



WHY THIS 'CAUVERY CALLING'

November 23, 2019

'No transparency, changing goals'

PANEL QUESTIONS CAUVERY CALLING

ABHINAV CHAKRABORTY
& ASHREYA PATIAL

Describing the proposal in the Cauvery Calling project as scientifically unsound and lacking in discussion with stakeholders, former director of the Kerala Forest Research Institute P.N. Easa said a strategy should be based on consultation.

"Any fundraising proposal is usually subjected to questions and peer reviews but there is nothing like that here. It has to be scrutinised properly as people are giving money just because of Sadhguru," he added, referring to Jaggi Vasudev, who heads the Isha Foundation driving the Cauvery Calling campaign.

Part of a panel discussing the way forward at a seminar on "Interrogating Cauvery Calling: Issues, Cultures and Livelihoods", Easa called the campaign mere tree plantation and not 'agroforestry'.

N. Ram, veteran journalist and chairman of The Hindu Group of Publications, said Cauvery Calling was not an ecological project but an economic project with ecological consequences.

"Sadhguru made it clear that trees would be planted on farmland. They keep changing the goalspost," he said in reference to an interview between Sadhguru and Ibrahim Thiaw, executive secretary



From left, Leo Saldanha, N Ram, P S Easa, Dhanya Rajendran, Viju B and Bhargavi S Rao discussing the 'Ways Forward' at the seminar: Interrogating Cauvery Calling PHOTO: ASHREYA PATIAL

of the United Nations Convention to Combat Desertification.

"There is no transparency, no verifiable documents and no transparent management here," he added, expressing concern at collection of funds so far of the targeted Rs 11,000 crore.

Quoting Herodotus on Egypt being a "gift of the Nile", Ram called the many achievements of South India the "gift of the Cauvery".

He questioned the right and jurisdiction of the Isha Foundation to

transgress and go ahead with Cauvery Calling, and said the government being so subservient was the most troubling aspect.

Dhanya Rajendran, editor of The News Minute, pointed out the mainstream media were generally encouraging of Sadhguru.

"Sadhguru has gamed the system correctly. Media moguls have reverence for him and are under obligation to show him in a good light," she said.

Referring to the conclusions in Interrogating Cauvery Calling, Ra-

jendran added that new ways were needed to engage the audience in order to put one's message through.

Viju B., journalist with The Times of India in Kochi, stressed how 'monocrop cultivation' along the Cauvery basin was not desirable as every tributary of the river had a different micro habitat.

Talking about the Cauvery basin as a part of the Western Ghats, he added that any conservation efforts in the region must also include reclaiming the tributaries.

Environmentalist Bhargavi Rao

said that collective participation was required.

"All committees on forests and biodiversity must be made functional and people must be aware of its provisions and how they work," she said.

Leo Saldanha, coordinator of the Environmental Support Group, said that livelihood needed to be looked at not in terms of just farmer livelihood but basin livelihood as a whole. "Agro-ecological systems need to be promoted and not agro-forestry," he said.

Interrogating 'Cauvery Calling':

Issues of Ecologies,
Cultures and Livelihoods

Organised by Asian College of Journalism in association with Coalition for Environmental Justice in India; Environment Support Group (Bangalore); Citizen consumer and Civic Action Group (Chennai); Poovalagin Nanbargal (Chennai); Peoples Watch (Madurai); South Asian Network for Dams, Rivers and People; Centre for Financial Accountability (New Delhi), Chennai Youth Action on Climate Change; Fridays for the Future (Chennai) and Extinction Rebellion (Chennai)

Can planting trees solve river distress?

ANJALY RAJ & ABHINAV CHAKRABORTY

Conversations like Interrogating Cauvery Calling must cover all river basins across India and not just the Cauvery, Environment Support Group coordinator Leo Saldanha said on Saturday.

"For us, this is a celebration of democracy. Democracy is not a space for didacticism," he said.

Saldanha was setting the context for the seminar "Interrogating Cauvery Calling: Issues of Ecologies, Cultures and Livelihoods" held at the Asian College of Journalism at Taramani.

Organised by the Coalition for Environmental Justice in India, an umbrella organization that included ESG, the day-long seminar sought to explore different issues relating to the Cauvery Calling campaign.

Citing Cauvery Calling as an outcome of Rally for Rivers which promoted interlinking of rivers across the country, Saldanha said it was necessary to see whether such interlinking was actually feasible.

"It is one thing to think of it as a massive technocratic dream and an altogether different thing to take it at an impact level," he said.

The ESG coordinator questioned how agro-forestry was being pitched as the only way to rehabilitate the river.

"Can we have a solution to our rivers' problems by planting trees on a third of a river basin?" he asked.

Saldanha said it was important to understand the long term implications of Cauvery Calling on an ecological, social, economic and cultural level.

