# 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-



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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 then 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 supply data make it difficult to calcu-MIM rater 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 Urali Devachi, the fire brigade gets 6 MLD water while 2 MLD water is given to tankers. Finally, 776 MLD water is sup-



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

#### **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 260crore 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

"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

slums," the ESR said.

#### FOR FUTURE USE

- Temphar along with Varasgaon, Panshet and Khadakwasla are the four dams in the Mula-Mutha sub-basin that supply
- The storage capacity of Temphar 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 Temphar 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

plied to the city of which 25 per cent is for the of the plan," said BJP corporator Anil Shi-

#### 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.

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

### Vote-bank politics drowns 24x7 scheme

Pune: It was meant to be a solution to provide adequate drinking water to the city 24x7. And in the bargain stop wanton wastage and make citizens realise that water is indeed precious

The civic administration's proposal to supply water 24x7 that included a water audit, metering, leakage correction and refurbishing the water distribution system laid in 1977 has not seen the light of the day.

The plan has not been approved by political parties though it was mooted two years ago. The project was set to get funds under the Jawaharlal Nehru National Urban Renewal Mission (JN-

Efforts by the civic administration to reintroduce the metered water supply system for domestic consumers have also failed. Following large-scale complaints about faulty water bills, non-functional meters and irregular payment of water tax, the system was dumped in 2000.

In its place, water tax was based on the annual rateable value (ARV) of a property and it became a part of the property tax bill. However, in 2006, the D S Zagade committee tabled a report before the general body saying that the new system was leading to water wastage since citizens were not charged as per the quantum of water used.

The committee recommended the metered system for citizens where they would pay as per usage. It would inculcate judicious use of water. The panel also said that metered water supply is a prerequisite to seeking infrastructure loans for water projects from international financial institutions

The panel said that the system of calculating water tax based on the ARV was also considered unjust for residents in new localities and suburban areas since their ARVs were more than those of the old properties. Residents ended up paying more water tax although they got less water

There is no political support for the 24x7 proposal. No party has

water, water lawns and wash cars

A gutter collects rain

water from the roof top

#### **METER SYSTEM**

- It will help equitable distribution of water and ensure that people pay for the actual amount of water they
- The standard per capita usage of water is 135 litres per day, but in Pune the usage goes up to 225 litres per day
- A meter system will be based on how much water you use. You pay less if you use less. The price could be graded like electricity

#### **UNEQUAL SUPPLY**

- Pune is considered one of the most blessed cities in India with five dams supplying
- While the national norm for per person availability of water is 150 litres, Pune has a gross availability of 280 litres per person per day
- Water distribution is unequal. Some areas receiving much less than 135 litres per person
- As many as 150 water tankers service Kharadi, Phursungi and adjoining areas daily
- Areas like Kondhwa, NIBM road, Bhusari colony, Warje Malwadi, parts of Sinhagad road, Katraj, Mundhwa, Vimannagar and Yerawada continue to buy water from private tankers

taken a clear stand as they feel if the meter system comes back, it may dent their vote banks. With a civic election looming in two vears, this proposal may never get approved," a senior civic official

Political parties said the civic administration was to blame. "It cannot manage the city's water supply The administration should first activate itself and then impose a burden on the citizens," said corporator Ujwal Keskar.

# 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 tech-

**GREEN EFFORT** 

nical 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

"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.



#### STORE NOW, USE LATER

"We have decided to appoint consultant to

Tenders floated require reputed consult-

look into the matter. The city needs a com-

prehensive plan to fix the water supply," said

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

#### BENEFITS

- 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

## A pipe carries it to the collection

**COLLECT, STORE AND USE** 

Wate passes through charcoal and sand filters Rain water is reused to recharge ground