

Drought in Marathwada: Water Scarcity Worsening Situation in Marathwada

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ABSTRACT: This article highlights the issues and challenges of parched Marathwada region and why there is a failure of polity, economy, and social and civil society's efforts in making drought free regions of Maharashtra? When drought is manmade phenomenon then why always sporadic efforts made to mitigate the drought? This article also tries to understand the root causes behind the worsening drought situation in Marathwada region of Maharashtra and what could be the long term policy level measures need to be taken by the policy makers. Today more than twelve states of India are facing water scarcity and resulted chunk of population migration has been shifting rural to urban cities. It has attracted attention of social scientist particularly to rural sociologist as well as urban sociologist to revisit to villages and study the changing demographic scenario of urban were situation worsening very fast. This research paper has highlighted the drought pertaining issues of Osmanabad district of Marathwada region.

KEYWORDS: Drought, drinking water schemes, Kharif, Rabi, Sustainable livelihoods, Migration, Sugarcane, Saldar, Salgadi, BPL, PDS, Water Policy, MGNREGA, Farmer suicides.

I. INTRODUCTION

Dry wells and tanks, barren lands and thirsty faces greet you as you take a trip to the villages of Marathwada which are reeling under severe drought. The sights are nothing to wonder about especially when it's the fourth consecutive year of drought and the villagers themselves have accepted that drought is no longer due to scarce rainfall in the region but a matter of their destiny.

The situation of severe drought since last four years in Marathwada has led to water scarcity, fodder shortage, lack of employment and irregular supply of public distribution system. Parts of western Maharashtra and Marathwada are the worst sufferers of the state. I have been tracking and understanding the drought situation for last fifteen years through visiting scarcity hit places, meetings with affected people, and interactions with voluntary organisation's representatives, development professionals, media persons and Government officials as well. There are a few blocks under the acute scarcity river basins in Marathwada and Western Maharashtra that are permanently affected by drought. Three years ago State Government had declared around 123 talukas in almost 14 districts (Pune, Satara, Sangli, Solapur, Aurangabad, Jalana, Latur, Osmanabad, Beed Nanded, Parbhani, Hingoli, Buldhana and Ahmednagar) as severely affected by drought.

There has been long history of the drought in Marathwada and Western Maharashtra. It occurs once or twice in 5 to 7 years. This year it has impacted socio-economically and culturally too. There is acute shortage of drinking water not only in rural areas but also in urban and semi urban areas. The water is being supplied through water tankers but we may have to bring water by trains in future from the water abundant areas to meet the thirst of Marathwada people. This year Government has declared about 69 blocks as 'scarcity' affected. This number may increase in the months of summer. The efforts taken by the Government were really meaningful to help the people of Marathwada and parts of Marathwada and Western Maharashtra. But this year farmers have lost their *Kharif* crops and are not in a condition to go for *Rabi* crops due to the scanty rainfall in Marathwada region. The 'sustainable' drought situation is uncomfortable and de-motivating farmers' in agricultural economy and hence may result in distress migration.

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Water supply through tankers then seems to be the only viable solution to combat water scarcity. More than six million people in Marathwada severely affected by drought are dependent on tanker supply water. In order to avoid the distress sale of cattle, people have started cattle camps with the help of State Government but they are facing a shortage of infrastructure facilities at the camps. Inadequate water and inequitable distribution of water is the main reason behind the quarrels and conflicts in these sites. The principle of equity has to be followed in distributing water, ration and fodder resources.

II. BACKGROUND WORK

The 2015 drought is worse than that in the year 1972 and year 2004. There is an alarming rise in number of farmers' suicides. As many as 2,234 farmers' have committed suicides in year 2015 and 1981 in 2014, and 1296 in 2013 in Maharashtra (Sunday Times of India, Aurangabad Oct 11, 2015). The highest suicides recorded in Vidarbha that is 11,08, followed by Marathwada 766, Nashik division 303 and Konkan region has one case of farmer suicide. The major reasons are failure of the monsoon, ineffective implementation of crop insurance and planning of drought mitigation measures that includes short term and long term basis. This year the *Kharif* sown area has declined in Marathwada region due to the deficit rain. Those who have sown their crops have perished and yield also has declined. However, small and marginal farmers are the most vulnerable and their socio-economic condition is becoming worse.