While welcoming the fact that someone as influential as 'Sadhguru' Jaggi Vasudev had promoted it in a dramatic way by riding a motorbike from Tala Cauvery to Chennai, he said that such attention to a river in distress must empower everyone.

"The river must be protected in a way that no one's fundamental rights are affected," he said.

Saldanha also raised concerns on whether they could turn back and correct things if something went wrong.

According to him, while it was important that private individuals, corporates and governments come together and pitch solutions in a democratic space like India, there was a method to aggregate various responses to a crisis that would capture all nuances and impact.

Saldanha also stressed how paddy cultivation was part of the cultural ethos of the Cauvery basin and a lot of songs and folklore had emerged out of it. He recalled his childhood spent in the Kodagu district of Karnataka, where his grandparents taught him to take care of a river.

"It begins by taking care of the stream, by not contaminating it. Yet, the first thing we do when we go for a shower is dump a lot of detergents in it. Millions of us do it and it ends up frothing the river," he said.

There must be a limit to our actions and it is also about internalising these kinds of personal choices we make, he added.

Earlier, Sashi Kumar, chairman of the Media Development Foundation which administers the Asian College of Journalism, said that the idea of the seminar was not to call out, debunk or rubbish the Cauvery Calling campaign.

He added that while it was a significant campaign that had gained traction in the media, domain experts such as hydrologists, economists and ecologists have looked at it and raised questions. Given the cultural significance of the Cauvery in Karnataka and Tamil Nadu, it was necessary to interrogate the human risk of this campaign as well.

Kumar quoted a recent conversation where Sadhguru mentioned the importance of Cauvery Calling to Ibrahim Thiaw, executive secretary of the United Nations Convention to Combat Desertification. He said it was paradoxical that Sadhguru had called it not just an ecological but an economic requirement as well.

Kumar also mentioned that Sadhguru and Isha Foundation's Cauvery Calling team were invited to participate in the seminar and present their point of view but they had cited prior commitments.

Agroforestry at what cost?

ANMOL ARORA & AATREYEE DHAR

A step-by-step initiative should be taken instead of a big scheme like Isha Foundation's agroforestry project as it cannot drastically change the system, said Dr. Shrinivas Badiger, Fellow at the Centre for Environment and Development.

One remedy was to opt for less water intensive crops, he said, during a panel discussion on 'Is Agroforestry sufficient to save the Cauvery?'

M. Siva, a farmer and an environmental activist, said that he would not accept these agroforestry plans as only natural growth should be allowed along the river basin.

Isha Foundation's plan did not include local trees, Siva said. He argued that clearing naturally-growing grass and shrubs to plant trees would take away the grazing land from animals.

He also emphasized the fact that most people had small and mid-sized farms and planting trees would restrict farming. So, they would be forced to cut them down.

Contrasting between the 60 percent of landless farmers along the Cauvery in Tamil Nadu and coffee cultivators in the upper catchment areas of Karnataka, Badiger said that the impact of agroforestry won't be the same on everyone.

Talking about the tank systems which were essential for agricultural communities living in peninsular India, he illustrated his experiences in Mysore where planting trees in the catchment areas reduced water level in the tanks.

Dr P.S. Easa, former director of Kerala Forest Research Institute and the Chair of the panel, said that introducing diversity into agroforestry by planting shrubs and grass would serve the needs of the local community. In contrast Isha Foundation's initiative laid emphasis on planting timber trees.

For any agroforestry project, it was important to have a conversation with the beneficiaries and action plans should be prepared after due consultation. It would include knowing people's choice of trees, why they choose them, and procedures for measuring success, said Easa.

If Cauvery Calling failed to monitor the progress of its initiative, it would be nothing more than a social forest programme undertaken by any NGO, he added.

About the Cauvery basin and use of river water, Siva said that most of it is used by the upper basin for intensive agriculture and industries. Therefore, the cost of such development needs to be taken into account too.

Siva took the example of plantation of teak trees when the railways needed teak wood, to explain how industry impacts the forests and the kind of trees that are planted.

Siva urged the public and organisations not to invest money in such projects that exploit local communities. Those who talk about agroforestry should not do the same, he said.

Their plan is to convert one third of the farmland in Cauvery Basin into agroforestry to revitalise the agriculture along with the river itself. To that end, their aim is to "support farmers to plant 242 crore trees".

'Inadequate understanding of river systems, dynamics'

SAMEER KULKARNI &
RITUPARNA PALIT

The Isha Foundation's exclusive focus on riverside afforestation displays an inadequate understanding of river systems and their dynamics, said Dr. Mihir Shah, in his keynote address at seminar: 'Interrogating 'Cauvery Calling': Issues of Ecologies, Cultures and Livelihoods.

The former member to erstwhile Planning Commission welcomed Jaggi Vasudev's initiative to promise a green cover across the banks of the Cauvery, but questioned its economic viability for farmers.

"Instead of understanding farmers' practices in the first place, the project is coercing the farmers into joining them," he said.

