issue was addressed through calling attention motion notice by Bhegde, N.K.Patil, Gore and

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<sup>75</sup> Ibid p.116

<sup>76</sup> Ibid p.117 notice was put on 16<sup>th</sup> February 1973.

<sup>77</sup> Ibid p.118 notice was read on 19<sup>th</sup> February 1973.

<sup>78</sup> Loc.Cit. notice was read on 20<sup>th</sup> February 1973

<sup>79</sup> Ibid p.119

<sup>80</sup> Loc.Cit. notice registered on 23<sup>rd</sup> February 1973.

<sup>81</sup> Loc.Cit.

<sup>82</sup> Ibid p.121 Notice was addressed on 1<sup>st</sup> March 1973.

Thopte on 5<sup>th</sup> March 1973.<sup>83</sup> On 6<sup>th</sup> March 1973 Faruq Pasha ad Karkhanis's notice on calling attention motion on railway work started as scarcity work was planned up to Mudhkhed but covered up to Parbhani only this caused discontent among people. Honorable members addressed through this notice. In order to reduce burden on the grain supply on suggestion of union government potatoes purchased and sold to public by state government through public distribution system thus in turn caused discontent among shopkeepers claimed and addressed in the house by Mandlik, Mahalgi, Bhegde and others in the form of notice of calling attention notice.<sup>84</sup> Alleged starvation deaths at villages Valunt and Potul of Aurngabab district to make probe into incidences demanded by Taluka scarcity relief committee. Calling attention notice on this issued for adjournment motion by B.G.Patil and Mrs. Gore demanded government's explanation on the statement.<sup>85</sup> An attempt to conversion to Christianity at Dapchari region of Thane district rather conversion of 1500 people claimed. It was undue advantage that missionary people took was complaints and addressed to house. Further blame put on government that government failed to stop the same. This issue addressed in the house in the form of notice of adjournment motion by Natu, Mahalgi, Thopte, A.T.Patil, Pramod Navalkar and K.N.Deshmukh.<sup>86</sup> Scholarships paid to the schedule caste, schedule tribe students therein was reduced by one month on account of examination held one month earlier. The amount earlier paid ordered to recover otherwise banning students to appear for examination. This caused discontent. Mahalgi, Natu, Padvai demanded government's explanation in this regard.<sup>87</sup> Bhegde, A.A.Wankhede, Sulemankhan Pathan, V.J.Karlekar and B.M.Katke and Uttamrao Patil and M.P.Nalvade, Natu and Mahlgi issued notice for calling attention motion for banning wheat export to other states as well as government's explanations demanded through calling attention notice on takeover of wholesale trade of wheat by state government. Notice of calling attention motion was not accepted due absence of honorable members. Notice was regarding the sliding of landslide of metals at metal breaking centre at Sanghi metal centre in Ahmedpur taluka of Osmanabad district. This caused death of two persons. No medical relief received to the accident students. This caused discontent among people. K.N.Deshmukh put this notice.<sup>88</sup> Incidence of

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<sup>83</sup> Ibid p.122.

<sup>84</sup> Ibid p.123 notice presented to house on 8<sup>th</sup> March 1973.

<sup>85</sup> Ibid p.124 Notice considered on 12<sup>th</sup> March 1973.

<sup>86</sup> Ibid p.126

<sup>87</sup> Ibid p.127 notice considered on 21<sup>st</sup> March 1973.

<sup>88</sup> Ibid p.128

alleged beating of untouchables working on scarcity at Avsar Vadapuri of Indapur taluka due to his touch to drinking water. Notice for calling attention notice was issued by Bhegde, Bankhile and Mahalgi on 29<sup>th</sup> March 1973. Consumption of adulterated Milo causing infections to the people in turn people suffered from dysentery, stomach ache etc. Such incidence reported from Ambajogai of Beed district and same addressed in the house by Bhegde and Mahalgi in the house.<sup>89</sup> Government decision not to provide ration cards and grains to farmers having 5 and more acres of land caused distress on such families on account of grains.<sup>90</sup> A notice issued by Suleman Khan Pathan for died rats and poisonous piles found in the wheat bags published in the news paper at Nagpur. This spread panic among people.<sup>91</sup>

### **July-August-September 1973 Session of Vidhan Sabha**

The session commenced on 30<sup>th</sup> July 1973 and concluded on 7<sup>th</sup> September 1973. Fifty one notices for half hourly discussion registered and on 9 notice actually discussion held. Thirty eight notices registered for half hourly discussion on the issues emerged from the question and answers and actually discussion held on 12 notices. One notice for no confidence motion registered and same dismissed by voting after discussion on 7<sup>th</sup> September 1973. Thirty-nine notices for adjournment motion registered and only one sanctioned and discusses in the house. Fifty-six notices for short duration notices registered and 12 considered for discussion. However, none discussed in the house. Four hundred sixty two notice for the calling attention motion received. Out of that 95 sanctioned for discussions.<sup>92</sup> Vision and thoughts of honorable members can be judged from their discussion in the house and the resolutions they put in the house. One of such resolution put by Prabhugaonkar to discuss the declining trend of agricultural production over India.<sup>93</sup> The scarcity prevailing all over state and meager supply of grains to the people creating panic among the people such resolution put in the house by D.B.Patil, Mahalgi, Thopte, Gore, Natu, Karkhanis and other. This resolution was discussed on 14<sup>th</sup> August 1973. Another resolution pertaining to providing employment to rural masses up to coming harvest, payment of unpaid wages, and reduction in the wages as well as stopping employment of children between 14 to 18. This resolution initiated by D.B.patil, Thopte Mahalgi, Bhegde, Karkhanis Dhongde

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<sup>89</sup> Ibid p.130 notice was considered on 31<sup>st</sup> March 1973.

<sup>90</sup> Ibid p.132 notice for adjournment put by G.V.Adil, P.B.Bhosale and R.V.Munde on 31<sup>st</sup> March 1973.

<sup>91</sup> Ibid p.134 notice was considered on 31<sup>st</sup> March 1973.

<sup>92</sup> Legislative secretariat Vidhan Sabha brief summary of proceeding for session July-August-September 1973 pp.1-4

<sup>93</sup> Ibid p.100 discussion on the issue held on 6<sup>th</sup> September 1973.

and others. Discussion held on 16<sup>th</sup> August 1973.<sup>94</sup> Notice for adjournment motion notice on 2<sup>nd</sup> August 1973 by Thopte, Mandlik, A.T.Patil and Keshvarao Patil addressing the issue of unpaid wages of scarcity labors for two months. Notice was dismissed to consider as adjournment motion.<sup>95</sup> Three years consequent scarcity deteriorated economic condition of farmers in such situation compulsion of recovery of pending bills of Maharashtra state electricity board was adding miseries of people and created discontent among people.<sup>96</sup> There were adjournment notices during August and September demanding relief from losses occurred due to heavy rainfall.<sup>97</sup> Adjournment notice pointing towards the spoiling grains and other food articles in arranging yajna in distress situation to be organized by Shankarachara on 10<sup>th</sup> September 1973. Notice for motion issued by Dhondge and read in house on 7<sup>th</sup> September 1973.<sup>98</sup>

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<sup>94</sup> Ibid p.102

<sup>95</sup> Ibid p.109

<sup>96</sup> Ibid p.113

<sup>97</sup> Ibid pp110-113

<sup>98</sup> Ibid p.115

## **APPENDIX-D**

### **RELEASE OF CENTRAL ASSISTANCE**

#### **Visit of central team for assessment and recommendations for central assistance**

After November 1970 first central team visited between 24<sup>th</sup> and 28<sup>th</sup> February 1971. The team recommended a ceiling of Rs 8.5 crores for relief works till the end of June 1971.<sup>1</sup> During the first year of drought the government of India released Rs. 2.50 crores on the 8<sup>th</sup> of January 1971, which was adequate to cover the expenditure incurred on relief schemes in that financial year. The state government in obtaining release of central assistance experienced no difficulty. The prospects of the kharif 1971-72 season was reviewed by the second central Team which visited Maharashtra on 14<sup>th</sup> and 15<sup>th</sup> of June 1971. The team submitted its report only in August and recommended a ceiling of Rs 6 crores for the months of June and July 1971.<sup>2</sup> The failure of the rains and the rising number of people who flocked to the relief works for employment made it necessary of the state government not merely to continue the relief measures but also to ask for further assistance from the central government. The central government in these circumstances deputed the Third central team which visited Maharashtra between 25<sup>th</sup> and 27<sup>th</sup> October 1971. The third team submitted its report in November 1971. For the period till December 1971, the team recommended a ceiling of Rs. 24.5 crores for relief works and Rs. 0.5 crores for other items such as supply of medicines, plants protection measures and cleaning of cotton fields. The ceiling recommended by the third central Team of Rs. 25 crores was applicable till December 1971. Team also suggested cutting wages during rainy season rates and limiting the relief employment to two persons per household. As a matter of fact Kharif season of 1971 was not up to mark but the rabi season proved comparatively better. The attendance at the relief works increased from 9.69 lakhs as 1<sup>st</sup> August 1971 to 14.25 lakhs on 18<sup>th</sup> October 1971 and in spite of the rabi season not being so poor, the attendance at 8.30 lakhs as at 1<sup>st</sup> November 1971 and dropped to 5.44 lakhs as on 1<sup>st</sup> December 1971. Even then the expenditure on relief operations were not containable. Despite State Government was very prompt in sending the reports and demands of assistance to central government, central team directed that the condition shall be reviewed at early 1972. The first central team recommended a ceiling till June 1971 and other

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<sup>1</sup> Subramanian.,P.87

<sup>2</sup> Ibid p.88

two teams that have visited during the year 1971-72 fixed total ceiling of Rs. 31 crores till December 1971.

Fourth central team deputed, on June 1972 no ceiling on expenditure recommended from January to March 1972 as ministry of finance sought certain clarification on expenditure. For the quarter April to June 1972, the team recommended a ceiling of Rs. 2 crore and a short term loan of Rs. 4 crores for fertilizers and seeds. In the year 1972 monsoon performance was at its lowest ebb. The labor attendance at the relief works kept on continuously increasing.<sup>3</sup>

In September between 3<sup>rd</sup> and 7<sup>th</sup> September fifth team interviewed several workers who owned 15 to 20 and even 30 acres of land but who were reduced to the necessity of working for wages. There was farmer from Solapur district who stated that he owned 100 acres of land but had been literally forced to earn his living along with his family by seeking employment at the relief works. The team considered that an average labor attendance of about 11 lakhs of persons for the months of September and October would be appropriate and that the expenditure during these two months should not exceed Rs. 11 crores. As the state government had already incurred an expenditure of Rs. 6.45 crores for the period from 1<sup>st</sup> April to 1<sup>st</sup> September 1972. The team suggested a ceiling of Rs 19.25 crores for the relief works for the period from 1<sup>st</sup> April to 31<sup>st</sup> October 1972. During the year 1972-73 the fourth and fifth central teams had recommended a ceiling of Rs. 19.25 crores for relief works. Rs. 0.09 crore for gratuitous relief and drinking water and Rs. 0.75 crore as tagai for the purchase of fodder for the period April to October 1972 inclusive. A ceiling of Rs. 41.88 crore was recommended for the earlier period i.e. 1971-72 of which Rs. 41.20 crore for relief work and 0.68 crore for gratuitous relief. Finally the team observed that if the situation in the state did not improve sufficiently by the end of October 1972 the position may be reviewed in November by another central team. The distress went on mounting, as did the labor attendance. Three years of continuous drought and unprecedented misery in 10 actually affected districts, together with the need to maximize earnings so that the meager stocks of food grains supplied by public distribution system could be supplemented by purchase of grains in the open market, albeit by paying much higher prices, swelled the labor attendance like tide. It became 15.39 lakhs as at 1<sup>st</sup> November 1972, 17.82 lakhs as at 1<sup>st</sup> Dec. 1972 and 20.17 lakhs as at 1<sup>st</sup> Jan. 1973.<sup>4</sup>

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<sup>3</sup> As at 1<sup>st</sup> May 1972 it was only 1.91 lakhs. It rose to 2.71 lakhs as at 1<sup>st</sup> July 1972, 4.13 lakhs as at 1<sup>st</sup> August 1972 and to as high as 10.49 lakhs as at 1<sup>st</sup> September 1972.

<sup>4</sup> Subramanian V, p.91

The government of India deputed sixth central team to visit Maharashtra between 4<sup>th</sup> and 7<sup>th</sup> December 1972 to review the situation. The sixth central team which visited in December 1972 fixed the ceiling from 1<sup>st</sup> November 1972 to 31<sup>st</sup> March 1973 at Rs 52 crores for relief works, Rs. 12 crores as tagai for the supply of fodder and Rs. 10 crores for the supply of drinking water. Three central teams had visited the state during the financial year 1972-73 and had recommended ceiling for expenditure on relief measures for that year. <sup>5</sup>Within these ceilings the government of India on submission of information by the government of Maharashtra and on request of assistance, released assistance periodically. Total sums of Rs. 34.32 crores as grant and Rs. 42.32 crores during as loan were released, against a total expenditure of Rs. 75.71 crores during that year for relief works. The above release were exclusive of sum of Rs. 6.79 crores, which was sanctioned as central assistance for expenditure incurred in 1971-72, and which had remained to be adjusted. It would not be out of place in this connection to reiterate that the government of India very generously agreed as special case to sanction a further loan of 25 percent of the expenditure equivalent to the state government's contribution, making in all 100 per cent.

Seventh central team Visited Maharashtra between 5<sup>th</sup> and 8<sup>th</sup> September 1973. Though the state government furnished all the details and clarification required by the central team it was not able to finalize the recommendations and submit its report by 31<sup>st</sup> December 1973 where after the relief schemes were discontinued all over the state. (report delayed due to formulation of 5<sup>th</sup> five year plan and annual plan) According to final position the central government had to reimburse the state government a sum of Rs. 114.09 crores as its share of the relief expenditure during the financial year 1973-74. Till 31<sup>st</sup> March 1974, a sum of Rs. 114.09 crores had been released leaving no balance.<sup>6</sup>

### **Total expenditure**

The expenditure which stood at Rs. 151.87 crores in 1969-70, rose to an all-time peak figures of Rs. 318 crores in 1972-73. Central assistance to the state for financing such expenditure had also registered a disturbing increase. It was 124.08 crores in 1969-70, to Rs. 216.67 crores in 1972-73.

### **Instances of Center's apathy**

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<sup>5</sup> Ibid p. p.115

<sup>6</sup> Ibid p.98

In the financial year 1973-74, that the position with regard to the release of central assistance started causing concern to the state government. The change in the thinking on the pattern and scope of central assistance for drought relief, the prevalence of drought all over the country and the increased burden the government of India had consequently to bear by way of grants to state governments for drought relief, and various other financial constraints on the central government, resulted in delays in the release of central assistance to Maharashtra State for relief measures. It was incessant efforts on the part of state government by various ways and on various levels for convincing the central government to change the attitude of central government with respect to release further assistance to Maharashtra state facing acute problem of finances to mitigate the mounting distress.<sup>7</sup> Even there were discussions between prime-minister and various state government ministers several visits of state officers to planning commission's office and various other authorities. Chief Minister and council of ministers along with bureaucracy tried their best. Central government was hesitant to release assistance. Prior to these requests on the part of state governments central team were visiting the relief operations and after on the spot assessment arrangements were made to release the central assistance. After repeated request by state government at last a central team (seventh) visited Maharashtra in September 1973, but its work was more in the nature of post facto evaluation, rather than an assessment on the spot and an adverse prescription for future observance. The team submitted its report to the government of India on 11<sup>th</sup> April 1974.(p.116) However, one silver lining in all these clouds is the fact that the government of India, in spite of its tight attitude with regard to relief expenditure, realized what the government and people of Maharashtra were going through. The central government released periodical ad hoc installments of the assistance from time to time, albeit after several questions were asked and a few apprehensions were expressed.<sup>8</sup> (p.117)

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<sup>7</sup> There were discussions and meetings of chief minister with Prime Minister and union ministers and between officials of both governments. There was such meeting between officers of both the governments on 7<sup>th</sup> May 1973 and all issues pertaining with scarcity discussed. State government demanded 20-25 crores more assistance but central government released 15 crores on an account of payment. (p.97)

Central government was not willing to bear the state government's share of 25% by providing loans to the state government in the financial year 1973-74; as was executed in financial year 1972-73. (p. 97) State government several representation to central government but central government did not agree to revise its decision. Fortunately, the central government had communicated least willingness to help the state government by periodical release in the form of ways and means advance as soon as its overdrafts position with the Reserve Bank of India became delicate enough and assistance from the centre is required (p. 98)

<sup>8</sup> Subramanian p.117



Till the end of financial year 1972-73, there were practically no difficulties or problem either with regard to understanding between the government of India and the state government, or in the matter of release of central assistance. Every central team that visited Maharashtra made extremely valuable suggestions with regard to the conduct of relief operations and with regard to several other matters connected with the philosophy and practices of drought relief. These Teams paid tributes to the manner in which the state government had responded to the needs, of the situation and undertaken a programme of such vast magnitude and dimensions, for the relief of millions of the rural population who were affected by the worst drought in hundred years. During last year of drought particularly after end of financial year 1973 Government of India was hesitant to release assistance to according to V. Subramanin it was difficult to conclude that the very cool response from central government to Maharashtra's demand of release of central assistance was whether due to financial constrains, scarcity and droughts prevailing in other states or apprehension of members of planning commission that Maharashtra was pulling major share of central assistance conducting colossal relief measures.

On the other hand it cannot be forgotten that in spite of the temporary difficulties which reduced the speed of flow of money, the considerateness and the generosity of the government of India, more than any other single factor, was responsible for the state government's ability to tide over the most difficult situation it had over faced. It is evident that the government of India helped the Maharashtra state because Maharashtra government helped itself. The state government tightened its belt, adopted all possible economy measures and raised resources not only to bear the 25% share of the expenditure but also for the distribution of *Sukhadi* to the workers.<sup>9</sup> Other sources were also tapped, such as business and industrial organizations philanthropic institutions and individuals, workers from farms, factories and offices and members of the general public. Contributions from these sources were received in cash and kind. A sum of Rs. 7.50 croers was collected by way of contributions to the chief minister's relief fund and this was used entirely for drought relief. A student of public administration or political sociology cannot but conclude that the appreciation of the attitude of self-help must have weighed with the central government to do all that it did.

The period of drought could therefore be legitimately considered as golden chapter in centre-state relations and as providing the most effective argument for the success of federal democratic

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<sup>9</sup> Subramanian p.118

polity, in which the objective of federating units as well as of the federation is the same, namely the welfare of the people.

**APPENDIX –E**  
**DIFFERENT MOTION IN LEGISLATION & DEBATES ON IT**  
**Scarcity motion in assembly during September-October session 71**

Assembly initiated discussion on scarcity motion in September-October session 71. Need to pursue well construction program vigorously, change priority of scarcity works; i.e. productive over unproductive and reconstitution of the famine code was expressed.<sup>1</sup> Need to execution of soil conservation scientifically, need to employ 10% population on scarcity work as per famine code,<sup>2</sup> need to stop the exploitation of tribal in grain purchase, need to satisfy hunger of the masses and also expressed through speeches on this motion. Other suggestions includes stopping of loan recovery drive and expenses of bunding from the farmers. The provision of employment to at least 10% population to the scarcity affected area and actual employed population and expenses incurred on the scarcity relief cited by well studied and read members of the houses. Members themselves visited at scarcity works and notices the shortfalls in the arrangement and demanded amenities like crèches, drinking water, first aid box, and regular medical treatment timely and reasonable wages. Compare to the Rajasthan and Gujrat Maharashtra was far behind in tapping water potential, sink maximum number of wells and for that frame the Wells construction Corporation, frame scarcity committees and include members of opposition party in it were suggestion proposed by Mahalgi. References of starvation deaths, irregular payment of wage due to lack of technical staff on the scarcity works these were other issues Mahalgi addressed.<sup>3</sup> In such a distress farmers are not able to feed themselves and agricultural labors also. ‘Work to everyone whoever seek it’ the policy that remain on paper only.<sup>4</sup> Rains in September but no prior to that spoiled sowing, severe scarcity emerging in such situation provide seeds, grains from fair price shops and employment up to October such demands Faruq Syed Pasha made in the house.<sup>5</sup> No rains no sowing make appropriate changes in the famine code, provide

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<sup>1</sup> Sept-Oct. Session of assembly 71 Vol.33 part 2 pp.77-79 speech by Mahalgi

<sup>2</sup> Ibid p.92 suggestions by S.D.More (Shirur)

<sup>3</sup> Director government printing and documentation department government of Maharashtra Mumbai ‘Proceedings without questions answers of Maharashtra assembly September-October 71 session part 2 p.77-79 contains speech of Rambhau Mahalgi

<sup>4</sup> Ibid p.79-86 addressed by U.S.Patil also referred to the protest march at district head quarter Osmanabd by his party and on the same day the revenue minister was surrounded by protest mob on the same day.

<sup>5</sup> Ibid p.86

employment at least 10% of the population as per famine code, waive fees of the students such thoughts shared by S. D. More. P.D. Patil of Baglan appreciated government efforts and criticized members of opposition party.<sup>6</sup> P.D. Patil further suggested to built more number of godowns and create buffer stocks of grains. The gangman or contractors method on scarcity work was exploitative. There were cases of exploitation of tribal during such distress by money lenders and merchants addressed by B.K. Deshmukh. This distress even more severe than Durga Devi famine of medieval Maharashtra, scarcity stricken men fed on the scarcity works, scarcity relief also responsibility of centre its assistance could be sought in this endeavor, provision of Taqavi to provision of scarcity works such number observation were made and suggestion put by members. Pointed out the lacunas persisted in ongoing scarcity relief works.<sup>7</sup> Pratibha Tidke pointed out that there is no wages paid to scarcity workers of her constituency.

Few typical suggestions can be found as mentioned in foregoing description. Fair price shops closed since last year. Speeches further contained more than two thousand kms road completed and more than two lakh labors working. To tap ground water geological survey of the water deficit area should be conducted. As temperature of globe getting further cool down it affected rainfall. There must be coordination of different departments. Cropping pattern and sowing of seeds should be adjusted to cope with changing climate. Wages were not regularly paid. Scarcity work should be continued till the situation returns to normal. Wages on scarcity works are more than regular agricultural work. Works should be productive nature that in due event will create asset which would help to eradicate scarcity situation. Due to food grain unavailability people are consuming tuberous, tamarind seeds, kernel of mango, dogs and other unusual wild beasts, cake of seeds of particular grass. People are organized protest march on my house for employment. Old works should not be closed before new starts or vice versa. How Government differentiating between scarcity and famine? Overseers at some works in appointing and terminating labors followed arbitrary procedure. There are cases of starvation deaths over Nanded district. Domestic savings in the form of minor jewelry, utensils sold for grains. Cases of

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<sup>6</sup> Ibid loc.cit

<sup>7</sup> Ibid pp.96-106 K.B. Mahaske, A.P. Salve suggested such measures. R.B. Jayswal deplored the scarcity situation of his constituency pertaining to typical scarcity situation p.106

grain sacking reported.<sup>8</sup> Scarcity had been declared over some parts of the Kolaba district and not over Ratanagiri district. To Nanded and Yeotmal more scarcity funds have been disbursed. The recovery drive of land development bank should be stopped at once. Reference to protest march for employment and scarcity works at various places made.<sup>9</sup> Government was not taking down loaded grains from railway wagons. On scarcity committees activist and workers of socialist party were not appointed. Permanent measures for scarcity eradication should be adopted and it was not followed in the policies. Works were not planned properly and there priority not decided. These were some concerns and suggestions pointed in the house.<sup>10</sup>

### **Scarcity motion June-July-August 72 session of assembly**

On 10<sup>th</sup> August 1972 similar motion to discuss scarcity was proposed and long debate resulted participated by many members.<sup>11</sup> In this debate description with respect to concerns and measures suggested by various members are enumerated through foregoing descriptions. Motion was initiated in following words by Wankhede, “Honorable chairperson, Sir 1970-71 and 1971-72 were extensively drought spread years in Maharashtra and this year very scanty rains received in the beginning sowing operations were completed at the end of July but after that till date there is no rain all over the state. There instances of sporadic insufficient rain but such rain is not sufficient. Only 15 days of rains are remained after this rains will withdrew its appearance after that people of Maharashtra have to face grim reality of distress. Consequent there years of droughts and scarcity created jobless environment to landless laborer. All measures and schemes of rural employment are on paper only and not implemented effectively. Government officer have no idea whatsoever how much laborers are seeking employment, where and how to design and plan new works, for how many days works are to be planned. Buldhana district is known as

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<sup>8</sup> Ibid p.191 At Barshi rich farmer’s house was sacked by mob and the grain distributed among themselves. Khaperkhed of Malkapur Tehsil 10 quintal of grain was sacked in day time.

<sup>9</sup>At Daund on 13<sup>th</sup> July71 such march was organized. Socialist party at Deglur organizes such protest march.

<sup>10</sup> Ibid pp.97-112 and pp.163-232 various members like U.S.Patil, S.D.More, P.D.Patil (Baglan), K.B.Mahske, R.B.Jayswal,G.A.Deshmukh, S.M.Patil, Ram Mahadik, Hasu Advani, G.B.Ganacharya, A.P.Salve, Dadasahen Devtale,V.R.Patil, Dhulup, A.R.Gavane, D.R.Khaire, V.S.Mahadik, Pratibha Tidke, N.R.Kale, K.S.Tidke, S.B.Chavan, L.R.Hatankar, P.R.Sanap,B.B.Killedar, D.B.Patil, V.C.Naik, participated and made above suggestions.

