

# MAHARASHTRA AHEAD



Combating  
**Drought**

# Assurance...

## 1. For villages with paisewari less than 50 paise for Kharif crop

- Concession in Land Revenue
- Conversion of cooperative loan
- 33.5 % concession in electricity bills
- Waiving examination fees
- Stay for recovery of agriculture loans

## 2. Announcement of various measures for drought affected villages

- Need based works under Employment Guarantee Scheme
- Water supply through Tankers and Bullock carts
- Water from the dams reserved on top priority for drinking
- Opening of fodder camps

## 3. The District

Collectors and Divisional Commissioners are given powers for sanctioning budgets for special repairs to Water Supply Schemes enhanced.

4. Decision to implement schemes through NGOs/ Voluntary organizations/ co-operative institutions during drought conditions.

5. Reserve funds of Rs. 2 crore with District Collectors of each drought affected district.

7. Funds of Rs. 120 crore transferred to Water Supply and Cleanliness Department so as to streamline drinking water supply.

8. Decision not to disconnect electrical supply to temporary Regional Water Supply Schemes in the drought affected villages.

6. The Government to make payment of current electricity bills to the extent of 67 % for drought affected villages.





# Combating The Drought

On 1st May 2013, Maharashtra is celebrating 53rd anniversary of the Statehood. Since its inception Maharashtra retains pragmatic leadership in various fields making people of Maharashtra proud. Maharashtra is first in the country in attracting Foreign Direct Investments, contributing 23 per cent of nation's FDIs. The present per capita income of Maharashtra is Rs. 95,339 viz-à-viz the per capita income of the country is Rs. 61,564, surpassing other States of the country.

In order to strengthen its first position in the industrial sector, the Maharashtra Government has announced New Industrial Policy this year, which aims to achieve manufacturing sector growth rate of 12-13 per cent and also expects to create 20 lakh jobs in 5 years. Maharashtra has taken a lead in the e-governance as well and is helping to accelerate and make the administration transparent. Students from many countries prefer Maharashtra for higher studies. Maharashtra can be rightly called the Education Capital of India.

Mumbai as well as rural areas have lion's share in prosperity of Maharashtra. We also lead the country in horticulture. The State has recorded highest production of Oranges, Sweet Lime, Banana and Grapes. Maharashtra has rightly established its identity as a 'Retail Hub', 'Automobile Hub', 'Media and Entertainment Hub', 'IT Hub' as well as 'Finance and Business Hub'. Maharashtra has always remained ahead in socio-cultural sectors and has always been foremost in imbibing reforms. It is the most harmonious, prudent, welfare-oriented State with excellent law and order, revering and felicitating women, senior citizens artists and sports persons.

Although, Maharashtra has conquered new pinnacles of development and progress, natural calamities and other factors have overshadowed it in last few years. Maharashtra is facing drought for the second consecutive year. The historical records show that during last 600 years, Maharashtra has faced more than 30 major droughts. The memories of severe drought of 1972 are still afresh. Considering the geographical conditions of Maharashtra, although total rainfall seem to be normal but its distribution is quite unequal. It pours heavily in some parts while in some areas it plays hide and seek. The drought situation can be effectively mitigated through permanent measures.

As annual budget for development of each Gram Panchayat is prepared with available funds, similarly, for combating water problem, scarcity and drought situation, budgeting of water has to be done at village level. For this, before carrying out any planning for water supply, we should consider the

available and expected water resources, water required for drinking, agriculture and other purposes. At the same time, with the self restraint we should stop uncontrolled lifting of water. It should be considered not to permit digging of wells and hand pumps without prior permission of Gramsabha. As villages have every right on grazing land, it should have equal rights of available resources also. On the lines of concept of self-sufficient villages, we should develop a new concept of Water-self reliant Villages.

With the changing monsoon pattern and cycle of seasons, in the last few years, severity of drought has increased. Due to uncontrolled tree-felling, soil erosion has increased. Encroachments on river banks and nallahs are destroying the natural resources of water. We have not imbibed the method to save water by watering the crops in a planned manner and with the use of modern techniques. Due to many such reasons the severity of scarcity has increased.

The State Government has been successful in receiving a large amount of funds for drought relief. Provision of Rs. 2,000 crore has been made for drought mitigation measures. Although the drought-affected people have received some relief due to various measures, it is necessary to emphasize on permanent measures. Completion of irrigation projects in the final stages, construction of cement check dams in series, farm ponds, repairs of Shivkalin and Malgajari lakes, removal of silt from percolation tanks, various works related to water conservation, recharging wells, Vanrai Weirs through public participation, are accorded due priority.

In this issue we have reviewed the combined efforts of Government and People to combat drought. We have included encouraging success stories of many villages and articles on various topics, Government efforts and measures for drought mitigation.

According to the forecast of the India Meteorological Department, there will be 98 percent rainfall of the normal in the ensuing monsoon. Dr. Ramchandra Sable's Monsoon Model has also forecasted the same.

I hope this issue will also be appreciated like the earlier issues.

**Pramod T. Nalawade**  
*Editor-in-Chief, 'Maharashtra Ahead', DGIPR*

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A Government of Maharashtra Production

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# Measures to Combat Drought

Some of the villages are facing drought for the second consecutive year

To mitigate the drought situation, the Government has taken up a massive programme of fodder development with an outlay of nearly Rs.95 crore under various schemes. More than 3 lakh hectare area has been brought under fodder crops.

**T**he failure of monsoon for second consecutive year has been a matter of deep concern for my Government. In February 2012, only 230 tankers were plying for supplying drinking water, while in the current year by the end of February, the same number is now nearly tenfold at

2136 tankers. Various schemes for supply of drinking water in the scarcity areas including supply through tankers in 1663 villages and 4490 hamlets have been implemented and during current financial year the State has so far spent Rs.414 crore on emergency measures to provide drinking water.

Nearly 11,801 villages of the State are facing drought, some of them during second consecutive

year resulting into acute shortage of fodder. The Government has opened 554 cattle camps to provide fodder and at present more than 4.5 lakh animals are in such camps. During current financial year the State has so far spent Rs.749 crore for fodder. Labour attendance on relief works is as high as 2 lakh. My Government is fully committed to take additional measures for tackling scarcity situation.

Jat and Aatpadi Talukas have been facing acute drinking water scarcity. To overcome this situation Government has taken vital decision to provide water from Mhaisal and Tembhu lift irrigation schemes, through canal. Similarly, a decision to pay the bills of Takari, Mhaisal, Tembhu, Purandar, Urmodi, Janai-Sirsai and



Mukatainagar lift irrigation schemes from the scarcity relief funds has been taken, this will ensure continuous supply of water to these areas.

To mitigate the drought situation, the Government has taken up a massive programme of fodder development with an outlay of nearly Rs.95 crore under various schemes. More than 3 lakh hectare area has



been brought under fodder crops. Estimated production is 60 lakh tonnes of green fodder in drought affected areas during Kharif, Rabbi and Summer season.

To mitigate the impact of drought and to give higher compensation and financial help to farmers 'National Agriculture Insurance Scheme' (NAIS) is being implemented. In Rabbi season of 2012-13 the Government has increased indemnity level from 60% to 80% for all major crops. It is expected that the State would have highest coverage of Rabbi crop area this year and record number of farmers would get the benefit of the insurance.

For satisfying increasing demand of crop loans, during the last Kharif season, the Banks in the State have provided crop loan of Rs. 19,243 crore to the farmers. Government has decided to reschedule these loans in drought affected villages having paisewari less than 50, before they become overdue. My Government has resolved to provide crop loans to farmers upto Rs.1 lakh without interest and crop loan upto 3 lakh at the rate of 2% per annum.

Providing work to the unskilled labourers in rural areas is another challenge facing my Government during the drought. In 2012-13, expenditure incurred so far is over Rs. 1700 crore and person days created are 700 lakh. Due to sustained efforts of my Government, the Central Government will be providing cost of employment upto 150 days instead of 100 days per household in 123 drought affected Talukas. I am happy to say that the Government has increased the cost of wells under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) from Rs. 2 lakh to Rs. 3 lakh taking into consideration the increase in wage rate and cost of material.

To mitigate the water scarcity situation in those talukas where ground water level has depleted by 2 meters or more, the Government



has announced a programme of constructing Cement Nalla Bandhs in series. Rs. 150 crore are made available for this programme. 682 Cement Nalla Bandhs are already completed and the work of 683 is in progress.

The Central Government has launched a five year 'Vidarbha Intensive Irrigation Development Programme' with an outlay of Rs. 3250 crore for improving crop productivity 3 in 8 Districts of Vidarbha. Under this programme an expenditure of Rs.75 crore has been incurred on agriculture and soil conservation activities.

In order to avoid disconnection of electric supply of Rural Individual Water Supply Scheme due to non-payment of electric bill in the scarcity villages having paisewari less than 50, my Government has taken a decision to pay 67% of current electricity bill of such Gram Panchayat which pays balance 33% amount. Special assistance as and when required has been provided to complete urban pipe water supply schemes or to secure their hassle free operation.

To achieve 4% growth rate in Agriculture and allied sectors

'Rashtriya Krishi Vikas Yojana' (RKVY) was prioritised by my Government during the year 2012-13 to provide more than Rs.850 crore for drought mitigation measures, out of Rs.1100 crore likely to be made available under the Scheme.

With the help and active participation of Public Private Partnership (PPP), 12 schemes were implemented in the State under RKVY to connect more than 1 lakh farmers and 1 lakh hectare area to the markets.

In order to make available drip irrigation sets to the farmers at reasonable prices, a process was initiated to fix rates for drip irrigation sets considering fixed technical norms. The outlay of more than Rs.675 crore was made available by Central and State Government to cover more than 2 lakh hectare area under drip and sprinkler.

To bring sustainability in production in dry land farming and to complete this work as a Mission, a committee is established under the chairmanship of the Minister for Agriculture and Marketing. An amount of Rs. 100 crore is made available during the year for this purpose. ■

# Let US Make Maharashtra Drought-free

A helpline 1077 has been started for the drought affected area

“Drought-free Maharashtra is not just my dream but it is a planned determination. With the betrayal of monsoon for the last two years, 15 districts in State are facing severe water scarcity this year. This makes me restless that progressive State like Maharashtra has to face drought situation. Therefore while implementing temporary measures to combat prevailing drought situation, we have emphasized on permanent and long term measures so that there is no recurrence of drought,” – the Chief Minister, **Prithviraj Chavan**.

**A**s we realized the less rainfall for the second consecutive year, from the month of July early we started advance preparation for emergency measures to be implemented. Since July in weekly cabinet meetings we kept track of the monsoon in the State and accordingly made advance planning for remedial measures. Maharashtra has faced drought earlier as well. However the situation this year is different. There is no scarcity of food and employment but is of water. While writing these words 11,593 villages and hamlets are being supplied with drinking water through 4,012 tankers. 1,022 cattle camps have been opened for more than 8 lakh animals. Drinking water tanker in village on demand, cattle camp at place of demand and work on demand is being made available.

We have geared up huge machinery which has never been equaled in the history of the State. We are emphasizing on permanent measures for drought mitigation along with immediate ones. Various initiatives such as completing irrigation projects in final stages of completion, construction of cement check dams in series, farm ponds, repairs of Shivkaleen reservoirs, and removing silt from percolation tanks are being



The Chief Minister Prithviraj Chavan at the cattle camp of village Mhawad

implemented. A decision has been taken to spend 15 percent of the funds of the District Annual Planning as permanent measures for drought mitigation.

The powers for emergency decisions have been conferred at district and taluka levels. Funds have been made available for completion of Tap water supply schemes for urban areas. A helpline 1077 has also been started for the drought affected areas. We have a testing time ahead

till the monsoon arrives in the State. However I can assure everyone that the Government machinery will not fall of short anywhere.

In 8028 villages, final paisewari for Kharif seasons has been declared less than 50 paise and 2,794 villages, in Rabbi Season final paisewari have been declared less than 50 paise. Emergency relief measures have been taken up in these villages. To resolve the water problem of Osmanabad and Jalna cities funds of Rs. 51 crore and



Conversing with the drought affected farmers



The Chief Minister Prithviraj Chavan inspecting the cattle camp in the village Mhawad

Rs. 40 crore have been provided respectively for arrangement of permanent water supply.

With a view to recharge the water supply sources for drought affected villages in Sangli and Satara districts, Government has taken vital decision to provide water from Mhaisal and Tembhu lift irrigation schemes, Similarly, a decision to pay the bills of Takari, Mhaisal, Tembhu, Purandar, Urmodi, Janai-Sirsai and Mukatainagar lift irrigation schemes from the scarcity relief funds has been taken, this will ensure continuous supply of water to these areas.

For a project to bring water from Tembhu Lift Irrigation Scheme to Birnal lake at Jat in Sangli district Rs. 25 crore been made available. Powers of District Collectors and Divisional Commissioners regarding emergency remedial measures and special repairs in respect of water supply schemes have been increased to Rs. 25 lakh and Rs. 1 crore respectively.

Expenses from the drought relief fund have been permitted for hiring on electrical pumps or oil engines to get the tankers filled. We have taken

a decision to allow a concession of 67 percent in electricity bills for independent water supply schemes providing water to villages. By declaring water scarcity situation in rural areas and to implement necessary remedial measures, the present condition of 1.5 km has been relaxed upto 1 km. Emergency plans have been made with respect to water availability in the dams located in drought affected villages.

In order to provide succor to the drought affected a decision has been taken to donate one month salary of members of the State Ministry and one day salary of Indian Administrative Service Officers, Indian Police Service Officers, State Government officers and employees to the Drought Relief Fund.

The concerned District Collectors have taken all precautions to provide adequate water supply and employment to avoid migration of people in search of employment and water. The works under the

With a view those wishing to contribute towards the Chief Minister's Relief Fund (Drought 2013) without any difficulty, donors can directly deposit the cheques with a Bank or with the concerned District Collector office. Donors can directly deposit their own cheque or Demand Draft with any branch of the State Bank of India. The cheques may be drawn in favour of "Chief Minister's Relief Fund (Drought 2013)". The cheques could be deposited in Account No. 32860305777 at State Bank of India, Fort Branch. After depositing the cheque donor should inform Chief Minister's Relief Fund Cell, Chief Minister's Secretariat, Mantralaya, Mumbai-32 through a letter alongwith a copy of deposit receipt from the Bank, so that a receipt could be sent to them. For more information contact The Chief Minister's Relief Fund Cell on Phone 022-22026948 or 022-22022940 on any working day during working hours.

Maharashtra Rural Employment Guarantee Scheme would be started in the drought affected villages as and when need arises. Care is being taken so that no one remains without employment.

Villages where the water supply is being provided through tankers, a decision has already been taken that the water should be released in plastic tanks instead of wells. These tanks are being made available from various Nationalized Banks, Cooperative sugar factories and various industrial conglomerates with humanitarian and social responsibility. Considering the severity and expanse of the drought affected areas we have appealed to all such institutions to come forward to contribute and contact the District administration for the same.

Where the final paisewari for Kharif crop has been declared less than 50 paise, we have taken a decision to provide grant to the tune of 67 percent for electrical bills of village water supply schemes from April 1, 2012 onwards. Out of this grant 50 percent will be from Water Supply Department and 17 percent from Drought relief fund of the Relief and Rehabilitation Department.

For expenditure on emergency drought mitigation and related issues every District Collector has been provided funds to the tune of Rs. 2 crore. 15 percent of the funds from the District Annual Plan funds would be spent on expenses related to permanent drought relief measures such as construction of concrete dams and others. Under MGNREGA, works such as strengthening of percolation lakes, farm ponds, cement weirs and works on nallahs have been taken up on a large scale. The results of these activities can be seen after the ensuing monsoon.

The global warming greatly affected the global weather and monsoon cycles. Coping with the forthcoming situation we will have to to absorb every drop of rainwater in the soil or store the same. At the same time we will have to change our habits of water usage. With the permanent measures we have taken up presently, I am confident that the State will never have to face drought situation in future. ■

- As told to **Satish Lalit**



# No Dearth of Funds...

To mitigate the scarcity situation provision of Rs. 1,164 crore has been made in the fiscal budget

Many talukas of Maharashtra are fighting the scarcity due to the absence of rains. Helping the drought affected from Talukas is the topmost priority of the State Government. The State Government is earnestly putting in all efforts to provide succor to these people by providing drinking water, fodder for the livestock and financial assistance to students from schools and college, explains the Deputy Chief Minister **Ajit Pawar**.

The whole machinery of the State Government right from the village level to the entire State has been activated to alleviate scarcity and the help has been extended. Apart from many political parties, voluntary organizations, industrial and business houses, the common people have also extended helping hand to mitigate the drought. With this the drought relief operations have become inclusive accelerating the pace of relief measures.

15 Districts and about 8,000 villages are scarcity affected. 3,500 villages and 8,000 hamlets facing the drinking water scarcity are supplied drinking water through 4,000 tankers. More than 1,000 cattle camps have been opened for more than 8 lakh animals. Milk Dairies from Gujarat such as Amul and Sabar cooperatives have also arranged for fodder worth Rs. 60 crore for the cattle in the State. In order to provide work to drought affected people a total of 23,000 works have been taken up employing 3.25 lakh labourers.

The State Government is fully geared up with the whole strength to help the drought affected and this work has been accorded topmost priority. While reiterating this fact, there will not be no dearth of funds for this. This fiscal budget has made provision of Rs. 1,164 crore for scarcity mitigation. The State Government has allowed spending of 15 per cent of the District Annual Plans of the

year 2013-14 on measures relating to drinking water supply. Similarly, drinking water supply related works upto Rs.25 lakh recommended by the Legislators have also been permitted to be taken up under the Local Area Development Funds.

The State Government has made available substantial amount of Rs.850 crore for undertaking temporary relief measures to tackle current water scarcity situation. Besides provision of Rs.186 crore for fodder supply and Rs.1050 crore from National Disaster Response Fund has been made. The Centre has also been positive to help the State to face the scarcity situation successfully. Due to the initiatives taken by Union Minister for Agriculture Sharad Pawar, the State has received funds to the tune of Rs. 778 crore in November and Rs. 1,207 crore during the last month.

The Government has taken many important decisions to provide relief to the drought affected. Funds of Rs. 51 crore and Rs. 40 crore have been provided for permanent water supply to Osmanabad and Jalna city respectively. To overcome this situation Government has taken vital decision to provide water from Mhaisal and Tembhu lift irrigation schemes, through canal. Similarly, a decision to pay the bills of Takari, Mhaisal, Tembhu, Purandar, Urmodi, Janai-Sirsai and Mukatainagar lift irrigation schemes from the scarcity



relief funds has been taken, this will ensure continuous supply of water to these areas. Rs. 25 crore has been made available for this.