"Addressing these concerns is important to make constructive suggestions that would help a large campaign to reorient itself in a direction in which it has chance of success," said Shah.

Countering the Isha Foundation's "supply-side focus" on the Cauvery crisis, Shah argued that not afforestation, but valuing a river's catchments would be the best possible way to save a dying river.

"We cannot, by just planting trees near the river, overcome the extremely negative impacts of the so-called development activities that we are doing in the upper parts of the catchment."

Citing New York's farmers' efforts to ensure a healthy ecosystem for the city by maintaining a healthy and green river basin, Shah said "A lot of countries like China, Brazil and Mexico are learning

from these examples, and we should do too."

Referring to the man-made crisis of groundwater, Shah said that the most important factor for drying up of rivers was the competitive extraction of groundwater that had led to a decline in water tables. Rivers have now ended up losing their volume to the over-extraction.

Applying these insights to the Cauvery basin, Shah said that the crystalline nature of 80 per cent of the Cauvery's aquifers, the underground water reserves, made it difficult to recharge the ground water once extracted.

Talking about the diversity of the Cauvery basin he said, "You can't have a one-size-fits-all solution, that is a mistake water policy has made, that is the mistake Cauvery Calling is making. We are just finding the single solution, for an extremely complex, completely diverse set of situations."

In the high land areas, the spring-scapes were the sources of water, and they had been destroyed. The primary sources of water had been deeply compromised, he added.

Talking about the need to address the demand side of water, he said a participatory reduction in both groundwater and irrigation water use was needed to tackle "democratization of water", which could not be achieved through policing. Out of the 45 million ground water structures in India, millions of them lie in the Cauvery basin.

"You cannot say stop using the ground water... you cannot go and force people to make the change happen," he said.

About 80-90 percent of the Cau-

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L to R: Dr. Jagdish Krishnaswamy, Viju B. and Suprabha Seshan. "The river is older than we are. Surely, it knows how to flow," said Seshan. PHOTO: RAHUL MANOJ

'Cauvery can revive itself' when the abuse stops

MAHIMA MANIAR & TANISHKA SODHI

Restoration of the Cauvery river needs local participation and not a 'one solution fits all strategy,' according to environmental experts Dr. Jagdish Krishnaswamy and Suprabha Seshan.

The two speakers spoke about the hydrological and ecosystem dynamics of the Cauvery river. The discussion was moderated by B Viju, journalist.

The Cauvery basin straddles several biomes one aspect of which is restoration of the ecology and the other being its water used for vegetation, said Dr. Jagdish Krishnaswamy, a senior fellow at Ashoka Trust for Research in Ecology and the Environment.

A coordinating lead author of the Special IPCC report on climate change, he emphasized the need to sustain the trees in the riparian forests. A recent study by an IIT Bombay group proved that evapo-transpiration (the sum of evaporation and plant transpiration) from the Western Ghats sustains the monsoon rainfall in parts of Tamil Nadu, leading to a large scale transfer of evapotranspiration at a regional scale from a forested catchment to other parts of the basin. This was one instance where forest helped in maintaining the monsoon.

Krishnaswamy pointed out that if the trees grew in areas where the river itself had lost its flow, it would lead to a reverse problem of the trees intercepting the water that would have reached the river.

With the depletion of the

groundwater and the disappearance of the flows that would have sustained the river in the dry season, there would be no moisture to maintain the dry tree plantations in the sub-arid biomes of the Cauvery, Krishnaswamy explained.

"For each biome, we need a different strategy," he said, adding that sediment was an integral part of maintaining the ecology of the Cauvery.

According to Krishnaswamy, the Cauvery delta is threatened because of the reduced flow that has led to a decrease in sediment discharge.

"Ecological flows is not about maintaining minimum flow in the dry season from head waters to the delta, but also about having sufficient flood pulses in the wet season that can move the sediment along," he said. "Sediment management and regulation of sand mining will have to be a part of restoration."

Referring to Cauvery Calling campaign, Krishnaswamy said, "They did not want to challenge the political economy of the dams. However, reviving a river from the headwater to the delta is a complex process with climate change adding to that."

"We need an army of ecological entrepreneurs who can use local knowledge as well as scientific insights from experiments and observations to learn and start reviving river," he concluded.

Environmentalist Suprabha Seshan, who works at the Gurukula Botanical Sanctuary in Wayanad, spoke about the need for the 'one solution fits all' culture to end.

She questioned urban culture, as-

king when it would wake up to the fact that it has to grow its own food and not rely on the farmers it has been preying on for hundreds of years.

"Roots of the problem are extractive culture and industrial civilization piping into the bodies of the natural world," said Seshan. She explained how vegetation was different in every valley, and therefore the revival methods needed to be different too.

According to Seshan, anything that spoke of a large scale solution across tens of thousands of kilometers was cause for suspect.