<sup>11</sup> Assembly proceedings of June-July-August session 1972 p.2953 10<sup>th</sup> August 72,52 members of legislative assembly put joint memorandum or (Prastav) 1970-71 & 71-72 two by A.A. Vankhede. consequent years “ People of our state are at grip of severe scarcity conditions and facing miserable condition therefore the review of government measure is absolutely essential.”

scarcity district one tank being constructed there as scarcity works 260 laborers are working there only 60 paise and 40 paise wages were given to male and female laborers there. 40-50 acre land holding agriculturist had also become laborer at this juncture. Government should explain what measure government is planning to adopt in near future.”

“There is no or very scanty rain in 54 Tehsils of Maharashtra. In spite of handing over advances to respective collectors, collectors have to wait for the scarcity orders of government then he plans and sanction works this is also time consuming process. An attempt should be made by state government to bring more assistance from centre as union finance minister and agriculture minister are native of Maharashtra. At such instance whenever there is delays on part of declaration of anna valuation and due to that scarcity declaration also gets delayed. Measures adopted by government such as Nala Bunding, Percolation tanks are good there should not be yardstick on the percolation and irrigation tank. There is deficiency of hums pipes which has slowed down the 86 scarcity works of irrigation of Ahmednagar districts. Whenever we create works for 500 people more than 3000 people demand work. Whosoever demand works should be provided the same. In his speech concern regarding rising prices of food grains exports of food grain is needed good implements to the laborer who are working on scarcity works, concern about working condition of people, people has to wonder for 4-5 kms away from their work. Expressed, concern over the proper distribution of Taqavi loans in want of works more than 50000 thousand laborers migrated in Madhya Pradesh. In Buldhana district more than 1.5 lakh people are in need of work there works had been provided to only 26000 people.” This was the content of K.B.Mahske’s speech.<sup>12</sup> ”No tools to the laborers they are not habitual to metal breaking many of them injured due to non availability of hammers and instead of demand everywhere in state same could not be available to laborers.”<sup>13</sup> K.B.Mahaske addressed in his speech. “Deepening of wells by boring targets should be set. Wages not properly 1.10Rs and .8Rs it should be as per rule 2 Rs. Need of Bunding works metal breaking and long lasting works are needed, need of gratuitous relief according to famine code whether there is famine code or not. Without anna valuation and declaration of annewari declare scarcity. It will take much more time to declare annewari. Take the fodder stocks in custody, bring fodder from other

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<sup>12</sup> June-July-August 1972 Assembly Session K..B.Mahaske pp.2955-56

<sup>13</sup> Ibid N.N. Barshikar p. 2960

places, open the cattle camps. Removal of ban on bringing Jowar from outside markets will prove beneficial to grain merchants they will make stock of grain by purchasing grain at lower rate from outside and will sell at the time of acute distress and will resell at higher prices. Permits and license to Co-operative societies to bring grains outside will also results in malpractices because such institutions for profits sell grains to private traders. Such traders in turn get involves in speculations.

At fair price shops, there is possibility of grain loss. Some people are not having purchasing power to buy grains from fair price shops. There should be provision of different category of cards to poor people and grains should be provided to poor at cheapest rate. Relief committees should be formed at taluka level constituting members of various parties.”<sup>14</sup> These were suggestions and observation of Mrinal Gore.

B.M. Bharaskar Shrigonda made his observations in following words. “When 1000 labors are demanding works actually work is provided to only 500 people. Many works are closed, there are boards but no works, and people should state should start sufficient work. Percolation tank should get priority over other type of works. Buding works irrigation works should be initiated. Kukudis Seena Project’s site if not fixed start canal works immediately. Government has declared there is a sufficient stock of food grains but this grain is not reaching to poor peasant’s home. I and Khatal Patil visited many famine conferences I myself talk to many laborers they were complaining regarding the distance from which they were bringing bigger stone for metal breaking and thus they were getting much less wages. A laborer to travel on Building and construction road works for than 8 miles thus is causing them much hardship. Labors are getting fewer wage though they have worked more. One application from villagers working on percolation tank from Karjate village had been read on the floor of house this application demanding regular wages. Labors working on scarcity works are not taking meal because they have no bread to eat. More than 100 women were in queue waiting for the water at the bore wells. The managers of govt. hostels facing problems on account of not receiving their proper grant in aid in time,”<sup>15</sup>

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<sup>14</sup> Assembly Proceeding June and July August pp.2965-66 Mrinal Gore (Malad)

<sup>15</sup> Assembly Proceeding June and July August p.2967,p.2969

“Collector is delaying sanction of works, road works are very much limited, and much more works of road and road repairing should be started immediately.” He also addressed working condition of laborers. There is gap between the wages and prices of food grains in the market. Due to that the many are starving.”<sup>16</sup> B.S. Chalukaya( Umarga) addressing the need of coordination in different departments involved in relief operations. Employees of state and union government as well as private companies usually get dearness allowances and bonuses on the contrary scarcity stricken rural population hardly able to put their body and soul together. He further argues that, “Government is claiming that starvation death resulted so far is government waiting for any starvation death? There is great need of excavation of much more wells. There is greater demand of engines and bore wells by farmers and response from govt. no money at the disposal of collectors for bunding works no payment to wage earners working on such works. Much more works are to be needed for laborers, need of new recruitment, irrigation tanks, small tanks, percolation tanks, are needed, need of small roller, instead of road works, percolation tanks bunding works should get priority, banks have launched special program of loan recovery and in such distress adding the misery of people. Interest of loans should be suspended.”<sup>17</sup>

V.A. Deshmukh( Paranda) in his eloquent style presented his thoughts as in foregoing passage

“Ministers are not sincere towards this drought when the debate on drought is in progress no minister have attended the discussion this is unfortunate. Asserted definition of famines and deal with famine condition one should acquaint with modern technique. Stressed need of appointing fact finding committee work out such program that will helpful to give permanent solution to the drought and scarcity problem. Famine is now a chronic disease for that new department or the ministry for curing this disease.”<sup>18</sup>

“For more than 20 years there is drought and scarcity in Man. 1.5 lakh population of Man have only 2.5 thousand people employed on scarcity. There is no overseers no ministry need of more percolation tanks and buding centers. 2kg wheat was provided in last week of July to family having 8 members. There is need of proper supply of quota of food grains to the area which permanently under the grip of droughts. At village Vargud there is only one source of water to

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<sup>16</sup> Ibid p.2970- R.R. Mahaske Pathardi

<sup>17</sup> Ibid P. 2970-71

<sup>18</sup> Ibid p.2973, p.2975



cattle and human population water thus got contaminated therefore village is infected by worms.” In these words Prbhavati Shinde presented drought condition of her constituency.<sup>19</sup> She further stated that “Defaulters of Tagai loan are not eligible for getting fresh tagai loans owing to such a huge distress government should distribute Tagai to every farmer irrespective of his loan status. Regional imbalance regarding the percolation tank within taluka should be removed by starting works in under develop part of taluka.”

P.B. Kadu (Rahuri) suggested some innovative measures as described in foregoing passage. “Government should undertake survey of artificial rain Mahalsa devi dam would have been pursued to dealt with drought. Ban on Bajri trading removed and due to that 4kg Bajari went on 7Rs. Annasaheb Shinde told me that there is no need of worry due to drought that there is enough grains in government granary but who will opened the Damaji Pant’s granary. There is need of opening more fair-price shops. In dry regions water from dams should be poured so that cattle will not suffer from water scarcity. The efforts towards bringing fodder from other states should be initiated. Engines and lift irrigation should be permitted to farmers who are able to lift water for irrigation purpose. Laborers should get their wage payment at the working spot.”<sup>20</sup>

### **Scarcity motion in September-October 71 Council Session**

Legislative council was equally sensitive on the issue of scarcity. It also followed and initiated same resolution and motion to discuss scarcity situation prevailing over state. Exactly on the same day of i.e. on 6<sup>th</sup> September 1971 the motion to discuss scarcity initiated by Uttamrao Patil, V.G.Deshpande, Appasahen Jadav, S.N.Vaisampayan, V.G. Hande proposed and Uttamrao Patil initiated the motion. The points , questions and issues addressed in the council were very much similar to the assembly.

The speech on this motion contains the issues and points as per foregoing description. Incidences of starvation deaths reported from Kalamnuri, Amravati and Nashik. In loan recovery drive of land development bank property of the people are being confiscated. No basic solutions and remedies sorted on the scarcity problems. Annevari and the scarcity declaration system must be changed. The expenses incurred on the bundig work were being recovered from the farmers on whose field said work performed. Such recovery should be stopped. Students were also

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<sup>19</sup> Ms. Prabhavati Shinde of Man .(p.2975)

<sup>20</sup> p.2976 (p.2976-77)

suffered. Works should be provided to students (G.P.Pradhan p.134) famine enauriy commission should be appointed. Gangman system should be stopped.<sup>21</sup>

### **Scarcity Motion of the council September –October session 71**

Scarcity motion resolution was initiated in council on 6 Spetember 71 by Uttamrao Patil, V.G.Despane, Appasaheb Jadhav,S.K.Vaishympayan and V.G.Hande and G.P.Pradhan's motion on scarcity.<sup>22</sup>

Uttamrao Patil commented that people are not acquainted with metal breaking and their wages therefore they get very meager. The scarcity deaths are reported from Amravati, Nanded, and Akola. In the Nashik district there were reports of two starvation deaths. Per capita taqavi loan amount to less. The total wages amount for three months was only Rs.70 per capita. Works are sometime 8-12 kms away from home.<sup>23</sup>

V.G.Deshpande asserted in his speech that per person wages government during whole year on scarcity works paid were Rs.70. Farmers above 20 acres land lost galvanized roof sheet and other goods in loan recovery and confiscation drive of banks.<sup>24</sup>

A.R.Jadhav expressed his views as follows. "Bunding expenses recovered from the farmers. No staff for bunding works in the Man taluka. DPAP money should be spent on percolation tanks. The declaration method of the scarcity should be changed it should be earlier."<sup>25</sup>

some typical complaints also noted. There was no technical staff for the measurement of works. It also found that no planning for scarcity works no proper planning. There was lot of problem to marginal farmers and laborers of chronic scarcity area.<sup>26</sup>

Chief Minister , Deputy Chief Minister and other ministers of the council of ministers gave maximum benefit of scarcity schemes to their own constituency. This was complaint made by V.G. Hande by quoting incidence of Chandwad.<sup>27</sup>

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<sup>21</sup> Legislative council proceedings excluding question answer proceedings of September-October 71 session Vol.33 part 2 6ht July 71 Proceedings p.60-74 and pp.132-149 Uttamrao Patil, A.R.Jadhav, S.K. Vamshaypayan, V.G.Hande, G.P.Pradhan, Ram Meghe and G.P.Buchake participated.

<sup>22</sup> Vol.33 part 2September-October council session 1971 p.61 onwards.

<sup>23</sup> Ibid p.61

<sup>24</sup> Vol.33 par1 council proceedings Sep-October council session 71. P67

<sup>25</sup> Vol.33part1 council proceedings Sep-October council session 71. P71by

<sup>26</sup>Ibid P74

<sup>27</sup> Vol.33 part1 number2 council proceedings Sep-October council session 71p.132 V.G.Hande

G.P.Pradhan the social party member and more balanced studious legislator cited incidence that the peasants from Pachora organizing protest they came to me and literally they were crying. Students are facing acute problems.<sup>28</sup> “ The road construction program unproductive, appoint of famine enquiry commission, PDS scheme would have ease the pressure of the scarcity, make appropriated changes in famine code, gang-men misappropriated labor wages avoid it, Built new roads, irrigation should be pursued, pursue proper organization of scarcity these were some measures suggested by members.

There was motion notice for discussion on scarcity situation by rule 253 by Pradhan Khanolkar V.G.Deshpande however mover of the resolution were not in house hence the discussion cancelled by speaker.<sup>29</sup>

### **Council Motion of scarcity in Oct-Nov.72 session**

Another motion on scarcity was initiated in the council on 29<sup>th</sup> November 72 by Uttamrao patil, N.D.Patil, G.P.Pradhan, C.R.Khanolkar and Manohar Joshi.<sup>30</sup> The vigilance committee must comprises of the nongovernment members along with official members. The working of these committees must start at earliest possible time. People are migrating to other places. There was need of redefining starvation death. Good and timely wages, sufficient grain distribution, no irregularities of any sort are essential preconditions in implementing scarcity works. These thoughts were put by Uttamrao Patil<sup>31</sup> there must be hike in the wages of scarcity labors. Decentralization of the works, providing good tools, establishment of labor camps, stopping migrations of men and animal and sustain the efficiency of labors were some aspirations spelled out by R.S.Gavi in his speech.<sup>32</sup> “People these times are not beggars. They are demanding works their moral absolutely intact.” This was the observation of G.P.Pradhan after touring scarcity-affected area while comparing drought of 1972 with 1952. He further stated that there is need of works to 40 lakh of people. He pointed out that there were no, shade, no drinking water and sufficient food to the scarcity workers. Works should be at native village of the villagers, Labor

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<sup>28</sup>Ibid p.134

<sup>29</sup> Ibid p.175 Council Proceeding November December 72 pp.175

<sup>30</sup> November-December session of council 1972 pp.332-431

<sup>31</sup> Ibid pp.332-336 Uttamrao Patil speech on 29<sup>th</sup> November 72

<sup>32</sup> Ibid pp.336-339

camps should be opened these were further suggestions made by him.<sup>33</sup> Ram Meghe appreciated government for its every effort of scarcity relief by boosting moral of common people.<sup>34</sup> C.R.Khanolkar expressed concerned about drinking water and as per famine code it would be very difficult to get 10 gallon water per person. Government lacuna in augmenting irrigation is clearly evident.<sup>35</sup> D.R.Patil stressed on the need of unity to fight such a colossal distress. His other suggestions were equal distribution of grains, grains from surplus people should be distributed to deficit people, attempts to grow grain crops on the rivulets and river water and imposition of scarcity tax on well of people.<sup>36</sup> Manohar Joshi and C.R.Khanolkar cited examples of Bullocks and cattle were sold for very negligible price for highlighting the severity of drought and scarcity.<sup>37</sup> Ruling party members like B.G.Jadhav described all government efforts and scarcity works and stressed the need of not to use scarcity issue for political mileage.<sup>38</sup> The migrants are coming in Mumbai. Government failed to encourage people to grow Bajara like crop in less rainfall environment. No major works started yet. There are corruption in the oil engine transactions for scarcity affected area. People from Malkaur taluka are going to Bhopal and Janshi for employment. Need of cattle camps, employment to many members of the family, employment to below 18-year children. For fulfill the vacancies of technical posts college students and diploma college students should be employed. More scarcity works to accommodate more labors must be started. These were concerns and suggestions made by V.G.Deshpande and A.R.Jadhav. Sahantibai Dani enlisted all usual complaints of scarcity works. She met with very arrogant and irresponsible overseer. At Vadzire taluka Sinnar workers could get the wage payment at eleven in midnight after encircling concerned officer in the form of protest. She toured some scarcity works sites and cited above examples in her speech. It also includes example of starvation death and extravagance of the grain in Vedic *yjna*.<sup>39</sup> Members expressed their responsibility and accountability by expressing the need of unity and necessity of

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<sup>33</sup> Ibid pp.339-342

<sup>34</sup> Ibid p.342

<sup>35</sup> Ibid Loc .Cit.

<sup>36</sup> Ibid p.346

<sup>37</sup> Ibid Loc.Cit.

<sup>38</sup> Ibid pp.351-52

<sup>39</sup> Ibid p.393-95

not to encourage the expectations of people. Public dining ceremony should be stopped. For equal wages to men and women it was not essential to take central's ascent. Sugar mill should not burn the bio-mass remains after crushing the cane and it should be used as fodder. The definition of starvation death must be changed. People migrated in Mumabai should be provided with civic amenities. Government extravagance must be stopped. The expenses on the tours of Members of legislation should be stopped. Executives were advised to pay their one month salary. Officials having more than Rs. 5000 salary, the salary above this mark should be submitted to the government. These were some other observations and suggestions through their speeches on this motion.<sup>40</sup>

Speeches of the members in respective houses on budget, supplementary grants and on the governor's address are equally important to know the concerns and contemplations of members in the wake such a colossal scarcity.

### **No-confidence motion Sept-Oct session 71**

No confidence motion was initiated on 4<sup>th</sup> October 71 by motion put by K.N.Dhulup, V.R.Kaldate, S.G.Patkar D.B.Patil. K.S.Dhondge, S.D.More and Ramchandra Ghangre Government failed to act on scarcity situation.<sup>41</sup>

Dhulup in his speech objected for government's stand as scarcity and not accepting famine condition. On the background of Nathapur starvation death. Mahlgi in his speech blamed government for not providing irrigation facility and for government efforts. Syed Faruq pasha delivered speech against government. The motion was defeated by more than 93 votes. Another motion of no confidence was initiated in the house on 21<sup>st</sup> November 72<sup>42</sup> by D.B.patil R.K.Mahalgi Pramod Navalkar Sadashivarao Mandlik. D.B.Patil in his speech addressed enlisting the problems like no works to scarcity affected people and other usual complaints regarding relief works . Usually Konkan does not come under grief of drought but this year it came was his observation. This year's drought not ever came in 100 years. Central assistance was too meager to match the requirements of state in its endeavor for scarcity relief operations.

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<sup>40</sup> Ibid pp.397-415 G.B.Kanitkar, V.G.Hande, V.R.Pandit, G.K.Athawale, A.M.Kumath expressed their views through their speeches.

<sup>41</sup> Septeber-October71 assembly session pp. 1327-1339.

<sup>42</sup> Nov-Dec 72 assembly session pp.166-263

This motion was for the ruling party's orientation. Members referring scarcity manual stressed the need to enhance the availability of fodder. To show the metal breaking work as unproductive work Mrinal Gore told that the heaps of the 1952 scarcity metal were unused. Move of congress party to collect donations for Nehru Centre and scarcity relief was politically oriented such objection raised member in their speech. These were some of the allegations and objections raises by Rambhau Mahalgi and Mrinal Gore.<sup>43</sup> Still government was not able to provide employment within 5kms of radius to the scarcity workers. Community well and other public wells programme only declaration in this regard came and no action so far. The contractors were exploiting labors. Vast number of cattle wealth was diminishing and V.A.Deshmukh and Bantwala expressed concerned in that regard. These were objections of A.T.Thopte. K.B.Mahaske in his speech described number of inactions on different front of the relief operations and pointed out the water scarcity villages. Sugar factories should start cattle camps. Wagons full of the grains yet to be unloaded at Bhusawal. Islampur firing was the tyranny of the government. There was no provision to provide medical relief facility to the scarcity affected people. These were some objections raised by members. Anna valuation was faulty, contractor method exploiting labors, wages very low, the light charges of the electric pumps should be waived with penalty charges. The fake musters reported from some sites.

However, the ruling party members Kesharbai Kshirsgar, Shivajirao Patil, V.S.Matkar appreciated government efforts and expressed that this year's scarcity was different sever and wide spread. Allegations of starvation deaths are not actually starvation deaths. Other states were also facing scarcity. The shortfalls in the implementation of the relief works were due to the vastness of relief operations. Some members like V.A. Deshmukh were well read and were quiet acquired with theories of famine explained that there were no famines at all over Europe since last 150-200 years. Irrigation potential of state was not used to its fullest level. Cattle were sufferings the more amount that other members expected financial assistance from centre what CM estimated. On of the reason of price was the speculative market. Lift irrigation schemes and its implementation in distress will ease the pressure of grains.<sup>44</sup>

### **No Confidence Motion:-Nov-Dec 72 assembly session**

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<sup>43</sup> Ibid pp.179-185

<sup>44</sup> Ibid pp.225-270

D.B.Patil initiated the motion enlisted usual shortfalls in the scarcity relief operations also addressed the issue of acute shortage of the grains. Scarcity proof Konkan also suffering from the scarcity. Only 4 kgs of grain received from fair price shops, opposition party workers were not appointed on the scarcity committee these were some complaints made by D.B.Patil.<sup>45</sup> V.G.Shivadare complained that wages were not paid regularly. Central assistance was too short to fulfill the need. Whatever lacunas were there were due to the wide spread acute scarcity.<sup>46</sup> R.K.Mahalgi asserted that motion was for rethinking of government.<sup>47</sup> Kesharbai Kshirgar compare the scarcity relief programme of Maharashtra with other state and pointed that Maharashtra's efforts are appreciable. Actually alleged starvation deaths were not starvation deaths she added. She further stated and enumerated the ongoing scarcity over her constituency and state.<sup>48</sup> Mrinal Gore criticized government on many issues like government efforts are not up to mark on water scarcity front. She pointed that there were no amenities to the workers on relief works. She also criticized ruling party for collecting donations for Nehru Centre and scarcity relief simultaneously.<sup>49</sup> A.N.Thopte addressed the issues of far away scarcity works, famine code, scarcity of food grains, no action on community wells etc.<sup>50</sup> Shivajirao Patil the ruling party member appreciated government efforts.<sup>51</sup> P.B.Kadu expressed his views on monsoon forecasting and research on it. He also claimed that he had visited works sites. He reported many shortfalls at work sites. He also suggested taking assistance of sugar mills to open cattle camps.<sup>52</sup> R.V.Bhelose criticized opposition party members for bringing no confidence motion every year at Nagpur session. He supported government and cited prevailing scarcity situation over other states.<sup>53</sup> V.S.Matkar supported government and criticized opposition party members and

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<sup>45</sup>Oct-November 1972 assembly session p.168

<sup>46</sup> Ibid p.175

<sup>47</sup> Ibid p.17

<sup>48</sup> Ibid pp.182-84

<sup>49</sup> Ibid pp.185-89

<sup>50</sup> Ibid pp..191-192

<sup>51</sup> Ibid P.193

<sup>52</sup> Ibid P.194

<sup>53</sup> Ibid pp.196-97

expected cooperation from them.<sup>54</sup> S.B.Mahaske enlisted all usual shortcomings of the relief operations. He pointed out that people from rich families are not used to hard works so they were getting low wages. It was very difficult to those people to survive on low wage.<sup>55</sup> V.A.Deshmukh asserted famine is economic phenomenon and it is more manmade. He highlighted starving and dying cattle at road side.<sup>56</sup> P.B. Patil enlisted the achievements of government and appreciated government efforts in regard to the scarcity relief. He specifically mentioned effective and noble measures of government waving of fees of students and works to the students<sup>57</sup> V.C.Mahaske demanded to stop contract methods of gang-men on scarcity relief works.<sup>58</sup> Dulaji Patil mentioned that ongoing scarcity was most severe and different. He objected on government resolution of not issuing grains to agriculturist above five acres of land.<sup>59</sup> V.D.Atram demanded to waive the light bills of farmers of their electric pumps and penalty therein.<sup>60</sup> K.D.Dhondge criticized government and for its defeat at every front of scarcity relief.<sup>61</sup> This was long debate on the no-confidence motion however this motion was defeated in the house.

One notice from no confidence motion was put during July-August-September 73 but the member took it back.

### **No-confidence motion March 73**

D.B.Patil, R.K.Mahalgi, A.T.Patil, G.N. Bantwala, V.A.Deshmukh initiated no confidence motion on the council of minister of state on 31 March 73.<sup>62</sup>

No confidence motion by initiated by D.B.Patil on the point of scarcity and inflation, the distress concerning of scarcity affected people, irregular and insufficient grain supply. In his speech

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<sup>54</sup> Ibid p.248

<sup>55</sup> Ibid pp.248-51

<sup>56</sup> Ibid pp.253-57

<sup>57</sup> Ibid p.257

<sup>58</sup> Ibid p.264

<sup>59</sup> Ibid p.268

<sup>60</sup> Ibid p.270

<sup>61</sup> Ibid p.272

<sup>62</sup> Feb-March 73 assembly session p.3070,



D.B.Patil expected logical explanation of government stance and efforts with respect to scarcity relief. Among the honorable members there were some names like V.G.Shivdare(Solapur South) S.G.Patil.

Mrinal Gore in her speech cited interesting statistics food grain production came down from 67 lakh 55 tones to 43 lakh 10 thousands. In this production of pulses came to 6 lakh 43 lakh tones from 9 lakh 89 thousand tones. As well as the production of cotton came to 1 lakh 65 thousand tones from 2 lakh 84 tones, ground-nut production from 8 lakh tones to 4 lakh 68 thousand tones and the sugar cane production increase from 1 lakh 69 thousand tones to 1 lakh 90 thousand tones. Irrigation potential of the state not had been utilized fully. Ali Hassan Mamdani, H.N.Banatwala, A.N.Thopte, M.D.Magar, Pramod Navalkar, Shivajirao Patil (Nilanga), V .C. Mahaske, (Kalamnuri), K.S.Dhondge,<sup>63</sup>

V.F.Naik answered to the no confidence motion, Compare to other state Maharashtra is more severly affected. 2 croers of people are in the grip of scarcity. All attempts are made to employed people on scarcity works. 15% people are on the scarcity works and compare to othr state this figure is 13-14% more. Hybrid seeds are provided to the better production. Instead of our attempt to became self sufficient in the grains the 5 drought from 65 to 73 made our efforts in vain. State government demanded 2 lakh 28 thousand tones of grains from centre and was sanctioned accordingly, but the grain it supplied was far short. State government's demand was not fulfilled by centre and December onwards to March the deficient went on increasing. The deficit as on today is 75 thousand tones. There is assurance on the part of central government that there would not be deficit in March and April.<sup>64</sup>

The speches of members on governor's address, on supplementary grants of various departments, scarcity motions and on budget provided voluminous work. This work is rich source of information on drought and scarcity. The questions on annewari and scarcity affected and declared villages were the questions at first phase and the works were very less in numbers were the questions and issues addressed. In second phase the questions and issues addressed were with respect to the amenities and the wages of the scarcity workers. The delay in the wages

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<sup>63</sup> Ibid p.3882

<sup>64</sup> Ibid p.3941

and other issues were addressed. Questions about the fair price shops were related with there were no shops.

