

# Of excess supply, dry taps and fixing leaks

● When the city gets more than its quota of water and half of it is wasted, the civic body must seek long-term solutions

● Instead of basking in the comfort that the reservoirs around the city provide, citizens must take up rain water harvesting

Radheshyam Jadhav | TNN

**Pune:** The city is on the threshold of a water crisis that has been building up for decades. The water situation is now in such despair that the city has begun receiving supply every other day from Thursday.

It is not that there is not enough water supply from the reservoirs.

The irrigation department has earmarked 11 TMC quota of water for Pune, but 14 TMC water has been lifted from the reservoirs of the four dams which provide water to the city.

The water supply figures just don't add up. The quota is higher than the normal requirement, yet the city has run into a crisis for the past two years, raising questions about what happens to the water.

"The fact remains that Pune city is using additional water," said municipal commissioner Mahesh Zagade at Tuesday's general body (GB) meeting. His calculations were based on Pune's population being 35 lakh and a 135-150 litre water per head per day con-



The pipeline carrying water to the city often springs leaks leading to wastage of water

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**Mahesh Zagade** | CIVIC CHIEF

sumption which put the total water consumption at about 7.8 TMC.

Meanwhile, the Pune Municipal Corporation (PMC) has no clue about the 'missing' seven TMC water. "What is happening to it," corporators and the administration asked each other at the meeting.

The 'callous' waste of water despite getting more than the required quota and the administration's inability to meet the city's water needs have caught Zagade's attention.

"We get 14 TMC water when our need is about 7.8 TMC. We must find answers to what happens to the remaining water. We must go beyond temporary solutions."

The Environment Status Report of 2008-09 has said the city lacked an efficient water supply system because of negligence. "The old water supply lines are rusted and require repairs. The PMC lacks a system to control water supply. Faulty meters and absence of water supply data make it difficult to calculate water usage," the report observed. With no maps of the old water pipelines to guide them, the civic body is floundering in the dark.

"The estimated population of the city is 35 lakh and the daily water supply to the city is 1,005 MLD. The total wastage is 20 per cent, of which 12 per cent is because of the distribution system and 8 per cent is wasted during treatment. About 20 MLD water is supplied daily to Uruli Devachi, the fire brigade gets 6 MLD water while 2 MLD water is given to tankers. Finally, 776 MLD water is sup-

## LOOKING AHEAD

- ▶ The civic body is planning a direct pipeline from Khadakwasla and Varasgaon reservoir to meet the long-term drinking water requirements of the city under JNNURM. It will ultimately lead to not lifting water from the canal to avoid wastage
- ▶ Drawing water from the Bhama-Askhed reservoir in Khed taluka is one option city planners had. The civic body has prepared a Rs 260-crore plan and sought funds from the state and the central governments for the project. The ESR envisages drawing of 200 MLD water from Bhama-Askhed daily
- ▶ A new dam with a capacity of 30 MLD daily water supply on Pavana river near Ravet has been planned

## FOR FUTURE USE

- ▶ Temghar along with Varasgaon, Panshet and Khadakwasla are the four dams in the Mula-Mutha sub-basin that supply water to Pune
- ▶ The storage capacity of Temghar dam has been increased by 1.5 thousand million cubic (One TMC is equal to 28,31,70,00,000 litres)
- ▶ The irrigation department has increased the height of the dam by 10 metres to 87 metres and has augmented the storage capacity by 1.5 TMC
- ▶ The additional water stored in Temghar will ultimately flow into Khadakwasla and will be supplied for drinking
- ▶ With this, the collective storage in the reservoirs of Temghar, Varasgaon, Panshet and Khadakwasla will go up to 28.5 TMC

## PLANS IN COLD STORAGE

- ▶ The civic body has not learnt much from last year's water crisis when the authorities imposed a 40 per cent cut and made water available only on alternate days. When the monsoon was delayed in the catchment areas, the situation worsened drastically.
- ▶ Last July, the storage was a mere 0.50 TMC (two per cent of the total capacity) of live water storage. It was the worst crisis in over four decades that exposed the civic body's failure to formulate a long-term strategy.
- ▶ As a knee-jerk reaction, deputy municipal commissioner K C Karkar was appointed as a special officer by Zagade to handle the water crisis. Plans were made to dig five borewells in each of the 14 wards in the city. Every ward was to be given 20 water tanks of 1,000 litre capacity each for water storage and supply. The 399 wells and 4,820 bore wells were to be tapped if the shortage escalated.
- ▶ The Groundwater Survey and Development Agency survey identified 155 wells and 1,575 bore wells in the city
- ▶ Once it rained adequately, the plans were stashed away.

plied to the city of which 25 per cent is for the slums," the ESR said.