Drought affects life and its entire facet

Drought affects water, fodder, crop availability but it also affects people and their web of life. So along with failure of agriculture there are socio-cultural reasons which are making people more vulnerable and poor like debt taken for daughter's marriages for giving some dowry and loan taken to meet the immediate needs for health care services. Peasants and middle peasants can migrate at any time but small and big farmers can't migrate immediately because they can't afford to desert their lands and cattle. Thus, they are the worst hit.

The new trend has been emerging to make water easily available for cash crops. They are taking bore-wells in large numbers to meet their aspirations and dreams to teach their children and meet their daily livelihoods needs. One of the emerging farmers dug up nine bore-wells in his farms and most of them went up dry during the monsoon therefore the young farmer committed suicide in Tuljapur block of Osmanabad district. There are several cases of distress and hopeless people's suicides in Marathwada region. Every alternate day farmers are ending their lives to free themselves from the daily struggles for survival.

Marginal farmers are completely dependent on their piece of land which gives six months agricultural employment in their fields, later on they have to migrate to neighboring urban areas in search of wage employment. There is quite a lot demand of work and people are ready to work on employment guarantee scheme but not the present offered activities under the scheme. There are several reasons behind this disinclination, therefore one has to visit and understand their living condition and unheard truths about the programmes.

There is a feeling among the people that they get only Rs. 162 per day as wages but they don't know about the higher payment for more work. People know that payment will be deposited into bank or post office account after 15 days of work completed. People also are not aware the welfare program under the scheme like medical facility or eligibility for the medical insurance after some requirements is completed. People assume that under this programme only village level work is proposed but they don't know about the individual agriculture, forest and water related work can be done under this scheme. While asking about work done under the MGNREGA, the villagers said that in another village they did plantation, nursery and stone bunds.

One of the most neglected section of the society is nomadic tribes and de-notified tribes of this region which is not benefitting of Government sponsored schemes because they are the resource less and do have any permanent settlements. Due to the severe drought condition they have been criminalized by the non-tribes and administration,

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hence this condition is leading towards the self exclusion from the Government schemes in Osmanabad and Solapur districts.

A scarcity, though induced by a shortage of water, is a phenomenon that goes far beyond shortage of water. With scarcity come new patterns of life in health, labour and lifestyle. For people who have already been in the poverty trap characterized by declining employment, lack of access to the public distribution system, complete dependence on rainfall for agriculture, and overwhelming debts, a scarcity is often the last straw.

Impact of drought on livelihoods in Osmanabad District

Farmers go for commercial crops, which require investments in the form of quality seeds, fertilizers, efforts and labour, and continuous supply of water. Lack of one input can jeopardise the output to an extent where the farmer finds himself to be incapable of even recovering the costs borne by him (leave alone the investments he made). One element which is most crucial in this case is water. Honala is a village in Tuljapur block where rainfall has been scanty during past few years. In such a scenario, the condition of farmers is deteriorating year after year as the production is diminishing due to lack of water.

In absence of precipitation and non-availability of surface water, the dependence on ground water has increased many folds. Those who can afford are investing in a bore-well. The problem is that a bore well costs at least One Lakh and Fifty Thousand Rupees. This activity eats into the family savings and may even put them under the burden of debt. A Focused Group Discussion (FGDs) was conducted in Honala with farmers working as annual contract labourers (*Saldar/ Salgadi*) to understand their perspectives on distress. Six to eight *Saldars* participated in the FGDs. Most had been working as *Saldars* for more than 17 years – some as long as 40 years. They do not get any holidays and work daily from 5.30 am to 7.00 pm. Their average landholding varies from 2 – 3 acres. Women and children from their household work in family farming while the men work as *Saldar* for the farmer. All the members interviewed had ration cards and get low cost food grains from ration shop easing the burden to some extent.

Their annual payment varies from Rs 55, 000 – 65,000. Cash is often required for reasons such as marriages of daughters, religious rituals and cultural and social functions, food, education, health, purchasing seeds, pesticides and fertilisers etc.

As a result of low income and high spending, no capital accumulation is seen in house. Hardly any assets in the house are present in the family. Income, if any is getting spent in preparing for next year farming, social commitments, illness etc. Last three year's drought has worsened the situation. Middle and big farmers are hard hit. Livestock numbers have gone down over the years and have become a less important factor in agricultural households due to adverse environmental conditions for past few years. Community service support in distress conditions in village society is unavailable. Financial assistance provided by cooperatives and moneylenders is increasing distress among farm families. Farmers have taken crop loan but most of the time is being used on non-farm activities, customs and rituals at the family level.