### **Budgets and some sample of discussions on it**

More than 19 thousand village s came under grip of scarcity. And the expenses incurred 42 croers and 98 lakh rupees. Out of that 19 croers of Rs. Assistance received from union government. Due, to suspension of revenue of 3 croers and 75 thousand Rs. there was the loss to revenue income. Rs. 9 croers of Taqavi and agricultural loan recovery dues. New loans of 2.10 croers issued.<sup>65</sup>This was the budgetary provision during the year 1971-72 budget for scarcity.

Some issues addressed on scarcity on budget1972-73 discussions are described in foregoing paragraphs. Budget discussions Wakilrao Langhe addressed issues of Efficiency of scarcity works, broken hammers,<sup>66</sup> dissatisfaction expressed over Taqavi to only hybrid seeds by members<sup>67</sup> All india grain production 99.5 million tones wholesale price index increased there should be control on price rise.<sup>68</sup> G.F.Mahajan K.V.Wankhede (Morshi) stressed on increase of irrigation potential of state.<sup>69</sup> V.R.Kaldate Vartak clarified anna valuation was not that much bad system.<sup>70</sup> P.R.Sanap (Mangaon) the anna valuation was incorrect and complaint was launched against eye survey method of Anna valuation over Mangaon taluka. Even then, the cases were not reconsidered.<sup>71</sup> He complained about of low productivity in India.<sup>72</sup> He further commented that very tardy growth on food grain front.<sup>73</sup> Profit itself indicates the efficiency of supply department. Hence, critique by Karkhanis about profits of the supply department is not correct.<sup>74</sup> These were remarks and observations made during discussion on budget of 1972-73. Some

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<sup>65</sup> March-April assembly 72 Session p.95 without question and answers part 2 24<sup>th</sup> March 72 :- during 1971-72 more

<sup>66</sup> June-July-August 72 assembly session 851 :- p579

<sup>67</sup> Ibid 13<sup>th</sup> July 73 p.179 K.R.Patil

<sup>68</sup>Ibid p. 332 24<sup>th</sup> March 71 S.K.Wankhede on budget of 1971-72 :-

<sup>69</sup>Ibid P.766-67

<sup>70</sup>Ibid P.322

<sup>71</sup> Ibid P.1487 27.4.71

<sup>72</sup>Ibid P.594 1/4/71 G.B.Ganachrya (Buyculla)

<sup>73</sup>Ibid P.580 1.4.71

<sup>74</sup>Ibid P.1256 21.4.71 S.B.patil

members elaborated area under cultivation productively and production of food grains.<sup>75</sup> Complaints about fewer amounts are allotted to Kandhar for scarcity relief also addressed in the house.<sup>76</sup>

Works were not started and reported in the house.<sup>77</sup> The benefit of irrigation should reach to the small farmers. If ever Nalabunding work performed on or before 15<sup>th</sup> August the amount spent on the works should not be recovered from the land owners on whose land the bunding works performed. The application of forms those who seek the loan should get processed fast and even loan should get disbursed fast.<sup>78</sup> There were cases where taqavi being issued to someone and the recovery of the same from other farmers.<sup>79</sup> State government was acquiring land from the farmers for scarcity works. However, compensation for is not paid to them. Beside compensation is not paid to farmers for so many years. For the acquired land government is taking revenue from farmers. The recovery of revenue for such purpose should be stopped at once.<sup>80</sup> Udhavarao Patil suggested changing the famine code. Solapur is chronic scarcity affected area and it should be treated like that only.<sup>81</sup> V.A.Darade complained that works sanctioned but not started, no compensation paid for land, no taqavi issued in time.<sup>82</sup> Provisions of works were not proportionate to populations.<sup>83</sup> Pardasini committee recommendations were not implemented. These were other concerns addressed during budget discussion.<sup>84</sup>

## **Budget of 1972-73**

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<sup>75</sup> Ibid 1.4.71 Dhulup

<sup>76</sup> Ibid P.1505 27<sup>th</sup> April 71 a complaint by Dhondge

<sup>77</sup> Ibid p.1434-35 V.A.Darade

<sup>78</sup> Ibid 26<sup>th</sup> April 71 K.B.Mhaske 20<sup>th</sup> April 71 p.1425

<sup>79</sup> Ibid P.1430

<sup>80</sup> Ibid P.1446 26<sup>th</sup> April 1971 N.R.Gunjaj (Parner)

<sup>81</sup> Ibid P.39125<sup>th</sup> March 1971

<sup>82</sup> Ibid V.R.Patil (Solapur) assembly} 26.4.71 p.1435

<sup>83</sup> Ibid P.588 1.4.71 K.B.Mahaske

<sup>84</sup> Ibid P.689

M.G.Chaudhari presented the budget of 1972-73 and made provisions for scarcity relief as follows. "Statistics of some parts of state yet to come. It is possible to predict figures of net production. The income of state during 1971-72 was increased by 2.6% compare to income of 1970-71. It went to 4100 croers. By considering the prices of 1971-72 the net income of state income during 1972-73 will be 3850 croers. This will result due to deficient or deficiency in agriculture and allied sectors. The income in this sector was 1060 croers last year. This year it will be 700 croer rupees. Scarcity also affected on industry and mining sectors also due to deficiency of power supply. There will be marginal increase in this sector. However, growth in this sector last year was by 6% but this year it will be only 2%. The growth in tertiary sector was last year 5.5% this year it will be 4.5%. This year the state income, according to fresh estimation, will reduce by 6%. In scarcity affected regions up to January 1973 1800 works of irrigation and percolation tanks are started and among them 500 works have been completed. Approximately 10 lakh hectares of land had been bunded. 500 Km. canal works are started out of which 300 Kms. of work have been completed. These canal works includes major canals of upper Godavari and Bheema. Among these canal works there works of Chaskaman, Mahadevi and Kukadi projects. These projects are yet to be started and would start in sixth plan. The works of 3500 public wells are being in progress. This year the expensed to be incurred on scarcity relief works would not be below 72 croers rupees. The expenses on drinking water will go on 10 croers of Rs. there will be 12.75 croer expensed on fodder in this year. To incur such a huge amount on relief operations was beyond the capacity of state government. However, central government shouldered huge responsibility by sharing major expensed of state government. Government is planning to provide 'Sukhadi' the nutritious food to scarcity affected people to correct their various deficiencies causing due to undernourishment. This programme is started in 9 districts of state. The revenue and income of state is reduced this year because suspension of land revenue and recovery of loans. Money saving tactics and to reduce the expenses on non-plan expenditure should be adopted. Total expenditure this year fixed is 211.72 Croers."<sup>85</sup>

N.R.Mate Addressed the drinking water issues. It is cumbersome to women of villages to wander for more than 5 kms for drinking water.

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<sup>85</sup> February-March assembly 72 p.522

G.R.Mhaske (Pathardi) stated in his speech that thousand scarcity workers of Pathardi and Shegaon taluka are working on the metal breaking works. They are working since last two months. The quantity of metal is such a huge that from this metal 2 to 2.5 thousand kilometers road could be constructed. Therefore it is requested that in this taluka the hereafter productive works be started.<sup>86</sup>

Budget discussion S.N.Desai (Vengurla) stated in his speech that the percentage of working population of Maharashtra is 36.28 nation percentage is 32.9. On scarcity works the daily attendance was 23.39 lakhs. He measured the achievements of state in different fields.<sup>87</sup>

V.A.Deshmukh Parenda talked about the works performance during scarcity and stated this performance is nothing on the extent of state. No percolation tanks or productive works in my constituency. No systematic efforts to tap the irrigation potential of state taken by state government. Only arbitrarily, dams are being constructed. There is sufficient or surplus sorghum fodder in Parbhani and Nanded districts. Efforts should be made to distribute it to other districts of Marthwada and Solapur districts. He talked about regional differential approach in each and every aspect of the scarcity relief.<sup>88</sup> G.R.Palkar (Hadgaon) told in his speech that though the taxes are not increased existing taxes in these days are burdensome.<sup>89</sup>

B.T.Mane appreciated government efforts with respect to scarcity relief. Dulaji Patil Niphad complained that in last ten years the progress in agriculture in Punjab 24.2% Haryana 23.3% Gujrat 20.3% Rajstan 20.0% and Maharashtra the progress had achieved only 96%.

Total Budgetary outlay is 250 Croers, out of that 39 croer and 92 lakhs on agriculture and 46 Croer and 35 lakh on irrigation thus total 86.27 croer had been allotted to agriculture.<sup>90</sup>

N.N.Barshikar (Ahmednagar south) explained in his speech that Pardasni committee recommended small dams and percolation tanks at scarcity affected region. In 200 gms Sukhadi 807 calories 22 grams protein is available. The cost of Sukhadi is 500gms. However in 50 paise

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<sup>86</sup> Feb-March 72 assembly session, p.1356-57 25-30

<sup>87</sup> ibid 73-74 p.1322 general discussion on budget :

<sup>88</sup> Ibid P.1323

<sup>89</sup> ibid P.1329

<sup>90</sup> ibid p.1333

one can purchase 500gms wheat and in this 500gms wheat one can get 1750 gms. Calories and 60 gms proteins is available. This is narrated in the book published by Kumud Pore.

## APPENDIX-F

### RELIEF WORK OF NONGOVERNMENTAL ORGANIZATION

A voluntary agency viz. Seva Kendra, St. Anne's Church Nashik road took keen interests in the scarcity relief and executed a large number of relief and development works from the very beginning of 1970-71. These works were continued up-to the rainy sea-son of 1973-74. This Church had mainly concentrated its attention on construction of new percolation tanks, low cost houses for the poor, deepening of the wells and provided employment to about 18000 persons in 1970-71, 13500 persons in 1971-72 and 18250 persons in 1972-73 at one time or the another. This was the only agency where wages were paid in kind. <sup>1</sup>

OXFOM the United Kingdom based Nongovernmental organization engaged itself mainly in assisting a number of institutions for undertaking a nutritional program, particularly of children and pregnant women or nursing mothers, for the supply of seeds and fertilizers on credit to marginal and small farmers, and for carrying out programs of soil and water conservation, sinking wells, construction percolation tanks and a forestation. It spent nearly Rs. 18 lakhs on the nutrition programs, about Rs 16 lakhs on the supply of seeds and fertilizers, and Rs. 11 lakhs on relief works.

The society for Assistance, Rehabilitation, Relief and Aid Maharashtra is comparatively new institution with its headquarters in Bombay and branches in Nagpur and Aurangabad. For drought relief in Maharashtra during 1972-73, SARRAM collected and donated approximately Rs. 7 lakhs which have gone towards the construction and completion of two percolation tanks in Sangli and Ahmednagar districts a drinking water supply scheme in Aurngabad district a drinking water supply scheme in Mahabaleshwar (Satara district). It also lent ambulance vans to the Maharashtra Medical Relief Units until the work of relief continued in the drought-affected areas. It aims at the involvement of as large a section of the community as possible, particularly the smaller people appealing to them for contributing their mite in the relief of suffering of their fellowmen.

The Maharashtra Scarcity Relief Committee consisted of 35 members besides the President and the chairman and included the leaders of the opposition parties in the Maharashtra legislature. Chief minister Vasant Rao Naik was the president and Rajani Patel as secretary of the committee.

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<sup>1</sup> Kulkarni S.N. SInnar Survey p.110

The drive for collection of donation was launched on 26<sup>th</sup> January, 1973. A total sum of Rs. 7.36 crores was collected in addition to a sum of Rs. 12.63 lakhs collected by the Bombay Pradesh Congress Committee and its several branches. Another important activity sponsored by the committee was the provision of medical relief in acutely affected districts. 36 mobile vans were donated or loaned by the Maharashtra State Road Transport Corporation, the Bombay Municipal Corporation the civil defense organization, the pharmaceutical industry's Medical Relief Organization (PIMRO), the society for assistance rehabilitation, Relief and aid Maharashtra (SARRAM) and the Bombay Pradesh Congress Committee. The vans were equipped with medicines and vitamins and moved about in the acutely affected districts under the command of senior doctors and interns from the Medical Colleges of Bombay, Nagpur, Poona and Aurangabad. Each unit consisted of 5-10 interns and 2 senior doctors. Thus was born the Directorate of Rural Medical Relief in the scarcity affected areas under the energetic and dedicated leadership of Dr. L.H. Hiranandani who was appointed its first Honorary Director. Nobody could believe that as a result of service of medical relief of Directorate of Rural Medical relief, during the entire period of the scarcity, there was not a single case of epidemic, not a single death by any infectious disease which is record by any standards.<sup>2</sup> Committee run a novel scheme that adoption of the families with assistance of Gunwant Kapadia. In all 5448 families were adopted at a cost of RS. 16.77 lakhs. The committee also conducted other novel programme to collect donations for scarcity reliefs.<sup>3</sup> The committee gave careful attention to the question of disbursing the monies from the chief minister's relief fund.

The Maharashtra central relief committee was founded in December 1952 and reconstituted in November 1965. Technical experts like agronomist's engineers and economists are also represented on the committee. The present chairman of the committee is Prof. V.M. Dandekar and its Hon, Secretary, Dr. R.G. Kakade. Two important conferences of workers engaged in drought relief work were held on 4<sup>th</sup> March 1973 and 16<sup>th</sup> September 1973. The conferences

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<sup>2</sup> Subramanian pp.412-43

<sup>3</sup> Special lottery , (Rs 7 lakhs), a special cinema show on February 11, 1973 (Rs. 5 lakh), a festival cricket match (1<sup>st</sup> May 1973) in which top film stars and top test cricketers participated (Rs 2 lakh), a special programme under the banner of Ahok Kumar Golden Night (6<sup>th</sup> June 1973) in which top ranking film stars gave a scintillating performance (Rs. 12 lakhs), a magnificent Artists Aid Scarcity Relief Exhibition in which the best painting of some of the top artists in the country were displayed and sold (Rs 5 lakhs) as well as any number of other miscellaneous shows and activities in which the common people of Maharashtra could participate and contribute their mite to the noble cause.



passed resolution pinpointing the defects and deficiencies in relief work. Productive works as relief work, the continuation of employment guarantee scheme should be continued, sufficient wages to earn sufficient food grains were suggestions and demands of the committee. Committee stressed and pursued constant and organized demands to government on work to those whoever demands it specially children above 14 of age, better timely wages, good working condition and amenities on the scarcity relief work.

The committee also made number of useful suggestions about carrying out agricultural operations during the 1973 seasons, particularly with regard to ploughing sowing and getting adequate supply of seeds and fertilizers. The committee also recommended that community wells which had been taken up as relief program should be completed for the benefit of small cultivators. Finally the committee highlighted the difficulties of students of schools and colleges particularly with regard to their annual examinations. The committee spent in all about Rs. 82000 on relief works through other agencies.

The committee appealed for contributions by public for the relief of the victims of the drought. A sum of Rs 3.95 lakhs collected, mostly from working and middle class people and from a few voluntary organizations of Maharashtra in foreign countries. During an earlier period i.e. in 1953 the committee had given relief in the form of food grains, milk and bread, particularly to children pregnant women and nursing mothers. But on account of the extreme paucity of food grains this type of help could not be rendered by it during the 1970-73 drought.

Catholic relief services the voluntary agency operating over many countries covered 8894 projects over drought stricken area of Maharashtra. This organization runs food for work program. This program run over Ahmednagar, Aurngabad, Nashik, Thana and Yeotmal districts. Front for rapid economic advancement fo india (FERA ins short0 is an organization whose objectives is the involvement of technically trained young men in programs designed to benefit the community. The FERA's involvement in the drought relief program is only a part of its activities in Patoda Taluka of Bhir district which was one of the most acutely affected areas during the year 1972-73. , FERA helped in the supply of technical manpower to survey design and supervise the works. It main thrust was to help the government in diverting people from unproductive works such as metal breaking into fruitful development works such as community wells.

During the last year of the drought in Maharashtra i.e. 1972-73 this institution, with the assistance of other charitable organizations such as OXFAM, EFICOR, Catholic Relief Service etc. undertook relief work mainly in the Poona district. It constructed 16.09 kilometers of approach roads under the Food for Work Programme in which wages are paid not in cash but in wheat and edible oil. It undertook construction of two percolation tanks both of which were almost completed before the end of the financial year 1972-73. Similarly 15 bore wells of which 14 were successful, were drilled in Purandar taluka, 7 in Bhore taluka and 4 in Haveli taluka, all in Poona district. 18 bore wells were drilled in the Jamkhed taluka of Ahmednagar district. In all 44 bore wells were drilled for providing drinking water to about 40 villages. Similarly, about 200 existing open wells were either deepened or reactivated in Haveli, Bhore and Purandhar talukas of Poona District. As a part of its productive enterprise, the institution distributed 60 tonnes of fertilizers, hybrid jowar seeds to cover about 121.41 hectares, rabi jowar seeds of Maldandi variety to cover 80-94 hectares and the Kalyan-Sona, Hira and Moti varieties of wheat seeds for 161.87 hectares. About 2000 people daily were engaged in the construction of roads for two months and 750 on percolation tanks for four months. The total expenditure incurred by it was Rs. 3.5 lakhs.

Tata relief committee concentrated on relief work in six villages of Jategaon Gattevadi, Ragegaon Siddhi, Panoli, Pimplner and Vadule of Parner taluka in Ahmednagar district. Irrigation wells deepened, 12 bore wells drilled and fitted with hand pumps and 12 new wells dug over these villages.

The Government of India and several voluntary agencies jointly launched a "Youth Against Famine Campaign." In which it was proposed that a lakh of young men and women would participate in such activities during the summer of 1973. So far as Maharashtra was concerned, the program was completed in about six weeks beginning from the first week of May 1973. All the universities and rural institutions of higher education and voluntary youth organization in the state were involved in this program and about 100 camps were organized. The campaign was conducted by a special committee constituted by the state advisory committee for the NSS. As a part of this campaign, the participant students and non-students lived and worked in the midst of drought. Without cooperating with the persons who required relief or without depriving them of their work, the participants actually involved themselves in some constructive work which would yield productive assets.

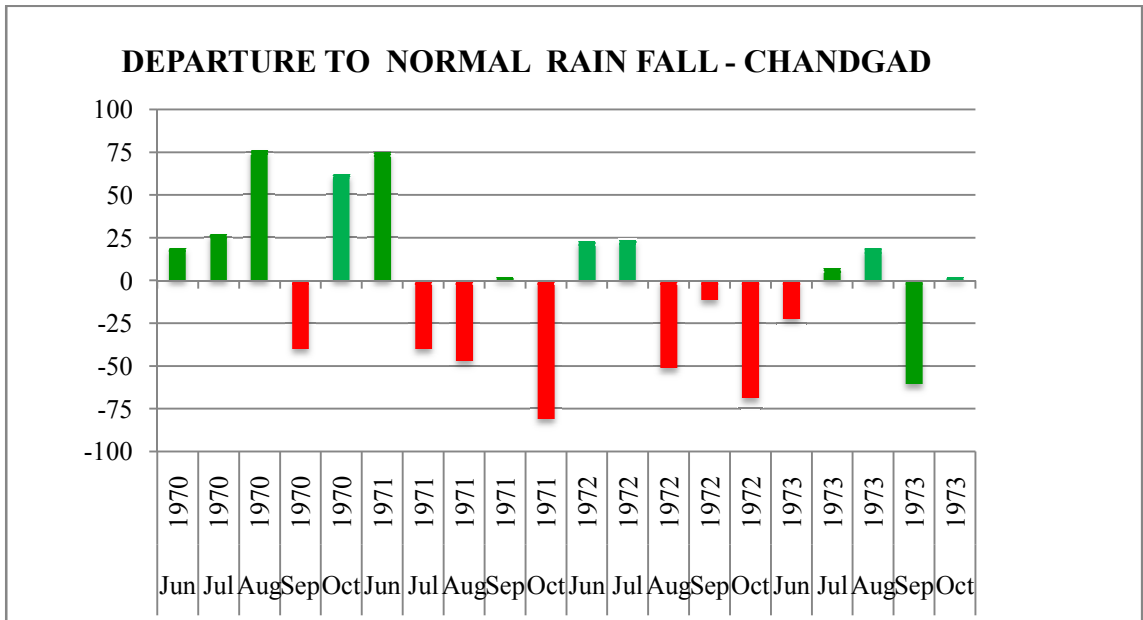
Maharashtra State road Transport Corporation contributed in the form of vans for medical relief and in cash by contributing Rs. 147492 to chief ministers fund. And workshop of organization tried to invent new road roller to suffice the need of relief works.

The office of directorate of civil defense donated to collector office vans and ambulances stipends were paid to 24 students at Urali Kanchan. Clothing and donations were collected.

Central relief fund an organization headed by V.S.Page provided grass and food to needy people of drought stricken area.

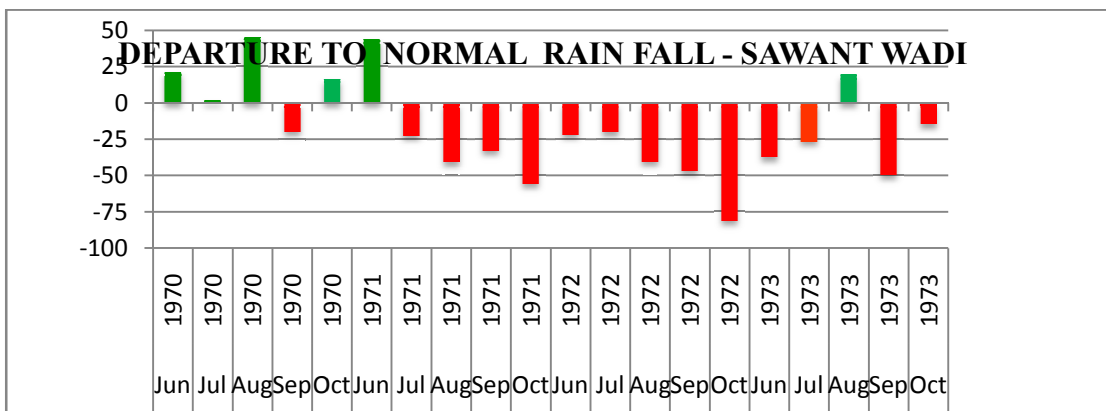
## APPENDIX-G CHARTS

Chart no. AC1 Departure to Normal Rain Fall - Chandgad



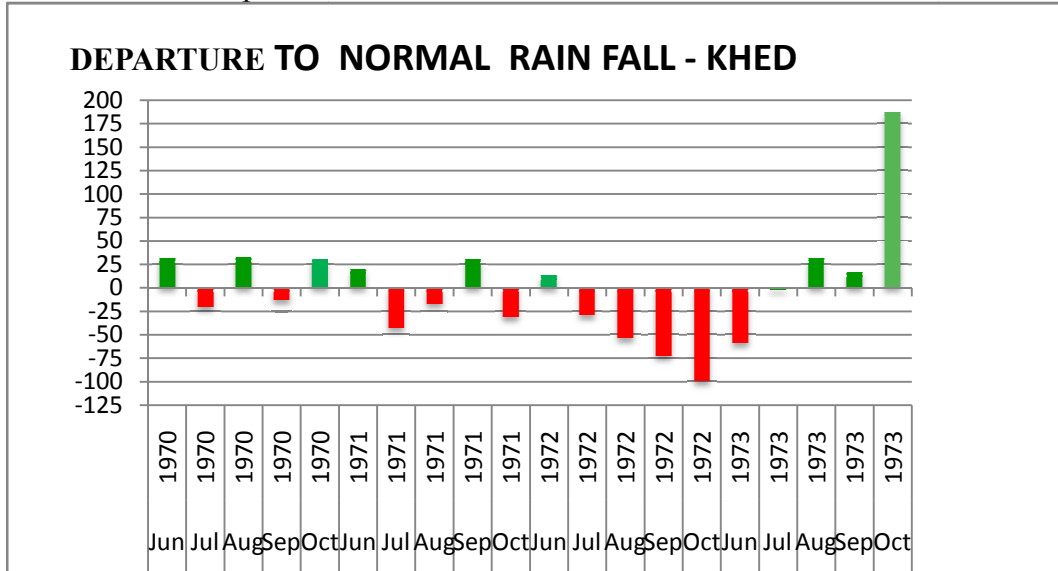
Very high rainfall (Rainfall 250-300Cm.) Tract with lateritic soil; agro-Climatic zone number 1

Chart No. AC 2 Departure to Normal Rain Fall - Sawant wadi



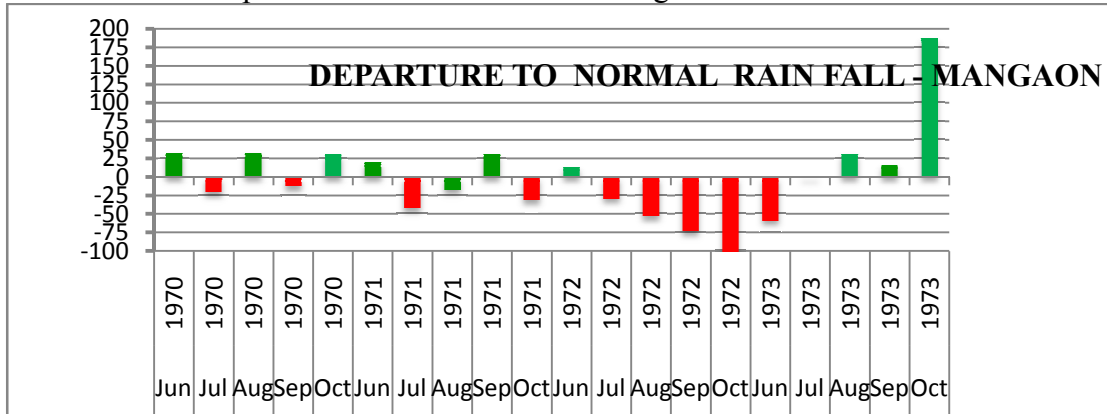
Very high rainfall (Rainfall 250-300Cm.) Tract with lateritic soil; agro-Climatic zone number 1

