

The Times of India- 04- June-2023

Illegal dyeing units causing pollution in Yamuna: Experts

Operating Without Permit, 65 Units Sealed Since April-End

Priyangi Agarwal
@timesgroup.com

New Delhi: The central committee, which has been monitoring Yamuna-related projects, was informed at a recent meeting that the operation of industries in non-conforming areas was one of the main issues in Delhi. Experts said small-scale units, mostly involved in dyeing and washing of jeans, were contaminating the Yamuna.

Joint committees of Delhi Pollution Control Committee, Municipal Corporation of Delhi and other departments have been acting against such units since April-end and over 65 units have been sealed so far.

During a recent meeting of the central monitoring committee, the authorities said that since these industries are existing in non-conforming areas, they are not allowed to operate and considered as illegal. "DG, National Mission for Clean Ganga, directed that pollution from any source to the river, whether from conforming or non-conforming industrial clusters, should be stopped," according to the latest minutes of the meeting.

In May, National Green Tribunal directed the monitoring committee appointed by the Supreme Court to look into the matter of illegal dyeing units operational in Delhi. A DPCC official said joint teams of departments concerned were conducting random inspections to close such units.

Varun Gulati, who has filed several complaints with

FIGHT AGAINST CHEMICALS

Photo: Anindya Chattopadhyay

> Central monitoring committee was recently informed that operation of industries in non-conforming areas is one of the main issues behind the pollution in the Yamuna in Delhi

> Panel directed that pollutants from any source, conforming or non-conforming industrial clusters, should be stopped

> NGT directed the SC-appointed committee in May to look into the matter of illegal dyeing units

> Illegal dyeing and washing jeans units are operational in other parts of NCR too

> Most of these units don't have effluent treatment plants, resulting in discharge with high ammonia and phosphate entering the Yamuna



Action taken till now

Joint teams have started inspecting illegal units in non-conforming areas

94 dyeing units found, 27 get notice

Closed down/sealed/disconnected electricity:

67

Areas in Delhi where illegal units are operational



DPCC and NGT on operation of illegal dyeing and washing units, said, "A large number of such units are operational in Delhi without a consent. Most of them are operational in Swaroop Nagar, Budhpur, Narela, Bindapur, Matiala, Ranhola, Khyala, Meethapur, Badarpur, Mukundpur and Kirari. Apart from Delhi, such polluting units are operational in many parts of the national capital region."

He added that these units cause frothing in the river and impact aquatic life.

Bhim Singh Rawat, a Yamuna activist, said, "These illegal dyeing and washing units don't have any no-objection certificate to operate in residential areas. As they are not connected to common effluent treatment plants and don't have effluent treatment plants, the discharge from these units enters the Yamuna through local drains. They use chemicals for dyeing and detergents for washing, which contain high ammonia and phosphate compounds."

To prevent frothing and pollution in the Yamuna, the

Delhi government in June 2021 had banned sale, storage, transportation and marketing of soaps, detergent which did not meet the Bureau of Indian Standards (BIS) norms. "However, such illegal units don't comply with BIS norms," said Gulati.

DPCC had earlier invited proposals to conduct a study of small-scale units involved in dyeing or washing of jeans/garments or metal surface treatment, which are operating in non-conforming areas and in residential areas.

The Times of India- 04- June-2023

Telangana urges joint survey of Polavaram submergence areas

Koride.Mahesh
@timesgroup.com

Hyderabad: The Telangana government on Saturday urged the Polavaram project authority (PPA) to ensure free flow of water without any impoundments, with all its 48 gates, including river sluices, open all through the monsoon to avoid flooding of Telangana region. The move assumes significance as the Bhadrachalam town witnessed floods during the last monsoon in July.

The state government also requested the PPA to take up the joint survey of Polava-



ram submergence areas as per the supreme court directive issued in September 2021.