Seshan believed that humans needed to be resilient in order to overcome climate change, and that solutions needed to be found locally, keeping in mind the link between the urban, natural, indigenous life, and the earth.

She emphasized the need to understand things that were local, and listen to 'the revival, regeneration, possibilities inherent in the world.'

"I would like to make a case for the removal of damaging practices and watch how the river returns. You don't have to do much," she said.

The Cauvery would come back once the depletion, blocking and toxification of the river stops.

"The river is older than we are. Surely, it knows how to flow," she said.

Seshan, who is part of a group that looks after a river spring in Wayanad, said that she had been witnessing the river quality improve after removing toxicants polluting the stream.

VIDEO MESSAGES

'Reclaim our rivers as our mothers'

SAMEER KULKARNI

Commercial tree plantations lead to destruction of farmlands, said prominent environmentalist Vandana Shiva.

In a video message, Vandana Shiva emphasized that farm trees, instead of commercial forests, should be planted.

"In Indian agriculture and agro-ecology, farm trees and agro-forestry [have] always been a steady source of ecological security when farming in fragile areas,"

The history of commercial plantation in India goes back to the British Raj when they adopted 'Scientific Forestry' where forest is a timber mine. Revenue, timber and raw material were extracted from these forests.

Shiva's ecological evolution began with the Chipko movement in 1970s when the women of Garhwal region in Himalaya came out in protest and said forests were not timber mines but sources of water and pure air, the sources of stabilizing the very "fragile Himalaya."

The problem of commercial plantations re-emerged in 1980 when Shiva was at the Indian Institute of Management.

Bengaluru, and the entire floodplains and the Cauvery and its catchments were being taken over by eucalyptus monocultures. A study was conducted.

"The villagers were talking about how eucalyptus plantations on farms were destroying crops, food security, water security, wells were going dry and tanks were going dry," she said. Later, the threat to ecology surfaced once again when the World Bank intervened with its project.

Shiva said they came in with huge money, they had destroyed the forests and now they wanted raw material from the farmlands for the pulp industry. They called it 'Social Forestry.'

A global movement was created and forced timber mining on the farms, which maintain food security.

Shiva also pointed out the importance of planting farm trees, like the neem, whose be-

nefits are beyond just commercial usage. "The neem, was, for me the solution and an alternative to tragedies like Bhopal [Gas Tragedy]. I started a movement 'No More Bhopal, Plant a Neem.'"

"We do not need pesticides that killed 7,000 people in one night and 200,000 [people] across the world every year. Neem is called the village pharmacy. It is not violent [but] it does control pest," she said.

Insisting on putting an end to the commercial tree plantation she said "Today, the issue of trees, the environment and our water is quite clearly the big issue concerning us."

"But it would be wrong to continue the timber-mine logic of the British Colonialism, of the World Bank's Social Forestry and now, call it Cauvery Calling."

"We have no dearth of biodiversity on this land, and we have no dearth of the economy beyond market, beyond commerce, beyond commoditization and it is time now, to reclaim our rivers as our living mothers," she added.

'Knowledge-driven plan needed'

ANJALY RAJ

Using the river system for all purposes, such as for drinking water, industrial and infrastructural development, mining and hydro power development, is legitimate, said Dr R Nagendran, former expert member of National Green Tribunal.

Nagendran said when this extraction went beyond a threshold and it reached a greedy level of exploitation instead of extraction,

it becomes a problem.

Nagendran said that enormous amounts of industrial pollutants were entering the Cauvery system at different places, both in Karnataka and Tamil Nadu and in some parts of Kerala as well.

The former NGT expert said he did not believe in Cauvery Calling.

Mere planting of trees without any scientific support and data would not help, said Nagendran in a video message.

"If this works, then all other departments in the government can be conveniently closed and they can keep planting trees."

Nagendran said all stakeholders should come together, consider scientifically analyzed data and, then, design a plan driven by knowledge to restore the Cauvery to its original glory.

According to Nagendran, a state-wise and inter-statewide compendium should be made on the critical parameters that would

decide the ecological integrity of the system.

"We must sit at a common table and prepare an executable, extractive development atlas, deciding in which stretch of the Cauvery, what kind of activities and development should take place and what should be extraction?"

"With this atlas and compendium, and the policies developed by the government, we should make the road map for extraction."

'Humans cannot change ecosystem'

SAYANTAN GUHA & RITUPARNA PALIT

Humans, whether an engineer, a social activist; an environmentalist; a writer; an editor or the Prime Minister of India, are inexperienced to the take up the task of altering the ecosystems with all the biodiversity that exist within them, said environmentalist Bittu Sahgal.

"We are looking to protect the biosphere, but it is not just because of the value of biosphere, it's because of the Cauvery, the Godavari, the Ganga, the Brahmaputra and the Narmada River," said Sahgal.

Pointing out the problem in hand, the editor of Sanctuary Asia said, "India has reached a stage where there is no water left. If the politicians want vote, they will have to steal water from the industrialists and if they want money, they will have to steal from farmers."