Chart No. AC3 Departure to Normal Rainfall Khed



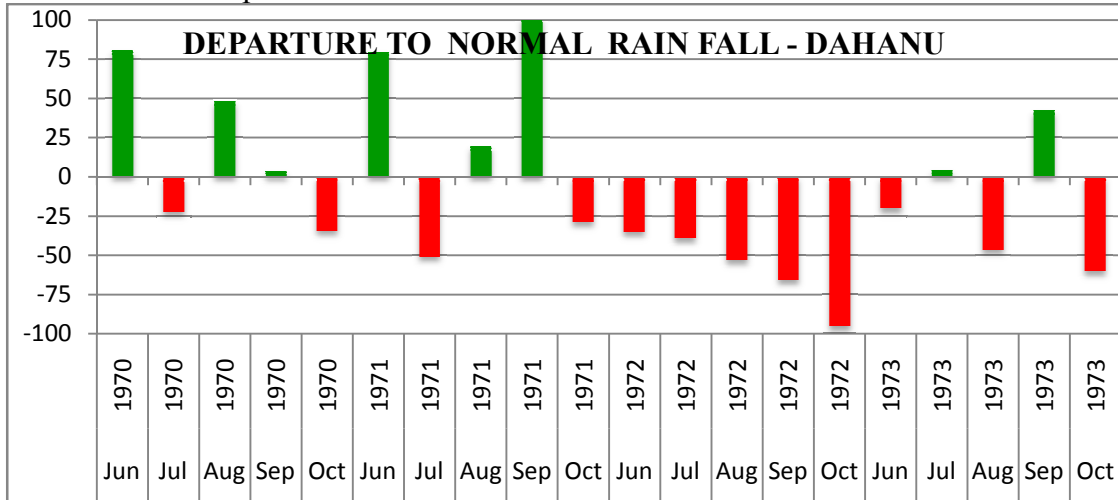
Very high rainfall (Rainfall 250-300Cm.) Tract with lateritic soil; agro-Climatic zone number 1

Chart No. AC4 Departure to normal Rainfall -Mangaon



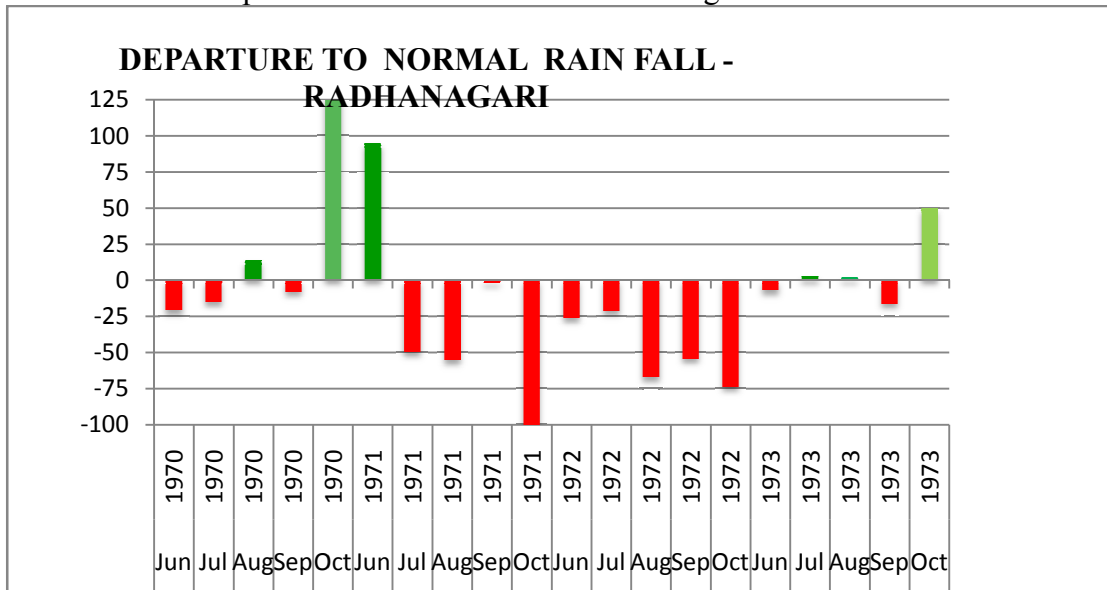
Very High rainfall with rainfall (250-300cm) with non lateritic soil tract, Agro-climatic zone No.2

Chart No. AC5 Departure to Normal Rainfall-Dahanu



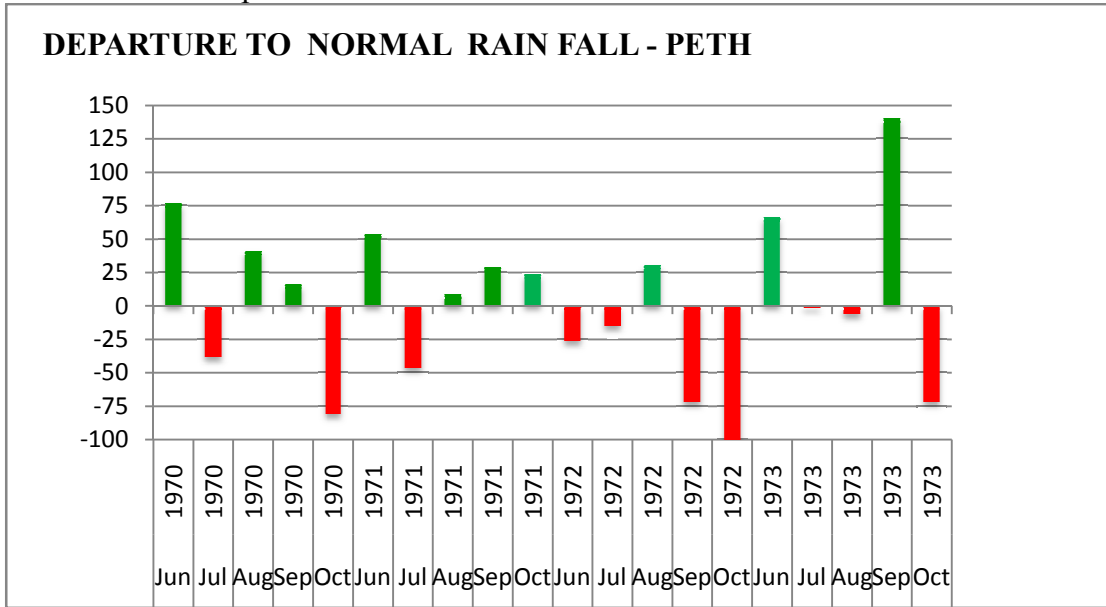
Very High rainfall with rainfall (250-300cm) with non lateritic soil tract, Agro-climatic zone No.2

Chart No. AC6 Departure to Normal Rainfall Radhanagari



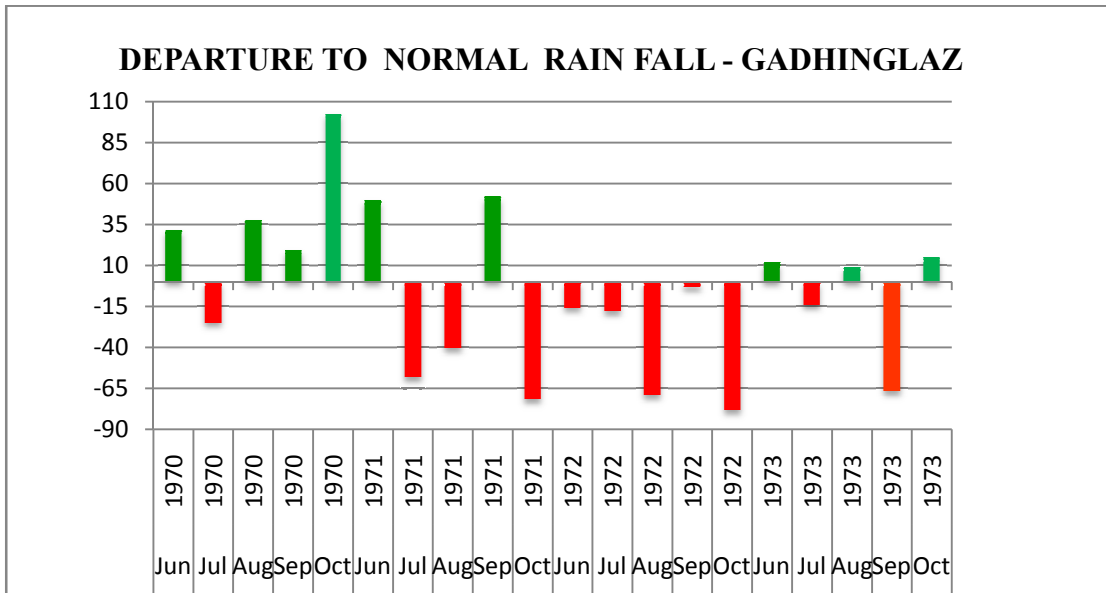
Ghat zone with rainfall (300-500 cm and above) Agro-Climatic zone No.3

Chart No. AC7 Departure to Normal Rainfall Peth



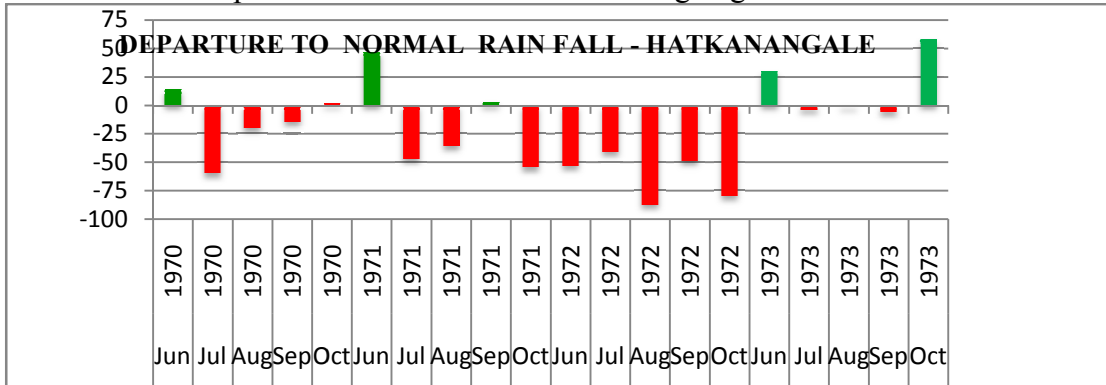
Transition –A Rainfall (125-300 cm) with red to reddish brown soils Agro-climatic zone No.4

Chart No. AC 8 Departure to Normal Rainfall-Gadhinglaz



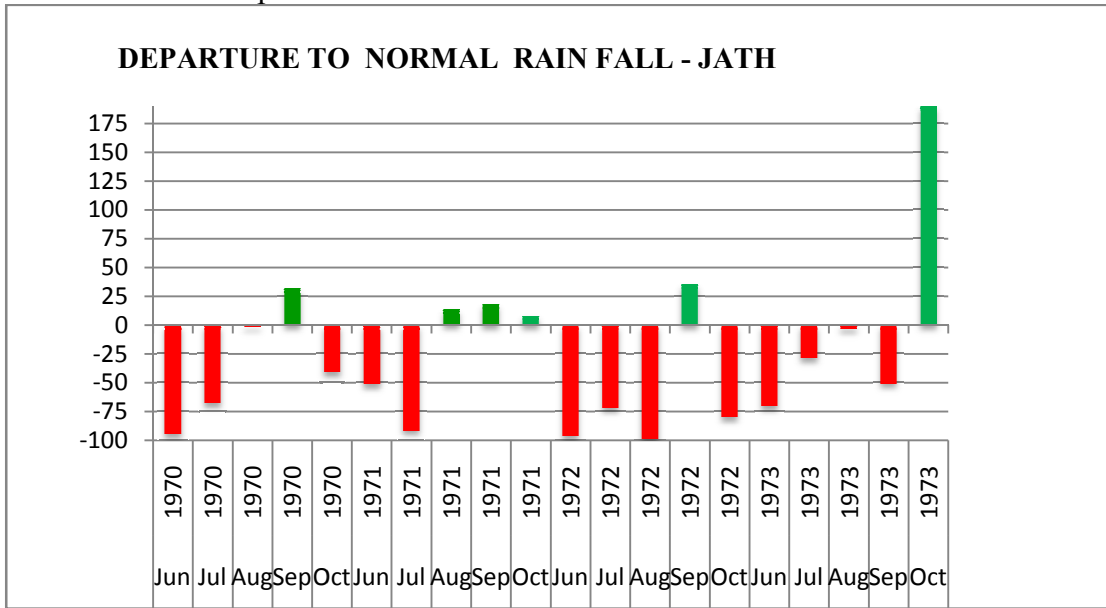
Transition –A Rainfall (125-300 cm) with red to reddish brown soils with Agro-climatic zone No. 4

Chart No.AC9 Departure to Normal Rainfall Hatkanganlge



Transition B Rainfall (70cm to 125 cm) with grayish black soil Agro-climatic zone No. 5

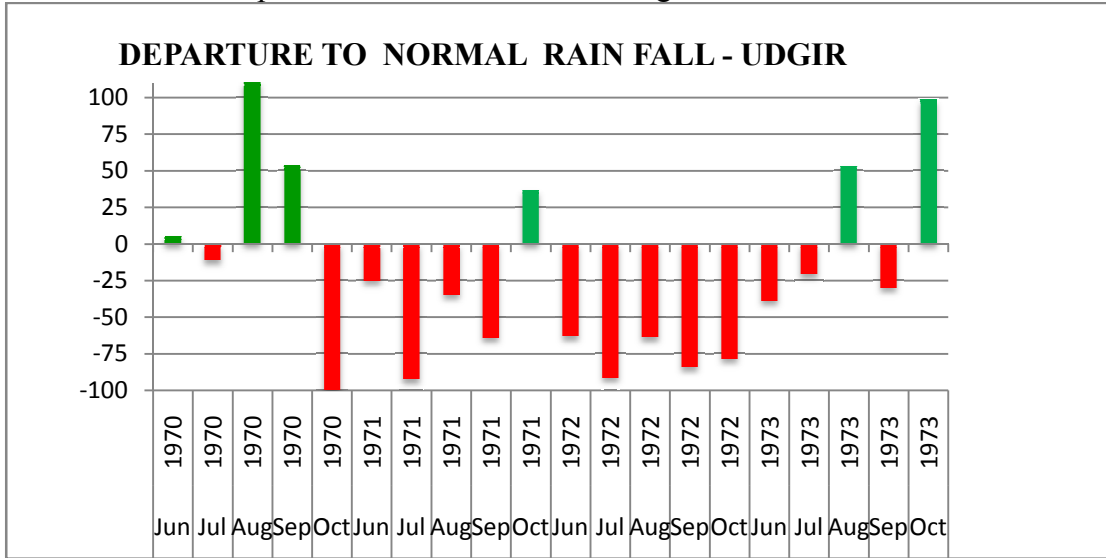
Chart No. AC10 Departure to Normal Rainfall -Jath



Scarcity zone with kharif cum rabi- cropping (500-700mm) Agro-climatic zone No.6

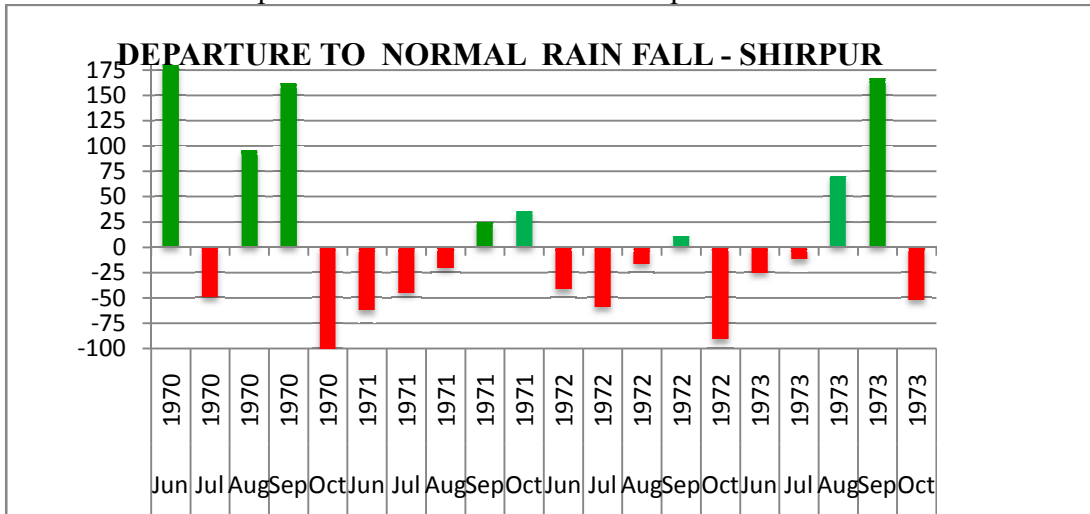


Chart No. AC11 Departure to Normal Rainfall -Udgir



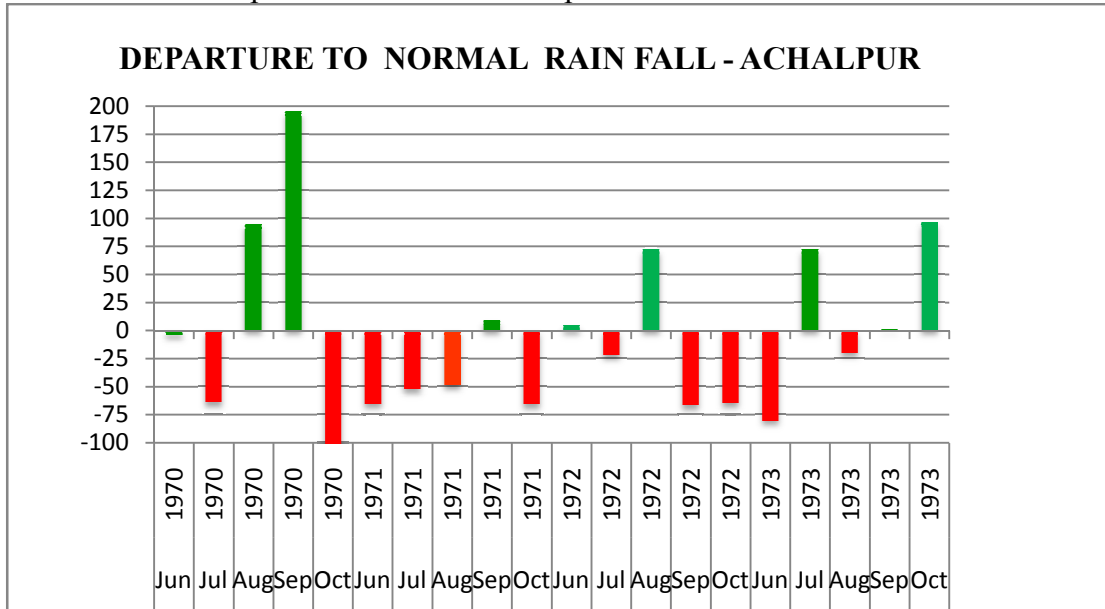
Assured Rainfall (70 to 90 cm) zone with mainly Kharif cropping Agro-climatic zone No.7

Chart No AC 12 Departure to Normal Rainfall- Shirpur



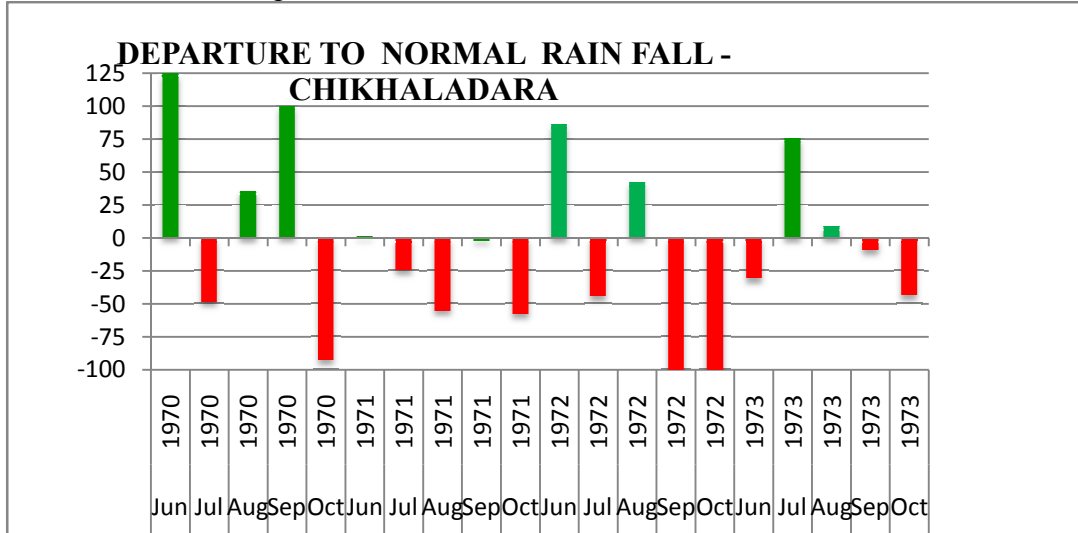
Assured Rainfall (70-80cm) zone with mainly kharif cropping Agro-climatic zone No.7

Chart No AC13 Departure to Normal Achalpur



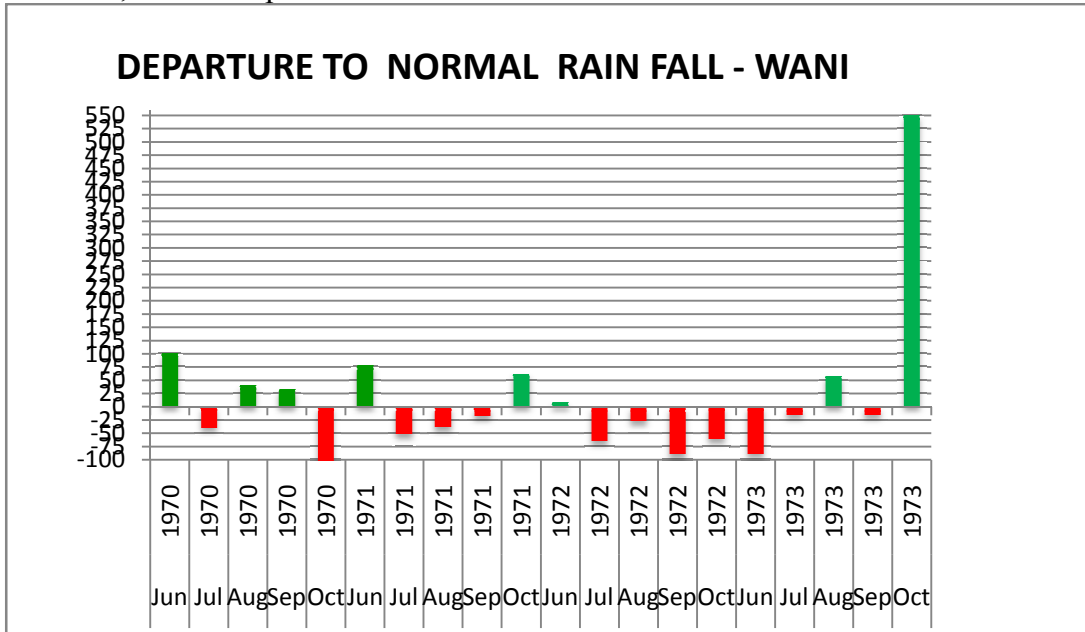
Assured Rainfall (70-80cm) zone with mainly kharif cropping Agro-climatic zone No.7

Chart. No. AC 14 Departure to Normal Rainfall Chikhaldara



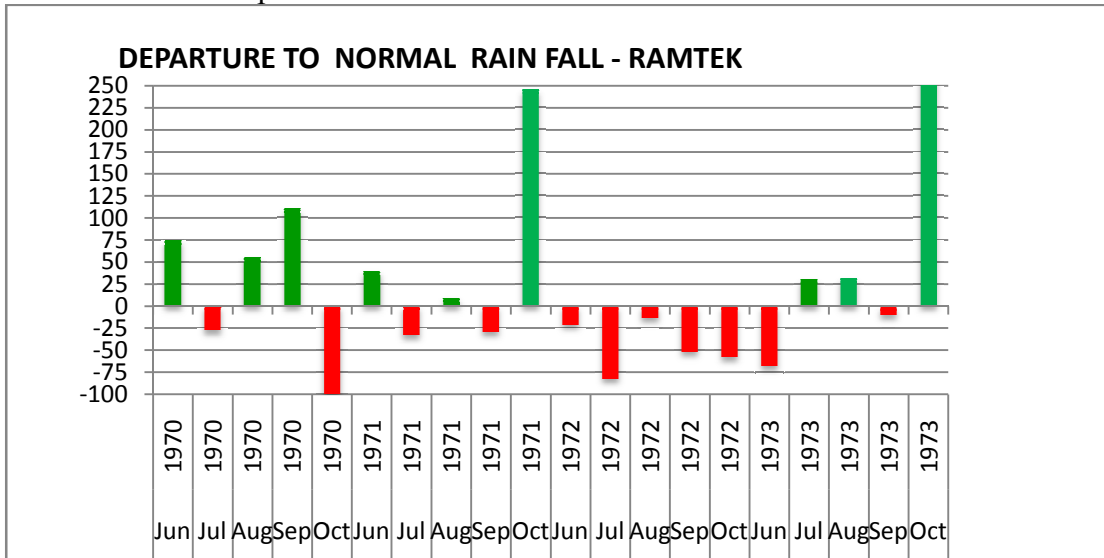
Moderate to moderately High Rainfall (90-125cm.) zone with soil from trap rock Agro-climatic zone No. 8