In a letter to the chief executive officer of PPA, Telangana irrigation engineer-in-chief C Muralidhar on Saturday asked the PPA to take up protection measures to avoid the submergence of Telangana territory. The Telangana government has be-

State had raised the need for a study, especially in Aswapuram, Bhadrachalam, Burgampahad, Cherla, Dummugudem, Pinapaka and Manuguru mandals

en demanding that a joint survey of Polavaram submergence areas should be taken up for the past few years, especially after Bhadrachalam town submerged due to floods in July last year.

The state has been arguing that the AP government cannot proceed with the Polavaram project without undertaking protective measu-

res in Telangana on the backwaters, impacting submergence and flooding in the state. The irrigation department said a total of 899 acres in the state may submerge if the water in the reservoir is at a full level and the backwaters may affect 50,000 acres.

"The study should cover the impact due to drainage congestion and stagnation of local streams and the July 2022 floods in Telangana, which submerged 40,000 acres in Bhadrachalam areas and that protection measures must be taken up in Telangana territory," the chief engineer (ENC) said.

The Hindu- 04- June-2023

Jaipur to have centre to keep dams safe from earthquakes



The number of specified dams in the country is over 5,500 and about 70 of them are those of national importance. THE HINDU

Mohammed Iqbal
JAIPUR

Malviya National Institute of Technology (MNIT), Jaipur, has been identified as the National Centre for Earthquake Safety of Dams, the first centre of its kind in the country. The centre will develop indigenous capabilities in making the country self-reliant in handling technology issues related to structural and earthquake safety of dams.

Earthquake shaking is considered the most significant threat to the safety of dams. Following the signing of a memorandum of understanding with the National Dam Safety Authority (NDSA), functioning under the Union Ministry of Jal Shakti, the new centre will work intensively with dam engineers, regulators and policy makers.

MNIT Director Narayan Prasad Padhy said the centre would conduct a pilot study of select dams across the country to develop and revise safety standards, and review the Central Water Commission's manuals related to the earthquake safety of dams. The institute will later enter into some international collaborations as well.

Prof. Padhy, who has research experience in electrical engineering, said a special law on the subject — the Dam Safety Act, 2021 — had recognised the issue of safety of major dams as a matter of national importance and priority.

The Dam Safety Act provides for surveillance, in-

spection, operation and maintenance of specified dams for the prevention of dam failure-related disasters. The legislation also provides for an institutional mechanism to ensure safe functioning of dams.

The number of specified dams in the country is over 5,500 and about 70 of them are those of national importance. "Large dams are high-risk structures, whose operational failure may lead to uncontrolled and sudden release of impounded water. This in turn will have catastrophic consequences on life, property and the ecology," Prof. Padhy said.

Amid a growing concern over the structural and earthquake safety of ageing dams, the centre is expected to play a significant role in evolving new norms for their protection.

The Ministry of Jal Shakti has approved a financial grant of ₹30 crore for establishing and running the centre for the next five years.

Union Jal Shakti Minister Gajendra Singh Shekhawat said at the MoU signing ceremony here that the Central government was working in a "mission mode" towards the safety and maintenance of dams. More than 25% of the country's dams have completed over 50% of their lifespan, while several of them are a few hundred years old, he said.

Central Water Commission's Chairperson Kushvinder Vohra and NDSA Chairperson Sanjay Kumar Sibal were among those present on the occasion.

The Hindu- 04- June-2023

SYL issue: Hooda slams Haryana govt. over water diversion claim

Vikas Vasudeva

CHANDIGARH

As the stalemate over the Sutlej-Yamuna Link (SYL) canal – the focal point of a water-sharing dispute between Haryana and Punjab – continues, the issue is again at the centre stage.

The politics has started to play out after Haryana Chief Minister Manohar Lal recently said that in a meeting with Himachal Pradesh Chief Minister Sukhvinder Singh Sukhu scheduled for June 5, among other things discussions will be held on the SYL canal water flowing via H.P.

Ahead of this meeting, the principal Opposition party in Haryana – the Congress – hit out at the Bharatiya Janata Party-Janayak Janta Party coalition government, accusing it of involving in a ‘political gimmick’ to divert attention from its failure to get water from the SYL canal. On the other hand, in Punjab, the Shiromani Akali Dal (SAD) has said that Haryana did not have any right to river waters from Himachal Pradesh as it was a non-riparian State.