Push-factors into distress are threat of mortgage of property and livestock. It is common to take loans for marriage of daughters for which expenditure upto Rs 2– 2.5 lakhs is incurred. Taking private loans at the rate of 3-5 % from moneylenders or relatives is frequently done. Subsequent earnings/income goes for loan repayment, pushing the person into distress and only a hand to mouth existence. Medical expenses and expenses towards agriculture are the most serious draws on income. There is no support or care for mental illnesses and stresses that can lead to suicides.

When inquired about the suicide taken place in the village, they corroborated the facts that the young man had borrowed heavily to drill bore-wells that quickly ran dry and many of them failed. There has been competition of taking bore-wells in villages. Due to the free electricity farmers are not bothered about paying bills of electricity.

The general failure on various fronts leads to distress, hopelessness and finally is a leading cause of farmer suicides.

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Drought hit Honala Village's condition

Continuous drought, combined with unexpected climate change conditions has been too sudden to cope with in traditional manner for the farming families. Though no land alienation has taken place in recent years, there is an overall deterioration in agriculture conditions. Savings seem to be nonexistent and farmers are in perpetual indebtedness. There is hardly any investment in education. Some families seem to be better off when there is an additional source of income from doing odd jobs, service or remittances. These families also invest in education of their children, in the hope that they will be able to get a job outside.

The issue of farmer suicides has taken form of a disaster as despite several steps, we are not able to give any kind of assurance to the farmers. One of the farmers said that the guilt of not being able to look after one's family is what makes a farmer kill himself. The problem has taken a severe turn in Marathwada due to natural as well as man-made factors.

The village suffers from acute water shortage during summers and due to continuous low rainfall for past few years, people have suffered huge losses. The village has four acres of grazing land which is not replenishing due to reduction in soil moisture. The village does not have any natural water reservoir, due to which people are completely dependent either on supply of water through Gram Panchayat Tanks and tube wells for drinking purposes, domestic purposes as well as for irrigation. Due to reckless installation of bore wells and over-exploitation of ground water, the ground water table is depleting very fast. As a result, several bore wells have failed to fetch water in past few years.

Though the main occupation is agriculture, other occupations such as broom making, making wooden implements, selling bangles, making and selling chutneys, snacks and pickles, cobblers, tailors, priests, advocate, teachers, milkman, daily wage earners, and government employees such as the ASHA worker and Anganwadi worker are seen.

Many farmers have not been able to pay back loan because of lack of income. The debt increases over period of time due to compounding interests. Some families have to resort to another loan in order to pay the interest amount or for supporting day-to-day activities. These loans are petty and can be in the form of trade credit availed from local grocery shop, relatives, friends or small favours from kinship networks.

Seventeen members from Dalit Basti participated in the discussion of which nine were men and eight were women. On an average every member has 1-2 acres of land and nobody has a land holding of 5 acres or more. Thus, residents of this hamlet are small and marginal land holders. They informed that none of the members' name is registered in DRDA's list for BPL card. Ironically, some farmers living in the main village area, having 20 acres of land possess BPL cards whereas these marginal or landless people have been deprived of BPL cards due to politics as the village panchayat is not forwarding their case to block level. Although the Sarpanch of the village belongs to the dalit basti, she has not been able to exercise her authority as the decisions are made by upper class people residing in main village area.

People said that there are no employment opportunities and they support their day-to-day expenses using the funds borrowed from women's SHGs or from moneylenders. For example, one of the families borrowed Rs. 15,000/- from women's SHG for buying fodder for their livestock. Some people manage to find job as wage labour for digging well, carpentry, broom making, stone crushing, construction of road, etc. Nobody in Dalit basti has a bore well because they don't have money and means to incur the huge expenditure involved in its installation.

Farmers have not been able to recover even the variable costs involved in agriculture due to continuous crop failures. For example, one of the farmers whose expenses amounted to Rs. 20,000 was unable to recover more than Rs. 10,000 from the produce. This has become a trend for last three years due to continuous crop failures in absence of rain.