Chart No, AC 15 Departure to Normal Rainfall- Chikhaldara



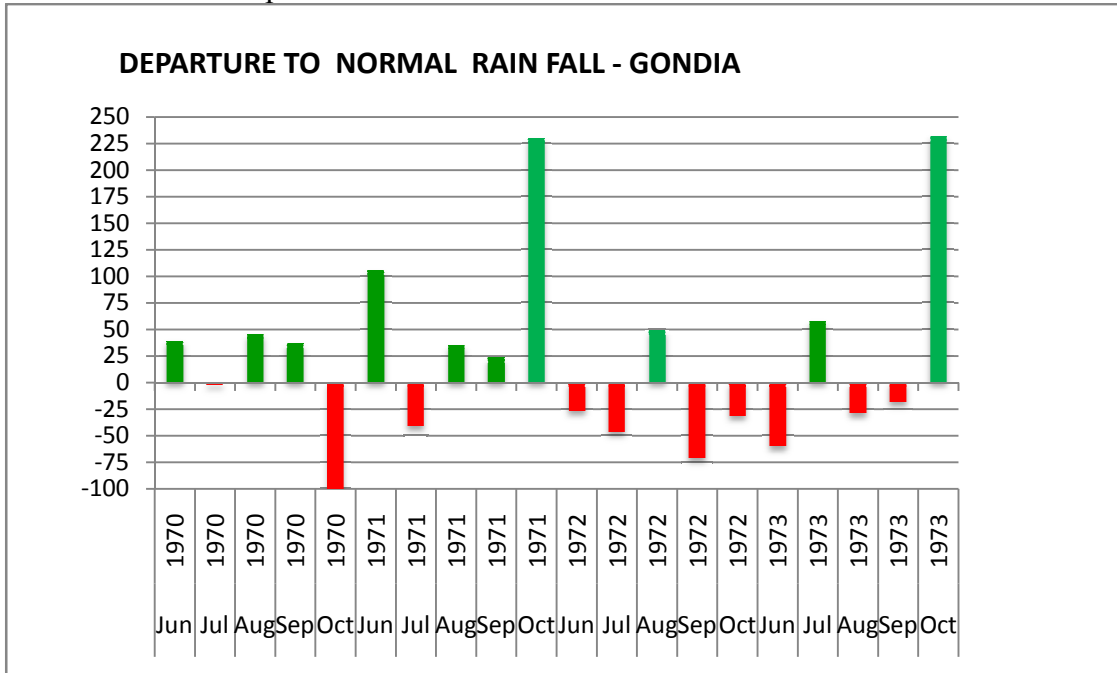
Moderate to moderately High Rainfall (90-125cm.) zone with soil from trap rock  
Agro-climatic zone No. 8

Chart No. AC16 Departure to Normal Rainfall Ramtek



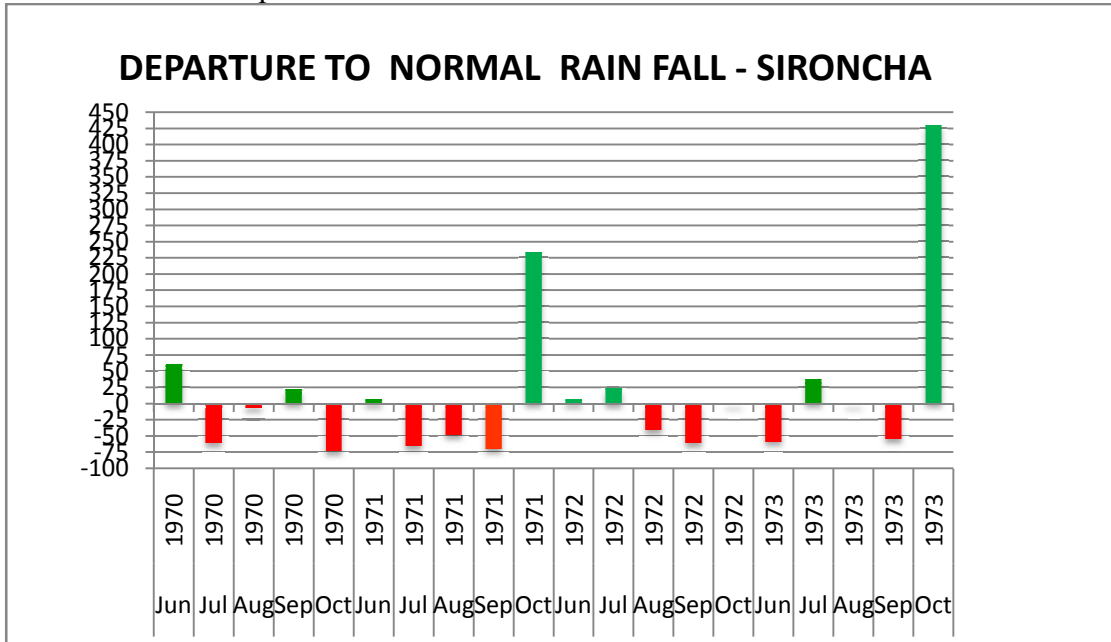
Moderate to moderately High Rainfall (90-125cm.) zone with soil from trap rock  
Agro-climatic zone No. 8

Chart No. AC 17 Departure to Normal Rainfall- Gondia



High rainfall (125 to 1700 cm.) zone with soils formed mixed rocks Agro-climatic zone No.9

Chart No. Ac.18 Departure to Normal Rainfall –Sironcha



High rainfall (125 to 1700 cm.) zone with soils formed mixed rocks Agro-climatic zone No.9

Chart No AC19 1972-73 Food grain and area district-wise

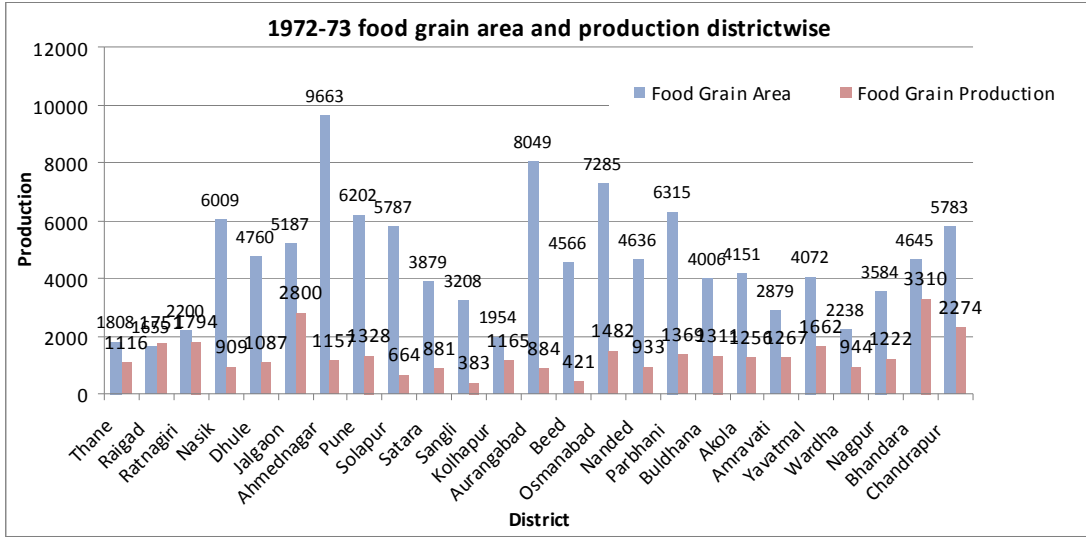
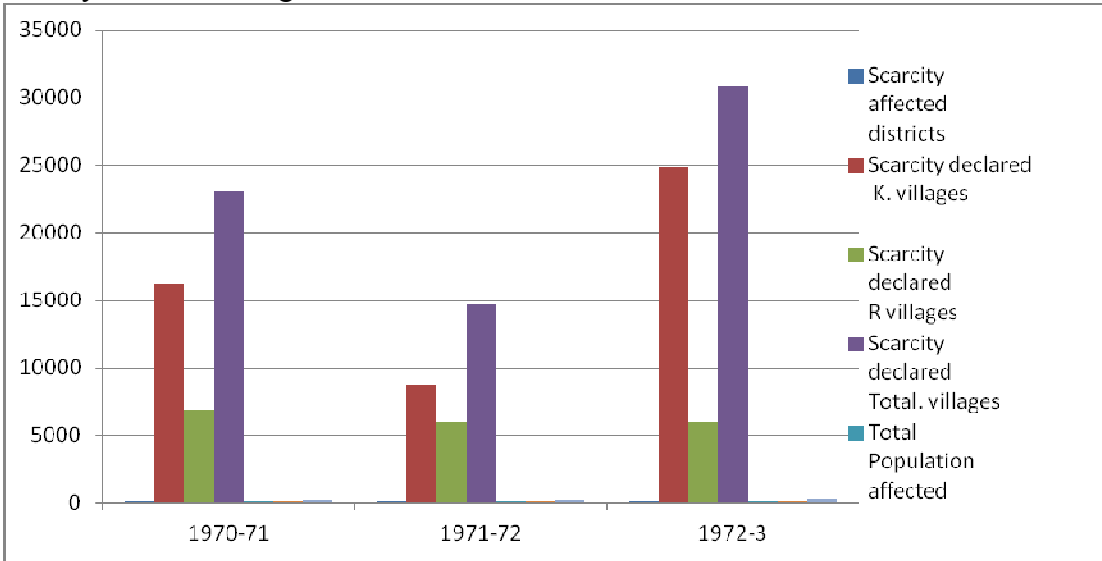


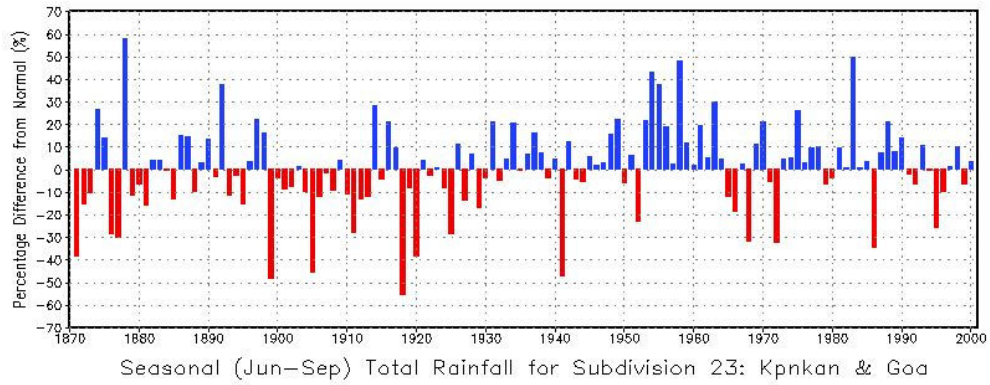
Chart No. AC-20 1970-73 Scarcity affected districts, Scarcity affected population and scarcity declared villages



# APPENDIX-H

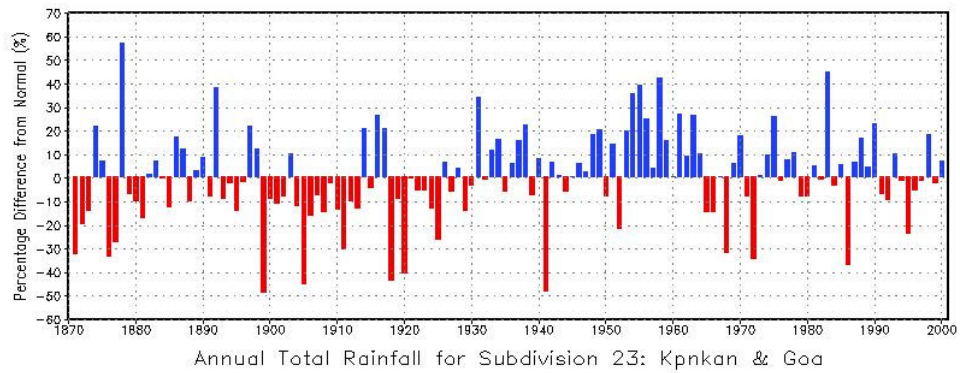
data from [www.monsoon.org](http://www.monsoon.org)

AC21

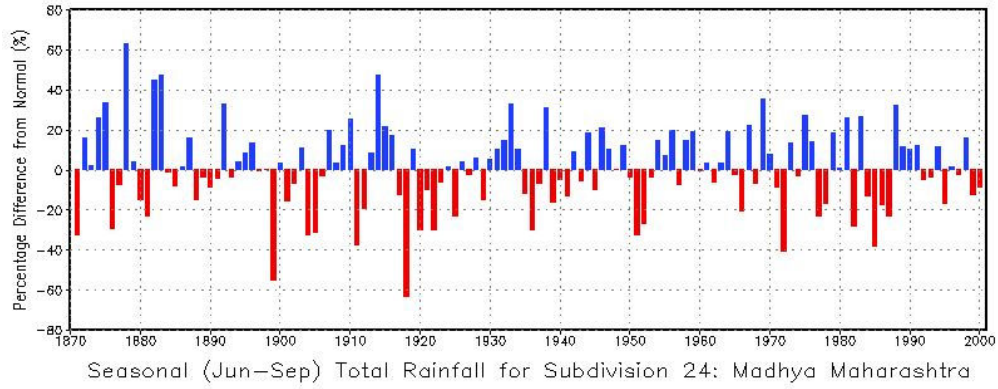


Source :IITM Pune

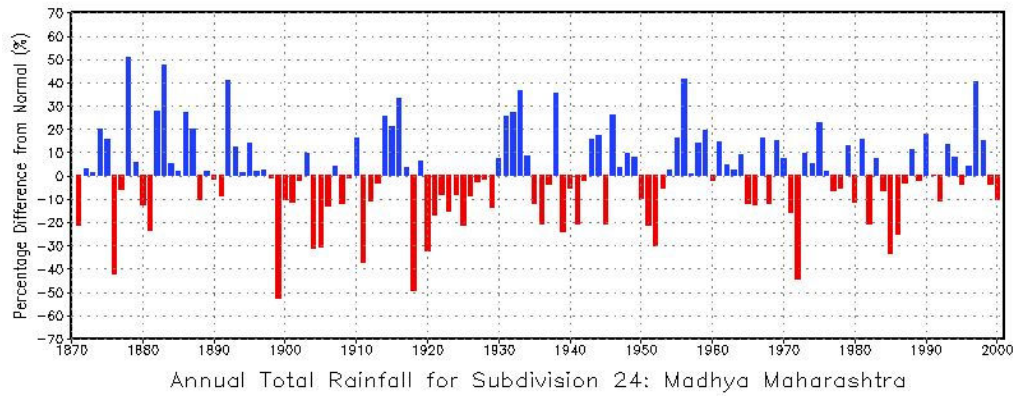
AC22



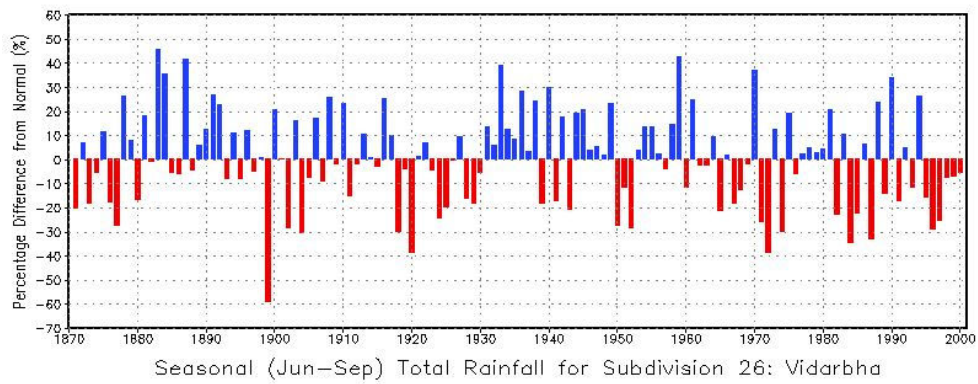
AC23



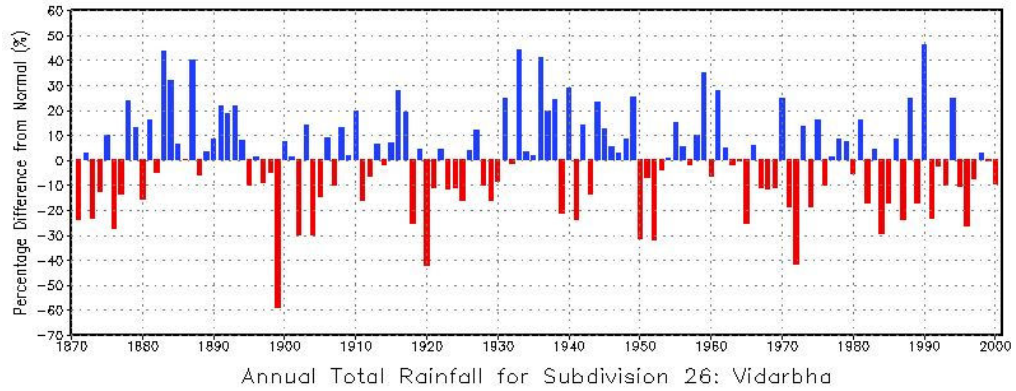
AC24



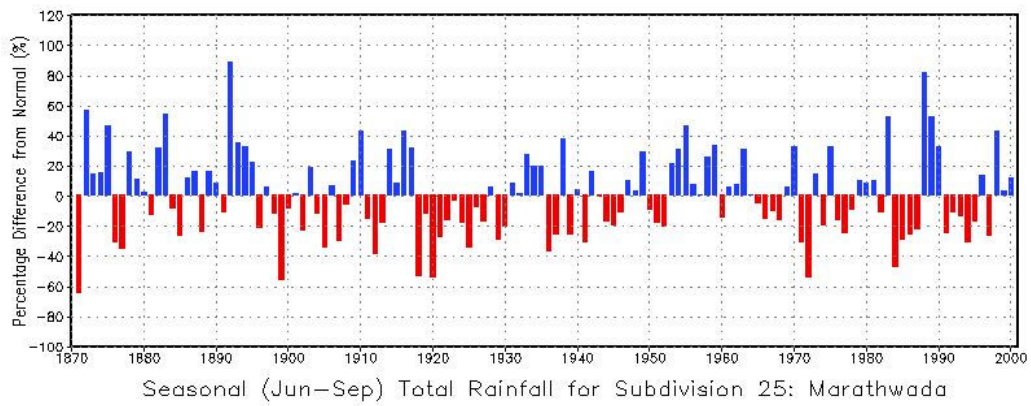
AC25



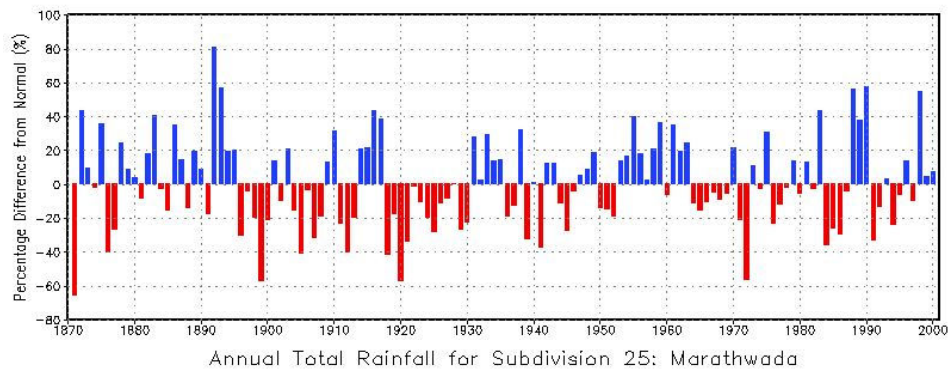
AC26



AC27



AC28

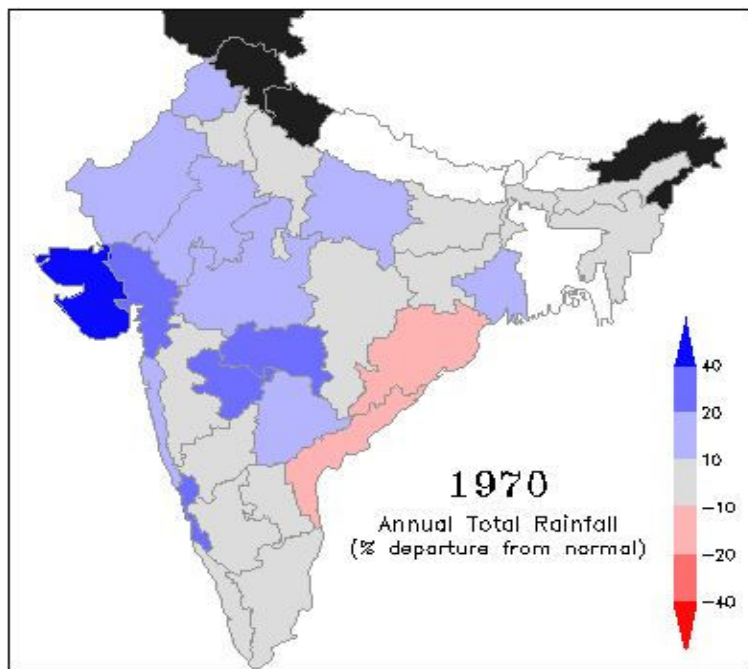
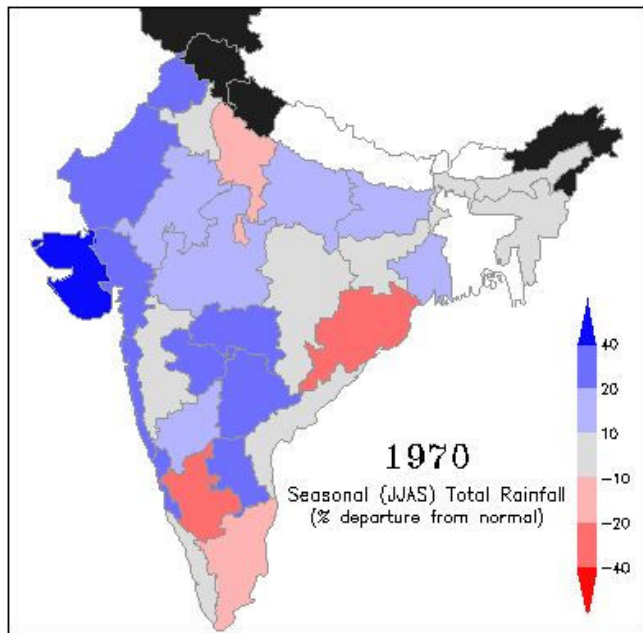


Source: IITM Pune



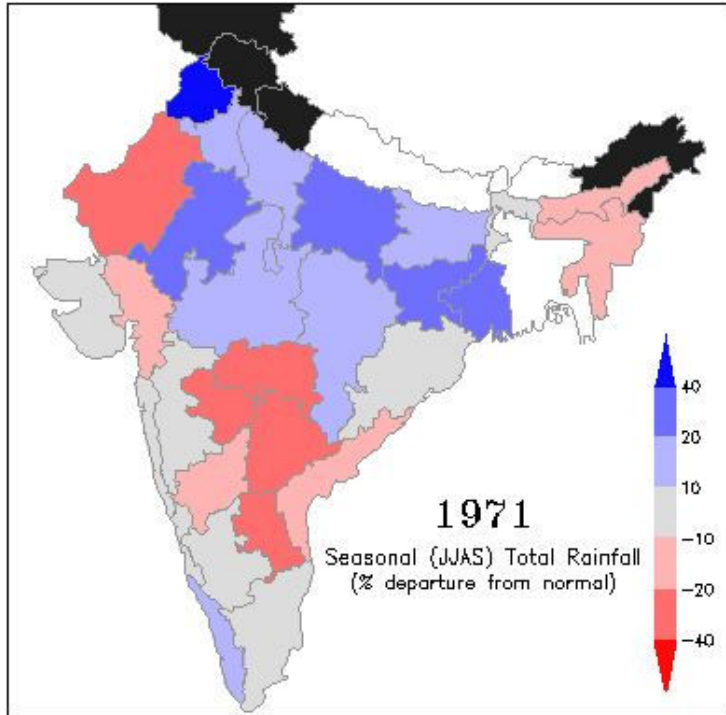
## APPENDIX-I

AM-1 Seasonal rainfall 1970 All Maps from [www.monsoon.org](http://www.monsoon.org)

