The Hindu- 06- January-2022

T.N. reiterates stand on Mullaperiyar level

State opposes dam at Mekedatu

SPECIAL CORRESPONDENT
CHENNAI

The Tamil Nadu government on Wednesday reiterated its stand over increasing the storage level in the Mullaperiyar dam and its position against the proposal for constructing a dam across the Cauvery at Mekedatu in Karnataka.

The Tamil Nadu government said it would take all necessary measures to restore the full reservoir level of 152 feet in the Mullaperiyar dam as per the judgment of the Supreme Court.

During his speech in the Legislative Assembly here, Governor R.N. Ravi said: "After many years, we were able to store water at the current permissible limit of 142 feet level in the Mullaperiyar dam for many days continuously. This government will take all necessary measures to restore the full reservoir level of 152 feet as per the judgment of the Supreme Court."

Farmers' welfare

While "extending constructive co-operation" to neighbouring States, Tamil Nadu would continue to fight for its rightful share of river waters, he said.

"This government, which is committed to the welfare of farmers, will never allow construction of the Mekedatu dam by Karnataka across the Cauvery river."

Deccan Herald- 06- January-2022

Congress to go ahead with agitation for Mekedatu project

BJP inflating Covid numbers to impose curbs: DKS

BENGALURU, DHNS

A day after the BJP government prohibited rallies and protests, the Congress on Wednesday decided to go ahead with its agitation demanding the implementation of the Mekedatu project.

The Congress has planned a 10-day foot march or padayatra starting January 9, from Mekedatu to Bengaluru.

"There's no politics in this. We had announced this before. We will take all precautions. We're doing this for a cause. We will go ahead with our agitation," Leader of the Opposition Siddaramaiah told a news conference that he addressed alongside Karnataka Congress president D K Shivakumar.

Shivakumar even claimed that the government is cooking up Covid-19 numbers to impose curbs. In the same breath, Siddaramaiah accused the BJP government of imposing curbs just to "thwart and scuttle" the Congress' foot march. He also called out the BJP for doing nothing about its own leaders holding rallies and mass events.

"What was the CM doing in Ramanagar? What is he doing in Nagamangala? Isn't Modi continuing to hold rallies," he asked. "It's not that we want to commit the mistake they've made. We want to expose them."

When asked about the Congress cancelling its 'Ladki Hoon Lad Sakti Hoon' women's marathons scheduled to be held in different parts of the poll-bound Uttar Pradesh, Siddaramaiah said: "We're going ahead with our programme after discussing with the party high command. We will make sure nobody gets infected."

Leader of the Opposition Siddaramaiah with KPCC president D K Shivakumar addresses a press conference on the party's proposed 'padayatra' from Mekedatu to Bengaluru for the Mekedatu project, at the party office in Bengaluru on Wednesday. PTI

The Mekedatu project was first announced in 2013 and it is estimated to cost Rs 9,000 crore. The balancing reservoir-cum-drinking water project to regulate the flow of water to Tamil Nadu will be used to generate 400 MW power and utilize 4.75 tmc water for Bengaluru.

"Water is our right. Doesn't Bengaluru need drinking water," Siddaramaiah asked. He hit out at the BJP whose Tamil Nadu chief K Annamalai has opposed Karnataka's project. On Congress being an ally of the ruling DMK, Siddaramaiah said: "Will DMK listen to us just because we're allies? Whose party is Annamalai in?"

Shivakumar sought to project the foot march differently. "It's not a padayatra, a rally or a protest. It's a walk for water."

CM warns Congress

Chief Minister Basavaraj Bommai said the government would take "suitable action" and that it is up to the Congress to comply with the rules. "The Opposition should behave responsibly. They can do whatever agitation they want after Covid-19 comes under control," he said, adding that the rules apply to all.

Millennium Post- 06- January-2022

With twin benefits

Dindigul district administration created a world record by constructing 611 'modified' rainwater harvesting structures within 21 days

Nexus of Good

ANIL SWARUP

The capacity for storage and reuse of rainwater in Dindigul district in a year would be 10.3 crore litres, which is equivalent to the storage capacity of a small dam

Given the water scarcity in many districts of Tamil Nadu, the state government has been laying special emphasis on rainwater conservation and harvesting. The conventional rainwater harvesting structures involve collection of rooftop rainwater and letting the water into a soak pit. This method ensures that the rainwater is not wasted and is let off into the ground, thus improving groundwater table.

Taking this rainwater harvesting process to the next level, the Dindigul district administration explored the feasibility of reusing the harvested rainwater before letting it off to the soak pit. A trial rainwater harvesting structure was constructed at three places with a provision to store and reuse the harvested rainwater. The rainwater collected on the rooftop was filtered using a filter media and then stored in a sump. The sump had an outlet that led to a nearby abandoned borewell or soak pit which was converted into a recharge structure. Thus, during the normal rains, the collected rainwater would be filtered and stored in the sump. During heavy rains, the excess water would flow from the sump through the outlet pipe into a nearby abandoned borewell or soak pit which could be converted into a recharge structure.