III. CASE STUDIES OF FARMERS' SUICIDE AND PERTAINING SOCIAL SITUATIONS

A Case of Balbhim (name changed)

Balbhim has committed suicide in the month of January 2014 at his farm house by killing himself. He had completed his HSC education and began to concentrate on his agriculture. He was 18 years old, did not wish to continue his further studies. He had a dream to transform his parched farm into green and cultivate more cash crops. His family is a joint family, has as many as 11 members in his family that includes mother, father, uncle, aunty, two grandmothers and other siblings. They had drilled about twelve bore wells in his farm and out of that ten bore wells have failed and ruined

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the dream of young emerging farmer of village Honala. His family has about 6 hectares of land. Their earlier bore wells have run dry and dug well also goes dry in summer. They had to sell his four bullocks and two buffalos in order to mobilise money for bore wells. They have also borrowed more than two lakhs rupees from their close relatives. They have been growing food grains as well as cash crops but last three years they were facing severe shortage of water for irrigation therefore went on drilling bore wells. It seems that due to the financial distress, lack of societal support, lack of capacity to bare the shocks and risks during the monsoon failures farmers are getting into depressed state of mind. Since last three years they could not get a second crop from their land. It seems that private invisible moneylenders are the source of loan which is not registered but they have a nexus of subcontractors, goons and big farmers. He could not tolerate the fact that his crops could not sustain the drought. He ended his life under the pressure of making water available for his family for sustainable income and development.

A Case of Mr. Satva (name changed)

Mr. Satva is a 70 years old Maratha who belongs to a BPL family. His family has 18 members including four married sons and their children. The family holds one hectare (2.5 acres) of land in name of 70 years old Mrs. Sakhu Bai (wife of Mr. Satva. They grow crops like Jawar, wheat, soybean and chana on their land using water from a dug well for irrigation.

Though all his sons have independent households, the family has only one BPL card. All the four sons are working as a *Salgadi* (annual agricultural contract labourer) outside village for last ten years. One of his sons, Mr. Sahebrao, has been working on a landowner's farm for last four years at Wagholi, Osmanabad. Another son also works as a *Salgadi* near Osmanabad town. Two others are working in Sangli District as a *Salgdi* for last ten years. Son 1: Piraji is 50 years old and has two daughters. He stays in Wagholi village of Osmanabad District where he has been working as a labour at a landlord's farm for last five years. He works as an agricultural labourer on 30 acres of land, for which he gets Rs. 200/- per day. His wife gets Rs. 100/- per day for the work she does. They stay at site of their work in a tin shed provided by the landlord.

They took a loan of Rs. 1,00,000/- from the landlord. This loan was taken to provide education for their son who stays in Osmanabad. He spent Rs. 2,50,000/- on the marriage of their daughter last year. His entire life's savings were exhausted on this ceremony and he also had to borrow additional funds from relatives. This loan amounts to Rs. 30,000/-.

Another son took a loan of Rs 2,50,000/- in April 2015 at interest rate of 2 percent per month for the marriage of a grandson and also for repairing the house. If the interest on this loan is calculated using simple interest method, the amount of interest due for payment in years comes to Rupees 60,000/-. In case, Mr. Satva is unable to make this payment in time, this interest amount will be carried forward as loan amount for next year. The compounding of interest year after year will increase the burden of debt several times. These terms are mentioned in the contract written on a stamp paper and thus are legally binding. He took two additional loans of Rupees 20,000/- each, one in his own name and another in name of his wife from DCC Bank. These loans were taken for agricultural purposes. The family indebtedness is increasing in Marathwada region.

A Case of Sarjerao (name changed)

Mr. Sarjerao is a 46 years old, married man who has two sons and one daughter. All his kids are studying: daughter is pursuing B.Sc., older son is in 12th standard and the younger one is in 9th standard. Mr. Sarjerao owns land of less than 2 acres, which he inherited. For irrigation purposes, he has a bore well which was dug in 2011 with an initial investment of Rs. 1,10,000/-, and an additional investment of Rs. 60,000/- on digging, buying motor and putting up a pipeline.

He cultivated sugarcane on his land. For the first year (year of 2011), his expenditure on agriculture came up to Rupees One Lakh and Forty Thousand (Rs. 1,40,000/- for putting up a bore well and Rs. 30,000/- for buying inputs for the crop). The yield/production from this investment was 34 Tonnes of sugarcane which was sold at the rate of Rs. 1,100/- per tonne. Thus, the price for his output was Rs. 37,400/-. However, his earnings were only Rs. 24,400/- (as he had to bear the expenses on hiring truck and labour, which priced him around Rs. 13,000).