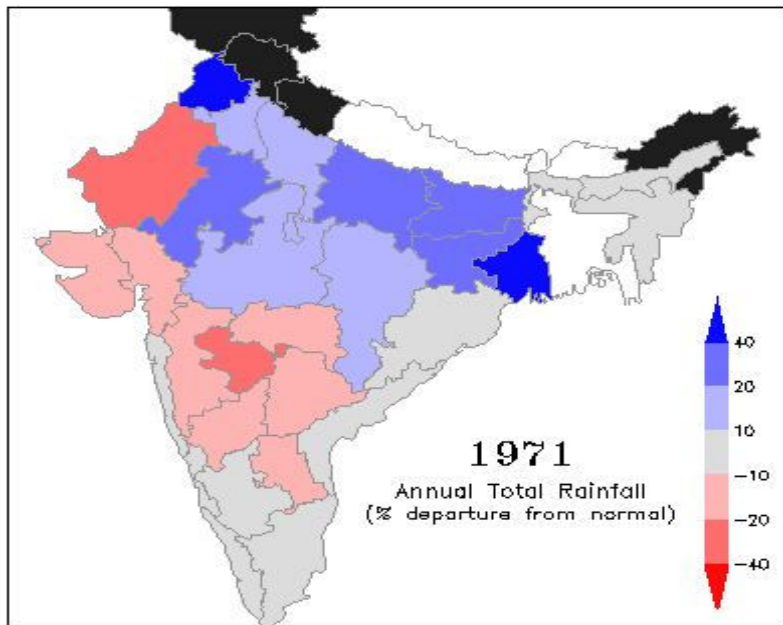


AM-2: Annual Rainfall 1970

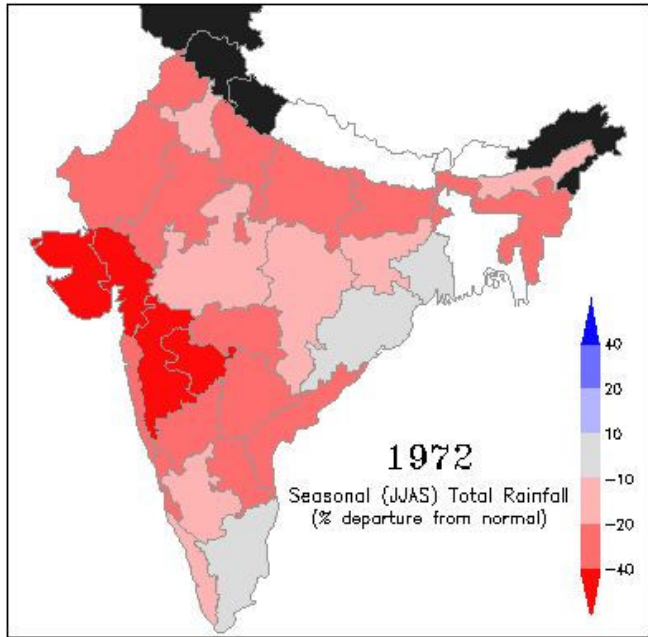
AM-3 Seasonal Rainfall 1971



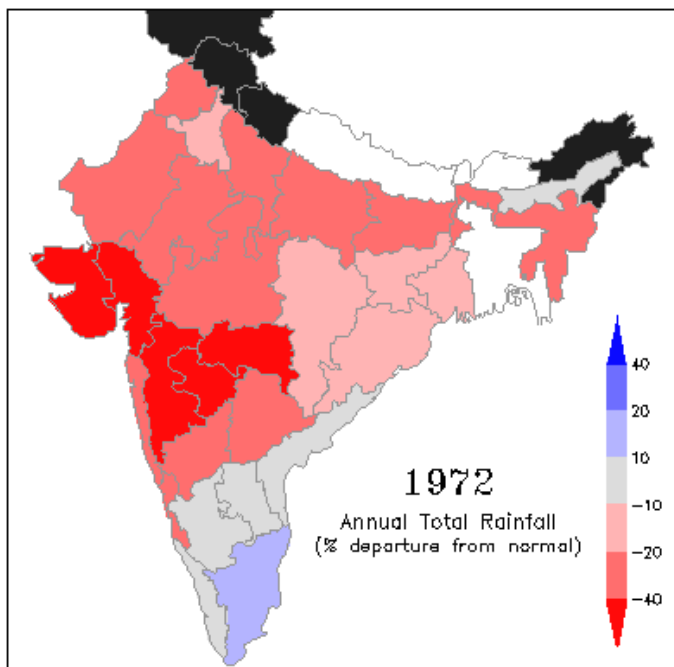
AM-4 Annual Rainfall 1971



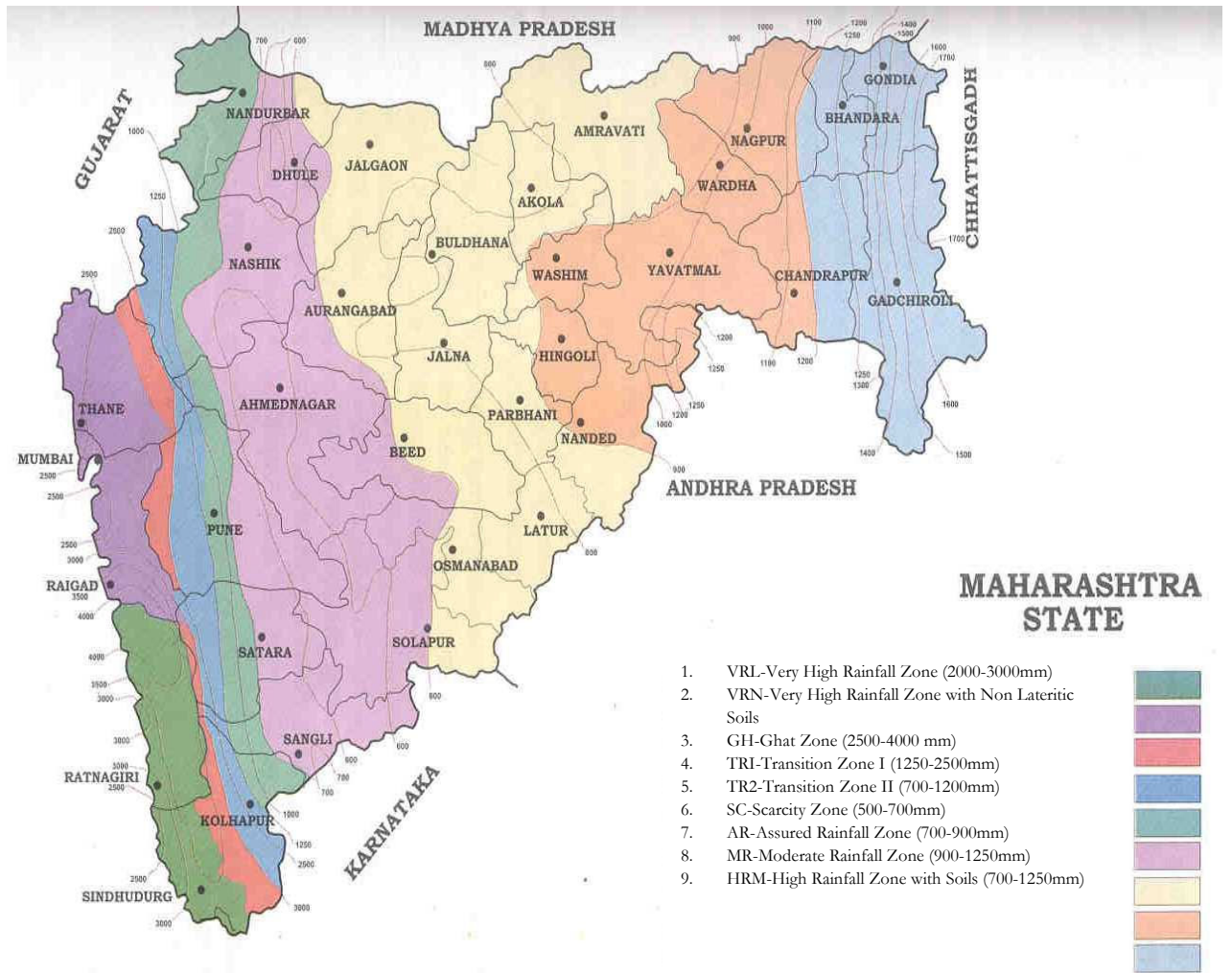
AM-5 Seasonal Rainfall 1972



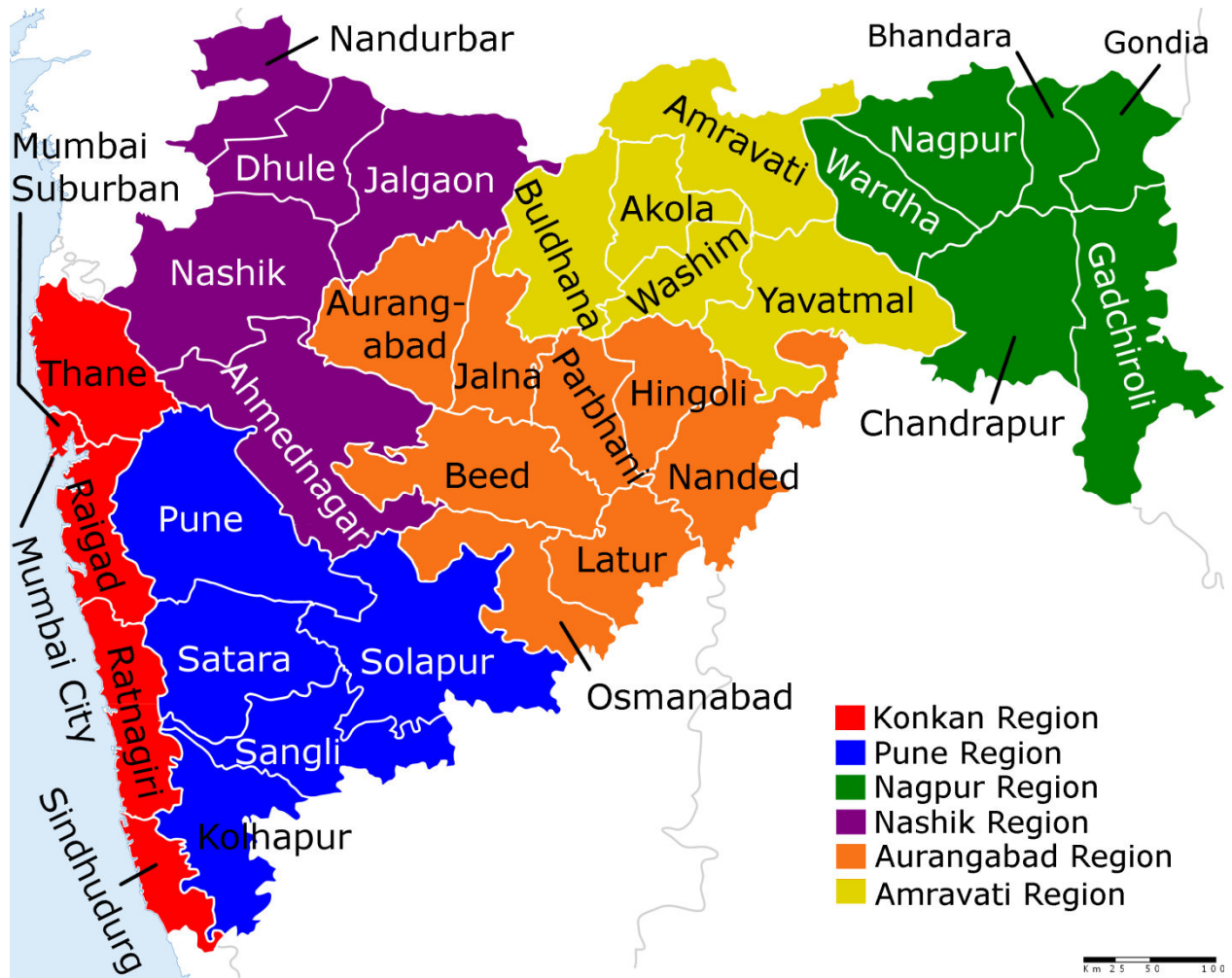
AM-6 Annual Rainfall 1972



AM-7 Agro-climatic zones of Maharashtra




AM-8 Districts of Maharashtra after 1985





ASSEMBLY PROCEEDINGS

1973



महाराष्ट्र विधानपरिषद्  
कार्यवाही  
आधिकृत प्रतिवेदन

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खंड ३७] संगठवार, दिनांक १३ मार्च १९७३ [कसौका २०

अनुक्रमणिका

कायदपने सभामुहाममोर देखणे

पुस्तकाची मुद्रणा -  
कीकल्प देखणे (भायटा-संगठूर) संपूर्ण काय हाती व पोता वेवळ जायटा-दायगाव  
भायटाने मातीकाय हाती वेव्याची पोषणा  
कायगाव वेव्याक जातीय दगळ  
सदस्य अनुपस्थिती सभिलीचे प्रतिवृत्त सादर करणे  
अंदाज सभिली, लोक तिका सभिली व सार्वजनिक उपकम सभिली पोषणा निवडणुकीच्या  
कार्यकमाची पोषणा

विधेयकं—  
सविष्णु अरती मुबारक सवळ विधेयक

सदस्यवापक, मातडीय सभ्यवती मुद्रणालय, मुंबई यांनी भायटात मुद्रित केले व  
संभालक, सरकारी मुद्रण व लेखनभायटो, महाराष्ट्र राज्य, मुंबई-४  
यांनी प्रकाशित केले  
१९७३

पुस्तक ४० पेजे ] [पुस्तक ११४४-११४९

२३ ऑगस्ट १९७३ (४-०० वाजेपर्यंत) त्या शाखेत ठेवलेल्या पेटीत टाकावीत.

दुष्काळी कामे अंशतः बंद करण्यासंबंधीचे सरकारचे धोरण यासंबंधी सर्वश्री उ. ल. पाटील  
मो. उ. लहाने व डॉ. व. रा. पंडित यांचा प्रस्ताव

श्री. उ. ल. पाटील (महाराष्ट्र पदवीधर) : मी आपल्या अनुमतीने नियम २५२ सात  
पुढील प्रस्ताव मांडतो :—

“राज्यामध्ये दुष्काळी कामे अंशतः बंद करण्यासंबंधीचे शासनाचे आदेश, दुष्काळी  
कामावर कुटुंबातील फक्त दोन व्यक्तींना काम देण्याचे धोरण, त्यामुळे दुष्काळी वरते  
होणारे हाल, दुष्काळी मजुरांची थकलेली कोट्यवधी रुपयांची मजुरी, त्यामुळे त्यांचे  
होत असलेली उपासमार व दुष्काळात निर्माण झालेली परिस्थिती विचारात घेण्यात  
यावी.”

सभापती : मला आपल्या निदर्शनास आणावयाचे आहे की, खालच्या सभागृहातही हा  
विषयावर चर्चा चालू आहे. त्यामुळे संबंधित मंत्री तेथे उत्तर दिल्यानंतर या सभागृहात  
चचला सात वाजता उत्तर देतील. म्हणून आपण अर्धा तासाऐवजी एक तासाची विश्रांती  
घ्यावी असे मला वाटते.

श्री. ग. प्र. प्रधान : ठीक आहे, परंतु जास्त सुटी घेण्याची गरज नाही कारण  
ठिकाणी वरचे वकते बोलावयाचे आहेत त्यांना या चर्चेमध्ये भाग घ्यावयाचा आहे.

सभापती : ठीक आहे, मग ज्यांना बोलावयाचे थोडे तासांची वरचे घ्यावी त्यांना

### (तारांकित प्रश्न)

गांधरे तलावावर काम करणाऱ्या मोक्याशी या मजुरांचा उपासमारीने मृत्यू

\*४२०३. श्री. ग. भा. कानिटकर (बृहन्मुंबई पदवीधर), श्री. उत्तमराव पाटील, (महाराष्ट्र  
पदवीधर) : सन्माननीय महसूल मंत्री पुढील गोष्टींचा खुलासा करतील काय :—

(१) वाडे तालुक्यातील (जिल्हा ठाणे) गांधरे तलावावर काम करणाऱ्या ४० वर्षांच्या  
पातळ्या लक्ष्मण मोक्याशी या मजुरास त्याला तीन आठवडे मजुरी न मिळाल्याने उपास-  
मारीने एप्रिलच्या दुसऱ्या आठवड्यात वा त्या सुमारास मृत्यू आला, हे खरे आहे काय;

(२) हा मजूर प्रथम गातेस रोडवर दोन आठवडे कामास होता व तेथे दोन आठ-  
वडे पगार न मिळाल्याने गांधरे तलावावर कामास आला, हे खरे काय ;

(३) शासनाने या प्रकरणी काही चौकशी केली काय, असल्यास, चौकशीत काय  
बाधळून आले ?



अहमदनगर जिल्ह्यात मौजे शहागापूर येथे दुष्काळी कामावर असलेल्या कामगारावर दरड कोसळून त्याच्या झालेल्या मृत्यूसंबंधी सर्वश्री पुं. बा. कडू, वकिलराव लंघे यांची स्थगन प्रस्तावाची सूचना.

उपाध्यक्ष : सर्वश्री पुं. बा. कडू व वकिलराव लंघे यांनी पुढीलप्रमाणे स्थगन प्रस्तावाची सूचना दिलेली आहे :—

“अहमदनगर जिल्ह्यातील मौजे शहागापूर, ता. कोपरगाव येथील दुष्काळी कामावर काम करीत असताना पुरेशा संरक्षणाअभावी व सरकारी अधिकाऱ्यांच्या निष्काळजीपणामुळे दरड कोसळली व ववन लहानु गवळी हा दोन दिवसापूर्वी जागच्या जागीच ठार झाला. त्याची पत्नी सोनूबाई ही व आप्पा नाना गवळी हे गंभीर जखमी झाले म्हणून ह्या घटनेची चर्चा करण्यासाठी आजच्या सभेचे कामकाज स्थगित करण्यात यावे.”

येथे एक गोष्ट स्पष्ट आहे की, हा अपघात आहे. याला सरकार जबाबदार आहे असे म्हणता येणार नाही. अपघात हा काही स्थगन प्रस्तावाचा विषय होऊ शकत नाही. सबब ही हा प्रस्ताव स्वीकृत करीत नाही.

३८९४

आंबेजोगाई (जिल्हा बीड) तालुक्यात मिलोच्या भाकरी खाल्ल्यामुळे जुलाव, पोटदुखी, डोकेदुखी आदी रोगांचा होत असलेला प्रादुर्भाव याबाबत सन्माननीय समासद सर्वश्री कृ. घों. भेगडे व रा. का. म्हाळगी यांची लक्षवेधी सूचना

श्री. कृ. घों. भेगडे (मावळ) : अध्यक्ष महाराज, नियम १०४ अन्वये मी खालील तातडीच्या सार्वजनिक महत्त्वाच्या बाबीकडे सन्माननीय अन्न व नागरी पुरवठा मंत्र्यांचे लक्ष वेधू इच्छितो आणि त्याबाबत निवेदन करावे अशी विनंती करतो. विषय असा आहे—

“आंबेजोगाई (जिल्हा बीड) तालुक्यात मिलोच्या भाकरी खाल्ल्यामुळे जुलाव, पोटदुखी, डोकेदुखी आदि रोगांचा होत असलेला प्रादुर्भाव त्यामुळे टंचाई निवारण कामावरील मजुरात निर्माण झालेले चिंतेचे वातावरण व त्याबाबत शासनाची प्रतिक्रिया.”

श्री. ह. गो. वर्तक (अन्न व नागरी पुरवठा मंत्री) : अध्यक्ष महाराज, बीड जिल्ह्याला फेब्रुवारी व मार्च १९७३ साठी २,००० टन मिलोचे नियत वाटप देण्यात आले. यार्पकी १,४६५ टन पाठविण्यात आला आहे. या आयात केलेल्या मिलोमध्ये घतुरा बीची अल्पप्रमाणात मिश्र असल्याने चाळून, पाखडून, हाताने निवडून त्यात घतुरा बी नाही याची खात्री करून घेतल्यानंतरच स्वस्त धान्य दुकानामार्फत वितरित केला जावा असे आदेश जिल्हाधिकाऱ्यांना देण्यात आले आहेत. शिवाय ग्राहकांनाही याबाबतीत दक्षता घेण्यासंबंधी प्रसिद्धी देण्यात आली आहे.

२. सदर लक्षवेधी सूचनेबाबत जिल्हाधिकारी, बीड यांनी पाठविलेल्या अहवालानुसार, आंबेजोगाई तालुक्यात अजूनपर्यंत मिलोचे वितरणही करण्यात आले नाही. म्हणून आंबेजोगाई तालुक्यात मिलोचे भाकरी खाल्ल्यामुळे जुलाव, पोटदुखी, डोकेदुखी आदि रोगांचा प्रादुर्भाव झाल्याचा प्रश्नच उद्भवत नाही. शिवाय या वितरणामुळे टंचाई निवारण कामावरील मजुरात चिंतेचे वातावरण निर्माण झाल्याचे सातत हेही बरोबर नाही.

श्री. के. शं. घोंडगे : हे जुलाव मिलोमुळे झाले नाही तर मग दुसऱ्या कोणत्या कारणामुळे झाले ?



## कृत्रिम पाऊस पाडण्याची योजना

१४१५०. सर्वश्री स. बा. मंडलिक (कागल), अ. ना. धोपटे (भोर), व. भा. वं (कोरेगाव), स. मु. ठाकरे (राजापूर), गं. शि. मानकर (सिल्लोड), दि. वि. चव्हाण (चाळीसगाव), ना. गि. पाटील (कन्नड), शां. गो. घोलप (मुरवाड), श्री. रा. शिगे (शहापूर), अं. रा. टोपे (अंबड), फे. मा. पिटो (माहीम), कि. बा. म्हस्के (अहमदनगर-उत्तर) सर्व धोमरी प्रतिभा तिडके (मूतिजापूर), पशोघरा बजाज (सावली): तारांकित प्रश्न क्रमांक १३८८ ला दिनांक १९ फेब्रुवारी १९७३ रोजी दिलेल्या उत्तराच्या संदर्भात सन्माननीय कृषि मंत्री पुढील गोष्टींचा खुलासा करतील काय:—

(१) कृत्रिम पाऊस पाडण्याच्या योजनेबाबत केंद्र शासनाने आपला अंतिम निर्णय राज्य शासनाला कळविला आहे काय ;

(२) अद्याप कळविला नसल्यास, राज्य शासनाने त्याबाबत केलेल्या प्रयत्नांचे स्वरूप काय आहे ;

(३) राज्यात विशेषतः उत्तर अहमदनगर व पुणे (शिरूर) विभागात डेक्कन सुगर टेक्नोलॉजिस्ट असोसिएशन इत्यादी द्वारा कृत्रिम पावसाचे प्रयोग करण्यात आले आहे काय ;

(४) असल्यास, या प्रयोगांच्या फलनिष्पत्ती बाबतचे अहवाल शासनाने मागवून घेतले आहेत काय ?



महिलां विहारीतौ हस्तुल या जगत भागतीत आडिबासांच्या मुलांना दुष्काळा परिस्थितीमुळे बेलकळ वाळवून भाष्यासो कापले.

- छाया : एस. परशुराम नाशिक

# सासवडमध्ये रोज दोनच तास पाणी, दाबहि कमी

(आमच्या वार्ताहराकडून)

कोयनेच्या परिसरांत सोळाशे दुष्काळी मजूर (आमच्या वार्ताहराकडून)

## दुष्काळी परिस्थितीत उत्पादक कामांची गरज

(आमच्या वार्ताहराकडून)

पायरील काँग्रेसीत तीन बच दुष्काळ अवस्थामुळे दुष्काळाची भीषणता अधिक जाणवत आहे या दुष्काळात कामांना जगाविले पाहिजे व जगाविल्यासाठी कामे पुरविली पाहिजेत. कामे पुरविल्याना उत्पादक कामे सुरू केली म्हणजे त्यांचा फायदा पुढे होईल त्या दृष्टीने गाव्या पासर तलावावर जिल्हा परिषद अधीन भर देत आहे. असे विचार जिल्हा परिषद अध्यक्ष श्री. रामनाथ बाप यांनी विद्यवाच साईट न. २ या पासर तलावाच्या भूमि पूजन प्रसंगी नुकतेच काढले.

तलाव ५॥ लाख रुपये खर्चाचा अमुन तलाव १५ एम. सो. एफ. टी. पाण्याचा साठा होईल. व त्यामुळे ५०० ते ६०० एकरातील बिहिरीना पाण्याचा साठा होईल.

या समारंभाच्या अध्यक्षस्थानी जिल्हा परिषद आरोग्य समितीचे अध्यक्ष श्री. ए. ह. पालवे हे होते.

### हरिजनंचे निवेदन

हा समारंभ संपल्यावर या घरणात ज्यांच्या जमिनी जातान त्या ५०-६० हरिजन स्त्री-पुरुषांनी समारंभात उपस्थित असलेले समाजकल्याण समितीचे अध्यक्ष श्री. प्र. ह. रूपते यांना भेटून एक निवेदन दिले. या निवेदनात त्यांनी म्हटले आहे की, आमची जमीन घरणात जाते त्याला आमचा विरोध नाही पण जमीना या घरणाचा फायदा होतो त्या जमीनदारांची काही जमीन आमची जेव्ही जमीन जाते त्यापेक्षा निम्मी जमीन ती या असो त्यांनी मागणी केली

अंबेजोगाई येथील दोन्ही तलाव कोरडे



# पाऊस नसल्याने शेतकऱ्यांत विवता, पाण्याची टंचाई

(आमच्या वार्ताहराकडून)

पायडों : पायडों तालुक्यांत गेली दोन वर्षे बरुण राजाची अवकृपा असल्याने दुष्काळी परिस्थिती होती या वर्षी लवकर पाऊस पडेल असे वाटत होते पण तशी नक्षत्र कोरडे गेले व मृग नक्षत्राह कोरडे जाते की काय, अशी शेतकरी बाळगत आहे.