The powers for emergency remedial measures and special repairs in case of water supply schemes have been vested with the District Collectors and the Divisional Commissioners and their financial powers increased to Rs. 25 lakh and Rs. 1 crore respectively. For villages where the final paisewari for Kharif crop was less than 50 paise, the Government has taken a decision to pay 67 percent electricity bills for water supply schemes to these villages for period from 1st April 2012 as a grant, of this 50 per cent by water supply department and 17 per cent by assistance from relief fund of the Rehabilitation department.

The Government is trying to accelerate the National Agriculture Development Scheme to provide relief to the farmers and budget provision has been made for the same.

National Agriculture Development Programme has been one of the most important schemes in overall development of agriculture and many significant schemes connected with drought relief such as water conservation, Mahatma Water and Land Conservation Campaign, check dams, Vidarbha Intensive Integrated Irrigation Development Programme, Accelerated Fodder Development Programme and others have been taken up under the National Agriculture Development Scheme.

Although the Government has implemented many schemes for helping the drought affected, for the near future, we are concentrating on the long term measures. A decision has been taken to accelerate the irrigation projects which are incomplete. The irrigation project in final stages with 70 to 90 percent work would be completed immediately. A decision has been taken to initiate new irrigation projects only after all the works with present priority scheme has been completed. I believe that with this approach there will be speedy completion of irrigation projects and we shall be able to extend the benefits of projects to the people. We will have to be careful in future to confirm that there is no irrigation backlog before releasing funds for future irrigation projects.

About 123 villages in the State are affected by drought. A common picture emerges that where rain doesn't fall, the scarcity situation is created and to some extent this is a fact as well. However a situation has come where we shall have to go beyond this and think about the scarcity situation. We should also consider and think about the changes that have taken place in water usage over the last 50 years and search for reasons for scarcity. The population growth during these 50 years, the improved living standard, changed lifestyle, enhanced usage of water for amenities, increase in water usage due to industrialization and urbanization, increased livestock population and



The Deputy Chief Minister Ajit Pawar inspecting well from drought affected areas.

extremist use of water for agriculture have all resulted in increase of water usage. Due to urbanization and other reasons the percolation of water to the soil has reduced. At the same time the unlimited lifting of water and lakhs of bore-wells trenching the bowel of earth reduced the ground water levels to drop even greater. Accepting that all these reasons are directly or indirectly related to the water scarcity arisen in the State today, we will have to take some bold decisions in the future.

While planning for water in future we will have to consider the geographical location of the State and take decisions accordingly. We have taken a decision not to initiate any large irrigation projects for now. Therefore we will have to concentrate on the watershed and minor irrigation development programme. The works for lakes, water reservoirs, open wells and bore-wells at every village need to be completed as early as possible. The lakes and wells from villages have to be de-silted regularly. This will help in the ground water storage. The water should be used for agriculture with due restraint. A lot of water can be saved with Drip and Micro irrigation systems. Water can also be saved through proper management and

justified co-operative distribution. There is a huge leakage and wastage of water when the same is released from the dams through the means of river beds or canals. We should consider the possibility of using pipeline for the same. Many villages such as Ralegan Siddhi and Hivrebazsar have created an ideal in water management. If other villages emulate them we can definitely look forward to a changed and happy picture of Maharashtra.

Many people compare the 1972 famine with scarcity situation in 2013. During 1972 there was a dearth of everything from water, grains and fodder. The resources available with the State at the time were also limited except for the exemplary and dominant willpower of the leadership and the population. In 2013 the State has all the resources to mitigate the drought. In order to overcome the situation we are making available all the necessities of water, grains and fodder from other places. The leaders and people are determined with dynamic willpower to overcome the scarcity. Through the efforts of the State Government, strength of cooperation from the population and a commendable unity within us we will be able to find a definite way out of this situation. ■

- As told to **Sanjay Deshmukh**

# Overcoming Scarcity

**Under the MGNREGS, the attendance of labour at the 22,211 ongoing works is 2,85,476**

Emergency remedial measures were undertaken in the drought affected talukas like water supply through tankers, alleviation of drinking water scarcity and opening fodder camps. Every District Collector was instructed to review the drought situation every week through Video conferencing, says **Dr. Patangrao Kadam**, Minister for Relief and Rehabilitation

## **What efforts have been taken by the Government to mitigate the drought situation in the State?**

The onset of monsoon at the State during 2012 was also delayed. The State took serious cognizance of meagre rainfall in Beed, Ahmednagar, Nashik and some parts of Sangali district. As Minister for Relief and Rehabilitation, I am the Chairman of the Cabinet Sub-Committee appointed for dealing with the scarcity situation and am holding a weekly meeting of the sub-committee on every Tuesday. Provision of drinking water for animals and people as well as fodder camps for the animals were started immediately. Emergency remedial measures were undertaken in the drought affected talukas like water supply through tankers and alleviation of drinking water scarcity. With a personal inspection by the District Collector, the cattle camps were first started at circle level. It was seen that these camps were capable of accommodating maximum of 3,000 and minimum 250 animals. Every District Collector was instructed to review the drought situation every week and through Video conferencing, I obtained the information about the work done and issued instructions to the concerned officers for immediate action.

**What are the steps taken by the Government to provide work for labour from the State on priority where the final paisewari is less**

## **than 50 paise?**

A total 2894 villages from Aurangabad, Nagpur and Amravati divisions were declared paisewari less than 50 paise on prima facie. For such villages we declared drought like situation without waiting for the final paisewari. Concerned District Collectors were given instructions for starting works as per needs under the Mahatma Gandhi National Rural Employment Guarantee Scheme and to be vigilant so that no one would be deprived of an employment. The District collectors were also instructed to assess the probable number of people seeking employment and keep enough works ready on the shelf. Water supply through tankers and bullock cart has been started besides activation of temporary tap water supply scheme in the drought affected areas.

## **What is the quantum of financial assistance received from the Central Government for the drought mitigation measures?**

In order to fight with the drought situation, the State Government had send proposal for financial assistance to the Central Government. The Central team visited the State twice to survey the drought situation. I toured the drought affected areas with Union Minister for Agriculture Sharad Pawar and understood the actual condition of drought. In response to various representations from the State Government, we have received a



financial assistance of Rs. 2,559 crore from the Government of India.

## **How many works are ongoing under the Employment Guarantee Scheme and how many labourers are working on them?**

Under the Mahatma Gandhi National Rural Employment Guarantee Scheme the attendance of labourers at the 22,211 ongoing works is 2,85,476. As the sugarcane crushing season is coming to an end, the number of labourers under the Employment Guarantee Scheme is increasing. Considering this situation there is total of 36,582 works are on shelf.

## **What are the remedial measures**

<b>Assistance for Fodder and Cattle Camps</b>	
Nashik	Rs 271.43 crore
Pune	Rs. 568.97 crore
Aurangabad	Rs. 84.74 crore
<b>TOTAL</b>	Rs. 925.14 crore

**taken for the availing drinking water to the wild animals as the**

**water sources in the forests are depleting?**

Adequate amount of water is being provided as the water sources in the forests with the help of tankers. Every District Collector in the drought affected area has been provided with funds of Rs. 10 Lakh for this purpose. Besides this, and forest-lakes would be created on a large scale in the near future.

**Why was electricity supply to Muktainagar Lift Irrigation Scheme in Jalgaon District disconnected?**

There was an outstanding payment of electricity charges due to the tune of Rs. 85 lakh at the Muktainagar Lift Irrigation Scheme, Jalgaon. This payment has been made from the drought funds and the Government has issued orders for immediate reconnection on February 5, 2013. Late payment charges in the matter amounting to Rs. 150 lakh have been waived off by MSEDCL

**What powers are given to District Collectors to re-start water supply schemes closed due to non-payment of electricity bills?**

Considering the drinking water supply as important and immediate, we took certain decisions. Many water supply schemes stopped functioning due to non-payment of electricity bills. It is the need of hour to start these

schemes immediately so the District Collectors have been given powers for payment of current outstanding electricity bills for such permanently disconnected water supply schemes. With the payment of these electricity bills conditions like restarting of water supply schemes, savings in tanker expenditure and no alteration in the original source have been placed before the local Government bodies. The responsibility has been placed on Maharashtra Jeevan Pradhikaran and Zilla Parishad to run these schemes permanently. After the scarcity situation the schemes will have to be run by the Gram Panchayat with regular payment of water tax. Concerned Gram Panchayats have been instructed to pass a resolution to this effect.

In the areas where the water sources are available for filling up tankers but due to non-availability of electricity the water cannot be lifted, diesel engines can be hired during the hours of load shedding, for filling up tankers as per district rates per hour. The Government has given permission for paying these bills from the funds available for water scarcity programme. Considering the severe drought situation the permission granted till 30th June 2012 has been extended to 30th June 2013.

**Considering the drought situation in the State have you**

**relaxed the condition of Open Defecation Free Village while approving new water supply scheme?**

With a view that the new and proposed Water supply schemes should not get delayed due to the condition of Open Defecation freedom, the condition has been relaxed for the schemes of the villages where the final paisewari declared is less than 50 paise. At the same time, the condition of 100 percent open defecation freedom for receiving 2nd and 3rd installment of Government contribution for ongoing schemes has been relaxed till 30th June 2013.

**Is the Government ready to pay 67 percent of the electrical bills of the independent water supply schemes to avoid disconnection due to non-payment of electric bills?**

Considering the water scarcity situation in the State, it is become necessary to run independent water supply scheme by avoiding disconnection of these schemes for non-payment of electric bills. The Government has taken a decision for payment of 67 percent of the current bills from 1st April 2012 for the water supply schemes of the villages with paisewari less than 50 paise. For the payments of these 67 percent, Zilla Parishad would contribute 50 percent of the bills from the funds available with them for maintenance and repairing and the remaining 17 percent will be contributed from the drought relief funds available with the District Collectors. Divisional projects will also seek concession on the same basis.

**How many fodder camps are activated in the State? How many animals are accommodated in them and what has been the financial provision for these?**

The Government is spending Rs. 5 crore every day on fodder for the animals. The expenditure so far has been Rs. 540 crore. The expenses



### DECISIONS TO OVERCOME SCARCITY...

- If the drinking water scarcity has been declared at A and B Class Municipal areas, the powers for water supply through tankers on the basis of District Collector Report at the rate of a minimum of 50 liters per head/per day have been vested with the concerned Divisional Commissioner.
- With scarcity declared in C class Municipal areas the District Collectors have been given powers to approve water supply at the rate of a minimum of 30 liters per head/per day. While supplying water in such manner if more tankers are inactive and if the tanker trips are expected to be low, the District Collector have been instructed to reserve 20 percent additional tankers than the sanctioned number and to see that the proposed trips are completed.
- District Collector has been given with powers to reserve water from large, medium and small irrigation projects on priority for drinking purpose.
- Creation of an independent cell at each District Collector Office for drought mitigation and coordination.
- Every District Collector has been instructed to organize a weekly Video conferencing and discuss the drought situation in district with all concerned officers.
- To submit information in the pro-forma immediately after the Video conference regarding demand for tankers, emergency scarcity mitigation scheme proposals, Works under the Employment Guarantee Scheme, Labourers attendance, works on shelf, fodder scarcity etc.
- Considering the necessity, creation of cattle camps and fodder depots. Hon. Aurangabad High Court praised the decision of State Government to cancel the condition of balance of specific amount in the account of sugar factories and voluntary organizations interested in setting cattle camps or fodder depots. Increase in the rates at fodder camps with Rs. 75/- for large animal and Rs. 35/- for small animal from 1st May.
- Concession in land revenue
- Rescheduling of Cooperative Loan
- Waiving off Examination fees
- Stay on recovery of agriculture loans.
- To avoid disconnection of water supply scheme due to non-payment of electricity bills, decision has been taken for payment of 67 percent outstanding bills of the Gram Panchayat to the MSEDCL if Gram Panchayat make a payment of 33 percent of the electricity bills.
- In the areas where the water sources are available for filling up tankers but due to non-availability of electricity the water cannot be lifted, diesel engines can be hired as per district rates. The expenditure for the same to be arrange from water scarcity programme fund available with district.
- The District Collectors have been given with powers for payment of current electricity bills for starting the closed tap water supply schemes and for payment of outstanding dues for permanently discontinued schemes.
- Administrative sanction powers for special repairs of water supply schemes have been given District Collectors up to Rs. 25 Lakh and with Divisional commissioners up to Rs. 1 crore. The Government has approved the same till 31st May 2013.
- District and Divisional level committees have been established for sanctioning of Repair budgets of Water supply schemes.
- The condition of Open Defecation Free Village is relaxed while giving approval to new independent water supply schemes in drought affected villages.
- Payment of current electricity bills for irrigation schemes at Takari, Mhaisal, Tembhu, Janai-Shirsai, Purandar and Urmodi and to effect water supply available through these schemes to the drought affected villages.



has been approved. Another emergency water supply scheme for Latur Municipal Corporation was sanctioned and the proposals for Rs. 0.64 crore and Rs. 1.75 crore have been approved. Funds to the tune of Rs. 5.46 crore were received for payment of outstanding electricity bills in connection with Sai Nagihari Project. The emergency water supply schemes for Beed, Udgir, Nilanga and Ausa Municipal Councils have also been approved. Administrative sanctions were obtained for various works such as creation of trenches at Khadakpurna River Project in Jalna district, to press tankers to supply water to the villages from Jalna, Jafrabad and Bhokardan talukas and trenches also being created in lower Dudhana Project to supply water through tankers to the villages in Partur, Mantha, Jalna and Dhansawangi talukas. Besides this, arrangement of temporary supplementary water supply scheme to supply water by tankers to Jafrabad and other 33 villages and provision of express feeder to avail water from Mauje Gadhi Grampanchayat scheme in Gevrai taluka of Beed district for water supply through tankers. ■

- As told to **Subodhini Gharat**

per large animal is Rs. 60/- and that for small animal is Rs. 30/-. However from the 1st May the expenditure would be at the rate of Rs. 75/- per large animal and Rs. 35/- per small animal. In the 1,022 drought affected villages there are 7,67,538 animals accommodated in cattle camps. Out of these 6,67,000 are large animals. A total amount of Rs 925.15 crore has been distributed for fodder depots

and cattle camps. Out of which Rs. 381.39 crore has been distributed for fodder depots and Rs 543.76 crore for cattle camps.

### AURANGABAD: DECISIONS FOR SCARCITY MITIGATION

An emergency water supply scheme for Aurangabad Municipal Corporation was sanctioned and proposal for Rs. 13.72 crore project

# For Rejuvenating the Agriculture

National Agriculture Insurance Scheme is being implemented in the State to compensate the agriculture loss.

The drought situation this year has resulted from the reclusive monsoon abstaining from the State for the second consecutive year. The irregular and reduced rainfall in some parts of the State, adversely affected the Kharif as well as Rabbi crops in the State. The agricultural sector has been facing the heat of this drought. Considering the situation, Agriculture Department has come forward for helping the farmers. **Radhakrishna Vikhe Patil**, Minister for Agriculture and Marketing, explains the agriculture related remedial measures taken by the Government for the farmers...

**T**he distress of the hour is a natural calamity. However I feel that we must concentrate on usage of available water with restrain and in an effective manner while we fight out this calamity. If we need perennial irrigation there is no other alternative than micro and drip irrigation systems. With this in view I took certain decisions. Through a Global tender process I decided the

rates for drip irrigation system in the State. This has saved 25 percent to 50 percent expenses of the farmers for installation of drip irrigation sets. The State Government provides grant of 50 percent to the major land holders while 60 percent to minor land holders for the installation of drip irrigation sets. While 75 percent grant has been provided for the same under Vidarbha Intensive Irrigation



Development Programme .

We have prepared a grant scheme for saving horticulture crops by availing facilities of covering the fruit farms, halting evaporation, Integrated Nutrient and Pest Management, drip irrigation and plastic mulching on estimated expenses of Rs 60,000 per hectare. In case of total loss of the orchards, financial assistance has been provided to the farmers through the MGNREGS and Horticulture Development Programme under the Employment Guarantee Scheme of the State Government.

To mitigate the impact of drought and availing compensation to farmers, National Agriculture Insurance Scheme is being implemented in the State. With a



Sr. No.	Type of crops	Financial Assistance Provided / hectare [in Rs]
1	Mango	1.02 lakh
2	Cashew	0.98 lakh
3	Pomegranate	0.86 lakh
4	Orange/Sweet Lime/ Lemon	1.00 lakh

view to benefit maximum number of farmers, I extended the time limit by 15 days for participation in the insurance scheme for 2012-13 Kharif and Rabbi Seasons. Due to this the number of farmer participants in the Rabbi season 2012-13 insurance has increased to three fold to around 9.21 lakh. In the 2011-12 Rabbi season, 3.21 Lakh farmers had participated in the insurance scheme. They had paid an insurance premium of Rs. 27 crore. For the crop productivity losses the farmers were paid an assistance of Rs. 135 crore. With this background it is possible for the farmers participating this year also to receive a greater amount as reimbursement for the losses.

Through the medium of Weather Based Insurance Scheme for Horticulture Crops the eight fruit varieties of Grapes, Banana, Pomegranate, Orange, Sweet lime, Guava, Mango and Cashew have been provided crop insurance and farmers are provided a concession of 50 percent on the insurance premium. During 2011-12 farmers were reimbursed to the tune of Rs. 40 crore for losses through this scheme.

With a view that the fodder scarcity should not further aggravate the paucity of water a programme for fodder development has been undertaken. Under this programme in the year 2012-13, during kharif and Rabbi seasons, around 1.76 lakh hectares land has been brought under cultivation of fodder crop under 370 projects to produce 30 lakh metric tonnes of fodder. With a view to cultivate fodder, in the summer season, 18,000 Quintals of seeds for

fodder crops such as Corn, Bajri, Jowar, Nutri-feed and others were distributed free to farmers at places where water was available.

In order to renovate old fruit farms, the farmers are provided 50 percent grant to the extent of Rs. 15,000 per Hectare. The farmers have been provided with a grant of 50 percent of the total expenses for setting up Green Houses for controlled environment agriculture, High Tech Green House and Shed Net House. Apart from this a Grant up to 50 percent of the expenses is provided for High Quality vegetable and flower plantations in Green House and Shed Net House.

The State has announced Organic Farming Policy for sustainable development of the agriculture and to reduce the expenses on agriculture production and improving the soil texture. Through the National Horticulture Mission and Organic



Farming Scheme, the farmers are provided grants for various aspects such as Vermiculture, Vermipost production, Standardization of Organic Farming and others.

Under the National Horticulture Mission, the farmers are provided 100 percent grant to the extent of Rs. 65,000 to Rs. 5,56,000 for development of community farm ponds with capacity ranging from 500 to 10,000 Cubic meters.

Through the medium of MGNREGA and Watershed Area Development Scheme, a grant of around Rs. 1.43 Lakhs is provided for construction of farm pond.

The farm ponds developed under National Horticulture Mission, MGNREGA, National Agricultural Development Scheme and others are provided with a 50 percent grant to the extent of Rs. 28,000 to Rs. 78,000 for plastic lining.