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These expenses were borne by him after procuring loan from a relative (without interest). He feels cheated as he was promised Rs. 1,800/- per ton of his produce by the sugar factory, but was actually paid only Rs. 1,100/- as he is not a member of the sugarcane co-operative.

After bearing unnecessary losses, he thought of cultivating onion during 2012 and 2013. He invested Rs. 20,000/- on this activity. Since, he was already short on funds and had to meet due liabilities, he took a loan of Rs. 50,000/- from his friends and relatives. But, due to irregular rains, he suffered a crop loss and his yield was only of Rs. 19,000/- (he was not even able to fully recover the expenses he incurred on the crop).

He also was involved in sharecropping of onion with other farmer on a 3 acre land where they cultivated onion. The details of expenses incurred on this activity are as follows:

Buying seeds	:	10,000
Hiring tractor	:	1,000
Labour cost	:	18,000 (@ Rs. 6000/- per acre)
Fertilizers & pesticides	:	9,000
Total	=	44,000

On this investment, the return was only of Rs. 7,000/- due to irregular rains. Thus, the losses borne by these sharecroppers was Rs. 37,000/-.

A family requires at least Rs. 30,000/- per year for sustenance. Mr. Sarjerao had to take another loan, from a friend cum money lender, of Rs. 3,00,000/- to pay back his dues (including loans he took during the period of 2011-2013) and for meeting day-to-day expenses of his family. This loan was taken at interest rate of 2 percent per month (i.e., interest of Rs. 6,000/- per month on the principal amount of Rs. 3,00,000/-). He had to mortgage his land to the moneylender against this loan. The legally binding terms as mentioned on an agreement made on a Rs. 500 stamp paper states that one acre of land owned by the borrower will be retained by the lender in case the loan is not repaid in time.

- He has to pay an annual interest of Rs. 63,000/- against the loan he took (at interest rate of 2% per month).
- He requires a minimum of Rs. 30,000/- per annum for sustenance of his family.

His yearly income must be more than One Lakh Rupees for him to retain his assets and putting his family in distress situation.

According to government records, he has an additional burden of a loan of Rs. 25,000/- which he took in the year of 2012 from Bank.

A Case of Baburao (name changed)

Mr. Baburao is a 65 years old man who has one son and two daughters. He stays in a joint family with his married son. The family owns 3 acres of land and three bore wells, of which two have failed. They cultivate sugarcane on one acre of their land, and wheat and jawari on other two acres. They also work as daily wage labour.

The first bore well was installed in the year of 1994 with an investment of Rs. 35,000/- (borrowed). His family had to sell their two buffaloes just to repay 14 thousands. They had borrowed remaining funds from their relatives and friends.

The second bore well was installed in the year of 1997 with an investment of Rs. 40,000/- (borrowed funds). The family again had to sell buffaloes for repaying the loan.

They installed third bore well in the year of 2000 with an investment of Rs. 40,000/-. To fund this investment, they used their savings and received support from sugarcane factory a motor pump as long term loan which he has not yet paid back. They received this support because they were identified as sugarcane cultivator/ member of the Tulja Bhavani Sugar Co-operative Factory.

Due to continuous less rainfall and scarcity of water, the production of sugarcane has been marred and in absence of raw material, the sugarcane factory is closed since 2013. Thus, the family cultivated wheat and jawari last year (in 2014) on three acres of their land. Their annual production was 4 quintals of what and 4 quintals of jawari. The electricity bill is around Rs. 2,000-3,000 per annum for agriculture.

Six years ago, Mr. Baburao sold four acres of his land for Rs. 4,00,000/- because he needed funds for his daughter's marriage. A rough break-up of the expenditure for the same is as follows:

Dowry	:	22,000
Gold	:	60,000
Miscellaneous	:	20,000

The approximate total is rupees one lakh. With the remaining three lakhs, he repaid his outstanding loans which he took earlier for his son's marriage. He had also taken a crop loan from DCC of Rs. 30,000/- at the rate of 4 percent per

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annum. Credit of up to Rupees Fifty Thousand can be availed from depending on the credibility solvency of the borrower. Moneylender on the other hand gives loan at the rate of 3 percent per annum, i.e., 36 percent per annum. The family repaid the borrowed money by working hard as wage labours for which a man earns Rs. 200 per day, whereas a woman earns Rs. 100 per day. Also this work is not regular and there is no job security. Thus, on an average, they get work only for 20 days in a month. Therefore, their monthly income varies around Rs. 6,000.