In this rainwater harvesting structure, the water collected on the rooftop is filtered using a filter media with various sizes of metal, and is then stored in a sump. The soak pit adjacent to the sump absorbs excess rainwater during heavy rains.

The Dindigul district administration planned to create a new world record by constructing such rainwater harvesting structures with storage capacity in multiple locations across the district. After elaborate planning, a scheme was formulated. It was decided to construct 611 such structures across the district in 21 days.

The harvesting structure allows the use of rainwater before it is let off into the soak pit

Applications were submitted to four agencies – Elite World Records, Asian Records Academy, India Records Academy and Tamilan Book of Records — that are engaged in recording such events/activities. This was to be recorded under the category *'Most Roof-Top Rainwater Harvesting Structures Constructed at Multiple Locations in 21 Days'*. District administration selected 611 locations to execute this project across 306 village panchayats. The project was executed through the District Rural Development Agency. It was decided to select most of the primary and middle schools in Panchayat Union to ensure that they become self-sufficient with respect to water needs.

The work was started on November 10, 2021. Adjudicators from various world record agencies visited the sites earmarked for building rainwater harvesting structures. Various conditions put forth by these agencies had to be fulfilled. Prominent ones were as follows:

- The sump in which the rainwater was to be stored should have a minimum capacity of 9,000 litres.
- The sump should be constructed using bricks/plain cement concrete/reinforced cement concrete only. Plastic and fiber-reinforced plastic sumps were not accepted.
- There should mandatorily be a provision for excess rainwater to flow into either an abandoned bore well/open well or soak pit which is converted into a recharge structure.
- There should mandatorily be a gap of minimum five meters between the sump in which the rainwater is stored and the nearest septic tank.

With only 21 days available, and amid heavy rains forecast, the work was started simultaneously in all the 611 locations on November 10, 2021.

A detailed micro-level plan, incorporating material availability, skilled labour availability and a contingency plan (in case of heavy rains), was prepared. The capacity of the sump ranged from 9,000 litres to 27,000 litres, depending on the rooftop area of the building in which the structure was planned.

Work was carried out day and night to finish it within the scheduled 21 days. Out of the 21 available days, there was incessant rain for more than 10 days. Yet a committed and dedicated team worked tirelessly to finish the work within the stipulated time.

The total sump capacity built across 611 locations in these 21 days was 80 lakh litres. Thus, for a single rain, Dindigul district is now equipped to store 80 lakh litres of water for reuse.

A rainfall of one mm over an area of one square meter normally would provide one litre of water. The combined area of buildings taken up for constructing rainwater harvesting structures in Dindigul is 1,03,033 square meters. Dindigul district receives an average rainfall of 1,000 mm per year. Thus, the capacity to store and reuse rainwater in Dindigul district in a year would be 10.3 crore litres of water which is equivalent to the storage capacity of a small dam.

Recognising this feat, the aforementioned agencies conferred their world record certificates to the District Collector of Dindigul.

This just appears to be the beginning for a district that is planning to construct such structures in all private schools, hotels, marriage halls and commercial establishments in the coming future.

Water conservation is the need of the hour as more and more areas of the country are facing drinking water crises. Dindigul has demonstrated that this crisis can be handled locally. What has been made possible in Dindigul, presents a wonderful example of Nexus of Good. It is truly remarkable. The entire district team deserves to be complimented. What they have managed to achieve, holds lessons for all water-scarce districts in the country. Water-scarce areas can benefit from the Dindigul model by replicating it in their own districts.

Views expressed are personal

Millennium Post- 06- January-2022

Ensure no untreated waste is discharged into river Ganga or its tributary: NGT

NEW DELHI: The National Green Tribunal has directed the Uttarakhand government to ensure that no untreated waste is discharged into the river Ganga or its tributary, and adequate arrangements are made for setting up requisite sewage treatment plants in the state.

A bench headed by NGT Chairperson Justice Adarsh Kumar Goel said there has to be an awareness programme as well as a monitoring cell created at each municipal level to ensure that no untreated waste is discharged into the river Ganga. "We direct the State of Uttarakhand to ensure that no untreated sewage/effluent is discharged into any drain or any other water body and adequate arrangements are made for setting up requisite sewage treatment plants, the bench said.

"All the Ganga Bank towns and villages need to follow septage protocol as well as norms applicable to the flood protection zones. Evacuation from septic tanks must be linked to the pre-identified STPs," it said.

The tribunal said treated effluents need to maintain standards with respect to fecal coliform and fecal streptococcus.

The chief secretary of Uttarakhand may look into this aspect and ensure compliance, it said. The directions came while disposing of a plea filed by VipinNayyar against construction activities in the flood plain zone of the river Ganga.

The plea contended that the Rishikesh Municipal Corporation is constructing toilets on the flood plain zone illegally and discharging untreated waste therefrom in the Ganga.