"We have not learnt any lessons. The civic administration has not taken a single step to tackle a possible crisis. Last year, the city faced a similar situation and the administration had said that a comprehensive plan will be prepared to tackle a crisis. There is no sight

of the plan," said BJP corporator Anil Shirole.

"We have decided to appoint consultant to look into the matter. The city needs a comprehensive plan to fix the water supply," said Zagade.

Tenders floated require reputed consultants in the urban water sector with experi-

ence in leak detection, water audit, analysis of hydraulic defects in water supply, rehabilitation of water distribution to comply with leak prevention/correction of all hydraulic defects to ensure equitable distribution, flow measurement of all commercial properties, suggesting way forward for all other properties.

## Rain water harvesting is the best bet for the city

Radheshyam Jadhav | TNN

**Pune:** Here is one reason why the city should adopt rain water harvesting. The green initiative alone can meet as much as 21 per cent of the total water demand in the Pune Municipal Corporation's limits.

There are monetary benefits too. The civic body offers a 10 per cent rebate in property tax to citizens who implement it. Yet, only about 500 of the total 6.44 lakh properties in Pune have taken to rain water harvesting.

The PMC was among the first to take up implementation of the eco-housing programme under technical assistance provided by the United States Agency for International Development (USAID). However, despite the initiatives and incentives, there are not many takers for the water management system in the city.

The reluctance can be attributed to the fact that unlike cities like Chennai there is no shortage of water here. Most houses in the southern city have voluntarily opted for the step as citizens went through years of hardships when the rains failed year after year.

"Abundant availability of water in the city has made people indifferent. Despite the rebate in property tax, people are not interested in opting for rain water harvesting," admitted a civic official.



File photo

### STORE NOW, USE LATER

Rain water harvesting (RWH) is a way to capture the rain, store that water above ground or charge the underground and use it later. This happens naturally in open rural areas. But in congested, over-paved metropolitan cities, different techniques are used. Such a system comprises various stages — transporting rain water through pipes or drains, filtration, and storage in tanks for reuse or recharge. The catchment of a water harvesting system is the surface which directly receives the rainfall and provides water to the system. In urban areas it can be a paved area, like a terrace or courtyard, or a lawn or open ground

- ▶ Use recycled water for lawns and fountains
- ▶ Harvest, store, recharge and make provisions for utilisation of 100 per cent rain water from roofs
- ▶ Reuse collected rain water for gardening, washing and other building applications and recharge excess rain water into ground
- ▶ Install a treatment system
- ▶ Install a separate plumbing line for use of treated water for flushing
- ▶ Restrict areas covered by lawn and exotic plants which require more water and high maintenance to 25 per cent of the total vegetation area

**RECYCLE, REUSE**

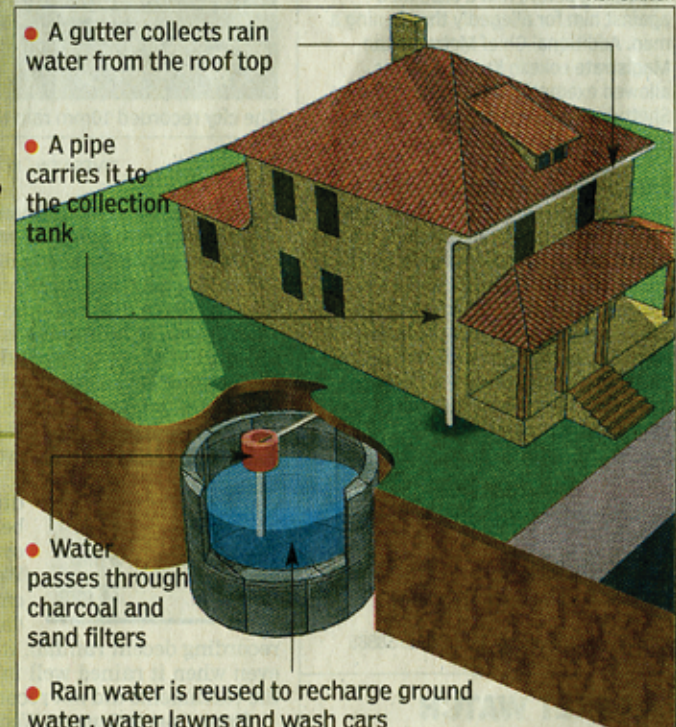
### BENEFITS

- Can supplement other sources of water supply such as groundwater or municipal water connections
- Ability to build or farm in areas with no other water supply
- High quality water - pure, free of chemicals
- Lower supply cost
- Reduced flood flows and hence reduced topsoil loss

### UTILISATION

- Drinking, cooking, bathing
- Toilet flushing
- Washing clothes
- Irrigation
- Livestock requirements

### COLLECT, STORE AND USE



Abir Bhaduri