Grants are provided for removing the sediments in the old lakes and dams, repairing them and other related works in the drought affected areas from Mahatma Phule Land and Water Conservation Campaign.

Through the medium of National Agricultural Development programme, for refilling of water, the Check-dam construction programme is being implemented.

The Government has made available funds to the extent of Rs. 150 crore at Rs. 10 crore per Taluka for construction of cement nallah dam in series at the drought affected Talukas. The construction

work of these has been undertaken on a large scale.

There has been a marked reduction in crop productivity as a result of drought and water scarcity. In fact the sowing operations for crops also could not be initiated at some places. Such areas would be inspected and the farmers will be provided with financial assistance from the Government.

Through the medium of such multifarious schemes the Agriculture and Marketing department is implementing remedial measures so as to fight the drought situation. ■

- As told to **Vinaykumar Awate**

# Sustainable Solutions for Water Resources

Maharashtra has a total 39,139 independent water supply schemes and 32,788 are presently active

Severe water scarcity has hit Aurangabad, Nashik and Pune. In order to mitigate the drinking water scarcity, so far 20,423 urgent water supply schemes have been sanctioned. Of these 15,598 schemes have been completed and 4,825 are in progress. So far 3,562 tankers have been pressed into service for drinking water supply, says Minister for Water Supply and Sanitation, **Prof. Laxman Dhoble**

**W**ith the prevailing scarcity situation, the top priority has been given to drinking water supply to the drought affected people. At the same time Water Supply Department is consciously implementing various schemes understanding that many challenges in this

Under the National Rural Drinking Water Programme, 13,237 villages and hamlets have been included in the drought action plan for 2012-13. The target of this programme is providing water supply to 5940 villages and hamlets out of which work for water supply of 4637 villages have been completed till March 2013. Hence my department is successful in completing 78 percent of the target.

Considering the severe water scarcity in the State and the schemes should not be discontinued due to non-payment of electricity bills I decided to make a payment of 67 percent of the current electricity bills to Mahavitaran for independent water supply schemes in the drought affected areas with paisewari less than 50 paise. Similarly in order that regular regional tap supply schemes in drought affected areas should not be discontinued due to non-payment of electricity bills, for villages with paisewari less than 50 paise, it was decided to 67 percent of electricity bills for 140 regular regional pipeline water supply schemes from January 2013 to June 2013 to MSEDCL. The electricity supply to seasonal Regional

Water Supply Schemes will not be disconnected till June 2013.

Groundwater Survey Development Agency for urgent water supply measures during the scarcity period has been relaxed except for bore-wells.

It has been decided to renovate the Rural Regional Water Supply Schemes in the State closed due to various reasons. The planning and implementation at the District level has already started for completion of the incomplete projects. The process for technical and administrative sanctions has been completed for 4,155

have been instructed to help villages with paisewari less than 50 paise and villages with drinking water scarcity.

Maharashtra has 1,00,300 wadis and vastis. An independent water supply scheme at local and individual level at each place has been started and the water is being supplied. Maharashtra has a total 39,139 independent water supply schemes and the number of presently active schemes is 32,788. While working under the drought conditions my Department has tried to restart many closed schemes on a war footing.

The Centre has extended help at large scale and the Government of Maharashtra also made available huge funds for water supply schemes. Due to this we could reduce the scorching agony of a harsh summer. It will not be enough to just take temporary remedial measures.



While planning for the next 25 years we will have to consider recharging of wells, watershed development programmes, water conservation, soil conservation, farm ponds, village ponds, as also recharging of rainwater from the roof at the same place through Shivkaleen yojana. Unless we implement these schemes the thirst of the soil would not be quenched and unless this thirst is quenched, we will not be able to quench the thirst of the human beings, hence my department has started a very ambitious programme.

The ground water level is receding day by day and it is also being polluted by constituents such as salts, hardness, mercury etc which are detrimental to human health. The salt percentage increases as the water level goes down. Due to the large quantities of chemical fertilizers the water percolating in the soil also gets polluted. The lives of human beings are threatened due to these problems.

Under the circumstances, the responsibilities such as restrained use of water till July end and provision of available water as clean and pure has increased from April onwards.

- As told to **Shantaram Sherwade**



# Permanent Measures

Construction of additional 10,000 agriculture lakes has been taken up under MGNREGS

Along with temporary measures it is essential to implement permanent and long term measures to overcome the scarcity. Water storage capacity should be increased with speedy completion of irrigation projects in the final stages. A plan has been chalked out for creating an enhanced network of canals. says Minister of State, Relief and Rehabilitation **Prakash Solanke**.

The State is fighting drought for the second consecutive year. The droughts are of three types namely severe drought, drought and scarcity situation. The State is experiencing a drought situation this year. During this there is a severe drinking water and fodder scarcity. There is a basic difference between the famine situation in the earlier British rule and the present one. At that time the transport facilities were not as developed as they are today. Construction of dams on a large scale for water storage was not undertaken. There was no system for increasing grains production and storage. The population of people and the livestock was less. The same has increased to a great extent as on today. Therefore it would not be proper to compare

the present circumstances to the earlier drought.

The proportion of rains and the rainfall carried away has increased considerably. Hence it has not helped in water storage and to improve the ground water levels through the same. On the other hand there has been a great evacuation of water due to the use of modern technology. Even with these constraints the modern technology could be used with developed techniques to mitigate the drought scenario. In the agricultural sector the fodder production is being increased with ingenious use of technology. With this in view a Fodder Development Programme is being implemented. The number of go-downs for food storage has been increased. Dams are



being constructed for water storage and water conservation projects are being taken up.

Due to irregularity of monsoons continuously there is a scarcity of water and fodder. During the period 1st June to 30th September the average rainfall in some areas of the State is around 1,100 mm. In other areas the rains are less than half of this. The Government of India has notified the drought-prone areas of the State. Out of the 355 Talukas of the State, more than half of the areas from 151 Talukas are covered under this notification. Apart from this as the inclination of the farmers has been more on longer duration cash crops such as horticulture, sugarcane, banana, grapes and others, the use of water for such agriculture has increased. This is another reason for experiencing water scarcity. It is essential to increase the use of Sprinkler and Drip irrigation systems for agriculture. A continued awareness exercise is being implemented with this purpose. Various Agriculture Universities are carrying out research on this subject. The citizens on their



own initiative should come forward for planning and proper usage of natural resources. Therefore we are emphasizing on creation of awareness and public participation on resolving this issue.

While declaring scarcity and drought situation the criteria applied are those of insufficient rains, unsatisfactory sowing, reducing water storage, depleting ground water levels and the labour attendance at the Mahatma Gandhi National Rural Employment Guarantee Scheme. The main criterions have to be verified while declaration of a Taluka as drought affected. Based on the Reports from Commissioner, Department of Agriculture, District Collector and Assistant Commissioner of the concerned District as well as the insufficient rains in the State and its effect on crop production, the State Government takes a decision to announce drought.

Considering that certain parts of the State are experiencing scarcity of water and fodder due to insufficient rains, the Government has declared a drought like situation in such areas even without waiting for final paisewari to be declared. In 2012 the drought situation was declared in 123 villages of 26 Districts. At the same time drought situation was declared in 6,250 villages of 11 Districts when the Government observed that the paisewari for Kharif crop was less than 50 paise. During the 2012-13 Rabbi Season, scarcity situation was declared in 2,794 villages in Pune, Nashik and Aurangabad Revenue Division as the paisewari was reported to be below 50 paise. The District Collectors from Revenue Divisions of Kokan, Nashik, Aurangabad, Pune, Nagpur and Amravati have declared the final paisewari for Rabbi crops. During the January 2013 Kharif harvest season, scarcity situation has been declared in 8,028 villages where the paisewari is less than 50 paise.

In such a situation, it is



Government's duty to provide drinking water to everyone and fodder to cattle. Water is being supplied through tankers and bullock carts in the scarcity hit villages. Initiatives such as acquisition of drinking water wells and construction of bore-wells have been started. Drinking water is reserved on first priority at the large and medium projects. Fodder camps are being opened at circle level in Talukas and as per needs at village levels. Immediate relief measures such as concession in land revenue, conversion of cooperative loan, concession in electricity bills and deferring compulsory recovery of loans related to agriculture have been implemented. A decision has been taken to relax the condition of open toilet defecation for one year for water supply schemes in drought affected areas. An appeal has also been made to sugar factories in the State for opening a maximum number of livestock camps in their area of operation.

All these are temporary measures and it is essential to implement permanent and long term measures to come out of this vicious circle. The Government has already taken steps in this direction and a precise and efficient planning has also been

carried out. The water storage capacity would be increased with speedy completion of the irrigation projects that are in the final stages. A plan has been undertaken for creating an enhanced network of canals. In order to increase the use of micro irrigation for agriculture the method is being encouraged. The available drinking water resources will be strengthened with modern techniques such as Hydro Fracturing. Reconstitution of water will be emphasized. The work of constructing an additional 10,000 agriculture-lakes and their plastering has been undertaken through the medium Maharashtra Rural Employment Guarantee Scheme crash programme has been envisaged for construction of cement dams so as to instantly soak every drop of water in the soil. We shall have to undertake many programmes compliant with the changing species requiring less amount of water and changing of the crop system.

Combating drought is not the sole responsibility of Government. It is also duty of ever individual, NGO, Social worker. It is essential for all of us to unite and fight this natural calamity. ■

- As told to **Mukta Pawar**

# Streamlining the Drought Relief Measures

The Chief Secretary reviews the status of measures being implemented in the drought affected areas

Through video conferencing the Chief Secretary **Jayant Kumar Banthia** guides about effective implementation of districtwise drought mitigation measures. To prepare an outline for drinking water, fodder and assistance to the drought affected as well as effective utilization of powers conferred at local level to solve the problem of water tanks and fodder camps immediately.

The Chief Secretary is continuously in touch through Video Conferencing with the Divisional Commissioners and District Collectors in order to guide them effectively in pursuance of implementation of the decisions announced by the Chief Minister and Deputy Chief Minister for combating scarcity. He is reviewing the status of remedial measures being implemented in the drought affected areas of the State.

The Chief Secretary guides about effective implementation of the remedial measures of the State Government for drought affected areas in a typical District. To prepare an outline for drinking water, fodder and assistance to be provided to the drought affected people as well as effective utilization of powers conferred at local level to solve the

problem of water tanks and fodder camps immediately.

The State Government has announced various remedial measures to overcome the drought situation in the State. The Centre has provided financial assistance. The District Planning Development Committee has to spend up to 15 percent of their funds on drought relief and the Divisional Commissioners have been instructed by the Chief Secretary to immediately prepare a chart for the work. The Chief Secretary has instructed senior officers for urgent repairs of, out of order transformers for pipeline water supply schemes from drought affected villages.

The status of takers and the water scarcity situation, electricity supply problems and a review of various works under the MGNREGS is also done. Other senior officers



attending the video conferencing provide information about the various decisions, remedial measures as well as their implementation for mitigation of drought to the Divisional officers.

The State Government has taken up many important measures to provide succor to the drought affected. For effective implementation of these measures at the District and Village level, Chief Secretary is in constant contact with the District administration. As the Chief Secretary reviews the remedial measures every week through Video conferencing, the time for the District Officers to arrive from various Districts is saved. Further as the Video conference review meeting takes place in the evening all the senior officers from the District administration attend the same without any hindrance in their scheduled meetings and tours. ■

- As told to **Ajay Jadhav**



# Fight Against Drought

We have so far spent Rs.800 crore on the upkeep of cattle

Maharashtra's current drought is being described as the worst in living memory. Even those who experienced the 1972 drought, describe the present situation is much more worrisome. Almost one-third of the State (western and central Maharashtra) has been affected. Tiding over the month of May, when summer is at its height, undoubtedly will be the biggest challenge before the State Government. **Milind Mhaiskar**, Secretary, Relief and Rehabilitation details how the Government has been working to mitigate the effects of drought on various fronts.

## How is the drought situation today?

Twelve districts have been affected by the drought. Of these Jalna and Osmanabad are the worst affected as they have received less than 50% rainfall. To be precise 127 talukas have been declared as drought affected.

Drought was declared last August based on the rainfall. There are three indicators of a drought: poor rainfall, depletion of ground water and fall in agricultural production.

## What is being done to ensure that people receive drinking water?

As on April 25, the primary source of water has dried up in 3,184 villages. An equivalent number of tankers (about 4000) have been deployed to supply drinking water. The number is expected to go upto 6,000 during this month. As compared to previous years there has been a stupendous increase in the number of tankers deployed to supply drinking water which has also increased expenditure.

To minimise hardships, water supply schemes that were in the last mile stages and incomplete owing to a fund-crunch were immediately sanctioned funds. For Osmanabad district, the State sanctioned Rs 51 crore to ensure water could be pumped from the Ujaini dam which is almost 100 kms away and another Rs.50 crore for Jalna district.

For Latur district the Government footed the unpaid Rs.6 crore electricity bill without which the water supply could not be restarted.

Similarly, several such water schemes were completed in 80 municipal areas. Besides, collectors and divisional commissioners were entrusted the task of repairing and restoring schemes that were defunct.

The Ground Water Act, 1993, is being enforced whereby the collector has powers to close down any private borewells that are within 500 metres of a public water scheme. The powers under this Act have also been used to acquire private wells.

## There was a proposal to ferry water by railways

This will not be required at least not for the next four months. In Marathwada the sources of water are fairly sufficient for the next four months. We may have to resort to it towards the end of October if there is a total failure of monsoon this year. Even if the catchment areas receive partial rains we can tide over without ferrying water by railway. Also a normal monsoon has been predicted this year.

## The upkeep of cattle is another sensitive issue? How is the Government tackling it?



We had initially set up fodder depots from where farmers could pay a fee and collect fodder for their animals. But these were found to be unviable as there was no control on how much fodder was being purchased by an individual. We, therefore, decided to promote cattle camps. These have been set up by NGOs, credit co-operative societies and other charitable organisations.

A big animal requires around 15kg fodder/day besides drinking water. The Government is spending Rs.75 per cattle and for the small animal it is Rs.35. Today there are 1,022 cattles in the various cattle camps. We have so far spent Rs.800 crore on the upkeep of cattle which works out to around Rs.4 crore per day. Ahmednagar has 360 cattle camps, the highest so far.

## There have been allegations of corruption at these cattle camps?

There is videography, barcoding of fodder at every cattle camp. The

animals belong to local villagers and the attendants are also local so there is monitoring and better vigilance. Besides, there is monitoring both at the State and Central level. There have been three visits to drought affected areas by the Central team to report directly to the Empowered Group of Ministers. Also fodder costs Rs 3000/tonne, besides the cattle have to be given protein supplement, salary to the attendants. The margins are very low so there is hardly any scope for corruption.

**What is the response to MGNREGA? Are wages being paid on time?**

Currently there are 2.85 lakh people in these drought affected areas who are working under MGNREGA whereas we have the capacity to absorb 1 crore people. Those employed under MGNREGA are being paid Rs 165 per day and the payment is being made within a week. Musters are being maintained online so that there is no manipulation.

**What is the estimate of people who have migrated to urban areas on account of the drought?**

There has been no significant migration on account of the drought. People would migrate if there is no fodder for their cattle but this has been taken care of through cattle camps. There is employment available under MGNREGA and the wages are being paid regularly. This has ensured that people have stayed back home despite the drought.

**Agriculture has suffered hugely on account of the drought?**

**What is the compensation being offered?**

The production of both Kharif and Rabi crop has been affected on account of the reduced rainfall. In all, for Kharif in all 8,028 villages have less than 50% paisewari. For Rabi, 2,794 villages have less than 50% paisewari. Paisewari is a unit to



measure the total harvest of a village.

The depletion of ground water level has had an adverse impact on horticulture. A survey is currently on to assess the agricultural loss on account of the drought to enable the Government to pay compensation. The Government will pay Rs.3,000 per hectare for arid agriculture, Rs.6,000 per hectare for irrigated crops and Rs.8,000 per hectare for horticulture.

**What is the overall bill estimated at?**

It is estimated that the drought mitigation measures along with compensation for agricultural loss will amount to Rs.6000 crore. From August upto June this year, the amount spent on water supply and various water supply schemes is estimated at Rs.2,000 crore. Similarly, funds for cattle camps and fodder is estimated at Rs.1,500 crore and another Rs.2,000 crore for compensation.

**What are the long-term measures being planned to make the State drought proof?**

Drought has now become cyclical. The last drought was in 2003-04 which was followed by a flood in 2005 and very heavy rains in 2006. It is,

therefore, imperative to drought-proof at least those villages that are in the drought-prone area. Long-term measures are still to be done.

For any measure against drought to be successful, public participation is a must, responsibilities must be institutionalised and we have recommended the same to the Planning Commission, Government of India.

There is a lot of thinking going on within the State Government on providing low cost solutions to fight drought such as the water conservation measures adopted in Shirpur taluka in Dhule district, the measures implemented by Popatrao Pawar in Hivre Bazaar in Solapur district etc. The real question is how to replicate it across the State.

**What has been the Centre's response to the drought?**

A team from the Centre has visited the drought affected areas on three occasions to assess the situation. They have then reported back to the Empowered Group of Ministers. In the first phase we received Rs.574 crore from the Centre which was followed up with another Rs.778 crore. Recently we received an aid of Rs.1207 crore. ■

**- Team Maharashtra Ahead**

# Guarantee of Sustainable Development

## Rainwater harvesting must get precedence

The year 2011-12 was therefore a turnaround in every sense as expenditure under MGNREGA went up from Rs.354 crores to over Rs. 1600 crores and the mandays generated increased from 185 lakhs to over 720 lakhs. These efforts bore fruit in 2012-13 also since there has been an increase in mandays generated which went over 800 lakh with expenditure of over Rs.2100 crores, states **R.Vimala**, Deputy Secretary, Employment Guarantee Scheme

**M**aharashtra, the pioneer of EGS is the only State where the Employment Guarantee Scheme exists for the last 30 years. The exemplary scheme devised by V.S.Page revolutionized the concept of social welfare schemes by not only guaranteeing work but also providing it on demand and by combining it with the object of creating durable assets.

It was this scheme which inspired the Government of India to enact the National Rural Employment Guarantee Act in 2005 and make it applicable throughout rural India. The three objectives of the Scheme are-1)Providing wage employment to the people on demand when they have no other alternative 2) Create good quality assets through the work provided 3) Strengthen Villages by encouraging Gram Panchayats in planning for their village development through NREGA works.

