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The Sunday Read: Imbalancing act

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The Cauvery Wildlife Sanctuary is a prominent jumbo corridor

By Garima Prasher

City's water problem cannot be solved by bringing water from outside, say experts. We take a look at the fears that loom around the Mekedatu project

The Mekedatu balancing reservoir project, if implemented, will destroy the fragile ecosystem of the area, say researchers and conservationists working in the region.

The experts say the project will not only wreck the unique riverine habitat, but might also cause wildlife habitat fragmentation, leading to severe human-wildlife conflicts.

"This project will destroy a unique riverine habitat, perhaps the largest found in the country. It will also submerge wonderful woodland savanna forest which is again a highly threatened habitat. Together over 5,000 hectares of wonderful forests will be gone forever," said Dr. Sanjay Gubbi, a Karnataka-based wildlife biologist and conservationist.

The state government's Mekedatu balancing reservoir project aims to store 67 TMCft of water, submerging over 12,000 acres of forest land, including 4,500 acres of the Cauvery Wildlife Sanctuary. According to wildlife experts, apart from being a prominent elephant corridor and home to several endangered species, the Cauvery Wildlife Sanctuary also acts as a sink for overpopulated tiger habitats and loss of this dense forested area might lead to increase in human-tiger conflicts. "In June 2020, we recorded a tiger in the Halagur range of Cauvery Wildlife Sanctuary. This was the first time a tiger was recorded in this part of the forests. This male tiger was born at Bandipur Tiger Reserve and has moved into Cauvery depicting Cauvery as a true sink area for overpopulated tiger habitats. Losing such a habitat can result in increased tiger conflict in areas like Bandipur, BRT and Satyamangala," added Gubbi.

Experts say the sanctuary is home to a number of endemic and endangered species and human intervention of this scale will cause irreparable damage.

According to a recent study titled 'Freshwater Fishes of Cauvery Wildlife Sanctuary, Western Ghats of Karnataka, India'; published in the Journal of Threatened Taxa, while 58 species of freshwater fish were recorded from the 37 km stretch between Shivanasamudram falls and Mekedatu inside Cauvery, close to 15 species out of this are found only in the Western Ghats region, of which eight are found just in the Cauvery River system. To add to that, some of the species, once reported from throughout the area, are now only restricted to the Mekedatu gorge.

"Cauvery river is prime habitat for two critically endangered fishes, the Humpback Mahseer and Nilgiri Mystus besides hundred more species whose ecological and flow requirements are least known. Human interventions such as dams, reservoirs, pollution and such mega projects will destroy their critical habitat," said Vidyadhar Atkore, an aquatic ecologist working on the biodiversity of rivers and wetlands in India.

Not just the water animals, but those found on the land will be destined to suffer too. Conservationists and researchers warn that a project such as Mekedatu will change the dynamics of the river and its riparian vegetation, not only affecting breeding and feeding habits of many fish species, but will also force key species to drastically change their habitat use patterns. "Cauvery Wildlife Sanctuary is an important habitat for elephants, dholes, honey badgers and other species. The riverine forests along the Cauvery River is the only place in Karnataka where the grizzled giant squirrel survives. It is estimated that only about 500 adult individual grizzled giant squirrels survive in this world today. The species will go extinct from Karnataka if the Mekedatu project is implemented. The dam is going to fragment elephant habitats leading to severe human-elephant conflict. This would be especially severe on the north bank of Cauvery River as the forest patch will become small and it will lead to a situation like Hassan with respect to human-elephant conflict," said Gubbi.

Sustainable alternatives

According to Dr TV Ramachandra of Centre for Ecological Sciences, IISc, Bengaluru's water scarcity is the result of mismanagement of the naturally available resources by the decision makers. He says, if used judiciously, the city will have surplus water. "Why go for an expensive affair when there are cheaper and sustainable alternatives? The rainfall alone can quench the city's thirst. If you look at the rainfall data of the city, on an average, it receives around 800 mm of rainfall, which amounts to 15 thousand million cubic feet (TMC) of water. The actual demand is approximately 18 TMC. This can be achieved with the help of rainwater harvesting systems," said Dr. Ramachandra.

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–Dr TV Ramachandra, Centre for Ecological Sciences, IISC

Experts say Bengaluru's population is growing exponentially and the water problem cannot be solved by bringing water from outside. "Already, Cauvery Stage-V has been implemented and we continue to face problems. We need multiple approaches such as conserving the city's lakes, improving aquifers, using water wisely, recharging open wells, and allowing space for water to sink into ground," added Gubbi.

Rejuvenating the city's lakes and treating its wastewater are some other economically viable and more sustainable solutions suggested by the experts. "On an average, the city has at least one lake in each ward. Lake rejuvenation will not only harvest rainwater but will also recharge the water table. It will solve the problem of contaminated groundwater too. Moreover, if a city is consuming 18 TMC of water, it is also generating 18 TMC of wastewater. If we treat our wastewater, we will have around 16 TMC of treated water. When you club the harvested rainwater along with the treated wastewater, we will land in a surplus situation. The Mekedatu reservoir project is being taken up by a section of society with vested interest," said Dr. Ramachandra.

According to Gubbi, the location of the proposed project is the biggest problem as it leads to submergence of forests. “Perhaps they can try building the dam at Shimsha which is a deep gorge and perhaps holds more water with less submergence. It is said Shimsha was the originally proposed location,” he said.

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CURRENT STATUS OF MEKEDATU PROJECT

According to Union Minister of Jal Shakti Bishweswar Tudu, “The Feasibility Report (FR) of Mekedatu Balancing Reservoir cum Drinking Water Project was submitted to Central Water Commission (CWC) by Government of Karnataka for in principle clearance for preparation of Detailed Project Report (DPR) of the project.” The Screening Committee of Central Water Commission in its meeting held on October 24, 2018, accorded “in-principle” clearance for preparation of DPR by Government of Karnataka subject to certain conditions including: “As the main objective of this scheme as stated in the FR is to implement the Cauvery Water Dispute Tribunal(CWDT) Award as modified by the Supreme Court, acceptance of Cauvery Water Management Authority (CWMA) would be a prerequisite for consideration of the DPR by the Advisory Committee of the Ministry of Water Resources. Subsequently, DPR of Mekedatu Balancing Reservoir cum Drinking Water Project was submitted to CWC by Government of Karnataka in January 2019 and copies of the same were forwarded to Cauvery Water Management Authority (CWMA). However, Tamil Nadu has requested the Central Government to advise the Government of Karnataka not to take up the Mekedatu project. Discussion on the DPR of the above project was included as an agenda item during various meetings of CWMA. However, discussion on this issue could not take place due to lack of consensus among party States on this agenda item.