Sahgal added that the trouble we are in today is not because of external enemy but because we humans have not learnt to work together.

Classifying all the rivers into three types, he said that we have the ones that we can see (like the Cauvery and the Ganga); the underground rivers (aquifers); the ri-

vers in the sky (that we call monsoon).

Sahgal highlighted that all rivers were moderated and controlled by the wild ecosystems that existed way before the Homo Sapiens arrived, and that, for some reason we were given the power to alter the ecosystems.

Providing a way out for the crisis, he said, "The solution lies in the catchment of 3000 dams that have been built. If 15-30 million people are put to work to restore the river catchments, using natural regeneration as a primary tool, we would have solved some major problems in the next 5 years."

"We could reach out to the sec-

tion which is at the bottom rung — the ecosystem people, the work that they could do is simple — soil moisture conservation work, basically allowing nature to come back by holding the water to [a state] where it was—it would fill the aquifers," Sahgal said.

The coming back of catchments to life would increase the in-season water flow, farm production, and jobs.

"What it predominantly does is, pave a path towards solving the greater problem of climate change. It will also create millions of jobs, control floods and droughts and repair catchment areas," added Sahgal.

'Planting trees on river banks can cause floods'

MEGHNA M & RAHUL M

The temptation to make Green Revolution the villain of the piece should be resisted, said Venkatesh Athreya, economist before commencing the panel discussion on Securing Food and Livelihood in the Cauvery Basin here.

Crediting the increase in the rice production and the per capita income in the last 30 years, Athreya said that the Green Revolution and other measures taken by the government helped facilitate this.

The panel consisting of S. Ranganathan, General Secretary of the Tamil Nadu Cauvery Delta Farmers Welfare Association and Dr. S. Janakarajan, President of the South

Asia Consortium for Interdisciplinary Water Resources Studies, Hyderabad and chaired by Venkatesh Athreya discussed the various issues that the river Cauvery was facing.

Ranganathan highlighting the dispute over the Cauvery between Tamil Nadu and Karnataka said "Cauvery is a deficit river. It cannot satisfy both the states."

The various cyclones and floods that hit the state in the past had resulted in over 60-70 mct of water being wasted in the sea.

He appealed to the government to be more careful with the usage of water as the livelihood of millions of farmers in the Cauvery Delta depended on it with over 38

per cent of farmers being landless.

However, he spoke about the system of double cropping that Tamil Nadu had perfected where Samba and Kuruvai summer crops were grown.

But unfortunately in the recent years there had been another summer crop that the farmers were now growing which used a lot of groundwater.

This had resulted in the depletion of the river and groundwater. Ranganathan reiterated that groundwater must be saved and should be used exclusively for drinking.

Referring to the hydrocarbon project in the Cauvery delta, Ranganathan said "Our Prime Minister

is obsessed with development whatever form it is but I am worried it is at the cost of agriculture for hydrocarbon."

"Hydrocarbon can sustain us for the next 30 years but saving the delta for agriculture will ensure permanent food security."

Athreya elaborating on food security explained that it depended on three factors; availability, accessibility and absorption of food. But these were in peril because of lack of state support.

Discussing the main theme of the seminar, 'Cauvery Calling', Janakarajan said, "Mr. Jaggi should really have done a lot of research before getting into planting trees on the river banks and tributaries. He

should have researched about the health condition of the river."

In Tamil Nadu there are five major tributaries of the river and all of them are polluted. Around the Noyyal River, there 700-800 dyeing/bleaching industries that dump their.

The Orathuppalayam Dam that was constructed over the Noyyal river had not been opened up for irrigation even once since 1992 because it has nothing but polluted waste.

In a report released by the Tamil Nadu Pollution Control Board in 2016, around the main river there are 9900 small industries which dumped all their waste into the river.

All the small towns and villages around the river used this water for their daily needs causing illness for them.

All this pollution that the river collected was then unloaded into the delta and later, the sea.

Even in the summer the river ran black because of all the pollution load.

"The 950 reservoirs that the river supplies water to now looks like playgrounds and the Mettur Dam which boasts of 93.7 TMC ft of water has lost 40 per cent of its storage space because of silt," he said.

Proposing solutions, Janakarajan said that the government could desilt and take all the sand deposit for construction of houses and indus-

tries which would then free up storage space at the dam too.

Replying to a question asked by an audience member on decentralising Agrarian policy to solve the crisis, he said that a neo-liberal policy would help facilitate in the flexibility of Public Distribution System to give rations that were only essential to their particular states.

N.Ram, Chairman, The Hindu Publishing Group asked if the farmers would give up their land for the tree planting.

Jankaraman vehemently said, "There is no point of trees on the banks as the trees would only cause more flooding on the plains and not help in reviving the river."