The types of works and their priority have been defined in the Act. Like the EGS, MGNREGA has allowed public works as well works on lands of individuals of certain category. These not only include improving rural connectivity through construction of roads but also provision of irrigation facilities like wells, farm ponds, canals, deepening and straightening of



nalas, horticulture, and development of waste lands and afforestation. Recently activities supporting agriculture, animal husbandry and fishing, like vermi composting pits, soak pits, goat sheds, poultry sheds, drying facilities for fish, fish ponds have been included. Under the Nirmal Bharat programme there is convergence with MGNREGA for the sanitation programme. We can also take Rajiv Gandhi Bhavan wherever required. However works related to water and soil conservation are given top priority. The Government of India fixes wage rate for the workers under the Scheme every year. Presently the wage rate for both genders is

Rs. 162 for 8 hours of work including an hour's break for lunch.

Maharashtra adopted the NREGA and implemented it in three phases since 2006. Today MGNREGA is one of the most important flagship programme of the Central Government and is being implemented in all the 33 rural districts of Maharashtra.

However the initial years were trying since there were many key differences between MGNREGA and the State EGS.

The most important difference between the old EGS and the MGNREGA is the role of Gram Panchayats. MGNREGS centres on the Gram Panchayat as the basic unit

for implementation. Apart from that at least 50% of the works have to be implemented through the Gram Panchayats. The scheme also made registration of workers and issue of job cards compulsory. Only registered workers could seek employment. Use of muster is compulsory and wages have to be made through banks or post-offices. The scheme maintains wage-material ratio of 60:40 at the Gram panchayat level and bans use of heavy machinery or contractors. These factors made MGNREGA different from EGS. Maharashtra old EGS was implemented through the line departments. The procedures and methodology to be adapted for implementing MGNRES were totally different from the old Employment Guarantee Scheme and the transition took a considerable time. The scheme was introduced in 3 phases so both the schemes existed parallelly adding to the confusion. Once MGNREGS began to be implemented all over the districts of Maharashtra implementation became a more challenging task.

The MGNREGA is a new act with new concepts and had to be understood by all the stake holders. This took time. Therefore not much progress was made in Maharashtra during the initial three years. The Employment Guarantee Scheme department therefore had an arduous task of analyzing the inconsistencies in the system and the reasons for slow take off.

The Department thereafter simplified the procedures by issuing lucid and exhaustive guidelines through Government Resolutions and circulars. All the stake-holders understood the scheme and its procedures better in simpler language and found it easier to implement the scheme. Some of the important decisions taken by the Department included setting up of Commissionerate for MGNREGA at Nagpur, establishing a Society for MGNREGA fund management as per Government of India norms,

re-organisation of offices and decentralisation of Administrative powers, strengthening of payment through Bank and Post-office, Capacity Building and Training and issuing guidelines on every aspect of the work through Government resolutions and circulars. This was one of the main reasons for the four time increase in work and creation of mandays.

The year 2011-12 was therefore a turnaround in every sense as expenditure under MGNREGA went up from Rs.354 crores to over Rs. 1600 crores and the mandays generated increased from 185 lakhs to over 720 lakhs. These efforts bore fruit in 2012-13 also since there has been an increase in mandays generated which went over 800 lakh with expenditure of over Rs.2100 crores.

The major challenge before the department is now is tackling the scarcity. While the Department is always prepared to provide work to those who demand by keeping a ready shelf of works, this year it has made special efforts to overcome the scarcity.

Keeping in mind the severity of the drought emphasis is being laid on watershed development through works under MGNREGA so that the adverse impact on groundwater due deficit rainfall and less recharge can be corrected. Appropriate water management is also the need of the hour by shifting from the current groundwater extraction to surface water utilization and management. Rainwater harvesting must get precedence. Unless this is done, no matter how much it rains, there will be water scarcity.

It is an undoubted fact that deficit rainfall is a major reason for the current crisis but this has also been precipitated by lack of water harvesting structures. Revival of traditional tanks under schemes such as MGNREGA and desiltation can help us preserve water.

The scope to undertake productive works under MGNREGA in the



field of water conservation, rural connectivity, regeneration of forest land, or improvement of private agricultural land is tremendous. The local representatives need to be made aware of the potential. The Department has therefore been undertaking awareness campaigns and is doing wide publicity of the Scheme. The Scheme can be used for the benefit of farmers, small or big. It is up to the village panchayat to prepare need-based, work and plan in consultation with the community for works to be taken up under MGNREGA each year. These can be within the framework of the Act and still include activities that can really help farmers.

MGNREGA therefore gives dual benefit of providing employment and also an opportunity to individuals to rejuvenate their own farms by building farm ponds, taking wells, horticulture and such other work. The people have to understand the significance of MGNREGA in this true sense and also align with the efforts the Government is making to ensure that MGNREGA will be an instrument for bringing about effective change in the development of the village. After all our aim is to ensure sustainable development "To meet the needs of present without compromising the ability of future generations to meet their own needs". ■

# Tale of Changing Villages

17 Panchayat Raj institutions from Maharashtra were also felicitated with total awards of Rs. 1 crore 64 lakh

The village participated with zeal in the Eco-balanced Village Development Scheme and the villages started to really get transformed. The entire village became a single entity with the aim of overall development. This also accelerated speed, transparency and people orientation in the development work carried out. All these and other progressive changes led the State for an eminent National Award.

The targeted initiatives by the State for Rural Development were duly acknowledged at the National level and the Rural Development Department secured FIRST position. Minister for Rural Development, Jayant Patil and Minister of State Satej Patil were felicitated by Prime Minister Dr. Manmohan Singh with an award of Rs. 2.5 crore. At the same time 17 Panchayat Raj institutions were also felicitated with total awards of Rs. 1 crore 64 lakh. This Awards is a certificate that Maharashtra received for the valuable reforms being carried out in the State.

Even villages now have not remained isolated from Globalization and most modern impressions of Information Technology. The winds of Internet are felt even at these villages. The villages are now boasting

of Solar lighting and with smokeless stoves at homes and energy needs of the villages have been satisfied by the biogas project taken by the Gram Panchayat. Through soak pits and NADAP system of Solid Waste Management, the vermipost fertilizer project is emerging in the village. As the village could use the taxes for developments of the village if they are paid fully, the ratio of tax collection has also improved. The contribution of women has increased

in the development of the village with 50 percent reservation for women. While getting connected with the world at large with computers, the villages are 'online'. Many Grampanchayats have their own websites and many of the Zilla Parishads have added a feather in their cap with coveted ISO certification and thus with a disciplined work culture. E-tendering has become mandatory at every Zilla Parishad and Panchayat Samiti.

The village participated with





zeal in the Eco-balanced Village Development Scheme and the villages started to really get transformed. There was a large scale tree plantation at the village and as if this was not enough the villagers invented and tried totally innovative ways to nurture trees during the drought situation. The entire village became a single entity with the aim of overall development. This also accelerated speed, transparency and people orientation in the development work carried out by the villages. All these and other progressive changes led the State for an eminent National Award. Here are some stories reflecting this.

**SHIVNI...TOWARDS DEVELOPMENT...**

Shivni Gram Panchayat from Bhandara district won a State level Award in Yashwant Panchayat Raj Abhiyan. Earlier, it had won Second Prize in the State level Sant Gadgebaba Village Cleanliness Campaign during 2007-08. Apart from this, Shivni Gram Panchayat has also been honoured with coveted National awards such as Nirmal Gram Puraskar and Mahatma Gandhi Dispute-free Village Mission.

While carrying the palanquin of village development ahead the village decided to participate in the Eco-balanced Village Development scheme. Once the decision was taken the whole village started in all earnest in the endeavour. A decision was taken for 100 percent ban on tree felling in the village and with a population of just 1,200 the village completed a plantation of 4,500 trees and also took efforts to nurture trees properly apart from planting them. The villagers unanimously banned the use of plastic bags. Out of 252 families, 132 families in the village have Biogas and others have started use of solar and smokeless stoves.

For saving energy all the street lights are now using CFL and LED lamps. Fruit and vegetable gardening has been undertaken at all the Government barren lands and in the

courtyards of the homes here. Every house in the village was connected by a nallah and the waste water of about 10,000 – 15,000 liters was collected in a tank. After purification process the water is being used for the fruit and vegetable gardens with a result that even during the water scarcity scenario the trees from the village have remained green as ever. The solid waste from the village is being managed with 'NADAP' system and has been a source of an immensely rich fertilizer for the fruit and vegetable gardens. This became an extra source of income for the villagers. Apart from just the participation in Eco-balanced Village Development Scheme, the village excelled the

criterion at the Scheme for 3 years during the first year alone and brought home the coveted Award 'Paryavaran Vikas Ratna'.

**NASADGAON...RENEWED TREE-LIFE THROUGH DRIP...**

The whole Jalna district is reeling under severe water scarcity. The Nasadgaon village from Jalna district is not an exception. The village gets a 12,000 liter water through tanker which releases it in the well. The water is then lifted to the 30,000 liter overhead tank constructed under Jal-Swarajya Scheme and then supplied to the village. Under this circumstances there was a question of maintenance of trees planted under the Eco-balanced Village





Minister for Rural Development Jayant Patil and Minister of State Satej Patil were felicitated by Prime Minister Dr. Manmohan Singh with an award of Rs. 2.5 crore.

**INSPIRING AND PATH BREAKING...**

While seeking sustainable development of villages, we are creating micro level development plans for villages considering the basic factors such as lands, water, waste water, roads, solid waste and others.

Today most of the areas in Maharashtra are experiencing water scarcity. However, if the rainwater is stored from top to bottom and if we use the available water systematically we can overcome drought situation. The mentality of reuse of waste water has to be absorbed in the minds of people.

Considering this, we started work from the village level by implementing of the Eco-balanced Village Development Scheme. The criterions have been decided with these factors in view alone. These have been inclusive of eco-friendly but developmental factors such as plantation of trees equal to population of the village, pledging a guarantee that these would be nurtured, making Grampanchayat financially self reliant through higher percentage of taxes recovery, ban on plastics use, and proper management of waste water and solid wastes, increase in the use of solar implements. I am happy to state that there has been an excellent work in some districts under this Scheme.

The plan for solid waste and waste water management is very important among various plans included in the frame work of micro development of the village. Due to these the villages have a unique identity now. These villages are seen reaching most prominent positions in development perspective.

The village is getting a tanker but the same water that has been brought by the tanker and used by the population is being reused through public participation to nurture the innumerable trees planted in the scheme and to preserve the greenery. The mentality of the village population is changing and people are becoming more aware of the necessity of water and its availability. The environment is being secured with this. If the trees planted under the Scheme sustain it will reduce the erosion of soil in future and surely help to soak more water in the soil.

The work at Ralegan Siddhi and Hivrebazar is definitely an ideal. However I would like to welcome the work of those Grampanchayats who are decisively undertaking water management and allowing sustenance of the green offshoots in spite of the drought situation...

These include Hatnoor Grampanchayat from Jat Taluka, Patoda Grampanchayat from Auragabad, Nasadgaon Grampanchayat from Jalna, Koregaon Grampanchayat from Sangli, Talni Grampanchayat from Buldhana, Jhari Grampanchayat from Nanded and many others. We can cite examples of many such Grampanchayats. Some of the Grampanchayats have done excellent management of water whereas others have treated the waste water and are nurturing the trees and fruit farms at the village with this water in drought situation.

Some of them have prioritized collection of water along with reuse of waste water and some others have taken a lead with solar lighting and street lights and have managed Biogas and Vermipost fertilizer and through a windmill provided electricity to the village and Grampanchayat office...This is the start of a change of mentality...of village development and deciding on an arithmetic of water usage considering its importance...Although these are just some of the rich examples, these are affirmatively inspiring and certainly path breaking...

**Jayant Patil**

Minister for Rural Development

Development Scheme. However true to the words 'where there is a will there is a way', the villagers handled the intricate question together and came up with a positive answer. There is an underground pipeline in Nasadgaon which collects the drain water from all the houses which then gets collected in a septic tank. For the purification of this water, the chain of three tanks has been constructed which purifies some 6000 liters water every day. Electric motor with 1 HP capacity is used to supply this water to the plants by using drip irrigation system and the trees remained green as.

While implementing the initiatives of home with a toilet and home with a tap connection, every water connection was provided with a Ferrule valve. When the village decided to participate in the Eco-balanced Village Development Scheme a nursery with 5,000 plants was prepared at the village itself. Apart from 500 Coconut trees, various types of trees were planted in periphery of the village, agriculture demarcation, school, Aanganwadi, Durgah on both sides of the road. With the population of the village just at 455 the village planted 5,000 trees and numbered each one of them.

The Gram Panchayat has been computerized and has its own website as well. The tax collection in this village is 100 percent. As the village completed all the criterion of the scheme to be achieved within 3 years just within the first year the Grampanchayat was honored at the hands of Ex-President Pratibhatai Patil with the coveted Award 'Paryavaran Vikas Ratna'.

The village has 27 Solar street lights. With the award amount, 50 families below poverty line from the village were provided with solar lights. 50 NADEP Compost Fertilizer projects have been taken using all the solid waste besides Vermipost fertilizer project which gave Gram Panchayat additional source of income.

## HATNOOR...PRESERVING GREENS ON WASTE WATER...

This is the story of Hatnoor Grampanchayat in Tasgaon taluka of Sangli District. The village participated in the Eco-balanced Village Development Scheme. They planted 30,000 trees in the village and the villagers adopted trees. The entire village strived its best for nurturing these trees. The village decided to purify 10,000 liters of waste water by collecting it in a purification tank. After processing and purification the waste water was supplied to the trees through tankers. Due to this innovative strategy all the trees were sustained, the village remained under a green cover and it won the coveted State level 'Chhatrapati Shivaji Maharaj Vanashree Puraskar' as well.

The village has excellent physical facilities. While participating in various developmental and competitive events the Gram Panchayat has bagged Awards worth around Rs. 48 lakh and accelerated the developmental activities.

windmill producing 1KW electrical power has been installed above the Gram Panchayat building and the

power is used for Gram Panchayat office and during load shedding for street lights. The village has installed 25 solar lights and CFL at other places. 25 Biogas projects have been activated in the village.

The village has taken a leadership role in solid waste management apart from waste water management. Through the Awards amount, the Gram Panchayat has purchase its own Waste-Vehicle and utilizing the same for collection of solid waste implemented a Vermipost project on the same. The income of the Gram Panchayat has improved.

As the village completed all the criterion of the 'Eco-balanced Village Development Scheme' to be achieved within 3 years just within the first year the Gram Panchayat was honoured at the hands of Ex-President Pratibhatai Patil with the coveted Award "Paryavaran Vikas Ratna".

## PATODA...A UNIQUE STORY...

This is the story of a small village Patoda in Taluka and District Aurangabad with a population of just 3353...The village sustained its

uniqueness with a single objective to develop the village and through innovative concepts.

The Gram Panchayat has owned two flour mills for grinding the grains of families free of cost round the year who pays 100 % various taxes . The village has started felicitation of citizens paying taxes in advance and honouring them with gifts.

Patoda has received Yashwantrao Chavan Gaurav Gram Puraskar for organizational excellence at Gramsabha. As the village complied with all the criterion of the "Eco-balanced Village Development Scheme" to be achieved within 3 years just within the first year the Patoda Gram Panchayat was honoured at the hands of Ex-President Pratibhatai Patil with the coveted Award "Paryavaran Vikas Ratna".

The village has a school up to 7th standard under the Zilla Parishad. Through public participation all school children are provided with free milk every year from October to January. There are 3 Aangawadis with good buildings and class room facilities. While receiving the honours for malnutrition-free Aanganwadi, the Gram Panchayat office and Aanganwadi both received a coveted ISO Certification as well.

15 Solar lights and 11 Biogas projects have been activated in Patoda. Two of the Biogas projects have been connected to the toilets. Considering the importance of water the Grampanchayat has installed water meters for every home. Under the "Eco-balanced village Development Scheme" the village planted trees in equal number to the population and have carefully nurtured them even in the drought situation.

Emphasizing the importance of security 32 CCTV cameras have been installed at 32 important places including schools and offices. Patoda Grampanchayat has provided the ownership rights of every house to women just as men. ■

- Dr. Surekha Mulay



Gram Panchayat Office, Patoda

# Forecasting the Mood of Monsoon

Estimated rainfall can be forecasted as rainfall forecast

Due to global warming and climate change the rainfall can be excess or deficient or normal. During the excess or deficient rainfall the water management is important for sustaining the life. Therefore, rainfall forecast is important in day to day life provided, the forecast is more accurate, explains **Dr. Ramchandra Sable**, Weather Forecast Expert.

Life on the earth planet depends upon the occurrence and amount of rainfall and rain water received. Therefore, rainfall is an important natural phenomenon. Plants, birds, vegetation, animals and human life, requires water for their existence. The expected rainfall can be estimated by various models. The estimated rainfall can be forecasted as rainfall forecast. Therefore, rainfall forecast has lot of importance in day today's life. Due to global warming and climate change the rainfall can be excess or deficient or normal. During the excess or deficient rainfall the water management is important for sustaining the life. Therefore, rainfall forecast is important in day today's life provided, the forecast is more accurate.

Long range forecast means the forecast of rainfall from June to September i.e. for monsoon season and 70 percent of rainfall is received in this period.

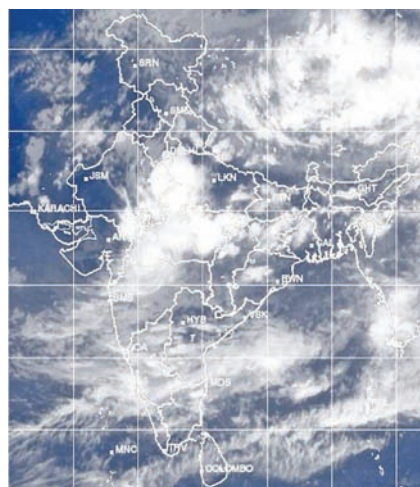
India Metrological Department (IMD) issues long range rainfall forecast for India around 20th April and revised forecast around 20th June every year. The annual average rainfall of India is 899 mm. For this year (2013) IMD has given 98 percent. of its normal rainfall forecast for India. Further, they have stated that there will be deficient rains in this year in South India particularly

in Tamil Nadu and its nearby areas. According to their forecast this year is a deficient rainfall year.

There are 9 Agro-climatic zones in Maharashtra. One of the big zone is scarcity zone in which rainfall received is less than 750 mm and rainfall distribution is uneven and erratic. Drought remains in some or other parts of this zone, except during excess rainfall year. Distribution of rainfall in remaining zones is also uneven. Therefore, rainfall forecast given by IMD do not match or prove to be true in some or other parts of these Agro-climatic zones. During the year 2001, 2002 and 2003 forecast by IMD was near normal but the rainfall was found deficient upto 25 to 30% in majority of Agro-climatic zones in Maharashtra State.