‘To create confusion’

Former Chief Minister and Leader of the Opposition in Haryana Assembly Bhupinder Singh Hooda on Saturday told *The Hindu* that the State government’s proposed discussion with the Himachal Pradesh govern-

ment is an attempt to create confusion on the issue. “It’s a political gimmick by the BJP-JJP government as they have failed to move forward on the SYL canal issue in the interest of the State. The Supreme Court has already given a verdict in favour of Haryana and therefore, the State government should file contempt case against Punjab for disobeying the orders. Haryana will not leave even a single drop of water from its rightful share,” he said.

The State government should ask Prime Minister Narendra Modi to intervene to get the decision of the apex court implemented as Punjab has been adopting a stubborn attitude, Mr. Hooda said. “The Chief Minister should seek time from the Prime Minister on the issue. We are ready to go along with them to present Haryana’s rightful case” he said. “If we see Haryana’s interests are being harmed in any way, we would strongly protest,” Mr. Hooda added.

SAD president Sukhbir Singh Badal, meanwhile, said that Haryana did not have any right to river waters from Himachal Pradesh, and asked it to not part with it to a non-riparian State.

“Another conspiracy has been initiated to rob Punjab of its river waters. We will not let it succeed,” he said in a statement.

The Hindu- 04- June-2023

Increased rainfall alone will not help groundwater recovery

The projected increase in groundwater use for irrigation can cancel the benefits of increased rainfall from warming climate; consecutive years of drought, too, can adversely affect groundwater storage as recharge will be less

R. Prasad

Rapid depletion of groundwater in north India has become a norm during the last few decades. Between 2002 and 2022, about 95% of India's groundwater depletion occurred in north India. Groundwater use and summer monsoon rainfall variability are the two main drivers of groundwater storage.

Climate change can throw new challenges for the sustainability of groundwater due to increased groundwater pumping to meet irrigation demands for crops. Also, a warming climate will increase the frequency of hydroclimate extremes — floods and droughts. A less discussed aspect is the role of increased evapotranspiration due to warming climate, which will limit water availability for groundwater recovery. But its role will be less as increased groundwater use for irrigation will be the main driver of groundwater usage.

Warming climate will also increase the amount of summer monsoon rainfall that north India will receive, and the enhanced precipitation could help recovery rates of groundwater. But so far it has been unclear if stronger summer monsoon rainfall alone in the future will be sufficient to compensate for increased water demand for irrigation and loss due to evapotranspiration.

A two-member team

Imperative to reduce groundwater use for irrigation

The projected increase in monsoon will be insufficient if there is continued use of groundwater at current levels for irrigation



Caution: Increased rainfall can only help recover about 50% of groundwater lost in the last two decades. SPECIAL ARRANGEMENT

■ Between 2002 and 2022, about 95% of India's groundwater depletion occurred in north India

■ Warming climate will increase the frequency of floods and droughts

■ Warming climate will also increase the amount of summer monsoon rainfall that north India will receive

■ Summer monsoon rainfall, which is projected to increase by 6-8%, can help recover the lost groundwater

■ Use of groundwater from

deeper aquifers in the Indo-Gangetic Plain will make it hard for its recovery from increased rainfall

■ So recovery of the depleted groundwater in north India will be insufficient if groundwater is not conserved

■ There is a crucial need to restrict unsustainable groundwater use for irrigation

from IIT Gandhinagar used observational groundwater well data, and satellite observations from the Gravity Recovery and Climate Experiment (GRACE) and hydrological model simulations under future emission scenarios to understand the variability of groundwater storage under the warming climate. The team found that the projected increase in summer monsoon due to climate change notwithstanding, recovery of the depleted groundwater in north India will be insufficient if there is continued use of groundwater at current levels for irrigation.