'Ban on extractive development only way out'

NEIL CORNELIUS & SRISHTI LAKHOTIA

If hydraulic fracturing is allowed at the Cauvery Delta, there would be no Nagapattinam in 25 years, said G Sundarajan from Poovulagin Nanbargal, a Tamil Nadu-based voluntary environment group said, that

Speaking on whether Extractive Development is Affecting Cauvery at the Seminar on Cauvery Calling held at the Asian College of Journalism, Sundarajan also said that the contamination of groundwater by crude oil had led to the loss of 4800 acres of land in the delta. This in turn had reduced the amount of

produce obtained from these areas which had led to an increase in farmer suicides in Tamil Nadu.

The panel consisted of Sundarajan and conservationist Piyush Manush and was chaired by environmentalist Bhargavi. S. Rao.

Manush spoke about the extensive mining conducted by multi national corporations in the delta area and referred to Dalmia's Magnesite mining, Vedanta group's bauxite mining and the mining of 6000 acres in Kanjamalai by Jindal Steel Works.

He said that the mining lobby was getting stronger and that newer strategies needed to be employed in order to pre-

vent them from exploiting the delta.

Sundarajan said that there was a deposit of 1960 million tonnes of crude oil and natural gas in the Cauvery Delta area.

He said that the Methane Hydro Carbon Project in Tamil Nadu had given the open mining permission for industries to exploit the delta and could lead to the delta sinking.

"If we are not going to talk about the extractive industries in the Cauvery Delta, the Cauvery will never see its glory again," he said.

Manush said that 'Sadhguru' Jaggi Vasudev was "supporting toxic industrialization and talking about Cauvery Calling at the same time."

The Sterlite and the eight-way lane project had destroyed over 10,000 acres of forest land.

Talking of Sadhguru's Project Green Hands, he called alleged that the 64 lakh trees promised to be planted under the project were not planted according to the information in an RTI he filed.

"Planting trees is different from selling saplings," he said.

Manush further alleged that the Sadhguru talked of a "chemical-free" delta while his Rally for Rivers was sponsored by the Oil and Natural Gas Corporation.

Manush said that the amount proposed to be raised for planting trees along the Cauvery was disproportionate what he

(Manush) spent on a project for reviving a 250 acre patch of forest land which raised the groundwater levels by 10 feet in Dharmapuri, one of the driest regions of Tamil Nadu.

Manush also spoke about his efforts in the restoration of 2 lakes in Salem which increased the city's water table by 60 per cent at a total cost of just Rs. 2 crores.

Manush said that the Sadhguru said on October 12, in the presence of Tamil Nadu Chief Minister Edappadi Palaniswamy that he would get Karnataka Chief Minister, B S Yeddyurappa to sign the subsidies for the farmers in the delta regions by Oct 18.

This had not been announced by any

State Government and has not happened till date.

Ms. Bhargavi. S. Rao said that recreation has become an industry by itself and that tourism is destroying the banks

In response to this Sundarajan said, "To save western Ghats and the Cauvery Delta, you need to ban any kind of extractive activities."

Sundarajan was specifically referring to the tourism industry and tea estates.

Sundarajan said that 50 per cent of Tamil Nadu's sand came from the Cauvery river and 35 per cent of the total sand from the Cauvery came solely from the Amaravathi, which was a tributary of Cauvery.

'Oversimplified solution to complex problem'

ARCHITA RAGHU &
GOKUL G K

The Cauvery Calling project is an oversimplified solution to a complex problem, said Chennai-based social activist Nityanand Jayaraman.

Speaking at a panel discussion titled 'Political and Governance Issues Relating to Cauvery', Jayaraman laid out the reasons why anyone should not engage with Isha Foundation's initiative of planting 242 crore trees on the banks of the Cauvery.

Calling the initiative a "false solution," Jayaraman said that the math and science of it did not add up. He questioned the feasibility of planting 400 trees in every acre of the driest plains of Tamil Nadu. Cauvery Calling lacked verifiability and accountability, as the board members remained unknown and allocation of funds was unclear, he said.

The foundation had violated the Water and Air (prevention and con-

trol of pollution) Act, he said, adding that this could happen only in countries with "perversions of democracy."

The best thing to do, as the tribals in the area say, was to leave the Cauvery untouched, Jayaraman said.

Another member of the panel, Jayaram Venkatesan, said that Jaggi Vasudev's project suited governments as they didn't question issues like sand-mining.

Venkatesan, founder of the NGO Arrapur Iyakkam, said that sand mining companies encroached on river banks and remained unanswerable to the law.

Water levels went down tremendously due to sand mining and many villages in the area went without water supply, leaving farmers in a lurch.

"Farmers who have been working for 25 to 30 years can't even pay back a debt of 50,000 rupees," he said, addressing the farmer suicides in Tamil Nadu in 2017.

"Three FIRs have been filed

against me just because I questioned an encroachment," he said.

Venkatesan advised media houses to cover stories like these instead of being on the lookout for positive ones.