No STP has been constructed to treat the waste, the plea said. The tribunal directed that the arrangement in question should be interim and not treated as a precedent and shifted to appropriate location, where construction is legally allowed. "Till alternative arrangement is made, septic tanks be regularly cleaned and maintained to ensure that no untreated sewage is discharged into the river or in the open," the NGT said in a recent order. MPOST

Millennium Post- 06- January-2022

Holistic solution needed

An integrated approach is needed to mitigate the impacts of climate crisis in Kerala; write **Pradeep Balan & Jessy MD**

Kerala has been experiencing an onslaught of heavy rains, floods, landslides and droughts over the last few years. The state had received heavy rainfall in 1924, 1961, 2018 and 2021.

The carbon emitted by humans into the atmosphere since the Industrial Revolution is one of the major causes of the current climate crisis. But human interactions have accelerated the impacts of climate change.

In a densely populated (859 per square kilometres) and geographically small state like Kerala (38,863 sq. km), it is very important to take appropriate measures to prevent the impact of natural disasters such as floods and landslides.

Climate change in Kerala is likely due to the combined effect of geography, land-use change, urbanisation, development activities and population density of the state.

The maximum distance between the eastern and western parts of Kerala is only 120 km (in some places it is only 35 km). Within this 120 km, there are places above 2,695 metres (Anamudi, Idukki district) and places up to 2 metres below sea level (Alappuzha and Kottayam districts).

One has to travel hardly 120 km to reach sea level, from a height of about 2,695 metres. Therefore, in case of heavy rainfall, water should flow smoothly from the eastern hills of Kerala to the west coast. When this is interrupted, the effects of impacts are likely to increase.

The water of 41 rivers flowing westwards in Kerala has to fall into the sea across 120 km. It is estimated that there are about 58 dams in Kerala. Although dams are a part of development, there are related factors that impede the natural flow of rivers.

It is vital to prepare flood-risk zones at the micro level to identify, locate and manage the flood-prone regions

Though dams can control flooding, the flow of water through rivers and their tributaries decreases only after the dams have been constructed. When the water recedes, people use the river banks for agricultural and household purposes.

Those living along the river banks are most affected when the dams are opened during the rainy season.

People have migrated to the foothills of the Western Ghats for agriculture and housing. The origin of many rivers in Kerala starts from these portions of the Western Ghats. Buildings, roads, agriculture and construction activities obstruct the natural flow of rainwater.

The total length of roads in Kerala is about 3,31,904 kilometres. Its total area is around 1,65,952 hectares if we arbitrarily assume the average width of a road to be five metres.

Similarly, the total number of households in Kerala is 7.8 million. If we presume the average area of a house is around five cents, it covers an area of about 157,827 ha of concrete buildings, all of which are permanent blockages. This prevents the infiltration rate of rainwater from reaching the ground.

The myth that plantation crops in Kerala's Western Ghats are affected by landslides may be widespread, but extreme rainfall in an area can lead to landslides when the water saturation capacity of soils exceeds. It is highly likely to trigger landslides even in forested areas.

Landslides are triggered by the slope of an area, rainfall intensity, soil saturation capacity, soil depth and geological structure of a location. Plantation agriculture doesn't disturb soils.

This reduces the risk of a landslide. Science-based practices are crucial to minimise natural disasters. Plantation agriculture such as the rubber sector has issued advisories for rubber plantations grown in landslide-prone areas.

Quarrying, mining and large-scale construction activities, which affect the ecological stability of the landscape, could be the major factors causing these landslides. There are an estimated 5,924 quarries in Kerala.

The low-lying areas in the western part of Kerala are prone to flash floods. If the construction is done in areas with drainages, the natural flow of water can be obstructed. It is then highly likely that water will flow into areas where it can flow.

It can sometimes be through cities or even places where houses are located. Floods at Kochi International Airport in 2018 were an example of this. The airport is located in a low-lying area close to the watersheds / rivers, which is prone to flash floods. It is, therefore, vital to prepare flood risk zones at the micro level to identify, locate and manage the regions most vulnerable to floods.

While Kerala receives an annual average rainfall of 3,000 mm, the possibility of drought also looms large. The state, for example, experienced drought in 2017. The southern parts of the state (Kollam), central Kerala (Palakkad) and North Kerala (Kannur and Kasaragod districts) generally experience summer droughts (February to May).

Although geography and soil characteristics play an important role in drought, the major amount of rainfall received in Kerala falls into the sea in a short time because of the state's sloping terrain.

If more rainwater is infiltrated into the soil, it will enhance the amount of groundwater recharge. Rainwater harvesting and protection of watersheds can help alleviate drought to some extent.

It is essential to regulate climate disasters and create awareness in a densely populated state like Kerala. An integrated approach is needed to manage climate change impacts. DTE

Views expressed are personal

While Kerala receives an annual average rainfall of 3,000 mm, the possibility of drought also looms large