"Climate warming and unsustainable groundwater extraction are likely to amplify the challenges related to groundwater sustainability," they write in a study published in the journal *One Earth*. "The dominance of groundwater use will continue under

the warming climate, which will hamper the recovery of the lost groundwater in north India."

Team's findings

The team led by Dr. Vimal Mishra from the Department of Civil Engineering at IIT Gandhinagar found that excessive pumping from non-renewable groundwater storage will aggravate groundwater loss. While most of the current observation wells are in the shallow aquifer, pumping of groundwater for irrigation in the Indo-Gangetic Plain is predominantly from deeper aquifers. So a warming climate may not have sufficient control over the overall groundwater storage variability in the region.

The study provides two critical insights — the periods of high precipitation will help in partial recovery of groundwater even when groundwater extrac-

tion continues or even increases. However, the projected increase in precipitation may not directly translate to an overall increase in groundwater storage. The opposing influence of evapotranspiration will become dominant in the far period and at higher warming levels.

As per climate projection, the summer monsoon rainfall is projected to increase by 6-8%, and this increase is expected to help recover the lost groundwater. "But even in the most optimistic scenario, the highest projected groundwater recovery (about 260 cubic km) in the near period (2021-2040) will only help recover about 50% of groundwater lost in the last two decades. It is not possible to recover the groundwater that we have already used up," says Prof. Mishra. "So relying on increased rainfall alone for favourable

groundwater recovery may not help."

He says that till such time we reduce groundwater usage, a warming climate alone cannot solve the problem. "There is a crucial need to restrict unsustainable groundwater use for irrigation. The projected increase in groundwater use to meet irrigation water requirements can cancel the benefits of increased precipitation in the future. Only then can increased rainfall arising due to climate change help in recovering groundwater storage," Prof. Mishra says.

Efficient irrigation

The possibility of increased frequency of droughts cannot be ruled out. While the impact of droughts at longer frequencies may be less, consecutive years of drought can adversely affect groundwater storage as recharge will be less while extraction of groundwater for irrigation will be higher than when summer monsoon rainfall is normal. "There can even be more challenging situations in future despite the projected increase in rainfall due to climate change. There is a compulsion to make irrigation more efficient and shift crop growing and procuring areas," he says. "The focus should thus be to promote groundwater conservation to ensure long-term sustainability as it plays an important role especially during periods of drought. This applies even when increased rainfall can increase the recharge of groundwater."

Deccan Herald- 04- June-2023

An unending thirst: Irrigation projects hang fire

**Ill-maintained canals, inter-state water disputes
and slow progress in mega water projects have left half of
Karnataka's farmlands dry**

**PAVAN KUMAR H
HUBBALLI, DHNS**

It has been a long eight years for farmers in Dharwad's Navalgund. They take turns and sit in a makeshift tent in the centre of town, demanding implementation of the Mahadayi project.

For all these years, the farmers have been asking for a supply of nearly 7.56 tmcft of water drawn from the Kalasa and Banduri streams (tributaries of River Mahadayi) and emptied into the Malaprabha at the Renuka Sagar dam in Belagavi's Savadatti.

A desperation to see good yields has led these farmers to demand irrigation from the Mahadayi project, which is intended primarily to supply drinking water to parts of Gadag, Bagalkot, Belagavi and Dharwad districts.

Land in this region is already irrigated by the Malaprabha right bank canal, but fields on the tail-end of the canals are dry as a bone, as water does not reach these parts. This is leading to the demand for yet another mega water project like Mahadayi.

The Mahadayi project has encountered several roadblocks over the last three decades, including an interstate dispute. Over the

central government to increase its height from 519 metres to 524 metres. After Telangana and Andhra Pradesh approached the court seeking a revision of water allocation, the project has been on hold for a decade now.

Set in the backdrop of only 43% of the 114.53 lakh hectares of net cultivated area in the state being irrigated, it comes as no surprise that there is a crying need for water supply, especially for agricultural purposes.

Between 2010 and 2023, the state has spent around Rs 1.38 lakh crore — 82% of its allocated budget — on the implementation of major and medium irrigation



A 2018 photo of canal construction to the Kalasa stream under the Mahadayi project. No water has flown through these canals over the last five years.