IV. CONSEQUENCES OF DROUGHT PERSISTENT IN MARATHWADA

The three year long dry spell is the single largest environmental factor that is affecting livelihoods of the villagers. This is the first drought of its kind since 1972, which has erased memories of traditional coping strategies from the community. Several factors have changed in the village system since then, which show some positive and some negative effects on coping strategies.

The overwhelming need of cash income to survive is created by the changing nature of economy even at rural household level. Cash is needed for several purposes, mainly as:

- a. Social, cultural, religious functions (marriage, rituals etc.)
- b. Medical expenses (regular as well as emergencies)
- c. Agricultural expenses (seed purchase, fertilizers, pesticides, machines, bore wells, livestock maintenance, fodder purchase and many others)
- d. Educational expenses (although minor as compared to others, due to lack of educational facilities at rural level)

Agricultural income is failing as result of persistent drought

Scarcity of basic natural capital is driving the changes in livelihoods. The choice is between investing heavily in accessing or management of natural capital (bore-wells being classic example) or changing the livelihood activities to those using human, social, financial, physical capital. The diverse groups who participated in FGDs listed an array of strategies, main being working as daily wage labour in the present circumstances if socio-culturally possible. The farmers, esp. middle and small farming families do not have the flexibility to revert to other capitals as they have already invested in natural capitals and hope it will pay off if the environment changes to favourable conditions of the past. Other opportunities of income generation through non-farm activities were mentioned in the survey, yet they cannot be sustainable at village level people have not been empowered to use them due to lack of education, skills, infrastructure etc.

Those who have social capital in terms of SHGs, family support, upper caste or upper class positions, appear to cope more easily than those without it, mainly as the social capital is facilitating their access to cash income.

Other sources of cash loans from money lenders, banks, cooperatives are in fact detrimental to the households, as their approach is not that of supporting or facilitating livelihoods. These are institutions are incapable of providing lasting support to people, though individuals are often drawn to them due to dire needs of cash.

In the absence of any strong alternative to natural capital based livelihoods at village level, the situation cannot be sustainable unless favourable natural conditions return. This is a remote possibility considering various factors of climate change. In view of this it is necessary to evolve urgent coping strategies at household, community, village and society level to make the best use of available capitals.

It is important to see the patterns of indebtedness of each family and find factors that are responsible for the agrarian crisis. There is no guarantee of steady income or produce necessary for sustenance and or wealth creation which will lead to sustainable livelihood for families and for communities. The support systems for credit, distress mitigation and health also need to be looked into. The socio-cultural factors such as expensive marriages and dowry which is so much in our face but hidden also represent the commercialization of lives of rural and urban people.

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Response by Government and Political leaders

There are several meetings were held to assess the drought condition and relief measures taken by the government machinery and invite relief work from the donor agencies and individuals to meet the needs of the people in the Osmanabad, Latur, Beed, Nanded, Jalna, Parbhani, Hingoli and Aurangabad districts which is severely drought affected.

The visits of Mr. Devendra Phadnavis, Chief Minister of Maharashtra and Mr. Sharad Pawar, senior founder president of Nationalist Congress Party and Committee of Central Government have visited to the severely affected districts of the Marathwada. During their visits they have inaugurated some cattle camps and instructed administration to take some drought relief measures in the severely affected villages. They have seen the status of Jaljyukt Shivar Yojana in those respective districts. They have also declared that there will be no shortage of financial resources to handle the drought situation. However, the major challenge remains same after every three to four years. The real challenges are assured drinking water supply to the drought-hit areas, adequate fodder for the cattle, shortage of food grains and lack of employment and the most important is that ineffective implementation of the existing Centrally and State sponsored schemes to the needy and deserving people of the region. Hence, the drought situation worsens severely and people are migrating to the cities like Pune, Mumbai, Bidar and Hyderabad in search of livelihoods and survival. Unless and until all support agencies work on long term solutions with integrated manner otherwise these drought situations are going to lead towards distress migration, threats to social fabric and social harmony in the society. The people of Marathwada have given some suggestions for drought proofing those are as following.