या वर्षी तर शेतांतील विहिरी बाभळगाव वा गावांतील उसाचे पीक पाहण्या पडल्यामुळे बारमाही पिके विहिरी आटल्यामुळे जळून गेले आहे. बारमाही पिके मोसंबी बाभळगाव येथील श्री. रा. कृ. कुटे, श्री. बायकर यांचा चार-पांच एकर उस पाण्याअभावी जळून गेला आहे. तसेच मोसंबीच्या लाकडाचे तालुक्यांत ठिकठिकाणी बऱ्याच पेतून गेले. शेतकऱ्यांच्या शेतांत कऱ्यांनी कष्टाने जतन केलेली पिके जळून गेली आहेत.

शेतकऱ्यांत पिपळगाव, चितळी व पाण्याअभावी पिके तर गेलीच पण

पिण्याचे पाणीही दोन-दोन मैलांवरून आणण्याचा प्रसंग ग्रामीण भागांत व खूद पायडों गावांतील नागरिकांवर आला आहे. पायडों गावांत तर पाणी दुमिळ झाले असून स्त्रिया व मुले रात्री १२-१ पर्यंत पाण्यासाठी वणवण फिरतांना दिसतात. इतकी टंचाई पूर्वी कधीही आली नव्हती.

उसाचा अक्षरशः कडवा कोपरगाव : गेल्या तीन चार दिवसांपासून भयंकर उकाडा होतो. आकाश डगमग होते आता पाऊस येईल अशी आशा उचलते तोच काही वेळाने डग निघून जातात. परवा थोडी रिमझिम झाली. विहिरीवरील ऊम उत्पादकांच्या तोंडाशी आलेला घास निघून गेला असून उसाचा कडवा झाला, कमे कर्जे फेडणार खचं कसा भागविणार या गंभीर समस्येमुळे शेतकरीवर्ग शरमला गेला आहे.

पुन्हा पेरणी गडहिंग्लज : या तालुक्यांत तीन चार वेळा वळीव पाऊस पडल्यानंतर जमिनीच्या भशागतीची कामे झाली व

पुणे विद्यापीठ  
 स. १९७२-७३



**अनंद**  
 डेयरी प्रोडक्ट्स प्रा. लि.  
 मुंबई, रविवार, ८ एप्रिल १९७३

# लोकसत्ता

सर्वाधिक खपाचे मराठी साप्ताहिक

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## महाराष्ट्रांत धान्यस्थिती गंभीर; तात्काळ धान्यपुरवठा करा

### महाराष्ट्र काँग्रेसश्रेष्ठींची केंद्राकडे मागणी

**मुंबई, रविवार -** महाराष्ट्रातील धान्याची गंभीर परिस्थिती लक्षात घेऊन केंद्र सरकारने महाराष्ट्र सरकारच्या मागणीवरून धान्याचा दुर्लभ व सतत पुरवठा करावा अशी मागणी केल्या जाणार आहे असे महाराष्ट्र काँग्रेस श्रेष्ठींनी म्हटले आहे.

आज दिवस भवनाथ महाराष्ट्र काँग्रेसचे अध्यक्ष श्री. बाळासाहेब खेडकर यांच्या अध्यक्षतेखाली महाराष्ट्र काँग्रेस कार्यकारिणीची बैठक मुंबईतील सावरकर भवन येथे होई. या बैठकीतच अध्यक्ष श्री. बाळासाहेब खेडकर यांनी धरमालक केंद्राकडे सतत धान्याचा उपाययोजना मागण्याची मागणी केल्या जाणार आहे.

आज दिवस भवनाथ महाराष्ट्र काँग्रेस कार्यकारिणीची बैठक मुंबईतील सावरकर भवन येथे होई. या बैठकीतच अध्यक्ष श्री. बाळासाहेब खेडकर यांनी धरमालक केंद्राकडे सतत धान्याचा उपाययोजना मागण्याची मागणी केल्या जाणार आहे.

धरमालक केंद्राकडे सतत धान्याचा उपाययोजना मागण्याची मागणी केल्या जाणार आहे असे महाराष्ट्र काँग्रेस श्रेष्ठींनी म्हटले आहे.

आज दिवस भवनाथ महाराष्ट्र काँग्रेसचे अध्यक्ष श्री. बाळासाहेब खेडकर यांनी धरमालक केंद्राकडे सतत धान्याचा उपाययोजना मागण्याची मागणी केल्या जाणार आहे.



मुंबईतील ओबेरॉय डोरेटन या अतिशय हॉटेल्च्या धान्यपुरवठा उपाययोजना प्रसंगी महाराष्ट्र काँग्रेसचे अध्यक्ष श्री. बाळासाहेब खेडकर यांच्यासोबत असलेल्या कार्यकारिणीच्या बैठकीत.





# दिल्लीहून तुटीच्या राज्यांत होणारी धान्यवाहतूक पार थंडावली

## लोको रनिंग संपाचा परिणाम; रेल्वेमंत्र्यांचा संपकऱ्यांस गंभीर इशारा

दिल्लीहून तुटीच्या राज्यांत होणारी धान्यवाहतूक पार थंडावली आहे. लोको रनिंग संपाचा परिणाम म्हणून रेल्वेमंत्र्यांचा संपकऱ्यांस गंभीर इशारा देण्यात आला आहे.

**एकावं ते नवलच**  
मनोरंन



मनोरंन ही मितो असावा...

### एवढें विपुल धान्य जाते तरी कोठें?

तुटीच्या राज्यांत पण चोरट्या मार्गाने

तुटीच्या राज्यांत धान्याचे चोटी चोरट्या मार्गाने जात आहे असे अटक्यत आहे. रेल्वेमंत्र्यांचा संपकऱ्यांस गंभीर इशारा देण्यात आला आहे. धान्यवाहतूक पार थंडावली आहे.

संपकऱ्यांचा विजयाने धान्यवाहतूक पार थंडावली आहे. धान्यवाहतूक पार थंडावली आहे. धान्यवाहतूक पार थंडावली आहे.

धान्यवाहतूक पार थंडावली आहे. लोको रनिंग संपाचा परिणाम म्हणून रेल्वेमंत्र्यांचा संपकऱ्यांस गंभीर इशारा देण्यात आला आहे.

# राष्ट्रविधिमंडळांत पहिल्याच दिवशी विरोधकांचा सभात्याग

## मुळी-स्थिती व शासकीय कृती ह्यांत मुळीच मेळ नाही

विरोधी नेत्यांनी राज्यातील विधिमंडळांत पहिल्याच दिवशी सभात्याग केला आहे. त्यांच्या म्हणण्यानुसार शासकीय कृती ह्यांत मुळीच मेळ नाही.

विरोधी नेत्यांनी राज्यातील विधिमंडळांत पहिल्याच दिवशी सभात्याग केला आहे. त्यांच्या म्हणण्यानुसार शासकीय कृती ह्यांत मुळीच मेळ नाही.

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नित्यावर्यक वस्तूच्या वाट्याला विरोधी नेत्यांचा सभात्याग

या.  
ना-  
हो  
व्या  
त.

# विधानसभेवर दोन भव्य मोर्चे

भाववाढ आवरण्याची महिलांची मागणी;  
फेरित्या न्यायालयाने फेरीवाले संव्रस्त

[आमच्या प्रतिनिधीकडून]

मुंबई, सोमवार - महागाई प्रति-  
कार संघात महिला समित्यातर्फे  
महागाई प्रतिकाराचा भाग म्हणून  
आज महाराष्ट्र विधान सभेवर  
महितीचा एक विशाल दूध भाव-  
वाढ विरोधी मोर्चा नेण्यात आला  
होता. परंतु पार्लिसोनी मुंबई विद्या-  
पीठ इमारतीजवळ मोर्चा अडवीवत्या-  
नंतर त्याचे मंज्यावत संपात झाले.

त्वानंतर मोर्चाच्या एका तिष्ठ मंड-  
ळाने विधानसभेचे अध्यक्ष व. शंकरार  
बानसरोडे ह्यांची भेट घेऊन त्यांना  
एक निवेदन सादर केले.

मंज्यावतमोर भाषण करताना  
सोमतात्या जयराज आमदार श्रीमती  
मृणाल गांगे म्हणाल्या की, भाववाढ  
कमी केली नाही तर आम्ही यांग्य  
बंदी मंज्यांना घेताच घेतला आहोत.  
त्याबंदी मंत्री महोदय बाजूच्या घाताने

पंजून आज शकणार नाहीत, जरी  
छात्रवृत्ती आम्ही येणार आहोत.

महितांची सहनशक्ती असा संघट  
आलेली असून जीवनशायक वस्तूची  
भाववाढ खालच आहे. या भाववाढीत  
आज घेतल्यासाठी सावधान केलेचि  
पावले टाकली नाहीत, तर महिला  
संस्थावर बंदीत, असा इच्छा सोमती  
अहिल्या सांगणकर ह्यांनी दिला.

सौ. प्रीमला दंडवते ह्यांनी 'ह्यात  
संगठना घेऊन त्या आम्ही मंज्यांना  
भेट देऊन आहोत, असे सांगितले  
श्रीमती मंडू गांधी, सोमती साने वगैरे  
विरोधी पक्ष नेते श्री. वि. बा. पाटील  
वांगोरी महिलांच्या मंज्याच्या समोर  
भाषणे झाली.

आजच्या मोर्चात अनेक महिला  
कडेचा मुल्ले घेऊन आल्या होत्या  
आणि दाऊ सख्त, दूध महान ।  
नाईक सरकार वगैरे इंग असा  
घोषणा देत होत्या.

फेरीवालांचे मोर्चे

बांसे हाफर्स घोरघनसहर्षे विद्या  
समाजसभेवर

## ७२ सालांत महागाईचा

### कळस

[आमच्या छास प्रतिनिधीकडून]  
नवी दिल्ली, दि. ११ - गेल्या  
वर्षात अन्तधानच व उपांगघंशांत  
सामान्यतः कच्चा माल ह्यांच्या किंम-  
तीने कळस मांडला असून ह्यापूर्वी  
घाऊक मालाच्या किंमतीत एवढी  
वाढ वर्षाचतन झाली असेल. १९०२  
वर्षात घाऊक मालाच्या निदर्शकांत

जरेलं तरी रोच एकमेव कारण  
नाही. ह्या संस्थार भाववाढीकडे दि  
२८ रोजी अर्थसंकल्प सादर करण्या-  
पूर्वी अर्थसंघी श्री. वराचंरतार घशाव  
ह्यांना तांतडीने लक्ष घावे लागेल.

दिसोवर १९०१ मार्चो घाऊक  
मालाचा निदर्शक १८५.९ होत, तो  
दिसोवर ०२ मार्चो २११.४ होत. ह्या  
पारिस्थितीवर उपाय काडण्यास श्री.  
घशाव ह्यांना एक पंधरघड्याच  
काय तो अवकाश जरेला आहे.



गुणकारी गोळ्या  
 (मिळतात)  
 संवई-६३

मुंबई, शनिवार,  
 १७ फेब्रुवारी, १९७३

# काक

सर्वाधिक खपाचे

## धान्य पुरवठावरून विधानसभेत

### तंग वातावरण

विरोधकांची प्रश्नांची सरबत्ती;  
 पुरवठा मंत्र्यांना धारेवर धरले

[आमच्या प्रतीनिधीकडून]

मुंबई, शुक्रवार.

नवलच



काराबची  
 आपण  
 टोबलं तर  
 वली वीर-

आज विधानसभेत प्रामाण्य भागांतोल धान्यपुरवठ्याच्या प्रश्नावर पुरवठा-  
 मंत्री श्री. भाऊसाहेब वर्तक यांनी संसदेच्या निबंधनानंतर विरापी  
 पक्षाच्या सदस्यांनी त्यांच्यावर प्रश्नांची सरबत्ती करून त्यांना धारेवर  
 धरण्याचा प्रयत्न केला तेव्हा सभागृहात सुमारे बस मिनिटे तंग वातावरण  
 निर्माण झाले होते.

धान्य भागात सध्या धान्य कमी  
 मिळते, पण त्यामुळे शंकाही त्यांना  
 उपासी राहावे लागते ही गोष्ट खरी  
 नाही, असे विधान श्री. वर्तक यांनी  
 आपल्या निबंधनात केले होते. त्यावर  
 या प्रश्नांच्या फौरीला प्रारंभ झाला.  
 डॉ. कृष्णचंद्र भांडे [कां.], श्री.  
 प्र. मा. पिटी [कां.], श्री. ए. पां.  
 साखरे [कां.], श्री. ए. टी. पाटील

असल्याची माहितीही त्यांनी दिली.  
 श्री. दि. बा. पाटील [सं.का.] यांनी  
 यावर विचारले की, काही जिल्हात  
 साव फिकलांपेक्षाही कमी धान्य सतत  
 मिळत आहे ते कां ?

यावर ते बराबर नाही, असे उत्तर  
 पान ५ वरून

### सरकारी स्टेशनरी जळाली

[एच.प्र.चं न्यूव्ह संवाद]  
 कोलकाता, दि. १५ - राहण्या  
 मध्यभागी असलेल्या कलकत्ता  
 कॅम्पमध्ये एका इमारतीने पेट  
 पडल्यामुळे कोलकाता शहरात आज  
 सुमारे दस तास भीतीचे वातावरण पसर-  
 लेले होते.

सरकारी स्टेशनरी व रेकॉर्ड यांचा  
 साठा या इमारतीत होता. अग्निशमक  
 दल अधिकारी आणि पोलिसांनी  
 त्यांच्या मदतीने अग्न विहीरण्याचा  
 प्रयत्न केला परंतु तत्पूर्वीच हा साठा  
 जळून साक झाला. कॅम्पमध्ये  
 जून कलकत्ता इमारत माघ या  
 आगीतून बचावली.

नवी दिल्ली, दि. १६ - सर-  
 कारी प्रकल्पावरील प्रमुख व्यवस्थाप-  
 काच्या नेमणुकीविषयी आज केंद्रीय मनि-  
 मंडळात धोरणविषयक खल झाला.

# आमदारपदाचा राजीनामा देईन

## एन्. डी. पाटील यांचे शासनाला आव्हान

[आमच्या प्रांतिनिधीकडून]

मुंबई, शुक्रवार -

'सांगली जिल्ह्यातील बाजबं सालक्यांत जनतेला पांच किलो धान्य शासनाकडून दिले जातं हे सिद्ध करून दाखवावं व तशी वस्तुस्थिती असल्याचं दिसून आलं तर आपण सर्वस्वत्वाचा राजीनामा देऊ' असं आव्हान श्री. एन. डी. पाटील (शं. का.) यांनी आज विधान परिषदेत प्रश्नांतराचंरथेची पुरवठा मंत्री भाऊसाहेब बर्तक यांना दिलं.

आज प्रश्नांतराचं रथेची सर्वो वृत्ता ताम्हणं (स. व.) व गाम मध्ये (स. व.) यांनी विचारलेल्या प्रश्नास उत्तर देताना अनेक टप्पे प्रश्न विचारण्यांत आले. त्याचंरथेची श्री. एन. डी. पाटील यांनी हे आव्हान दिलं.

श्री. दत्ता ताम्हणं व मंचे यांच्या प्रश्नास उत्तर देताना पुरवठा मंत्री श्री. बर्तक म्हणाले, 'जुलै १९०२ ते डिसेंबर १९०२ या कालावधीत राज्य शासनाने कोट शसनाकडे १० लाख ०५ हजार टनची मागणी केली होती. एण रथेच्यांत ९ लाख २२ हजार टन धान्य मिळालं. त्यामुळे १ लाख ४१ हजार टन धान्य कमी आलं. सांगली जिल्ह्यास १९०२ फेब्रुवारीमध्ये मागणी आ दहा टक्के कमी म्हणजे १९०२१ न धान्य पुरवण्यांत आलं.

ही माहिती देतांच श्री. एन. डी. पाटील यांनी बाजबं सालक्यास धान्य

सुंदरगाव यांचेकं म्हणालं, सांगली, अहमदनगर, कोल्हापूर, औरंगाबाद, बीड, धुळे, रत्नागिरी, जळगांव हे जिल्हे दुष्काळाची जिल्हे म्हणून जाहीर करण्यांत आले आहेत.

ज्या जिल्ह्यांतही गांधीमार्थे एकांकी आपजारी महा आप्याताली आहे व जंथे रंती हंगामाची व इतर परिस्थिती असमाधानकारक आहे असं जिल्हाधिकार्यांच्या अहवालावरून आइवून येईल अशा जिल्ह्यांत टंचाईची परिस्थिती जाहीर करण्याची कार्यवाही करण्यांत येत आहे.

या उत्तरानंतर अनेक सभासदांनी टप्पे प्रश्नांची सरबती केली. नासिक, पूर्ण, उस्मानाबाद व सांगतापूर या दुष्काळाची जिल्ह्यांचा समावेश यां करण्यांत आता नाही असो पृष्ठा केली.

जळगांव जिल्ह्यांत कस दहा गांवांत टंचाईची परिस्थिती असता लां



# वर्तक यांच्या उद्गारावर संताप

## धोत्रामिश्रित मिलो सादर : विरोधकांचा सभात्याग

(धामच्या प्रतिनिधिकट्टन)  
 मंडई : अमेरिकेतून आयात गोरे उभ्या राहिल्या व म्हणाल्या. केलेल्या मिलोतील धोत्र्याच्या विषारी विद्यांच्या संदर्भात सोमवारी विधान-सभेत पुन्हा वादळी चर्चा झाली. पुरवठामंत्री श्री. हरिभाऊ वर्तक यांनी मिलोसंबंधात दिलेले उत्तर असमाधानकारक आहे, असे सांगून त्यांच्या निषेधार्थ विरोधकांनी काल सभात्याग केला.

श्री. वर्तक यांनी उत्तराचे आपले भाषण संपविण्यापूर्वीच उपसभापति श्री. आर. धो. बेत यांनी या विषयावरील चर्चा संपविली. या वेळाला दिलेला वेळ संपल्याने मी चर्चा थांबवित आहे, असे श्री. बेत म्हणाले. समाजवादी पक्षाच्या श्रीमती मणाल गोरे यांनी तत्पूर्वी सभागृहात धोत्रामिश्रित मिलोचा नमूना सादर केला. श्रीमती

प्रचंड घोडणाच्या नितादात श्रीमती आल्याचे स्पष्ट केले. सर्व मिलो योग्यरीत्या स्वच्छ केल्याशिवाय वाटण्यांत घेणार नाही, असे अग्रधान्य मंडळाने आश्वासन दिले. श्री. वर्तक म्हणाले, "राज्य सरकारने त्वरित दुसऱ्याच दिवशी जिल्हाधिकाऱ्यांना पत्र लिहून योग्य कृति करण्यास सांगितले."

श्री. म्हाळगी म्हणाले, "सभागृहाचे सन्मान्य सभासद जेव्हा अशी माहिती व नमुने तशागृहापुढे ठेवतात तेव्हा त्यांच्याबद्दल अशा शंका व्यक्त करणे कितपत योग्य आहे?"

### वातावरण तम

याचवेळी श्रीमती गोरे यांनी हि हरकतीचा मठा उपस्थित केला. परंतु

आल्याचे स्पष्ट केले. सर्व मिलो योग्यरीत्या स्वच्छ केल्याशिवाय वाटण्यांत घेणार नाही, असे अग्रधान्य मंडळाने आश्वासन दिले. श्री. वर्तक म्हणाले, "राज्य सरकारने त्वरित दुसऱ्याच दिवशी जिल्हाधिकाऱ्यांना पत्र लिहून योग्य कृति करण्यास सांगितले."

### वेळ संपला

सायंकाळी पाच वाजता 'वेडे मातरम्' प्रकरणावर चर्चा होती. परंतु या गोष्टीलाच पाच वाजून दहा मिनिटे सार्वी होती. तेव्हा ठरवून दिलेला वेळ संपलेला आहे. आता पुढील प्रश्नावर चर्चा होईल, असे श्री. बेत यांनी घोषणातच जाहीर केले. ते बोलत असतानाच विरोधकांनी सभात्याग केला व श्री. वर्तक यांचे भाषण अपुरे राहिले.



जालना नगरपरिषदेने मोती तलावांतोस गाळ काडण्याचे काम दुष्काळी काम म्हणून हाती घेतले असून १ हजार स्त्री पुरुष तेथे काम करीत आहेत.

# नद्या, नाले, तळी आणि विहिरी आदि सारेच कोरडे

(आमच्या वार्ताहराकडून)  
बारामती : नाथ सोनुबाई नि हाती कपलाचा बाळा असो स्थिति आज बारामती तालुक्याची झालेली दिसते. निरा लेफ्ट हंड कनातच्या कालव्यामळे व विहीर बागापतीमळे हा तालुका इत मळपानी नि इाक्ष पिकांनी कुललेला आहे. बारामती तालुक्यात व सोमेश्वर तहा साखर कारखाने असल्यामळे बागापतीच

## गवत पुरविण्यासाठी कुलाबा जिल्ह्यांत योजना

(आमच्या वार्ताहराकडून)  
रोहें : दुष्काळी भागातील गुरांना गवत पुरवता यावे म्हणून कुलाबा जिल्हा बनविभागातकें अनेक योजना आखण्यात आल्याची माहिती कुलाबाचे विभा

### बैंगन फोडून चांगी

बैंगन सरकारी मद्यासात पाठीवप्यासाठी बैंगनमध्ये लेखी साखर भरली आहे. चांगी बैंगन फोडून चोरीट्यांनी व पोती साखर नुकीच काढवली.

**पाण्यासाठी रोज रीड रथचा**  
मिरज : गडेवाडी माळगाव ह्या मिरज तालुक्यातील खेडपोत मध्या नारायणका इतरांन रीड रथचा खर्चून चांगी विकत घेण्याचा प्रयत्न जात आहे. गडेवाडीच्या जमतेने रथ्याच्या कामावर जाण्याचे नाकारून, सामुदायिक विहिरींची मातणी केली आहे.

**बाबा नरोडे यांचे कीर्तन**  
कोपरगाव : वेबोळ ह. भ. प. बाबराव उर्फ बाबा नरोडे यांचा जयरावती भागात कीर्तनाचा कार्यक्रम नुकताच पार पडला. सजीवनी साखर कारखान्याचे ते संचालक आहेत.

### संपूर्ण कुलाबा जिल्ह्याचा विकास हाती घेणार

(आमच्या वार्ताहराकडून)  
पतवेल : मुंबई-पुणे मार्गावरील भागाचा औद्योगिक विकास होणार असून सर्वत्र कुलाबा जिल्ह्याचा औद्योगिक विकास होण्यासाठी शासनाने एक योजना हाती घेतली आहे त्या विषयाची माहिती कुलाबा जिल्ह्याचे संपर्कमंत्री व. ए. आर्. अतुले यांनी अलिबाण येथे नुकतीच वार्ताहरांना दिली. याप्रसंगी ते म्हणाले, "जिल्हासनगर खाडीप्रमाणे धरमतर-पेण खाडीच्या भागाचा विकास करावयाचा असून भरपूर उद्योगधंदे या भागात नवीकच्या काळात निर्माण होतील." उद्योगधंद्याच्या वाढीबाबत

# हंगाम संपल्यानंतरहि रोजगार देण्याची योजना

(आमच्या वार्ताहराकडून)

सांगली : बाळवा सहकारी साखर कारखान्याचा चालू गळोत हंगाम संपल्या-  
वरहि कारखान्याकडोळ हंगामो कामगार तसेच मजूर यांना रोजगार मिळत राहावा  
यासाठी कारखान्याच्या कार्यक्षेत्रांतच रस्ते व सामुदायिक विहिरी यांची कामे  
हार्ता घेण्याचे आम्ही ठरविले असून त्याची पूर्वतयारी व आखणी चालू आहे. अशी  
माहिती कारखान्याचे अध्यक्ष धो. मोहनराव आण्णा पाटील यांनी नुकतीच दिली.

कारखान्याच्या उपयोगी पटलेल्या १५० टन भुसा व ५ टक्के वाडे पुरविण्यांत  
कामगारांना ऐन दुष्काळांत कारखान्याने आली असून हे काम हंगाम संपेपर्यंत चालू  
त्यांच्या उपयोगी पडावे ही या उपक्रमा- राहिल.

मार्गे आमची भावना आहे. आणि या  
योजनेचा फायदा पंधराशे कामगारांना  
मिळेल असेहि धी. पाटील म्हणाले.