Looking to the large variability in the forecast and actual rainfall occurred it was found necessary to develop location specific rainfall forecasting model for the Maharashtra State. Therefore the work to develop new model was started in the year 2003. After having worked hard the models were developed as location specific rainfall forecasting models for 1. Dapoli (Konkan), 2. Kolhapur, 3. Karad (Satara), Padegaon (Satara), 5. Pune, 6. Solapur, 7. Rahuri (Ahmednagar), 8. Niphad (Nashik), 9. Dhule, 10. Jalgaon, 11. Parbhani (Marathwada), 12. Akola for (Western Vidarbha), 13. Yavatmal, 14. Nagpur (Central Vidarbha), 15. Gadchiroli for (Eastern Vidarbha). After summing up the data of forecast of these locations the rainfall for Maharashtra State was worked out. Being the forecast is as per the agro-climatic zones of Maharashtra the forecast accuracy was found to be more than 88% after validation of models considering the actual rainfall data received in 2001, 2002 and 2003 and the prevailing weather data from 4th March to 20th May of every year.

For development of these models the location specific metrological data from 1971 to 2000 was used. The five groups of different rainfall categories were prepared: 1. Very low rainfall than normal, 2. Low rainfall than normal, 3. Average



rainfall, 4. More than average rainfall, 5. Excess rainfall. Based on the prevailing weather in each location during 4th March to 20th May the co-relation regression models were developed. The models developed are based on 5 parameters: 1. Temperature, 2. Relative humidity morning, 3. Relative humidity afternoon, 4. Wind speed, 5. Bright sunshine hours.

The first forecast was given for the year 2004 and was found to be true and accuracy was 89 percent.

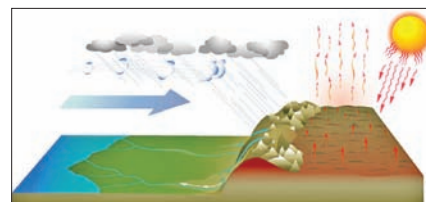
During the year 2005, the India Meteorological Department forecasted 91% of its normal rainfall while the forecast given through our model (The Monsoon Model- a long-range and location specific rainfall prediction system developed by Dr. Rajendra Sable) was excess rainfall than normal. During that year there were continuous heavy rains in Mumbai on 26th July and some parts of Mumbai were heavily flooded causing heavy losses. That year the prediction and forecast of our model proved to be true and the model was easily and clearly accepted by media and the model received a lot of publicity. In the second half i.e. in August and September 2005 the forecast given was of excess rainfall. That also proved true therefore the accuracy of the model was found to be above 90 percent in that year.

During 2006 the IMD gave rainfall forecast of 93% of its normal rainfall. During that year the forecast given through our model was 106 percent of normal rainfall for Maharashtra. During that year due to excess rainfall there were floods in many parts of Maharashtra State. The backwater of Almatti dam of Karnataka entered into Sangli city. There were lot of problems due to excess water in the Kolhapur area and there was flood of water in the Panchnanganga river. The people were afraid of the excess rainfall. The forecast of our model was found to be true upto 100 percent.

During the year 2007, the India Meteorological Department forecasted

rainfall of 94 percent of its normal. The forecast of our model was excess rainfall of 105 percent and that proved true upto 100 percent. Thus the 2005, 2006 and 2007 years were excess rainfall years in the State of Maharashtra.

During the year 2008 there was Aila cyclone, which disturbed the onset of monsoon in the State. This could be the effect of global warming and climate change. Beginning of June and July was disturbed. However, good amount of rainfall was received during August, September and October. Thus there was shift in



### 98 % RAINFALL IN ENSUING MONSOON

The year 2013 will most likely to have a normal Southwest monsoon seasonal rainfall for the country as a whole i.e. 96 to 104 percent of Long Average, during June to September. This was announced by the Union Minister for Science and Technology and Earth Science S. Jaipal Raddy at a Press conference here in new Delhi today.

Reddy said quantitatively, the monsoon seasonal rainfall is likely to be 98 percent of the Long Period Average with a model error of  $\pm 5$  percent.

Also, the probability for normal rainfall is 46 percent, as against the climatological value of 33 percent.

The Minister said India Meteorological Department (IMD) will issue the update forecast in June 2013 as a part of the second stage forecast. Along with the update forecast, separate forecasts for the monthly (July and August) rainfall over the country as a whole and seasonal (June-September) rainfall over the four geographical regions of India.

He said over most part of our country, 70-90 percent of the annual rain fall is received during the southwest monsoon (June-September). Also, this rain fall is positively related to crop production in the country which has significant impact on the economy of the country.

the occurrence of rainfall in that year. During 2009 also there was big break in monsoon in the initial stage and there were deficient rains in June and July not only in Maharashtra but in the most part of India. The year 2010 was quite normal, however again there was a scarcity due to break in monsoon during 2011 and 2012. The breaks or drought period during monsoon of these years were well announced by our model on 25th May of these years. This gave clear understanding about drought and scarcity.

During 2007 the then Minister for agriculture Balasaheb Thorat guided me to make the patent of this model. Therefore, National patent was registered on 26th September, 2008 in Mumbai office.

The forecast given through Sable Model was found useful for the farming community of Maharashtra.

That was found to be useful for the planning of crops and farm operations actually in the field crops. Thus whole Maharashtra State was benefitted due to this forecast. That has helped farmers to uplift their financial conditions and could harvest the field crops with good returns with saving use of pesticides and fungicides.

The presentation was made in the Joint AGRESO held in June 2006 and also before the eminent scientist of India Metrological Department and Institute of Tropical Management (ITM) on 3rd December 2007 in their Auditorium. At that time the former Director General of IMD R.R. Kelkar, former Director of Agrometerology - and Director of IITM Goswami were present alongwith their DDG, ADG, Directors and Scientists. Further work for refinement of model is necessary. This year the forecast will be given on 25th May, 2013. ■

# Sheerness of Shirpur Model

Four years after the work, wells had water at the height of summer

It cost Rs 50,000 to dig the sub-canal and lay tubes to discharge water into the dry wells. For every 400 mt excavation and construction of each check dam it cost Rs 25 lakh. This has been done in 22 villages, percolation has benefitted 34 villages spread over 150 sq kms. This has helped irrigate nearly 10,000 hectares.

Even as 12 districts in Western and Central Maharashtra reel under the effects of one of the worst droughts ever, in Shirpur, a small taluka in drought-prone Dhule it is a different story in several villages. Shirpur taluka has been free of water tankers for the past five years.

The story of Shirpur was re-written when two ideologically different

men but with a common goal came together to achieve it. Then MLA and now MLC Amrish Patel sought the help of Suresh Khanapurkar, who had worked for several years in the State Government's Water Conservation Department.

Patel for years had wanted to carry out watershed development in his constituency. "For years I had nursed the idea to turn my region green.

Some years ago I had been to a village to inaugurate a watershed project and was told that a Government officer Suresh Khanapurkar had implemented it," recalled Patel. Khanapurkar agreed to join Patel on the condition he would be allowed to implement water conservation projects his way. Patel agreed.

A day after he retired, Khanapurkar joined service with Patel.



## EXPERTISE LEARNS FROM TRADITIONAL WISDOM

Sardar Prabhu Vanjari, a small farmer from Asli village remembers the time when the entire village of 2,500 families slept daily on a half-empty stomach. It was Vanjari's idea picked up by a geologist and funded by a local politician that has brought prosperity to villagers in Shirpur.

"I started with constructing small dams to retain water till I met Vanjari. He told me if I really wanted to provide water then I must widen and deepen the natural waterways and then construct the small dams on these waterways," said Khanapurkar.

Shirpur nestles amidst the Satpura range and receives on an average 500 mm rainfall. It has two types of soil, basalt rock formation common across Maharashtra and the Tapi-Purna alluvium which comprises 37 alternating layers of sand and rock.

What Vanjari told Khanapurkar was the aquifers deep inside the earth were dry and needed to be charged. But for this to happen, the rainwater needed to percolate into the ground. The natural water streams that carried the water from the hills to the river over the years had narrowed owing to the silt that comes with the rain and the surface had hardened into mud stone and sand stone preventing water from seeping in.

Explaining the genesis of his ideas, Vanjari said, "I had as a child seen the practice being followed by villagers and absorbed the local wisdom. We used to have plenty of ground water then."

### IMPLEMENTATION

With Patel financially backing him, Khanapurkar began excavation of a few waterways and constructing check dams 400 metres apart on a waterway.

It was not easy as farmers including Vanjari whose idea it was resisting the excavation as they stood to lose portions of their land along the waterway. Undeterred, Khanapurkar and Patel persuaded other farmers



to participate. The murum excavated was used to level fields and the silt removed was spread over it. Some of the murum was also used to construct roads.

It rains heaviest in August and the two nearby dams overflow. Khanapurkar had dug sub-canals from the dams to nearby dry wells. During the monsoon, the discharge was collected in these wells and the water arrested in the waterways.

### TRANSFORMATION

Four years after he undertook the work, results began to show. Borewells struck water at 25 feet, tubewells that had run dry began to pump water, wells even had water at the height of summer.

The only new thing he has done said Khanapurkar was to do his job honestly and scientifically.

### CHANGED DESTINIES

Prem Raj Lakha Rathod, a small farmer in Ajnad village in the taluka is happy his sons have returned from Pune for good to help him on the farm. "Last year I made a profit of Rs 3 lakh from cotton alone.

My sons no longer need to work as labourers in the city," he said. Rathod now reaps three crops a year from his four acre farm. A few years ago the same land would yield merely five bags of jowar if the monsoon was good.

### ECONOMICS AND FUNDING

It cost Rs 50,000 to dig the sub-canal and lay tubes to discharge water into the dry wells. So far he has covered 59 wells. For every 400 meter excavation and construction of each check dam it cost Rs 25 lakh. Khanapurkar has so far constructed 74 check dams. This has been done in 22 villages but the percolation has benefitted 34 villages spread over 150 sq kms. This has helped irrigate nearly 10,000 hectares.

Patel has funded the project from the profits of his Shirpur Spinning Mill. In the last two years as the mill is running in losses, he has been providing funds from his various trusts. Their objective is to build 1300 more dams and cover the remaining 144 villages. ■

- K. Lewis

# The Winds of Transformation

The winds of change are witnessed in the Mulee village due to the Women Self Help Group movement

The Women Self Help Groups from Khambegaon from the Parbhani district was the first to undertake and successfully implement recovery of water taxes. Government of Maharashtra took a decision to provide this work to Women Self Help Groups. Accordingly Women Self Help Groups from Raipur and Nandkheda from Parbhani Taluka, Shirola from Sonpeth Taluka and Mulee from Gangakhed Taluka have solved the problem of water scarcity through recovery of water charges.



The first and foremost to be affected by the water scarcity are women. With a vessel on the head and a bucket in their hands they have to struggle for collecting water. Although water was available in the village the women were facing an artificial scarcity of water only because no one was taking the lead for minor repairs to be undertaken. Women from the village came together. They started a Women Self Help Groups. They strived to get the work of water charges recovery and by implementing the water supply scheme effectively they were successful in overcoming water scarcity.

## SUCCESS STORY

Mulee village is around 10 kilometers from Gangakhed. The winds of change are witnessed at this village due to the Women Self Help Group movement. The Women Self Help Group here was established on the 27th January 2006. There were 12 members initially who started with savings activities. They set up 18 Self Help Groups in the village. The

responsibility of the Chairmanship for the village level change committee was bestowed on Vandana Bhosle. Sant Gadgebaba Village Cleanliness Campaign was implemented through this committee. The movement was successful due to the cooperation of committee members and experienced women from the village. Around 2008 the village was prepared to come out of the Jal Swarjya Project. Once the project was completed the Sarpanch discussed positive maintenance of the same and modalities of handing over the responsibilities with the women from the village. The Government of Maharashtra had already taken a decision for allotment of water charges recovery work to the Women Self Help Groups. Accordingly a decision was taken to handover the work of water supply and project maintenance to the village level change committee with cognizance from women.

The repair work was acquired in May 2008 but there were many problems to be resolved. While villagers were not paying the water charges, they were adamant to start a quarrel if there was no water in the tap. The women were distressed facing constant disputes. However a confidence to overcome negative situation was developed due to the Women Self Help Groups. 3 village committee members were given the responsibility of recovery of water charges in 3 wards of the village. They came to know about the contradiction

that although the women collect the water from the taps, the men have to approach for recovery of water charges. As a solution to this problem, policy decision to transfer the ownership of taps to women was taken where the Grampanchayat cooperated. As the taps were owned by the women, the recovery of water charges was a matter dealt by womenfolk. The women appealed in an emotional manner. If we collect water for the family with per day charges of Rs. 1.50 or Rs. 45 per month it is not difficult at all to pay this amount. The importance of payment of water charges was explained to every family in the village visiting their homes. Immediate payment receipt was given to women paying the charges. In dire circumstance, next month payment was allowed. Regular water supply is being made in the village through the Committee. As the water cannot be provided to all the wards of the village at the same time shifts were fixed. The women are regularly paying the water charges from 2008 and so far the recovery has been Rs. 3,80,400. As on today there are 285 water tap connections in the village. 80% of the total amount collected through this work has been kept separately with the village level committee for payment of the person supplying water, electricity bills for the pump and repairs. ■

- Rajendra Sarag



# Veracity of Scarcity

Plastic tanks are being made available through public participation

The scarcity situation in Marathwada division this year particularly in terms of water shortage is unprecedented. The insufficient rainfall adversely affected the water storage, groundwater levels and sowing operations for Kharif and Rabbi crops. The divisional administration is competent to fight this situation and receiving exceptional public participation in implementing remedial measures.

**D**uring the 2012 monsoon, out of 8 districts of Marathwada division, Parbhani, Hingoli and Latur districts received 75% more rainfall compared to average. There was 50 to 75 percent precipitation in Aurangabad, Nanded, Beed and Osmanabad districts and Jalna received less than 50 rainfall. Considering the statistical data we find that there was more than 75 percent rainfall in only 26 of 76 talukas of Marathwada. 37 talukas experienced 50 to 75 percent rainfall and there was below 50 percent rainfall in 13 talukas.

## EFFECT OF INSUFFICIENT RAINS

The average annual rainfall in Marathwada is 779 mm and during the 2012 monsoon the actual precipitation was 538.28 mm which is 69 percent of the average. The insufficient rains have resulted in reduction of water storage. At the end of 1st week of April there was functional water storage of 671.16 million cubic meters at 11 large, 75 medium and 717 small projects and in dams on Godavari and Manjira rivers. This functional water storage is just 9% and this insufficient water storage has aggravated the water scarcity and the severity of water shortage is being experienced by metro city Aurangabad, and cities such as Jalna, Osmanabad, Beed, Tuljapur and others and villages in



Desedimentation work at Bindusara lake

Marathwada. The Harsool lake near Aurangabad city, Bindusara medium project near Beed city and Terna project in Osmanabad District have all gone dry.

At the end of 1st week of April 1,602 tankers in the Division have been pressed in to supply water to 1,372 villages. Besides this, 3,335 wells and bore-wells have been acquired for water supply. To provide water in urban areas, 106 tankers have been pressed out of which 28 tankers to Jalna city, Osmanabad has 60, Bhokardan has 7, Umarga has 9 and Tuljapur city has 2 tankers supplying water.

## EFFECT ON CROPS

Insufficient rains adversely affected the Kharif and Rabbi crops. The final paisewari for 3,493 villages from the division is less than 50 paise. Due to insufficient rains and scarcity for water and fodder, for the first time, the division had to open fodder depots on a large scale for the animals. These fodder depots are playing important role in saving the livestock of farmers. On April 6, 2013 there were 169 active Fodder camps in the Division accommodating a total of 1,23,195 livestock with 1,05,737 large and 15,470 small animals.



out and various projects in drought ridden Districts of Aurangabad, Beed, Jalna and Osmanabad for removal of sedimentation have been undertaken on a large scale with public participation. Removal of sedimentation and permission to farmers to carry the same free of cost to their agricultural lands are serving a twin purpose. At one the storage capacity of the projects that had gone dry would be increased due to removal of sedimentation and secondly the quality of agricultural soil is improving with a spread of the sediment. Plastic tanks are being made available through public participation at places where the water is supplied through tankers. Bore-wells are being dug at the projects which have gone dry and the available water is being used through tankers. Water is being also made available at some places by making trenches in the dry lakes.

In every district, the Guardian Minister, elected representatives and Divisional Commissioner with the whole administrative machinery is fighting with all their strength with this unprecedented situation. Optional Water supply Schemes on permanent basis are being provided to the cities of Osmanabad, Jalna and Umarga. With a view that Aurangabad Metro city should receive minimum required quantum of water, the Government has made the funds available for utilization of dead water storage at Jayakwadi reservoir.

Planning of crops on a village level based on the rain patterns, additional cultivation of fodder crops, reconstitution of bore-wells at agricultural lands, villages, cities and metro cities, creation of check dams in series are some of the long term remedial measures to be undertaken. All these will mean an important role for public participation along with the Government. With all these in place it will be possible for us to be confident that such a calamity will not arise in future. ■

**- Radhakrushna Mulee**

**PLANNING FOR EMPLOYMENT**

During the scarcity situation, with a view to provide employment on a larger scale various works under the Employment Guarantee Scheme have been given prior approvals and hence it would be possible to provide work on demand. On 6th April 39,000 labourers are working on 2,247 works. Considering the insufficient rains in the last year the Divisional administration has prepared a water supply plan for rural as well as urban areas. Due to this it has become possible to work in planned way while

making arrangements of water supply in rural areas also.

**REMOVAL OF SEDIMENTATION THROUGH PUBLIC PARTICIPATION**

There has been impressive work carried out at many places irrespective of the drought situation. At the start of this year the Bindusara project went dry and removal of sedimentation started with public participation. Now the removal of sedimentation from Jayakwadi project at Paithan is being carried

# Village That Transformed

Hivarebazar has not required any tankers for water supply since the last many years

During the months of April-May the works for level trenches were undertaken at the hilltop. Hence the water blocked. As a positive outcome of this wells in the village had better level of water. The villagers became aware of the importance of these efforts. With persistence next year planning was effected for the whole village and the village flourished with flower, fruit and vegetable farms,says **Adv. Bal J. Bothe.**

**A**s an ideal village Hivarebazar is well known not just at the State but across entire country. With the voluntary work and effective implementation of various Government Scheme, Hivarebazar has made its special identity at the national level. This herculean task is carried out by the then Sarpanch and Executive President of the State level developmental programme Adarsha Gram Yojana and united participation of the villagers of Hivarebazar in watershed and other development works. With the total area of 976 hectares, the village has grazing ground on 8 hectares and forestation has been carried out on 70 hectares private land. The residents of Hivarebazar planted total 10 lakh trees in the proximity of the village. The village has not required any tankers for the last many years. The village has 299 wells and 17 hand pumps to quench the thirst . This may be the first village of its kind to resolve not to take any crops in the summer with a view to water conservation. In order to conserve the groundwater, villagers avoided to cultivate crops like banana, sugarcane which require huge quantity of water and gave a strong message of water conservation.