There was a need to ask the tough questions, gather a large number of citizens and engage with the current development paradigm, according to Venkatesan.

"We need to question the government. If you don't earn the name of an anti-national then something is wrong with you," he said.

The third panelist Henri Tiphagne—executive director of the People's Watch—said that people needed to form movements to counter Cauvery Calling.

The freedom to dissent, the freedom of expression and issues of human rights had been repressed, he argued.

Tiphagne stressed the need to counter this initiative as these organizations had pushed religion into all layers of life.



A section of the audience at the seminar: Interrogating Cauvery Calling

PHOTO: GOKUL G K

'Vaigai plan can be replicated'

PA ANEESA

Local movements like the Vaigai Restoration project has to happen across the country to save the Cauvery and other rivers, said Mr. M Siva, an Environmental Activist based in Chennai.

"Bringing about a larger movement is a challenge; the State has to take the initiative for that," he added while speaking to the reporters after his session in Interrogating Cauvery conducted in the Asian College of Journalism.

Siva claimed that the restoration of the Vaigai river happened because the Tamil Nadu Government passed a Pasana Sabha Sattam in 2008.

Small groups called irrigation sabhas were created as per this act which managed the restoration and management of the Vaigai river, he said and added that an initiative like

that might help the Cauvery.

But he said that the Indian Rivers Interlink project, which was a Central Government initiative to link the Godavari to the Cauvery, would not work.

"Interlinking is based on the notion that if you connect the Himalayan Rivers with the Cauvery it may prevent it from drying up. But it will not work in the Cauvery since the rivers have different origins and flowing patterns," he said.

"The government has to recognize that rivers are also a cultural entity," he added.

The river interlinking project is a civil engineering project which aims to connect Himalayan Rivers to Peninsular Rivers to combat the water scarcity in South India.

Viju. B, one of the panelists and the author of the book 'Flood and Fury' said that the river interlinking project would be disastrous. Every river had its unique trajectory and

properties, he said.

"We need to learn a lot from the tribal community," said Viju.B who is also the Metro Editor of the Kochi edition of The Times of India.

He added that eco-restoration and organic farming naturally done by tribal communities was a method to save Cauvery.

"The conservation of Western Ghats should be the priority in saving the Cauvery as it is the catchment area," he said.

Dr. Mihir Shah, a former member of the Planning Commission said that he is not against the Cauvery Calling campaign if it included all powerless voices along the Cauvery basin.

Suprabha Seshan, who works at the Gurukula Botanical Sanctuary in Kerala, said that the reason for the present situation was Industrial culture. She pointed out the need to go back to nature to conserve the rivers.

vers.

Amal Raj, a participant who runs a communication consultancy in Chennai and a retired Professor said that the seminar 'Interrogating Cauvery' was relevant and timely. He added that a mission like restoring the Cauvery could not be done by a popular gesture.

"Cauvery Calling is a gimmick," he added.

George Heston, another participant of the event and a Development Consultant based in Chennai said that the organizers behind Cauvery Calling campaign were not talking to locals there about their need and opinion.

He added that the villages along the Cauvery basin could restore the basin and conserve the water while using it.

"Are they conducting the campaign because Bangalore doesn't have water or the Cauvery doesn't have?" he asked.



Moderator Dhanya Rajendran in conversation with panelists Nityanand Jayaraman, Jayaram Venkatesan and Henry Tiphagne.

PHOTO: ASHREYA PATIL

'Govt must tighten grip on private groups'

SRINJOY SANYAL

Conservationist Piyush Manush said he still believed in the lower judiciary in coming to his aid in his struggle to revive water bodies.

Known for revival of the Ammapettai Lake and the Kundukkal Lake and also opposing commercial mining and encroachment across districts of Salem and Dharmapuri, Manush felt his being charged with non-bailable sections in 2016 for protesting against the construction of the Muluvadi Gate over-bridge in Salem was absolute injustice.

Manush, who created the Salem Citizen's Forum in 2010, criticised the private environment support groups for taking money without working towards the cause.

The government, he felt, charged a lot more than the statutory amount. He cited the example of the Chetpet Lake for which the Department of Fisheries of the Tamil Nadu government claimed to have spent Rs. 40 crore for the 16-acre plot. Manush said he could have done the same job for less.

Mrs. Bhargavi S Rao, an environmentalist by profession, said there was a growing need to tighten

the licenses and policies already sanctioned by the government to protect the water bodies across the country.

She said the Modi government needed to tighten its grip on the private support groups which seeking donations for planting trees.

Vignesh (26), who was sitting in the crowd, fears that the revival of the Cauvery might as well become a political issue.

A student of the Madras University, he was worried about the fact that the Cauvery had no longer been the same in his hometown of Thanjavur.

Speaking about the dispute between Karnataka and Tamil Nadu, Vignesh was really happy with the formation of the Cauvery Water Regulation Committee now that Tamil Nadu would receive 177 tmcft of water for the next 15 years.