DH PHOTO/TAJUDDIN AZAD

INSIGHT

years, the project has also seen many modifications.

Officials say that the terrain of the region has posed technical hurdles while laying down pipelines in the Western Ghats and supplying power to the pumps to lift water from the reservoir.

It is not just this project that has been facing a long gestation period — many mega water projects in the state are stuck in similar quagmires.

The Almatti dam project, for instance, is awaiting a gazette notification from the

projects. Of this, Rs 67,952.30 crore was spent between 2019-20 and 2022-23.

Yet, the state has added a negligible area of 1.48 lakh ha in these three years to its bank of irrigated land.

Veteran journalist Madan Mohan, who has extensively researched irrigation projects in North Karnataka, said that lack of forethought and political will have resulted in a major portion of the region remaining barren. Even water allocated to the state by tribunals has flowed into neighbouring states, he said.

Data shows that successive governments are inclined towards implementing mega water projects despite their utility being far lesser than minor irrigation projects.

► Irrigation, Page 2

Projects in need of urgent repairs

Irrigation, from Page 1

A majority of projects that were taken up decades ago are still in the process of completion — progress stands between 10% and 70%, said Rajendra Poddar, former director, Water & Land Management Institute (WALMI), Dharwad.

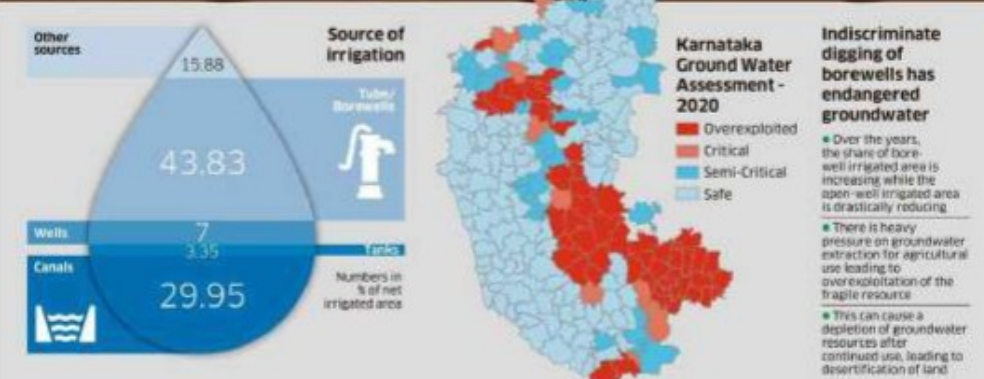
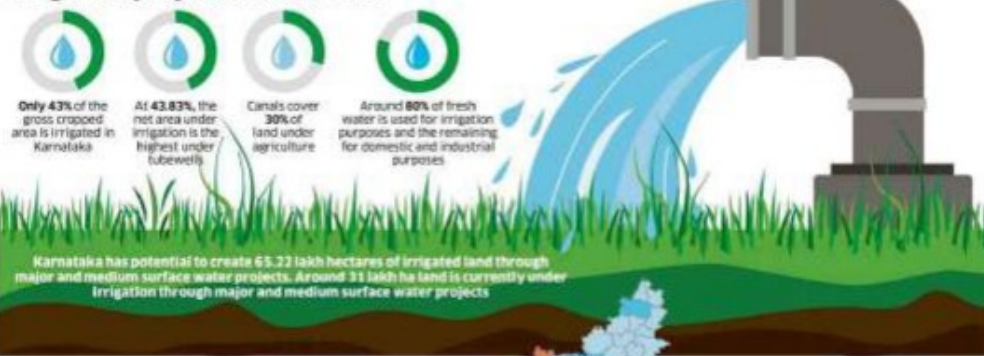
"Politicians and bureaucrats see irrigation projects as just building reservoirs and dams. But a project succeeds only when the irrigation potential is utilised by ensuring that even the lands at the tail-end of the canal get water," Madan Mohan said.