Going over the history of the village before 1989 we find quarrels, addiction, poverty and continued trail for water during every summer. 90% of the families were stricken by



poverty. 168 of the 180 families were Below Poverty Line. There was total lack of employment, meager income from agriculture and only rain based dryland crops such as Jowar, Bajri and Hulge. The year 1989 was engraved in Gold in the history of this village. The year saw unopposed elections. Popatrao Pawar was appointed as Sarpanch by the Gramsabha. The power was in hands of the youth. The newly elected functionaries took the first decision to stop continued trail by women in search of water.

They planned for repairs of all the four hand pumps in the village. With these repairs the hardship of women for water was halted. The people of Hivarebazar also appreciated the work of these youngsters.

## **CHANGING THE WORLD WITH VOLUNTARY WORK**

In the year 1990, once there was discussion on utilizing benefit of various Government scheme and voluntary work by the villagers for their implementation was discussed

in the meeting of Gramsabha. After this meeting by voluntary work, pits were dug for tree. Tree plantation was undertaken and the trees were nurtured. It was then decided that all the Government scheme should be implement in the village through voluntary work and money saved in this manner should be utilized to carry out other developments in the village. Accordingly the villagers worked for repairing of school building. All this has totally transformed the village. The village participated in the State Government's Adarsh Gram Yojana by adopting a five-fold strategy consisting of grazing prohibition, axe prohibition, family planning, de-addiction and voluntary work. As a result, Hivarebazar was selected for Adarsh Gram Yojana. These works proved to be extremely important for water management.

### **INITIATIVES FOR WATERSHED MANAGEMENT**

Implementing various schemes from the Agriculture Department, Forest Department and Employment Guarantee Scheme the village works such as level trenches, Gabion Weirs and storage dams were undertaken. The style of working was always from top to bottom and many of the works were carried out by the villagers working voluntarily. During the months of April-May the works for level trenches were undertaken at the hilltop. Hence the water was blocked. As a positive outcome of this wells in the village had better level of water. The villagers became aware of the importance of these efforts. With persistence next year planning was effected for the whole village. The village was able to complete the work in two and half years which could have otherwise taken 5 years for completion. Availability of water improved the agriculture yeild. As a result of this farmers started working in the village instead of searching employment elsewhere. As water was available at the wells and lakes the farmers got leveling of their



meadows. The village flourished with flower, fruit and vegetable farms. This was the time when Popatrao Pawar received State Government's Adarsh Karyakarta Puraskar. Gramsabha took a historic decision not to cultivate summer crops to safeguard the groundwater bank. The drinking water was thus available for the whole summer. Another wise decision taken by the Gramsabha in 1997 as a part of water management is to avoid constructing bore wells for agriculture purpose. As the bore-wells were not used for agriculture the water levels at the other wells remained good. The Government of India developed waste lands in 1998 and the village scored with excellence. In the mean time the village received the coveted 'National Productivity Award' at New Delhi.

### **DRIVE FOR CLEAN VILLAGE**

As a supplementary business for agriculture milk production was started in the village. Today Hivrebazar milk is famous all over the District. Due to proper management of water there is adequate amount off drinking water is available for cattle. Various programmes were undertaken during Sant Gadge Baba Village Cleanliness Campaign with the result that Hivrebazar received

the FIRST District level award worth Rs five lakh. Further on at the Divisional level Hivrebazar won the First Prize in Nashik Division with Rs. 15 lakhs as prize money. Apart from painting all the houses in a single colour Hivrebazar has won accolades as the first village in the State which has transferred the ownership rights of all the houses in the names of women. The village has also received other coveted awards such as State level Sant Tukaram Vanagram Award, National Water Award, Vrikshmitra Award from Government of Maharashtra, an award from the International Hydrology Association Award and 200 other Awards till date. At present out of the 210 families only 3 families are Below Poverty Line. The villagers have decided to make the village free from the blemish of below poverty line. This would be the first village in the State where there is not a single family Below Poverty Line. While considering the water management of the village the water is not the only subject. There are complimentary aspects such as capacity of every individual family, importance of Gramsabha, unity of the villagers and voluntary working of the villagers for development. ■

# Freedom From Tankers

**Maharashtra Jeevan Pradhikaran provided valuable contribution for drawing water from old resources of Sai and Nagjhari**

With the usage of water available from Nagjhari source Latur city has been able to maintain freedom from tankers till now. As the Nagjhari water supply scheme has been activated within a short period the water problem for Latur city is effectively solved for next two months, says **Ramesh Sonkamble**.

**L**atur District is also facing the scarcity of water. In order to overcome the present water problem for Latur city the District administration has provided the required priority to water problems and has made efforts to resolve the problem. As a part of these efforts the administration was provided with a valuable contribution from the Maharashtra Jeevan Pradhikaran for drawing water from old resources of Sai and Nagjhari.

The present population of Latur city is around 4 lakh apart from a floating (outside census) population of about 25,000 to 50,000. Hence daily water requirement for the city is about 50 million litres. However, only 25 to 27 million litres of water is being made available on daily basis since January 2013 from Manjra project. With the available water storage at Manjra project just about to suffice till April 2013, District Collector Vipin Sharma took initiative for repairs of the old and presently closed water supply sources at Sai and Nagjhari. After this, the repair work was started immediately and the task of pump repairs and erection of panel Board was completed by December end. During renovation of Nagjhari dam the old intake pipe is under construction and hence for making the fresh intake arrangements the construction work of a 60 meter long cofferdam was also completed simultaneously. Due to this it was possible to open the gates of Nagjhari dam to the minimum required levels and to bring the water to intake wells. The purchase



processes for new pumps at Sai source was also completed. However as Latur Municipal Corporation had outstanding payments to the Electricity Board the power was not available immediately. The repairs proposal was sanctioned during drought programme. After this minor works such as removal of sedimentation from intake well and source well, valve flanges repairs were carried out within the time frame.

For making the power supply available a follow up was done by Maharashtra Jeevan Pradhikaran at Government levels. Chief Minister undertook the guarantee for making the outstanding payments to the Electricity Board on behalf of the Government of Maharashtra. With this and after a discussion through Maharashtra Jeevan Pradhikaran with MSEDCL officers the electricity supply was restored at Nagjhari by end of February 2013.

There was already a reservation of 3.375 million cubic meters of water from Vanjarkheda and Karsa Poharegaon high level dams for Latur city. These reserved waters were released on 1st March 2013 from

Vanjarkheda and on the 7th March 2013 from Karsa Poharegaon and the same was available at Nagjhari dam on the 9th March 2013. The required tests for the scheme were conducted immediately and water supply to the extent of 14 million litres daily has been started for Latur city from the 12th March 2013.

It is estimated that the water from Nagjhari source will last for two months. This will save 840 million litres of water from Manjra project. The saved water will be available to Latur City for around one month afterwards. In order to supply 25 million litres of water daily to Latur city it was estimated that 834 tankers will have to be pressed into operation each with a capacity of 10,000 litres and completing a minimum of three trips per day. The daily expenses on this activity would have been Rs. 20 lakh. At the same time there would have been another pertinent question of where would we have the pure water to fill up these tankers. Further there would have been a major traffic problems in the city with so many tankers on the roads. However the problem stands resolved now. ■

# Sure, Secure Water for Latur

Barrages constructed under the Manjra dam has created new sources of water for Latur city

Latur District administration has provided topmost priority to the water problem. The then Chief Minister Late Vilasrao Deshmukh with his farsight visioned the water problem of this district. He got many barrages created on Manjra Dam with special personal follow up. While facing water scarcity today the water from barrages constructed in the Manjra riverbed has been made available for people of Latur says **Bhaskar P. Chate**.

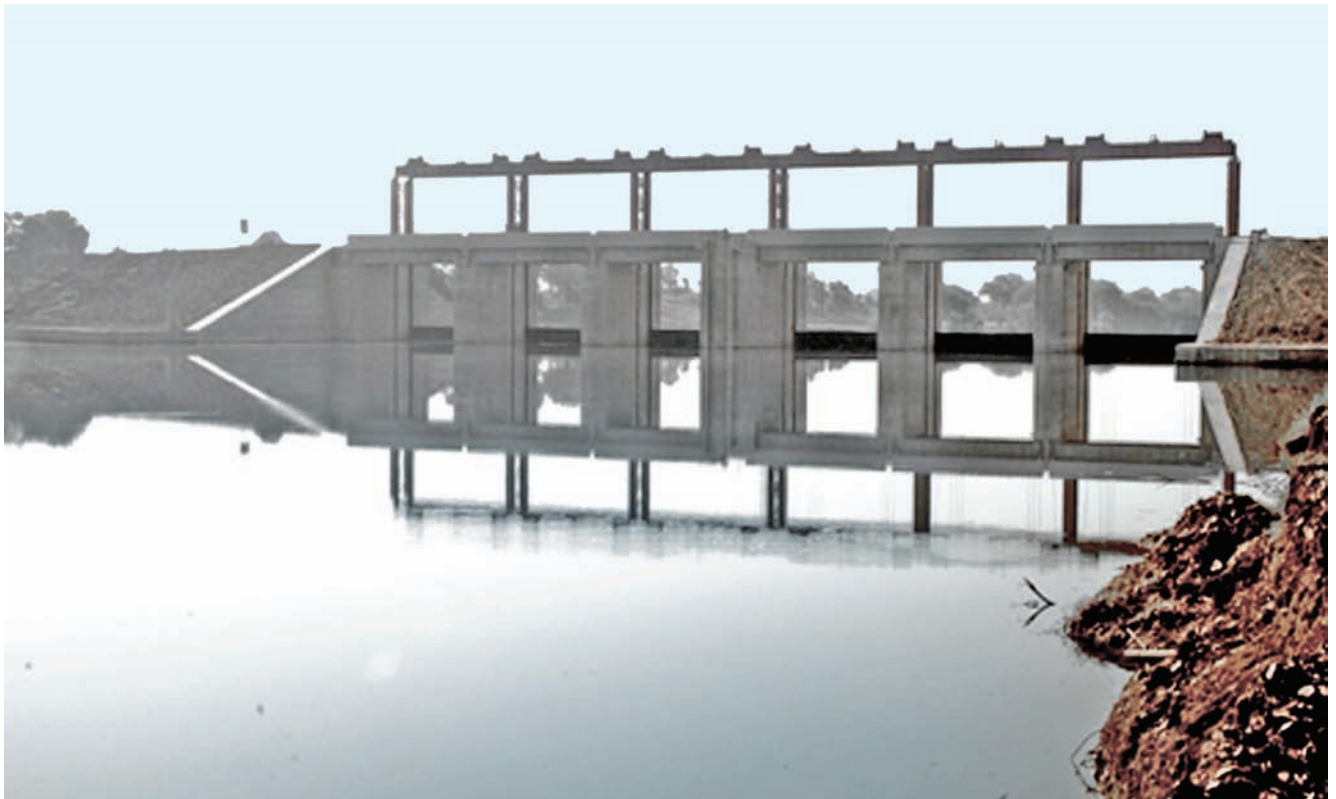
The population of Latur city has increased due to the fast track expansion in terms of education, business and other areas including extensive industrialization. As the existing water supply schemes proved inadequate, the Government had constituted a High Power Committee to look into aspects of creating other permanent sources for water supply and to improve the existing schemes. After extensive studies, the committee made many recommendations. One of them was

to construct barrages at Borgaon-Anjanpur, Vanjarkheda, Karsa-Pohregaoon, Khulgapur, Dongargaon and Dhanegaon under the Manjra dam and to create new sources. Accordingly when Manjra Dam will have enough water storage, Latur city will be supplied its water needs through this dam. During the years with reduced rainfall the storage of the dam would be reduced but the water would continue to flow through the free catchment areas. This water could be stored in the

proposed barrages. It was decided that whenever the water storage at Manjra dam would be inadequate the water from barrages would be used for water supply to Latur city.

Accordingly, through an initiative taken by the then Chief Minister Late Vilasrao Deshmukh, all these barrage projects were accorded administrative sanctions as a part of Manjra project. With verification of all the technical aspects of construction the work on these barrages started in March 2006 and was completed





in June 2008. Water storage was created in September 2008.

This year there was a meager rainfall in the catchment areas of Manjra dam resulting in absence of water storage at Manjra Dam. However as there was rainfall at Valana stream from Ambejogai Taluka and catchment areas of a nallah at Dighol Deshmukh, the same has helped in creation of water storage at Vanjarkheda and Karsa-Pohregaoon barrages respectively. Although the rainfall in Renapur Taluka has been good this year the barrages below this Taluka at Khulgapur and Dongargaoon could not be fully loaded with water due to non-acquisition of lands here. Further as these barrages are on the lower side of Nagjhari Dam they cannot be reserved for water supply to Latur city.

Both the barrages at Vanjarkheda and Karsa-Pohregaoon were fully filled up to their capacities on the 5th October 2012. The District Collector Dr. Vipin Sharma had reserved the water storage at above mentioned Vanjarkheda and Karsa-Pohregaoon

barrages for water supply to Latur city in case of water scarcity through an order dated 16th November 2012. The Department accordingly appointed a vigilance team activated for reservation of water storage. However by the time the orders were issued the water storage at these barrages had reduced by 40% due to various reasons. In the mean time renovation and repair work for the old Nagjhari Dam water supply scheme was undertaken and completed through Maharashtra Jeevan Pradhikaran. Due to the delay in electrical connection for this work the local population used the Vanjarkheda and Karsa-Pohregaoon barrage water for drinking purposes. Some water was lost due to evaporation and some was lost due to lifting ground water in percolation areas through wells and bore-wells. All these resulted in depletion of water storage.

As all the preparations for Nagjhari Dam project were completed. Water from Vanjarkheda barrage was released as per demand of the Executive Engineer, Management

Division, Maharashtra Jeevan Pradhikaran and orders issued by the District Collector on 1st March 2013. However due to the paucity of rainfall, the deep trenches taken by the farmers in the riverbed for agriculture and with deep areas in the river bed between Vanjarkheda and Vangdari, the water from the Vanjarkheda barrage reached in Karsa-Pohregaoon barrage in smaller quantum. Due to this the administration strived to bring a maximum of water to Karsa-Pohregaoon barrage by creating trenches in river bed and lifting water with pumps with the cooperation of Maharashtra Jeevan Pradhikaran and Water Resources Department. This initiative was successful. With the experience of these obstacles the work of filling dugouts in the Karsa-Pohregaoon to Nagjhari dam river beds, creating trenches etc. were completed and on the 8th March 2013 the water from Karsa-Pohregaoon barrage was released to Nagjhari dam. This created drinking water storage at Nagjhari dam for citizens of Latur city. ■

# Infusing New Life into Ghanewadi Lake

After the year 2000 water was made available to the Jalna city just once a month

Since 2010 the removal of sedimentation has been carried out through public participation. During last four years the water storage capacity of the dam has definitely improved. The sedimentation is spread over the agricultural fields of the farmers around resulted in a better yield for the crops, says **Santosh Musale**.

With a view to a permanent provision of water supply for the Jalna city the Nizams had started the construction of a lake at Ghanewadi in 1930. The work was allotted to Beneji Jalnawala. The Lake was completed in 1935. Jalnawala himself contributed Rs. 2 lakh and completed the construction of the lake. The lake is around 8 kms from Jalna city at Ghanewadi and is constructed on the Kundalika river near the village. The height of the lake is 15 meters. At that time the water storage capacity of the lake was 0.51 TMC. An underground pipeline was laid from the lake to the city. As the dam was at a height more than that of the city the water used to flow to the city without any use of electricity or electrical pumps.

Till 1960 the water was supplied twice a day. With the increase in population the distribution of water got reduced. After the year 2000 water was made available to the city just once a month. Severe water scarcity emerged in 2010. Looking at the troubles women had to take for arranging drinking water a



well known businessman from the city Rameshbhai Patel took up the initiative for removal of sedimentation from Ghanewadi Lake.

During the 75 years between 1935 and 2010 no one had removed the slit from this lake. The water storage capacity of the lake had thus reduced. Therefore since 2010 the desedimentation has been carried out through public participation. During the last four years the water storage capacity of the dam has definitely improved. The sedimentation

is spread over the agricultural agriculture land around. This has resulted in a better yield for the crops. Dr. Sunil Rayattha of the Ghanewade Water Security Forum said that the Forum has undertaken this huge task only with the cooperation of the public here and we shall continue our work. The total makeover of the dam will cost around Rs. 10 crore. The District Collector has made available diesel worth Rs. 24 Lakhs for the vehicles. In times to come it has been planned to construct 8 dams within the 8 kms distance between Ghanewadi and Jalna so that water will always be available up to 2 kms of surrounding areas. If the Government undertakes the removal of sedimentation from each and every dam and to increase the water storage capacity we can combat drought. ■

YEAR	REMOVED SEDIMENTATION (No. of Tractors)	EXPENSES BY PUBLIC PARTICIPATION	EXPENSES BY BUSINESS	INCREASE IN WATER STORAGE
2010	45,000	Rs. 20 lakh	Rs. 20lakh	135,000 CU.M
2011	40,000	Rs. 22 lakh	Rs. 22 lakh	120,000 CU.M
2012	36,000	Rs. 20 lakh	Rs. 20 lakh	108,000 CU.M
2013	40,000 Till 28th April	Rs. 50 lakh	Rs. 50 lakh	--



# A Battle With Scarcity

151 new bore-wells with an expenditure of Rs. 64,68,000 have been sanctioned

As the Jalna district witnessed reduced rainfall during 2011 the tankers pressed into service in 2012 summer continued even as the rains arrived. A contingency plan was prepared to overcome the scarcity if the situation continued. According to this plan it is estimated that about 650 tankers will have to be used till June 2013. The contingency plan is of Rs. 67,30,90,000 and the sanctioned plan includes traditional eligible measures as well as innovative remedial measures, explains **Yashwant Bhandare**.

Jalna district is famous for Sweet Lime production in the Country. However the inadequate rains during the last two years have resulted in a situation that has brought tears in the eyes of residents of this District. Out of total 6,00,076 hectares agriculture land in the district, 5,24,000 ha. land is under cultivation of Kharif crop and 2,27,000 ha. land comes under Rabbi crops. With hopes of better rains this year farmers have increased their area under Kharif crops by an additional 20,000 ha. Thus in 2012, total land under Kharif crop cultivation was 5,44,000 ha.means 103 percent of the area under Kharif crop. The District has an average precipitation of around 688.21 mm.