कारखान्याच्या शेतकरी सभासदांतर्फे  
मुख्य मंत्र्यांचा दुष्काळ निवारण निधीस  
आतापावेतो चार लक्ष रुपये देण्यांत आले  
आहेत. असे सांगून धी. पाटील म्हणाले  
की, कारखान्यातफे जनावरांसाठी म्हणून

## मिलो चालून वांटप

## करण्यास ६०० मजूर

(आमच्या वार्ताहराकडून)

## मुळशी तालुक्यासाठी

## १०० सामुदायिक विहिरी

(आमच्या वार्ताहराकडून)

शिरूर : मुळशी तालुक्यात पिण्याच्या  
पाण्याची तीव्र टंचाई भासत असल्याने  
३ ते ४ मील.वरून स्त्रियांना पाणी  
आणावे लागते. त्यामुळे त्यांचे अतिशय  
हाळ होतात. मुळशी तालुक्यातील  
पाण्याची तीव्र टंचाई भासणाऱ्या गावांना  
टंकरने पाणीपुरवठा त्वरित करावा,  
अशी विनंती आमदार धो. नामदेवराव  
मते यांनी महाराष्ट्राचे प्रामोण  
विकास खात्याचे राज्य मंत्री

## घोषणा होताच गव्हाची खरेदी बंद

(आमच्या वार्ताहराकडून)

जळगाव : शासन एकाधिकार पड-  
तीने गव्हाची खरेदी करणार असल्याचे  
घोषित होते ना होते तोच जळगांव येथील  
व्यापाऱ्यांनी खरेदी बंद केली. त्यामुळे  
गुरुवारी मार्केट यार्डावर गव्हाची हजारो  
पोती पडून होती. यापूर्वी गव्हाचे भाव  
१२५ ते १८० पर्यंत भडकले होते  
शासनाचा भाव दर क्विंटलला ७३  
रुपये होईल, हे घोषित झाल्यानंतर  
शेतकऱ्यांच्या तांडाचे पाणी पळाले  
मार्केट यार्डावर आणलेला गव्हा शासना  
जप्त केल्यास आपले फार मोठे नुकसान  
होईल या भीतीने मिळेल त्या भावा  
शेतकऱ्यांनी गव्हा विकण्यास सुरुवात  
केली. व्यापाऱ्यांची खरेदी बंद झाल्या  
नंतर ग्राहकांची झुंड मार्केट यार्डाकडे  
बळली व जो तो आपल्या ऐपतीप्रमाणे  
१, २, ३ अशी पोत्यांची खरेदी कर  
लागला. सायंकाळपर्यंत सुमारे धी  
ते दोन हजार पोती गव्हा विकला गेले  
असा अंदाज व्यक्त करण्यांत येत आ  
काही शेतकऱ्यांनी आपला गव्हा पुर  
नेला. बाकीच्यांनी १०० ते १३  
रुपयांपर्यंत आपला माळ विकला.  
परवा मार्केट यार्डावर एखा



# वाढत्या महागाई व हल्ले सरकारवर टीकास्त्र

नवी दिल्ली : वाढती महागाई व सरकारने लादलेले कर या संबंधांत सरकारवर संसदेच्या दोन्ही सभागृहांत विरोधकांनी मंगळवारी कडाडून हल्ला चढविला. भाववाढीला आळा घालण्यासाठी आर्थिक वसुली व परकीय चलनविषयक धोरणाचा फेरविचार करावा, असे अनेकांनी सुचविले.

१९७१-७४ च्या अर्थसंकल्पावरील अर्थी-काय, लोकसभे व राज्यसभेत असे ते म्हणाले. सैमी उपचार पुढे सुरू झाली. विरोधकांनी टीकास भांडमार केला. लोकसभेत शक्ति मंत्र्य कर याद्वारे ही राज्य लीकरीची कडवपणे एका ठेकेदारानी संसदेच्यावरील उत्पन्न व सैमी-विचाराने स्वीकाराची परत १० हजार कोटींचे उत्पन्न यांचा अर्थकारणातील एकत्रित विचार करणाची संकठी १० हजार रुपयांपर्यंत पडून घटनात्मकदृष्ट्या स्थिरपणे योग्य आहे, असा सवाल केला. वारिषणी उत्पन्न वापरून अर्थी, अर्थी सुकना अर्थी अर्थकारणा सभागृहांत बोलावून यांचे मत विचाराने घ्यावे असे ते म्हणाले. यांनी केले.

मध्यम वर्गाचे वडे श्री. चिन्मय मूळ कायद्यापेक्षा अर्धा वाढा जाणा-  
यांनी नव्या अर्थसंकल्पातील तरतुदीमुळे या पेक्षावर निवडण नाही. १९७१-७४  
बाबत कुसबदा बाहेर, असे सांगितले. राज्य नुट करी ८५ कोटी रुपयांची असली  
थी. सैमी सैमी वडाच्या अर्थसंकल्पात नवी तो सयारी ८० कोटी रुपये एकी  
खरी नुट काढवऊले कोटी रुपयांची आहे. हाण्याची संख्या आहे. वेतन आढाला-  
असा दावा केला तर अर्थ सत्य श्री. या विचारणीया स्वीकार, धान्याचा  
थी. श्री. बाबतकार वानी हा अर्थसंकल्प घाडक व्यापार लावता येण्याचा  
समाजवादीही नाही व भांडवलावर विषय व राज्य वापराने आधुन-  
धार्मिकही नाही. हा 'परगनाबादी' दायट ही कायले जागाही त्यांनी  
अर्थसंकल्प आहे, असे टीका केली. पुढे केली. सयारी अर्थसंकल्प अर्थ-  
संकल्प होकाराडे सयारी दुसऱ्या विना चलन कुसबदा वासुळे अर्थ सयारी  
वडी दुसरा करवात आहे असून आगी भीति त्यांनी व्यक्त केली. धर

राज्यसभेतही टीका  
राज्यसभेतही या अर्थसंकल्पावर टीका  
झाली. श्री. एम्. एम्. मो-  
स्वामी ( इम्फ ) म्हणाले की  
कायद्या धोरणाचे 'बड' चलन  
कुसबदा टाकता आहे. कडेव सयारी  
सुसयारी १ एप्रिल ते ३१ डिसेंबर  
१९७२ या काळात ११ लाख ६० हजार  
रुपये खर्च झाले. याधीकार तर राहताच  
पण समाजवादाचा दुर्बल अर्थ सयारी  
संस्थाने वेतन दाखवताच पडता आहे,  
असे ते म्हणाले.

सयारी व सयारी धोरणात अर्थसंकल्प वाढवता बोलावा निरुध् कारता केला हे  
असा सवालही त्यांनी उपस्थित केला. अर्थ सयारी करीत आहे, असे ते म्हणाले.  
श्री. आवासादेव कुसबदा ( केंद्रित )  
म्हणाले की, सयारी व वारिषणी हे सयारी



महिलां विहारीतौ हस्तुल या जगत भागतीत आडिबासांच्या मुलांना दुष्काळा परिस्थितीमुळे बेलकळ वाळवून भाष्यासो कापले.

**दुष्काळा परिस्थितीत उरवादक कामांची गरज**

(आमच्या वार्ताहराकडून)

पाचवी लागींवाठ तीन बच दुष्काळ अवस्थामुळे दुष्काळाची भीषणता अधिक जाणवत आहे या दुष्काळात लोकांना जगावेले पाहिजे व जगावेण्यासाठी कामे पुरविली पाहिजेत. कामे पुरविल्याना उरवादक कामे सुरू केली म्हणजे त्यांचा फायदा पुढे होईल त्या दुष्टीने त्यांचा पातळ तलावावर जिल्हा परिषद अग्रिम भर देत आहे. असे विचार जिल्हा परिषद अध्यक्ष श्री. रामनाथ बाप यांनी विद्यवाच साईट न. २ या पातळ तलावाच्या भूमिपूजन प्रसंगी नुकतेच काढले.

तलाव ५॥ लाख रुपये खर्चाचा अमुन तलाव १५ एम. सी. एफ. टी. पाण्याचा साठा होईल. व त्यामुळे ५०० ते ६०० एकरातील विहिरींना पाण्याचा साठा होईल.

या समारंभाच्या अध्यक्षस्थानी जिल्हा परिषद आरोग्य समितीचे अध्यक्ष श्री. ए. ह. पालवे हे होते.

**हरिजनंचे निवेदन**

हा समारंभ संपल्यावर या घरणात ज्यांच्या जमिनी जातान त्या ५०-६० हरिजन स्त्री-पुरुषांनी समारंभात उपस्थित असलेले समाजकल्याण समितीचे अध्यक्ष श्री. प्र. ह. रूपते यांना भेटून एक निवेदन दिले. या निवेदनात त्यांनी म्हटले आहे की, आमची जमीन घरणात जाते त्याला आमचा विरोध नाही पण जमीना या घरणाचा फायदा होतो त्या जमीनदारांची काही जमीन आमची जेव्ही जमीन जाते त्यापेक्षा निम्मी जमीन ती या असो त्यांनी मातणो केली

**अंबेजोगाई येथील दोन्ही तलाव कोरडे**

**सासवडमध्ये रोज दोनच तास पाणी, दाबहि कमी**

(आमच्या वार्ताहराकडून)

कोयनेच्या परिसरांत सोळाशे दुष्काळी मजूर

(आमच्या वार्ताहराकडून)

















%departure to w.g.r.f
80.49
-22.61
48.34
3.00
-3.66
-39.98
-51.12
19.22
101.54
-29.08
-35.48
-39.24
-53.42
-95.62
-20.27
4.46
-46.72
-42.09
-60.56
31.38
-21.15
32.32
-12.90
30.02
19.55
-42.53
-17.18
-3.77
-13.13
-29.69
-53.77
-73.38
-100.00
-59.39
-2.37
31.06
16.31
187.04
64.94
-18.74
47.61
-14.33
-43.80
57.69
-32.74
-45.51
-18.86
-80.23
18.53
-7.44
39.34
-32.32
-100.00
-12.04
-19.32
44.60
11.95
13.05

%departure to wgrf
21.62
2.01
45.12
-20.04
16.51
-15.52
-27.27
-40.80
-33.15
-55.88
-21.89
-20.11
-40.66
-47.35
-81.46
-37.53
-26.78
19.44
-49.95
-14.80
#DIV/0!
113.23
5.51
88.44
36.87
-4.42
-77.27
-27.81
10.65
91.15
-72.05
-41.91
-27.65
-9.19
-69.06
-100.00
5.62
4.41
17.44
87.68
-100.00
#DIV/0!
18.91
26.98
75.94
-40.20
62.04
74.81
-40.23
-41.07
22.26
-81.27
-22.85
23.43
-51.63
-11.81
-68.98
-22.66
6.94
18.49
-60.99
2.04
#DIV/0!
76.58

%departure
to wgrt
-38.26
-41.27
8.92
-31.26
-53.27
-46.70
8.39
28.70
23.42
-26.70
-15.41
30.72
-72.41
-100.00
66.24
1.86
-6.41
140.07
-72.14
#DIV/0!
31.61
-25.06
37.46
19.58
102.55
50.06
-58.33
-46.38
-22.38
-21.91
-15.74
-18.19
-69.45
-3.25
-78.30
-11.62
-14.38
8.93
-67.06
14.89
#DIV/0!
292.70
-3.23
182.7
11.47
8.36
12.52
-47.91
-26.88
-21.17
-100.00
-3.86
-20.38
3.74
-28.31
-100.00
-56.72
34.55
-0.70
192.90
-37.21
#DIV/0!
13.77
-59.85
-19.99
-14.72

%departure
to w.g.r.f
2.04
46339
7.75
36.02
2.76
54.50
-53.52
41.06
-87.56
-48.94
-79.47
30.12
-3.98
-1.80
6.76
8.94
#DIV/0!
179.61
-49.63
96.09
16.94
-100.00
-62.37
-45.19
-20.33
24.96
35.08
-1.89
-5.84
-16.66
10.59
-91.16
-25.26
-12.27
70.59
167.24
-52.49
#DIV/0!
-94.85
-68.19
-2.08
1.10
-41.11
-51.48
-91.90
13.59
18.25
7.89
-96.14
-72.02
-98.61
35.01
-80.00
0.71
-29.02
-3.61
-50.96
189.44
#DIV/0!
-3.97
-64.04
94.71
195.15
-100.00
-65.55
-52.48



%departure	
to wgrf	
-49.01	
87.2	
-63.7	
11.7	
-21.85	
72.30	
-67.04	
64.98	
-80.51	
72.56	
-20.02	
0.92	
96.56	
#DIV/0!	
124.55	
-8.50	
-58.90	
99.90	
-63.19	
1.21	
-24.91	
-55.58	
-2.28	
-57.79	
86.38	
-44.49	
42.12	
-100.00	
-19.09	
-31.07	
75.35	
8.94	
-9.54	
43.72	
#DIV/0!	
5.22	
111.27	
-11.41	
53.79	
99.62	
-25.42	
8.29	
-35.18	
-64.54	
36.97	
-63.30	
91.63	
-63.99	
-84.62	
-78.72	
-38.85	
-20.98	
53.23	
6.97	
-38.59	
#DIV/0!	
74.91	
-28.03	
55.64	
110.47	
99.64	
-39.62	
-33.39	
91.15	
-29.82	
-245.20	

%departure to avg r'	-21.45
	-82.74
	-33.74
	-51.84
	-58.36
	-68.29
	30.77
	31.13
	-10.42
	481.85
#DIV/0!	101.75
	40.90
	33.01
	-10.00
	70.02
	-52.14
	-38.85
	-18.50
	61.63
	8.94
	-65.61
	-28.46
	-90.21
	-60.63
	-89.36
	-16.00
	17.72
	-16.11
	550.50
#DIV/0!	39.12
	-2.47
	45.13
	36.89
	-100.00
	105.62
	-41.55
	34.86
	33.18
	29.88
	-26.77
	-47.00
	48.79
	-71.38
	-31.69
	-60.50
	5.799
	-29.04
	-18.30
	232.07
#DIV/0!	
	60.27
	-39.00
	-7.14
	21.42
	-73.25
	6.03
	-66.16
	-48.92
	-70.94
	233.41
	5.97
	23.68
	-41.28

%departure to wgrf
-61.66
-5.10
-3.90
-38.00
-3.02
-54.37
429.28
-21.00
-15.37
13.86
-8.21
1277.3
94.60
-49.75
-5.35
-100.00
-26.47
-21.60
67.25
-54.49
-74.07
-7.17
3.01
1.87
-16.37
49.94
134.24
-66.71
36.11
39.50
-51.59
34.39
-81.79
-16.97
35.06
-21.43
-27.26
-65.81
-20.01
-75.32
-96.56
-29.90
7.43
39.81
58.90
-44.71

## BIBLOGRAPHY

- Abrol Yash P., Gadgil Sulochana, Pant Govind et al. 'Climate variability and Agriculture' Narosa Publishing House New Delhi 1996
- Bansil P.C., Agricultural Problems of India, Oxford & IBH Publishing Company
- Bhatia, B.M. Famines in India: A study in some aspect of the Economic History of India (1860-1964) (Bombay: Asia Publishing House, Bombay, 1967)
- Brahame Sulbha, 1972 Drought in Maharashtra Gokhale Institute of Politics and economics (Orient Longman, 1983)
- Chagas Carlos & Puppi Giampietro et al. Monsoon Dynamic and rainfall and teleconnections Persistent meteo-oceanographic anomalies and teleconnections Pontificiae Academiae Scientiarum scripta Varia-69 (Persistent Metro-Oceanographic Anomalies and teleconnections) Ex Aedibus Academiae Civicae Vaticanae MCMXXIX September 23-27, 1986
- Chandra Bipan India's struggle for independence ed. Bipan Chandra and others Penguin Publication 1989 pp 600
- Dandekar and Pethe : Survey of famine conditions in the drought affected regions of Maharashtra and Mysore drought affected area Gokhale Institute of Politics and Economics 1972
- Das P.K., The Monsoon, National Book Trust New Delhi 13 1968
- Das, P.K., The monsoon, (National Book Trust, New Delhi, 1968)
- David Arnold, Famine: social crisis and historical change (Oxford: Basil Blackwell Inc, 1988)
- Davis Mike late victorian Volucust El Nino Famines and Making of the third world Verso London New York 2001 pp464
- Dharma Narain edit by K.N.Raj Amartya Sen C.H.Hanumanta Rao ' Studies on Indian Agriculture Oxford University Press Bombay Calcutta Madras 1988
- Directorate of Economics and statistics Ministry of Agriculture Government of India 1971, 1972, Bulletin on 'Food Statistics' Twenty first issue
- Dreze Jean & Sen Amartya, Hunger and Public action (Oxford University Press 1989)
- Dreze Jean, Famine Prevention in India, ( London: The development Economic Research Programme DEF No.3 January 1988)
- Drought in Asiatic monsoon area Indian natural science academy New Delhi 1976 Symposium on drought 14-16 December 1972
- Economic Survey of Maharashtra Government for Maharashtra for the year 1952-53, 1964-65, 1965-66, 1970-71, 1971-72, 1972-73 and for the year 1986-87.
- Etheridge, A.T., Report on the past famines in Bombay Presidency Bombay 1868
- George P.S.' Government interventions in food grain markets' Procurement and Public Distribution of food grains in India CMA Monograph No. 100 IIM Ahmedabad Centre for Management in agriculture 1983
- Ghuge V.B. the socialistic economic policy of Ch. Shau 1975
- Gore P.G. Metrological monograph hydrology No. 12/200 Dry and wet spells for metrological subdivision of India Indian metrology department Drought research unit office of additional director General of meteorology 2001
- Government of India Ministry of agriculture and irrigation New Delhi Report of the National Commission on Agriculture part IV Climate and Agriculture 1976
- Government of Maharashtra ' Market intelligence' for years 1968-69 to 1974-75
- Goyal Suresh ' Management of Scarcity RBSA publishers SMS highway Jaipur 1991
- Gracia Rolando & Jose C Escardo ' Drought and Man The 1972 case History vol. 2 The constant catastrophe Malnutrition and Famine & Droughts Oxford-New York Toronto 1982

- India Meteorology Department : The climate of Maharashtra 2007
- Indian Institute of tropical meteorology : Longest Instrumental Rainfall Series of Seven Homogeneous zones, different states and meteorological subdivisions of India 1813-2003 Nityand Singh, Sontakke and others Atlas of Special Features of Moisture Regions and Rainfall of India during 19<sup>th</sup> and 20<sup>th</sup> Centuries Part 2 2005
- Interregional Publication for state Agriculture Experiments stations ' Policy for United states Agricultural Export Surplus Disposal' The University of Arizona College of Agriculture, Agricultural Experiment station, Tucson, Arizona Technical Bulletin 150 August 1962
- J.Shukla & DelSole Timothy6, COLA Technical Report, March 2006
- Krishnakumar G Impact of Indian Ocean Temperatures with special reference to recent El-Ninos A thesis submitted to University of Pune for award of Doctor of Philosophy April 2006
- Krishnamurthy V.& Shukla J., Seasonal Persistence and Propagation of Interseasonal Patterns Over the Indian Monsoon Region, COLA research report February 2006
- Kulkarni A.R. Shivakalin Maharashtra Rajahans Prkashan 1997. pp.208
- Kulkarni S.N. Economic Survey of Famine affected Sinnar Taluka a research report submitted to University of Pune 1974
- Kulkarni S.N., Policy prespective for relief during droughts and scarcities A case study of Sinnar Taluka, Thesis submitted to University of Pune Aahmednagar College Ahmednagar (1988) pp. 439
- Kurbet A.S.
- Maharashtra Government Chief Statistician Directorate of Agriculture Pune, Crop wise and District wise Production and Productivity 1960-61 to 1997-98 Part 1&2
- Maharashtra : Report of the fact finding committee for the survey of scarcity Areas of Maharashtra state (Sukhtankar Committee Report) in State, Vol,1 Bombay 1973
- Maharashtra Economic Development Council, *Droughts in Maharashtra* (Maharashtra development council 1974)
- Maharashtra: Scarcity a compendium of government orders, Vols. 1 and 2 (MFFC,1, 1973)
- Maharashtra: The Bombay Scarcity manual (Draft), Bombay 1966.
- Maharatna Arup 'The Demography of Famines' Oxford University Press 1996
- Mathur Kuldeep & Jayal Niraja ' Drought Policy and Politics in India' the need for a long term prespective Sage Publications New Delhi 1993
- Mathur Kuldeep & Jayal Niraja ' Drought, Policy and Politics in India Sage Publications Pvt. Ltd. New Delhi 1993
- Ministry of Revenue and Forest Government of Maharashtra , Secretary V. Subramanian, Scarcity and other calamities A Compendium of Government Orders Vol. 1& 2
- Mukharjee Radhakamal, Economic History of India, 1600-1800, (Allhabad:Kitab Mahal 1967)
- Oughtan Elizabeth, The Maharashtra drought of 1970-73: An Analysis Of Scarcity (Oxford Bulletin of Economics and Statistics Vol. 44,No.3 August 1982)
- Pirie N.W., Food Resources Conventional and Novel, Penguin Books Ltd, England 1969
- Plumb Allan & Clift D. Peter, The Asian Monsoon causes and effects, ( Cambridge University Press 2008.)
- R. Rangrajan Drought assessment monitoring management and resource conservation Capital Publishing Darayganj New Delhi Principal research scientist centre of studies in resource engineering IIT Bomabay 2003
- R.K. Datta, Persistent metro-oceanographic anomalies and teleconnection, IMD New Delhi 1986

- Ramnathan K.R. et.al. 1976 Drought in Asiatic Monsoon Area. Proceedings of Symposium on drought in Asiatic monsoon area held at Pune During December 14-16 1972 Published in 1976 Council of Indian National Science Academy 1976 Indian National Science Academy Bulletin Vol. 42 No. 1, 1976
- Rao Y.P. South West Monsoon Metrological monograph Synoptic meteorology No. 1/1976 IMD Pune 1976
- Ravillion Martin, Famines and Markets, (Oxford University Press, 1987)
- Sathe Madhusudhan Dattatrya ' A memorandum on recurring drought in Maharashtra' A new Approach Submitted to Government of Maharashtra 1983
- Season and Crop Reports of Maharashtra Government 1952-53, and 1960-61 to 1986-87 Total Volumes 28
- Sen Amartya, Poverty and famines (Delhi:Oxford University Press 1982)
- Sen Amartya and Dreze Jean 'The political economy of hunger' vol. 1,2 &3 Clarendon Press-Oxford 1990
- Shewale M.P. and Shravan Kumar climatologically features of drought incidences in India meteorological monograph 21/2005 IMD Pune 2005
- Shrivatava, Hari Shankar, The History of Indian Famines-1858-1918, (Agra:Shriram Meahra and Company, 1968)
- Shukla Rohit Public works policy during droughts and famines and lessons for an employment policy Sardar Patel Institute of Economics and Social Reserch Thaltej, Ahmedabad 54; 1979
- Shukla Rohit 'Public works policy during drought and famines and lessons for an employment policy' Sardar Patel Institute of Economic and Research Thaltej Ahmedabad 54; 1979
- Sikka D.R., Joint COLA/CARE technical Report No.6 Indian Drought in the context of history and climate Centre for Ocean-Land-Atmospheric Studies and Centre for the application of research on the environment Calverton October 2002.
- Singh Tapeshwar ' Drought Prone Areas in India' aspects of identification and development strategy centre for the study of regional development Jawharlal Nehru University New Delhi 1978
- Singh, K.Suresh, the indian famine 1967,-a study in crisis and change, peoples publishing house, New Delhi 1975.
- Sir James Lighthill & Prof. R.P. Pearce , Monsoon Dynamics, Cambridge University Press 1981 pp. 719
- Subramanian V. Parched earth : The Maharashtra Drought 1970-73, Bombay India, Orient Longman Ltd. (1975) XVI + 640 pages
- Subramanian, V., Parched earth:The Maharashtra drought 1970-73, (Bombay:Orient Longman,1975)
- The National Planning association Pursuant to S. Res. 385, 84<sup>th</sup> Cong., and S. Res, 35, 85<sup>th</sup> Cong. No. Washington ' Agricultural surplus disposal and Foreign Aid., A study prepared at request of special committee to study the foreging aid program' A committee Report March 1957.
- The task force on integrated rural development ' Integrated Agricultural Development in Drought prone areas' Planning Commission Government of India June 1973
- Wang Bin, et al. The Asian Monsoon, Springer, Praxis,( Chichester 2006)
- Willard W Cochrane, East or Famine The Uncertain world of Food and Agriculture and its policy implications for the united states, Federal Reserve Bank of Minneapolis May 1974
- Borkar V.V. &Nadkarni M.V., Impact of drought on rural life, (Popular Prakashan Bombay 1975)

- Chkaravarti Malabika, The famine of 1896-97 in Bengal: Availability or Entitlement crisis?( New Delhi:Orient Longman 2004)
- Desai Datta, Famines in Maharashtra, 'maharavT/atIla duvkaL'maagaaoovaa p'kaSana' puNao 1987
- Directorate of Agriculture Maharashtra State Poona " Season and Crop Reports' 1961-62 to 1974-757
- India Meteorology Department, Rao Y.P., Southwest Monsoon, Meteorological Monograph No. 1/1976
- Interregional Publication for the state agricultural experiment stations, The University of Arizona Agricultural Experimental station Tuscaon, Arizona ' Political interests in agricultural Export surplus disposal through public law 480' Technical Bulletin 161 September 1964
- Jean Dreze February 1988 famine prevention in India A revised version of a paper presented at the world institutets for development economic research (WIDER Helsinki) in July 1986 the final version is to appear in Dreze J. and Sen A (ed) Hunger Economics and policy Dep.No.3 January 1988. The development economic research program Suntory Toyota International Centre for economic related disciplines 10 Portugal street London W2
- John Cathe ' The political economy of food aid Gower Publishing Company Ltd. Guildford 1982
- K.Shrinivas and others , Predictions in Ungagged basins for sustainable water resources planning and management, Jain brothers Delhi 2005
- Lighthill James & Pearce R.P. Professor et. al. Monsoon dynamics Cambridge University Press Cambridge 1981
- Loveday, A., The History and Economics of Indian Famines,(New Delhi Daryagaj Usha Publishing Company 1985
- Maharashtra, Directorate of publicity, scarcity relief in Maharashtra. (Bombay, 1973)
- Mathur,Kuldeep &Bhttachraya Mohit, Administrative response to emergency study of scarcity administration in Maharashtra, (Delhi, Concept publ. Co. 1975)
- Mohiddin Alamgir Towards theory of Famine Seminar paper No. 103 institute for international economic studies S-106 91 Stockholm Sweden
- Report, Foreign Agricultural Economic Report 65 U.S.A. 'P.L. 480 Concessional Sales'
- Shrivatva H.S. The History of Indian famines; Shri Ram Mehara and Co Agra 1975,
- Subramanian V, Report of Drought Prone area Determination Commission, 1987 pp. 319
- Waugh V Fredrick ' Managing Farm Surpluses' a statement by NPA Agriculture committee planning pamphlet National Planning Washington D.D. April 1962