Take for example the Upper Krishna Project, which was to irrigate nearly six lakh hectares of drought-prone land in Vijayapura, Bagalkot, Kalaburagi, Yadgir and Raichur districts between 2005 and 2010.

According to the irrigation department, the construction of a dam at Almatti began in 1963 at an estimated cost of Rs 120 crore. After a wait of 42 years, the project was finally ready in 2005.

However, farmers complain that several hectares of land within striking distance of the reservoir have not been

Irrigation projects in hot water



The state spent Rs 19,820 crore in 2021 on irrigation projects



Land under canal irrigation has remained stagnant even though expenditure has increased



Districts that have major and medium water projects but continue to rely on borewell irrigation

Belagavi • Shivamogga • Mysuru • Chamarajanagar

Karnataka has seven major river basins

1. Godavari 2. Krishna 3. Cauvery 4. North Pennar 5. South Pennar 6. Palar 7. All the West flowing rivers

Major water projects

• Hidkal (Belagavi) • Malaprabha Dam (Belagavi) • Lal Bahadur Shastri Dam/Almatti (Bagalkot, Vijaypur)
• Basava Sagar Dam/Narayana Dam (Yadgir) • Pampa Sagar/Tungabhadra Reservoir, (Vijayanagara) • Bhadra Reservoir (Chikmagalur)
• Vanivilas Sagar Dam (Chitradurga) • Krishna Raj Sagar (Mysuru, Mandya) • Kabini Dam (Chamarajanagar)
• Harangi Dam (Kodagu) • Hemavati Dam (Hassan) • Linganamakki Dam (Shivamogga)

Source: Economic Survey 2022-2023, 2021-22, Institute for Social and Economic Change

COMPILED BY VARSHA GOWDA DGRAPHIC: SAGARIMS

shows that the state has not utilised more than 465 tmcft of water in a year to date.

"Every year, excess water from the Krishna basin flows to the neighbouring states as Karnataka has failed to utilise it. This is despite the fact that several farmers are waiting irrigation for over 15 years," Muttaladinni added.

Underutilisation of allocated water is a concern even in the Cauvery basin.

"Since 2007, successive governments, irrespective of their political affinity, have failed to utilise the state's quota from Cauvery river. Unlike politicians from Tamil Nadu who unite despite political differences, our politicians have not found a solution," says Lakshmana M, convener of Association

of Concerned and Informed Citizens of Mysuru.

Lakshmana explains that year after year, excess water from four reservoirs in the Cauvery basin has been released to other states. This is particularly distressing at a time when farmers in the old Mysuru region are facing water shortage and crop loss. The Mekedatu project is a case in point, he adds.

Groundwater exploitation

An effect of a delayed or ineffective network of irrigation systems is that farmers begin to depend extensively on borewells and tubewells.

In fact, the Economic Survey of 2022-23 reveals that there are 47 taluks (spread across 15 districts) where

groundwater is exploited in the state.

Monocropping and unnecessary flooding of fields is prompting the agriculture and horticulture departments to promote less water-consuming crops.

Irrigation department officials say that many farmers violate stipulated cropping patterns. "The farmers in irrigated areas are supposed to grow semi-deciduous crops such as maize, tur, millet, oil seeds and other food grains. However, many are cultivating water-guzzling crops such as sugarcane and paddy. Through policing, we cannot force crop cultivation in the irrigated area," an official said.

However, part of the reason why crops that are water-intensive are cul-

tivated is because crops like sugarcane and paddy get better procurement support from the government. Last year, Karnataka procured sugarcane, paddy, wheat and other major crops (irrigated) at Rs 1.5 lakh crore whereas only Rs 20,000 crore was spent on procuring rain-fed crops such as oilseeds, millet and pulses.

"Unless this policy lopsidedness is addressed, we cannot expect farmers to switch to scientific cropping patterns and prevent double losses," said agriculture expert K P Suresh.

Instead, Suresh added, it is essential to strengthen minor irrigation, especially in rain-fed areas, for better food production instead of spending on mega irrigation projects.