This year the the average rainfall during June to September was just 47.22 percent i.e. 328.98 mm. District precipitation has never crossed the average levels during any of the past six years except in 2010. This was 60.03 percent in 2007, 79.46 percent in 2008, 83.60 percent in 2009, 115.07 percent in 2010 and 80.81 percent in 2011. During 4 months of June-September 2012 there was no rainfall on 74 percent of the days on an average. During 122 days of these 4 months of rains in Jalna District, the rains were absent for 90 days in Jalna Taluka, 89 days in Badnapur Taluka, 87 days in Bhokardan Taluka, 93 days in Jafrabad Taluka, 86 days



in Partur Taluka, 96 days in Mantha Taluka, 100 days in Ambad Taluka and 85 days in Ghansawangi Taluka. As a result 3 of the 7 medium projects in the district remained dry and the water in the 4 medium projects did not even cross the plinth levels. Out of the 57 minor irrigation schemes 34 remained dry and the water in 23 remained below the plinth levels. Due to the diminutive rainfall the final Kharif crop percentages in 970 villages remained below 50 paise. Due to this the Government announced drought situation in all these villages.

The first phase of the drought action plan has been implemented during October-December 2012. The second phase work is going on at present.

A total of 151 new bore-wells were sanctioned after survey. Expenditure of Rs. 64,68,000 has been incurred

on these bore-wells. Under the special repairs a total of 261 bore-wells were included in the plan and all these bore-wells from 142 villages were repaired. Apart from this the repairs to 1,012 bore-wells was carried out with the help of Zilla Parishad.

Under the tap scheme special repairs, 180 schemes were found eligible for special repairs. 169 schemes out of these have been repaired. Out of the 39 complementary temporary tap schemes under the action plan 24 were found eligible after survey.

## WATER SUPPLY BY TANKERS

Water supply by tankers was being carried out in the district even before October 2012. However according to the current year scarcity estimates 120 villages and 57 hamlets received water through 177 tankers during January 2013. Acquisition of 250 wells from

188 villages and 62 hamlets was carried out. During February 2013 a total of 180 villages and 65 hamlets received water through 245 tankers and acquisition of 402 wells from 326 villages and 76 hamlets was carried out. During March 2013 a total of 285 villages and 82 hamlets received water through 367 tankers and acquisition of 502 wells from 423 villages and 79 hamlets was carried out.

### **TRENCHES IN RIVERBEDS**

The ground water level this year has deepened by 4.50 meters than average. Under the circumstances the option to supply water to the villages from the district will have to continue till the arrival of rains. The search was on for alternative measures after the existing water storages dry out. With this in view the upper beds of Dudhna and Purna rivers were surveyed in January 2013. An 8 meter deep sand layer was observed at the riverbed. When a trench was made in this bed, water from the sands trickled. Senior Geo-scientist Dr. P. L. Salve brought to the notice that a larger excavation here will mean availability of greater amount of clean water trickling from the sands. After this Dr. Salve created open pit cum trenches admeasuring 30x45x8 meters deep in Dudhna and Purna riverbeds at 2-3 places and certified availability of water. This has made available a large amount of water during the scarcity period.

With the open pit cum trenches in Dudhna riverbed it has been planned to provide water to a total of 169 villages by tankers including 69 villages in Jalna Taluka, 21 villages in Ghansawangi Taluka, 21 villages in Partur Taluka and 58 villages in Mantha Taluka. This water would be

available for another 3-4 months i.e. around 15th July 2013. The farthest point for supply of water from this scheme is around 60 kms while the average distance between villages is around 30 kms. It has been planned that 202 tankers each with a capacity of 12,000 litres would make two trips per day. It is expected that the water availability through these trenches would be around 48.48 lakh litres per day. The scheme would be able to supply water to 169 villages in these 4 talukas and serving a population of 2,42,420 till the arrival of monsoon this year.

With the trenches in Khadakpurna river the water supply has been planned for to a total of 167 villages with 107 villages in Bhokardan Taluka, 39 villages in Jafrabad Taluka and 21 villages in Jalna Taluka. This water would also be made available for another 3-4 months i.e. around 15th July 2013. The farthest point for supply of water from this scheme is around 60 kms while the average distance between villages is around 30 kms. It has been planned that 156 tankers each with a capacity of 12,000 litres would make two or two and half trips per day. It is expected that the water availability through these trenches would be around 46.80 lakh litres per day. The Khadakpurna riverbed trenches would be used to supply water to 167 villages in 3 talukas and serving a population of 2,34,000 till the arrival of monsoon this year.

### **WATER PURIFICATION AVOIDED WITH TRENCHES**

Maharashtra Jeevan Pradhikaran has approved the proposal for trenches in Dudhna and Khadakpurna riverbeds. The proposal has also been approved by the Government. These works would be completed on priority by the Maharashtra Jeevan Pradhikaran. The activity will see a trench dug into the river bed up to 8 meters or around 24 feet deep. This will make available water trickling from all sides of the trenched sands. The quality of this

water will definitely be higher than water from storage. After the tanker is filled it will be treated with a dose of disinfectants and hence pure water would be available at lesser costs. As the locations of trenches in riverbeds are inaccessible and have load shedding, the tankers would be filled using diesel engines for pumping water. Thus there would be no question of water supply being stalled due to non availability of electricity.

### **RS. 10 CRORES SAVED**

If the water would have been lifted from a dam instead of this innovative measure it would have necessitated water purification plants at both the ends with a capacity of 5 lakh litres each. This would have meant an expenditure of upto Rs. 10 crore. At the same time such an installation would have taken around one year. Further such costlier and time consuming measure would not have been useful in the present circumstances.

### **OPTION FOR AN EXPENSIVE PROPOSAL**

If we would have to supply water to Jalna District from other far away districts by railways, it would mean transport up to some places by railway and then to other villages by tankers with expenditure tag of around Rs. 46 crore. However effectively this would have meant availability of only 50 percent of the required water. With the two innovative remedial measures with an expenditure of Rs. 3 crore has saved Rs. 43 crore of the exchequer. At the same time within a period of just 10-15 days the drought ridden district would be able to quench the thirst of a population of 4,76,420 in 367 villages.

### **PERCOLATION WELLS IN IRRIGATION PROJECTS**

Similarly the officers of the District Ground Water Surveys Development Agency have made available pure and ample water by undertaking percolation wells in the inundated areas of medium and minor irrigation



projects. In order to supply water to the rural villages of Jalna Taluka, a percolation well has been dug at Pirkalyan dam. This well is able to generate 15-20 lakh litres of water daily and around 100-150 tankers are being filled here. In a similar project a percolation well is being dug in Somthana medium project which will supply water to Badnapur city and villages in Badnapur Taluka.

Ghanewadi lake from the Nizam era near Jalna city has remained dry. This lake supplies water to half of the city through natural means. A percolation well has been commissioned at this lake and at present 60 tankers are getting filled here twice or thrice a day for water supply to the city. 15 lakh litres of water is being made available from this.

In order that the people should be able to place their grievances and complaints for water scarcity, fodder scarcity and work on demand under MNREGA contact officers have been appointed at the district and taluka levels. Contact officers have also been appointed for municipal areas.

Apart from the 57 minor irrigation lakes an initiative has been started with public participation to remove the sediments from Ghanewadi and Moti lakes in Jalna city. This will improve water storage capacities of these lakes and the sediments will prove beneficial to farmers to improve the texture of their agricultural lands. The ground water level will also improve with better percolation of water in the soil.

### PLASTIC TANKS

In order that there should not be any wastage of water supplied by tankers and that the water should remain clean as well as saving the time between the ferrying of tankers, 1,644 plastic tanks would be supplied to 548 villages from the approved plans for scarcity mitigation. Industrialists from the district have agreed to provide 970 tanks of 5,000 litres capacity each. A total of 400 tanks with 200 each



of 2,000 litres and 1,000 litres are available and are being sent to the villages. Five taps are being fitted to each of these tanks. This would prevent the wastage of water. Having made the outstanding electricity payments it has been ensured that the rural tap water scheme will continue to provide water. With the difficulties experienced for filling up the tankers due to load shedding, permission has been granted to engage generator and diesel engine on rent for this purpose.

### GRANTS FOR FRUIT FARMS

Around 50 percent of the sweet lime areas from Maharashtra are reeling under the drought. Farms of many farmers have dried due to water scarcity and the trees are being cut for use as fuel. The sweet lime farmers have not been able to gain any production for the last three consecutive seasons. The sweet lime farmers have thus been in a distress. The losses of 26,548 ha. fruit farms is around Rs. 45 crore.

### CATTLE CAMPS

The number of livestock of 972 villages of the district is 4,95,444. There are 3,67,572 large animals and 1,27,872 small animals. The daily fodder requirement of a large animal is 6 Kg and that of a small animal is 3 Kg. The requirements for the whole district works out to 2205.4 mt tonnes for large animals and 383.62 mt. tonnes for small animals per day. Every day 2,589 mt. tonnes, thus

every month 77,771 mt. tonnes fodder is required. Due to absence of rains the Kharif and Rabbi crops could not yield. Hence the fodder from Kharif Jowar, Bajri and Rabbi Jowar and Corn is not available. As the wells and bore-wells have dried, the green fodder could not be cultivated. The sugarcane is also dried due to drought, raising a fodder problem in the district.

Considering the situation, 57 fodder camps have been opened in the district with the help of voluntary organizations. As on 8th April 2013 these camps have provided shelter to a total of 22,274 animals with 19,200 large and 3,074 small animals. Veterinary Doctors have been appointed at these fodder camps. The animals are vaccinated before admission to fodder camps and they are protected from contagious diseases. Water is also made available for the animals at these camps and green sheds have been erected for protecting them from the harsh summer.

### ENOUGH WORK FOR LABOUR

Under the Mahatma Gandhi National Rural Employment Guarantee Scheme the work is being made available to the labour. The number of families in the district is 2,74,315. Of these 2,01,332 families have registered their names under the MGNREGA. In order to provide work to locals from these families there are 24,308 works on the shelf with labour capacity of 3,70,665. ■

# New Lease of Life for Bindusara

Under the MGNREGS, the work at 43 lakes is being carried out

Bindusara project near the city is a boon for the city residents as well as the farmers from the area. But the water supply of this dam was closed due to 10 feet layer of sediment in the main source area of the dam. Due to overwhelming response from the people and their participation, by the end of March 2013, a total of 2,11,666 brass sedimentation has been removed and this has increased the water holding capacity of the dam by around 600 million liters.

The real name of Beed city with rich historical background is Bheer. The city was so named due to the ample vaults of water resources here. Bindusara project near the city is a boon for the city residents as well as the farmers from the area. Through the medium of Municipal Council the city is supplied with drinking water from this dam. Bindusara project was completed in 1955. With the project located at a higher level than the city the water flows to the city with natural gravity thereby saving on the electricity expenses. It also helps to keep the city area temperatures cool.

From November 2012 the water supply to the city from this dam was closed. The reason was a 10 feet layer of sediments in the main source area of the dam. If there is no sedimentation in the dam, it would have supply water to the city during the present water crisis. Municipal Council has to bear huge expenses of Rs. 24 lakh per month on account of the electricity bills to bring water of Majalgaon backwaters to the city as on today.

With a view that another scarcity occasion should not arise in future as well as with an objective of making the agricultural lands of the farmers more fertile, Additional District Collector S. T. Taksale and Ex-Chairman of the Municipal Council Dr. Bharatbhushan Kshirsagar appealed for public participation for removal



of sedimentation from the dam. The appeal received an overwhelming response. Rotary Club, Beed donated Rs. 15 lakh, Labour Cooperative Society Organisation donated Rs. 10 lakh and Municipal Council sanctioned Rs. 25 lakh for the work. It has provided Rs. 13 lakh of the same till now. Due to people participation, by the end of March 2013, a total of 2,11,666 brass sedimentation has been removed and this has increased the water holding capacity of the dam by around 600 million liters. District Guardian Minister Jaidatta Kshirsagar has represented to the Chief Minister Prithviraj Chavan with the details that the sedimentation at the project is huge and hence there is need of financial assistance from State Government for the same.

Under the leadership of Prakash Solanke, Minister of State for Revenue the work of removing the sediments from Majalgaon Dam has started. The initiative has received

excellent response from industrialists, businessmen, citizens and farmers alike. The farmers are carrying the sediments in order to improve the fertility of their agricultural lands at their own costs and through the people participation the fuel for Poclairn and JCB is being arranged. Till now 66,391 brass sediments have been removed from the dam which has also increased the water holding capacity of the dam. Apart from water supply, a huge quantum of water has been provided through this dam to Beed city as well.

District Collector Sunil Kendrekar has has prioritised the removal of sediments from the lakes in the district. Under the Maharashtra Rural Employment Guarantee Scheme, the work at 43 lakes is being carried out apart from 50 lakes where the work is being carried out through public participation. Sediment removal has been carried out presently at total 93 lakes in Beed district. ■

# Magic of Water Refilling

The water from Mombatta Lake at Daulatabad Ghat was brought using pipeline and the air pressure technique.

Daulatabad and Abdimandi have ample water available due to refilling process and there is not even a single tanker in these villages. With the water refilling in wells under public water supply scheme, water level in the wells which are on the verge of drying up increased resulting in resolving the village water supply problem.

**A**urangabad District received just half of the average rainfall this year. The ground water level also receded. The whole district is still in the grip of a severe water scarcity and the administration is regularly supplying water to the villages through tankers and by acquisition of wells. However the two villages Daulatabad and Abdimandi here have ample water available due to refilling process and there is not even a single tanker in these villages. With the water refilling in wells under public water supply scheme, water level in the wells which are on the verge of drying up increased resulting in resolving the village water supply problem to a certain extent.

Daulatabad started to face the water shortage from November-December. The water level in all the wells in the district depleted upto their base and the bore-wells also dried up completely. P. S. Patil, Village Extension Officer, Sarpanch Sanjay Kanjune, Deputy Sarpanch Rauf Harun decided to experiment with water refilling instead of placing a demand for tankers with the administration.

## **HISTORICAL MOMBATTA LAKE**

There is a historical Mombatta Lake below Daulatabad Ghat. It has a water outlet and a nallah. From 2 kms of the lake there is a public water supply

well. From here the village gets its water supply. The water level here went on receding since November. At that time 8-10 horizontal bores were taken, which proved fruitless. It was necessary for the water to be brought from the Mombatta Lake to this water supply well through a water carrier. Although Mombatta lake at present had 55-60% water, electricity would have to be used for bringing the water to the well by a pipeline. However it was decided to utilize the air pressure. The pipe was filled with water and one end was placed in the water carrier (sandva) and the other in the lake. As soon as the end at the water carrier was opened the water flowed completely due to the air pressure. Due to the air pressure the water from the lake got in to the water carrier being sucked by the pipe. Dams were erected at the water carrier and the nallah. For water to flow from nallah to the well a 10x20 trench was created with the help of a JCB. Due to this experiment the water level at the well increased over the last few days. Now the well is able to supply water in ample quantity to residents of Daulatabad.

Just below Daulatabad ghat there is a hamlet Abdimandi with a population of around 4,000. For the last 4-5 months the well supplying water to the village was getting dried. In order to overcome the water scarcity Gramsevak N. L. Raote, S. R.



Bankar, Sarpanch Manoj Paradhi and Ex-Sarpanch and Grampanchayat Member Daulatsingh Hazari and Sabir Khan and other members presented a proposal for acquisition of a well at about 2 Kms from the village. However it was difficult to bring water from this acquired well to the water supply well for the village. Grampanchayat placed another proposal for consideration of Zilla Parishad. The proposal was accepted and the water was brought from acquisitioned well to the water supply well for the village. It was decided by Abdimandi villagers to repeat the water reconstitution experiment at Daulatabad at Abdimandi as well. The water from Mombatta Lake at Daulatabad Ghat was brought using pipeline and the air pressure technique. The water was stored in the trench created near the acquisitioned well. This improved the water level at the acquisitioned well. At present Abdimandi village is supplied water through this project. ■

**District Information Office  
Aurangabad.**

# Quenching Water Scarcity

**Special teams for repair of hand and electric pumps to supply drinking water have been deputed**

Amravati, Akola, Yavatmal and Washim, except Buldhana have received average rainfall, the water sources in rural areas have been just about filled resulting in severe water scarcity. District administration has chalked out an effective action plan to mitigate water scarcity. As the requisite funds have been made available for scarcity mitigation it has been easier to provide water supplies immediately on demand says **Anil Gadekar**.

**T**he severe drinking water scarcity has hit Buldhana of Amravati Division. Combined with reduced intensity just 90% of the average rainfall here has resulted in drinking water sources just getting

January itself. Out of 1499 villages in Buldhana 708 villages have been reported with paisewari less than 50. Various drought mitigation measures are already being implemented.

According to the action plan to tackle water scarcity in Buldhana District, 419 private wells have been acquired apart from deepening 119 wells and removing the sedimentation from these on priority.

Funds to the tune of Rs. 28,69,63,000 have been made available to alleviate scarcity. Maximum funds amounting to Rs.17,75,00,000 have been made available to Buldhana District whereas Amravati District has received Rs.1,54,00,000, Akola District Rs.4,02,00,000, Yavatmal District Rs.2,47,00,000 and Washim District Rs. 2,89,00,000. At the same time necessary funds for drought relief are also being made available immediately as per demands of District administration.

## **WATER SUPPLY THROUGH 154 TANKERS**

In order to overcome water scarcity in the division and as per the action plan for the same a total of 154 tankers have been pressed into service and

drinking water is being supplied to rural population of about 2,74,583. Maximum of 113 villages in Buldhana district are supplied water through 144 tankers. Urban localities from Municipal Council areas are regularly supplied drinking water through 61 tankers which includes 25 tankers to Sindkhed Raja, 28 tankers to Deulgaon Raja and 8 tankers to Lonar.

## **ACTION PLAN**

Action Plan has been chalked out to overcome the water scarcity and the same will be implemented in three phases till the end of June i.e. till rains come. According to this plan a total of 4,868 measures have been proposed for 3,064 villages in the Division.

Buldhana which is facing severe scarcity, 966 villages of this district have been included in the action plan to tackle water crisis and till the end of March 941 measures are actually implemented in 612 villages. Between April and June 542 remedial measures will be taken for 354 villages.

Implementation of various measures has already started in 708 villages of 1499 villages with paisewari less than 50 paise. In the drought affected areas work on demand has been made available under Maharashtra Rural Employment Guarantee Scheme.

According to the action plan 361 remedial measures are being implemented in 336 villages in Amravati District, 666 remedial

measures in 475 villages in Akola District, 1008 remedial measures in 862 villages in Yavatmal District and 1,249 remedial measures in 425 villages in Washim District.

The available water in the District has been kept in reserved for drinking purpose. With a view that every rural and urban area should be provided with drinking water through hand pump and electrical pump, 51 special teams have been prepared for repairs to 24,334 hand pumps and 899 electrical pumps in the Division.

## **RESERVATION OF DRINKING WATER**

In order to overcome the drinking water scarcity, the drinking water from 3 large, 7 medium and 83 small irrigation schemes from the Division has been reserved.

Instructions have been issued to Maharashtra State Electricity Distribution Co. Ltd. for regular water supply to the drought affected villages under Rural Water Supply Scheme. Concession in land revenue to the drought affected villages is being provided. Cooperative Loan conversion is being carried out by the District Co-operative Bank.