V. RECOMMENDATION AND CONCLUSION

A. Immediate measures

1. Assure availability of drinking water for all human beings and livestock on emergency basis. A minimum of 100 liters water should be given to drought affected families per day and appropriate water storage facilities should be provided.
2. All sources of drinking water should be reserved for human beings and animals.
3. There should be rejuvenations of old wells and water bodies, de-siltation of minor, medium projects.
4. Guarantee food grains on PDS shops to all APL and BPL card holders in drought affected regions. All drought affected families should be included under BPL and Antodaya Yojana. They must receive food at the Antodaya Yojana rate of Rs 2 for wheat and Rs.3 for rice.
5. Effectively implement ICDS and mid day meal schemes in pre -primary and post- primary schools in Marathwada. The Mid-day meal scheme should be continued even during vacation time for school children of the drought affected villages.
6. Create green fodder and dry fodder bank and make it available at the village or circle level and not in the fodder camps.
7. Fodder cultivation should be promoted by the agricultural universities and colleges.
8. Increase the amount of cattle feed from 10kg to 20 kg per day. Per cattle financial support should be increased from Rs 50 to Rs 70 and assurance of fodder and adequate water availability to livestock till the situation improves.
9. Shelters with adequate fodder and water facilities for small sheep and goats to be set up.
10. Undertake skilled and unskilled work at the village level through camps by the Maharashtra EGS programme with modified minimum wages.
11. Medical treatment should be provided free of cost to these people. Include mental health care and suicide prevention at the village and block level.
12. Electricity charges must be waived of small and marginal farmers from the period of June 2015 to July 2016.
13. Drought relief cell, helpline, media campaigns, special drive programmes may be promoted by the state and civil society actors.

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B. Long term measures

1. Start micro watershed work for soil and water conservation work on 1505 watershed sites of the state.
2. Need convergence programme on food, fodder, work, water and skill development programme.
3. Relief grants should be given to all the farm holders such as per acre Rupees 5000 for next one year.
4. There should be fees waives to all the Non-GOI students of Marathwada region for the year 2015-16.
5. Non-government and Government agencies should start Taluka-wise counseling centers for farmers and labourers.
6. Illegal moneylenders should be tracked and put them under the Non-cognizable offence.
7. Single women, deserted women, or single parents should be provided Antodaya Annapurna Yojana under the PDS.
8. The inter basin water diversion can be promoted and equitable water distribution should take place all over the Maharashtra.
9. Tanker free and Drought free Maharashtra should be given priority in acute shortage districts of the State.
10. There should be drought mitigation commission for five to ten years which will be working on above mentioned activities.
11. Non- Governmental organisations and corporate social responsibility efforts should be focused on drought mitigation and relief work.
12. Water audit programme, rain water harvesting programmes should be promoted by the state and civil society organisations.
13. Cropping pattern must be revamped and rain shadow area based crops and horticulture must be promoted.
14. Highly water consumption crops must be switched to drip irrigation and less water should be used. Artificial water recharge methods promoted all over the state.
15. State water policy should be revised and MWRRA should take care of water tariffs and allocation of water.
16. Equity, social justice and human rights issues should be addressed while developing policy, projects and schemes by all the stakeholders.
17. Livestock based livelihood should be promoted and sustainable livelihood sources must be generated in this region.
18. All the committees and commissions report must be reviewed - contextualized and implemented.
19. The right to equitable distribution of water from the dams, for every agricultural family, including the landless.
20. A comprehensive review of Employment Guarantee Scheme (EGS) should be undertaken. The Minimum Wage of workers under EGS should be revised and they should get Rs.300 per day which should be paid on a weekly basis. Mid Day Meal should be given to EGS worker at the work site.
21. Create assured employment for villagers to avoid starvation and migration.
22. Monitoring or vigilance committee to be set up for overall monitoring of the drought situation and government interventions.
23. Long-term strategies for drought eradication to be decided with coordination and consultation on water, agricultural and forest related boards to focus on drought proofing in the region or state.
24. Equitable Water Distribution Act to be made by the state.
25. There should be moratorium on taking bore-wells in dark zone areas of the drought affected.
26. Farmer suicides families should be given adequate financial and rehabilitation support by the state.
27. Optimism, network of support system, collective marriages, collective festivals and celebrations be promoted and individual expenditure can be reduced.

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