Decentralised system

Several activists advocate that instead of such large-scale projects, the government should adopt a more decentralised system. Noted environmentalist Nagesh Hegde suggests that creating multiple lakes in the upper regions of Bengaluru to supply water to the city could prove an alternative to the Mekedatu project.

"By adopting such a decentralised water system, we can get adequate water for Bengaluru at five times lesser cost than Mekedatu," said Hegde.

After all, the environmental damage that large-scale projects like the Mekedatu can cause is irreparable.

The Yettinahole project is another relevant example that can cause irreversible harm to the ecologically sensitive areas of the Western Ghats. The integrated drinking water project is set to draw water from a tributary of the Netravathi to the arid regions of Kolar, Chikballapur and Bengaluru Rural districts.

Originally, the project was proposed in 2013 and was supposed to be completed at a cost of Rs 12,000 crore. However, in December 2022, Basavaraj Bommai-led government revised the project cost estimates to Rs 23,251 crore.

"Yettinahole is an ill-conceived project. Even before a drop of water is drawn, the officials have begun realising that the project will fail as the source water body is drying up due to various development work in the catchment area," says environmental activist Dinesh Holla. This project is said to be the cause for landslides, flooding, and drying up of water sources in this region.

Expensive and time-consuming projects have failed, in the past and present, to address the concerns of farmers, people and even officials implementing the project.

Need of the hour

As a middle riparian state with the corresponding potential for mega water projects, Karnataka is involved in several inter-state water disputes that take long periods to resolve. This is resulting in delay in implementation of the project and cost escalation.

Officials in the irrigation department also concede that over the years elected representatives, cutting across the party lines, have failed to press upon the Union government to clear irrigation related files at the earliest.

"Even when the state and the Union government were governed by the same party, the state could not get nod and clearance for several important projects. On the other hand, the Tamil Nadu government, in spite of having a different party in power in the Centre, ensured their demands were met," said a senior officer at the irrigation department who did not wish to be named.

There is consensus that there is a need to discern which regions can be supplied with their water requirements through minor irrigation projects and decentralised systems. This could go a long way in avoiding inter-state disputes.

Mega projects that are of absolute necessity can only be executed with forethought and political will, experts say.

TB Dam's silt problem

The Tungabhadra dam in Hosapete, constructed 70 years ago as a multi-purpose water project, is unable to store to its full capacity due to the large-scale accumulation of silt. The cost of desilting is so high that the government has been mulling the construction of a second balancing reservoir near Koppur's Ganagavathi. Though officials deny silt hampering the storage capacity, residents and farmers of Ballari, Raichur and Vijayanagara districts are complaining of erratic water supply for drinking and agriculture purpose.

Have your say

To express your opinion, e-mail us at: insight@deccanherald.co.in

receiving water till date.

Just eight km from the Almatti reservoir, at Bena village in Vijayapura district, lies G C Muttaladinni's 15 acres of land. Despite the short distance, he says, "I have to rely on borewells or redirect water from the backwaters using huge irrigation pumps."

He explains that poor condition of the canals and excessive use of water by farmers in the upper regions of the canals have spelled out this fate. Other farmers in the area complain of similar problems. They fault the low quality of canal construction and poor maintenance.

Portions of the canals have breached, developed cracks or are clogged due to encroachments. These structures are vandalised to divert more water to particular fields. The situation is such that the water cannot reach the tail-end even if released.

"Projects that were completed 20 to 30 years ago are in dilapidated condition and need urgent repairs," said Poddar.

Underutilisation

Another major concern is regarding underutilisation of the state's share of water supply. Delay in allocation of funds to build sufficient storage capacity and a good canal network that could irrigate fields means that even though several swathes of land in these stretches are dry, water flows, unutilised, to neighbouring states.

The Krishna Water Dispute Tribunal, for instance, had specified (in 1973) that Karnataka could utilise 734 tmcft of water in the Krishna River Basin annually. In 2011, the tribunal revised water share, enhancing Karnataka's quota to 911 tmcft.

Data from the irrigation department