With the co-operation of Deputy Director of Education examination fees of 36,845 students from Buldhana District appearing for Std. X and 13,632 students appearing for Std. XII is being waived off.

**- Anil Gadekar**

# Coping With Challenge of Water Scarcity

The 57 cattle camps are housing 72,056 livestock in the Beed district.

To cope with the challenge of drought, various works such as searching for water resources, deepening and removal of sedimentation from the wells are being undertaken. For the drought mitigation, special scheme for repairing of rural Tap water supply scheme and creation of bore-wells with a ratio of one for a population of 200 and others are being taken up at the district.

There has been a drought situation in Beed District where 6 talukas of the 11 received little rains and scanty rainfall in the rest 5 talukas. 685 villages in five talukas namely Beed, Ashti, Patoda, Gevrai and Shirur Kasar have been declared as drought affected as the anevari declared for these villages is less than 50 paise. The District administration has prepared an Action Plan related to the drought which consists of remedial measures till the month of July.

The total population of the District stands at 25,85,962. Till the end of March 350 tankers were pressed for supplying water to a population of 6,20,823. The thirst of a total of 317 villages and 442 habitats is being quenched effectively through 16 Government and 334 private tankers making 858 trips. For water resources 252 wells and 268 bore-wells have been acquired.

In Ashti taluka, there is meager precipitation for second consecutive year resulting in reduction of ground water levels and wells and lakes going dry. Hence 1,14,010 population of Ashti taluka have to face severe water scarcity. To get rid of this situation 126 tankers out of 350 tankers available in the District have been pressed into service for water supply to Ashti taluka only.



With a view to save the livestock the District administration has sanctioned 57 cattle camps in drought affected areas. The camps are housing 72,056 livestock and the animals are provided with fodder, medication and water as per rules. The District Collector or teams of District administration by surprise visits inspect the facilities being provided to the animals and the state of health of the animals in the cattle camps.

Beed District is known as the District of Sugarcane harvesting

workers. Sugarcane cultivators all over the State used to hire the services of these labourers from Beed district. As there is a drought situation in many areas of the State, many sugar factories are closing earlier this year and the migrated sugarcane harvesting workers are returning to home. Considering the situation a plan has been chalked out to provide employment to these labourers under Employment Guarantee Scheme.

Till the end of March the District is carrying out 377 works with the



capacity of providing employment 30,875 workers Employment Guarantee scheme. At present there are 10,873 workers present at these works. It is expected that during the first week of April around 10,000 sugarcane cutting workers would return to work here and work is available on demand.

The Peacock Sanctuary of Naigaon and Shirur Kasar is a home to large number of peacocks. Elaborate arrangements of fodder and water for the Peacocks have been made by the District administration.

Various works such as searching for water resources, deepening and removal of sedimentation from the wells are being undertaken. For the drought mitigation, special scheme for repairing of rural tap water supply scheme and creation of bore-wells with a ratio of one bore-well for a population of 200 and others are going on at the District.

With the effective public participation works for removal of sedimentation have been carried out where the lakes and projects have been dried. The Government Resolutions issued from time to time are also being implemented in the District. These include concessions in land revenue, rescheduling of Cooperative loans, payment of 67% of the pending bills of the Gram

Panchayat which pays balance 33 % of the amount. Provision of temporary ration cards to the people migrating from the scarcity affected areas as per their request.

#### CATCHING THE WATER WELLS

Beed District has been betrayed by the rains this year. Due to meager rains many of the small and large irrigation projects in the District went dry as early as December-January and the 140 irrigation projects in the District just had 8% water storage. More than 50 large and small lakes went dry and at similar number of lakes the water went below the plinth levels. Thus the district administration has to face the challenge of finding sources for supplying water to the drought affected areas. However District Collector, Sunil Kendrekar took a decision of digging wells near irrigation projects for public drinking water supply under Mahatma Gandhi National Rural Employment Guarantee Scheme in the catchment areas of the irrigation projects. Ground water availability certificate within the catchment areas of lakes was obtained from the Ground Water Survey and Development Agency for 368 wells. Every Taluka was sanctioned at least 30 drinking water wells during the first phase of the

programme. The work was started with Ashti Taluka. The wells were to be dug with 27 feet wide and 60 feet deep under this scheme.

Due to this the catchment areas of irrigation projects like Limbodi, Sina, Dadegaon, Karanji, Nimgaon Chombha, Talwar, Tintarwani, Amla and Charhata saw excavation for public water wells. Many wells were replete with water. It is heartening to note that with good water holding capacity many of these wells are now source of water supply in the drought affected areas. The well at Amla in Gevrai Taluka cannot be emptied even while pressing two pumps for the work. The wells at Dadegaon, Sina and Karanji projects had a good amount of water in them. This reduced the number of tankers which were used to supply water from Sina Dam. The construction of wells in the catchment areas proved beneficial and so far the work of 100 or more wells is progressing as per plans.

#### A RARE INITIATIVE OF FODDER CAMP

The scarcity situation this year is evident in various parts of the State. Therefore the State Government has taken a decision to start cattle camps for the livestock. Presently 55,000 livestock are being cared for at the 50 fodder camps in Beed District. Within all these camps the one at Dhanora in Ashti Taluka has maintained its impeccable impression. The special feature of this camp is that the camp has also accommodated for food for the owners of the animals who are staying with their livestock. According to the Government norms a Fodder camp can be provided with a Government Grant for up to 3,000 livestock. However Dhanora camp is taking care of more than 3,000 livestock and at the same time it is also providing food and shelter for the owners of these animals through the owner of the camp. The camp has livestock owners from around 15 villages staying with their animals. ■

- Raju Dhotre



# Waterful Summer

**Pardimakta's underground Gabion Weir is a second successful weir of Marathwada region**

Pardimakta village scorched by water scarcity every summer so far has overcome the same and with the help of a Gabion Weir has stored abundant water even during a scorching summer, says **Anil Alurkar**.

**P**ardimakta is a village on the Nanded Akola highway located around 15 kilometers from Ardhapur. The village has two wells for water supply but they usually have totally inadequate water. There is a stream near the village which carries additional water released through an Upper Painganga canal. With a population of around 3,500 the residents here were looking forward to acquisition of private bore-wells or tankers. In order to overcome the scarcity situation the village Sarpanch Nilkanth Madne, Chairman of the Dispute-free Committee Sadashiv Deshmukh and Gramsevak R. B. Salve and enlightened villagers were all making efforts. However each one of them was concentrating on providing a permanent solution to this problem.

Due to the constant follow-up from the villagers the Ground Water Survey and Development Agency completed the survey of the village. Through the geological survey of the village area Basalt rocks with medium cracks were found. At the depth of the nallah there were murrum and stones upto around 2 meters. With the survey in December 2012 it was found that the level of water available in the water supply wells was just half a meter. Senior geologists and engineers suggested the Grampanchayat for construction of a technologically proper Gabion type weir, which was also in accordance with the geology of the bottom of the nallah.

As the width of the nallah near the village was 20 meters the project to construct traditional cement dam

would have been a costly proposal. Considering the supportive geographical circumstances the underground Gabion weir was supposed to incur just half the expenditure.

Sumant Bhange, Chief Executive of the project of constructing Gabion type underground weir on a nallah near the village under the National Rural Drinking Water Programme. He also authorized immediate implementation of this remedial measure. The Gram Panchayat initiated this work under the guidance of Ground water survey and public participation.

For this dam it was necessary to excavate 30 meters long and 7 meters wide trench at the nallah upto the rocks that is about 3 meters from the nallah bed. During this excavation black soil was procured from outside and was spread as a layer 30 cms deep. The layer was rolled after sprinkling water on the black soil. The process was continued till the nallah bed and the area was covered with iron mesh and thick plastic sheet. The central portion of the Gabion Weir was laid with black soil. The top and bottom sides of the nallah were laid with 30cms mesh stones in a ratio of 0.50 : 1.00 and iron mesh was tied on all sides of the stones. The black soil was closed by plastic sheets. The work was taken upto 1.50 meters from the nallah bed and the practical total height of the dam was made up to 4.50 meters.

After the construction of the weir the water level has increased. The

nallah used to get canal rotation water every month which used to run away. Thus the same was not at all useful for improvement of water level at the wells supplying water to the village, to the private wells of the farmers or to the bore-wells. After the completion of weir it is now possible to stop the canal rotation water or rainwater at this nallah. Due to this it is expected that the nallah will be able to store around 1,20,00,000 Litres (0.50 million cubic feet) of water. With two canal rotations of Upper Painganga project the water level in the wells have increased by about 5 meters. The senior geologists have also suggested to the Gram Panchayat to undertake increasing of depth for the wells by another 5 meters. With the completion of such water source strengthening project within a record period of 3 months and overcoming water scarcity this is proving to be a worthy example for other villages as well.

in the district emerging from the concepts of the Ground Water Survey Development Agency and is the second successful underground Gabion Type Weir in the whole of Marathwada region.

The villagers started with the work on this project in January 2013. With public participation and leadership from the Gram Panchayat the work was successfully completed within 3 months. For further maintenance the project has been handed over to the Gram Panchayat. With abundant water in the nallah and in wells the villagers are more than happy.



# Augmentation in expenditure of Cattle Camps

The drought situation in the State is becoming more and more severe and the State Government has left no stone

situation. With this in view the Cabinet has taken a decision to enhance expenditure on the animals at Fodder Camps. As of now the expenses are to the extent of Rs. 60 for large animals and Rs. 30 for small animals. The limits have been enhanced to Rs. 75 and Rs. 35 respectively.



## CONTROLLING CIGATOKA DISEASE

The Banana crop in the Districts of Jalgaon, Dhule and Nandurbar is being devastated for the last 2-3 years due to invasion of Cigatoka disease. In order to control this disease, a decision has been taken to implement an Integrated Management Programme over the next 3 years under the National Agriculture Development Programme.

The programme will be implemented in three districts on 46,501 hectares of land. for the implementation of the scheme, the National Agriculture Development Programme, State Government and the farmers will have to contribute 50 percent, 25 percent and 25 percent respectively. It was decided that the State Government should make available its contribution to the tune of 25 percent or else the implementation of the Scheme will be continued from 50 percent grants from National Agriculture Development Scheme.



## BILL FOR ERADICATION OF BLACK MAGIC

With a view to protect the people from ghastly and brutal traditions of sorcery, superstition and ignorance, approval was accorded to the Maharashtra Prevention and

Other Inhuman, Evil Practices and Black Magic Bill-2011 for presenting the same to the Legislative Assembly.

At present there is no Law for prevention and eradication of such undesirable traditions in the State and no scheme is implemented for the same. Hence with the passing of this Bill, the heinous practices will be eradicated and exploitation of the poor people will be halted. With this intention the Bill was earlier placed in the Winter Session of the Legislative Assembly in December 2005 and many amendments were also carried out in the bill from time to time.

## A NEW TUITION FEE COMMITTEE FOR B. ED. COLLEGES

A decision was taken to constitute a Committee for deciding new Fees structure for Non-aided and Permanently non-aided basis B. Ed. Colleges. This committee will be constituted as per



Teachers Council.

Presently there are a total of 505 permanently non-aided basis B. Ed. Colleges working in the State. The tuition fees charged by the B. Ed. colleges was being governed in accordance with the orders passed by the Hon. Supreme Court in the matter of T. M. Pai Foundation

versus Karnataka Government with a Tuition Fee Committee constituted for the same.

## MAHARASHTRA NATIONAL LAW UNIVERSITY

A decision was taken to establish National Law University at Mumbai and Aurangabad on the lines of Bengaluru. Establishment of such University at Nagpur has also been accepted in principle.



The University at Mumbai will be established at Maharashtra Judicial Academy Campus at Uttan. Non-recurring expenditure to the tune of Rs. 69,66,70,000 and recurring expenditure to the tune of Rs. 7,17,07,583 was also approved. The University in Aurangabad will be established at Korodi. Non-recurring expenditure to the tune of Rs. 204 crore and recurring expenditure to the tune of Rs. 7,18,00,000 was also approved. The University will start functioning at the B. Ed College, Aurangabad as a temporary

immediately.

It was also decided to create the required number of teaching and non-teaching posts for these Universities, the number of students expected at these would be around 100 to 120 and the provisions of constitutional reservations would be followed but there should be no State level quota. It was further decided that the tuition fees for the students from the State should be nominal but the tuition fees for students from other States should be charged at a maximum based on the courses offered.

# **Fight With Scarcity On Top Priority March Towards Progress With Competence**

**Despite scarcity  
situation in  
the State,  
development is  
unaffected.  
The State is  
progressing speedily  
in Industrial,  
Urban Development,  
Rural, Health,  
Education  
and other sectors.**

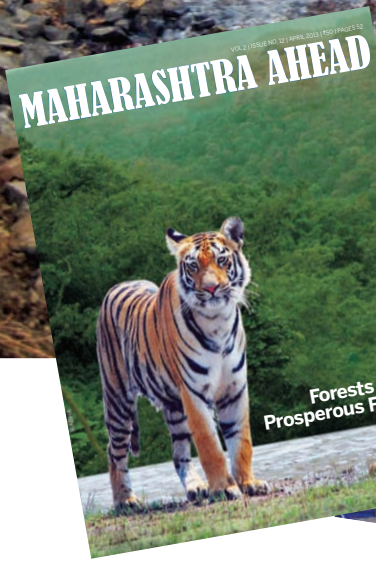
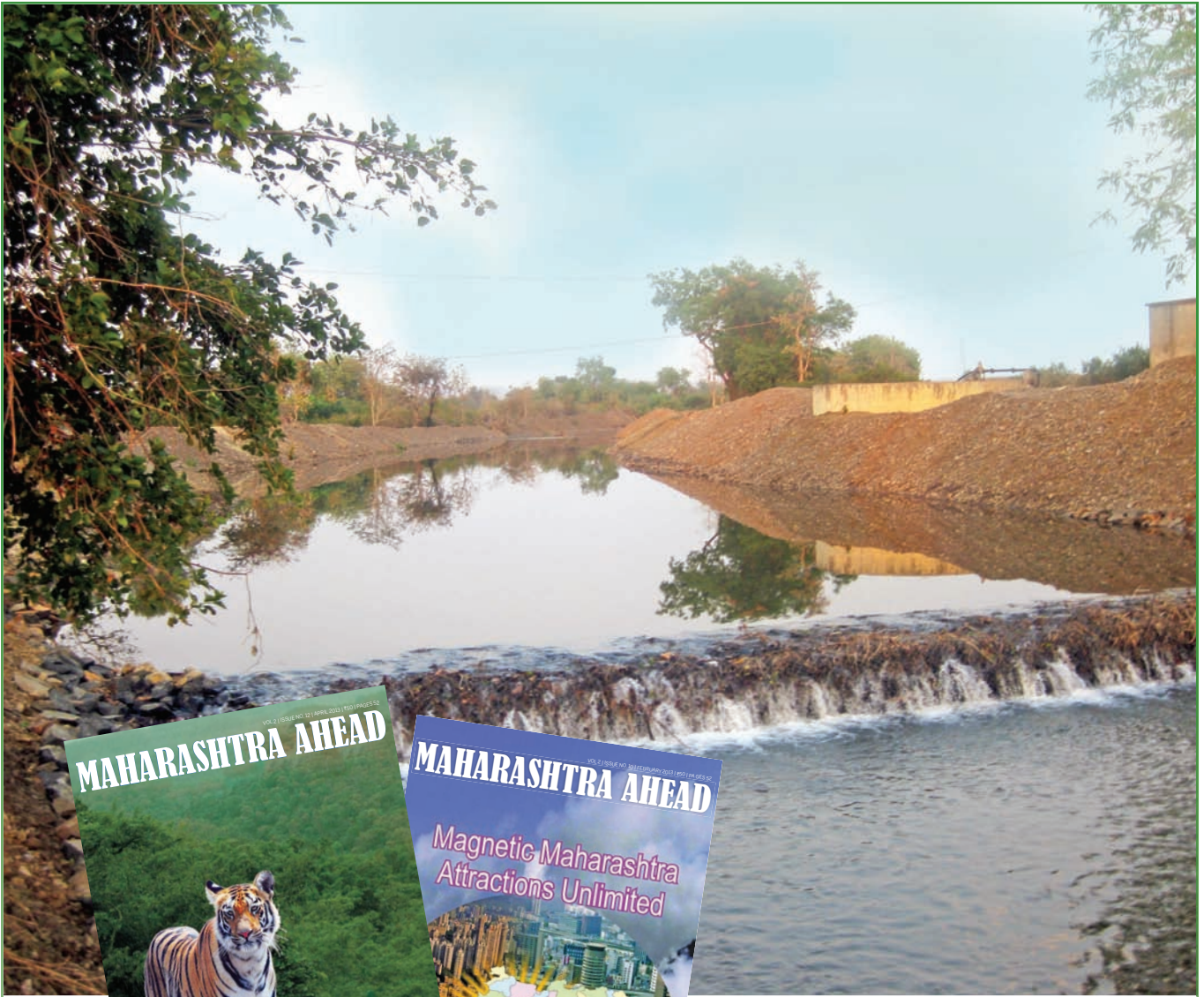


**Prithviraj Chavan**  
Chief Minister



**Ajit Pawar**  
Deputy Chief Minister

- Provision of Rs.2,000 crore for scarcity mitigation measures.
- Drinking water supplied through more than 4000 tankers to 11,000 villages-wadis.
- Tanker in village on demand, cattle camp at place of demand and work on demand through MGNREGA.
- 1022 cattle camps opened for more than 8 lakh animals.
- Under Mahatma Gandhi National Rural Employment Guarantee Scheme more than 22,000 works in progress. Work to more than 2,85,000 labourers.
- As a long term measure, completion of irrigation schemes in the last phase, construction of cement check dams in series, farm ponds, repairs of Shivkaleen reservoirs and removing extracts from percolation tanks done speedily.
- Re-charging of wells, works of constructing Vanrai dams undertaken with people's participation.
- Maharashtra received national level first prize for implementing innovative projects in Panchayat Raj sector.
- Progressive industrial policy for balanced regional development with target to create 20 lakh new jobs and attract investment of Rs. 5 lakh crore.
- Under Aadhaar linked direct cash transfer scheme, subsidies deposited to the beneficiaries' bank account in 12 districts.
- The Rs.20,000 crore Elevated Rail Corridor Project linking Oval Maidan and Virar got in-principle approval from Government.
- With e-office system, administrative functioning geared up.
- The long pending problem of Khandkari farmers' rightful claim on land solved. More than 4,000 farmers benefitted.
- Decision of opening 25 fast track courts to solve cases of crimes against women. Mahila Lokshahi Din launched. Daughters and sons of project-affected persons to have equal rights in ancestral property.
- A special drive to confer upon the legal rights of land to cooperative housing societies from the developers.



O.I.G.S. Presented by The Government of India

## **MAHARASHTRA AHEAD**

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