About the ongoing panel discussion, he was really impressed with the choice of panelists. More so, that people from various professions had gathered to address this issue.

Rohit, a student of Azim Premji University in Bangalore, however, feared capitalism was the root cause of the damage to all the water

bodies in the country. As the term suggested, Rohit felt it was the greed of the various private groups which was causing harm to the flora and fauna in the country.

V.R. Devika, a Gandhi scholar, said the Cauvery river was still young and bustling as it was when she used to play on the banks of the river as a child.

The founder of the Aseema Trust, Devika refrained from speaking about the political angle.

She said the issues were both emotional and scientific which needed to be curbed using multi-layered efforts.

'A multi-millenia cradle of fine arts'

ABHIMANYU HAZARIKA
& MAHERA DUTTA

Mass efforts at agro-forestry are not scientifically conducive along the Cauvery. This was among the major takeaways from the panel on 'Cultural History and its importance to the conservation of the Cauvery Basin'.

The panel discussion was part of the seminar analyzing the ecological aspects of the Cauvery Calling movement spearheaded by the Isha foundation.

Chaired by Ms. V.R Devika, a Gandhi scholar and founder of the Aseema Trust, the panelists for the session were renowned author and professor, Mr. Thanga Jayaraman, and cultural historian Dr. Rama Kausalya.

These experts of cultural history were speaking on the occasion of "Interrogating Cauvery Calling", a seminar held at the Asian College of Journalism on Saturday.

"Only a fertile land can inspire a generation of dancers and singers. She is our mother," said Dr. Rama Kausalya, on the discussion on one of India's major rivers.

Given the importance the cultural community attached to the river and its delta area, Dr. Kausalya stressed the fact that preserving the same ought not to be politicized by anyone.

This includes, she added, the liberal patrons who support the performing artists.

The panelists emphasized the deep rooted association of the river



Ms Devika, moderator, answers a question from the audience as the panelists, Prof. Jayaraman (right) and Dr Kausalya (left) look on.

PHOTO: ABHIMANYU HAZARIKA

with culture and heritage, which dates back thousands of years. The historian went on to point towards the dwindling agricultural land around the river.

"There is no water in the river. How will we sing our compositions to an empty river?" said Kausalya. She broke into a song about the river.

The Tamil song described the flow of the river while giving in depth description of the scenic

beauty of the Cauvery.

The discussion also touched on the role of festivals celebrated with fervor by people along the river banks.

Ms. Devika said that particularly along the basin, cultural celebrations are very much a part of life.

Thanga Jayaraman stressed the need to recognize the history of the Cauvery Delta.

"The river adjusts its own course. Concrete structures inhibit

its dynamic flow", he said.

He urged activists to "ecologically determine" the course of Cauvery, emphasizing it would help shift the narratives to beyond just the language aspect which it is currently centered on.

Ecological determinism involves the study of societies and states being geared towards predisposed developmental models due to their physical environment.

He wished that the eastern delta

VIDEO MESSAGE

'Livelihood given short shrift'

SAMEER KULKARNI



Medha Patkar

Communities in the Cauvery basin have the first right to primacy not only over resources but also in decision-making on harnessing and revival of ecosystem-based resource metrics, social activist Medha Patkar said in a video message.

Questioning the support of regional communities for the Sadhguru-headed Isha Foundation's 'Cauvery Calling,' she said people who have been taking care of the region are told to shift to agro-business for its project. But is the foundation working with the people? Has it looked into biodiversity that has existed over generations? Has it looked at the various ecologically sustainable practices that the people are used to and like to continue with? If not, then the foundation's exercise is going to be a failure.

Ms. Patkar claimed that Sadhguru's people do not understand that the basin should be protected, first by saving the small tributaries and minor rivulets. In the Cauvery, and in the Narmada, many of them have already died.

"No doubt, the tree cover is a must. There was a tree cover in Narmada valley and it was destroyed; the same foundation took up the Narmada Calling but yet, nothing was done to prevent the destruction," she added.

Ms. Patkar warned about disruption of the social systems, from families to communities, once business is made the priority.

"The people who survive on the land, water, including the groundwater, would like to have micro level alternatives which can be acceptable and manageable by the communities, not by the corporates."

Pointing out the lack of a field expert in the foundation, she said its head, who is considered a spiritual guru, has not been an ecologist or environmentalist, he is not working with people who are living on natural resources and human power with their own skills, self-reliance and sustainability.

"He cannot be considered as an ecological expert," she said, "They are focusing on the income-generation. The whole proposal certainly appears to be for profit making and income generation, and not livelihood protection. There is a difference. We are not against income-generation, produce should be given priority, but it should be a community enterprise and that requires different approach."

Ms. Patkar said the government may be supporting the Isha foundation but even it is not necessarily clear and confident about the overall development paradigm, it should have the first dialogue with environmentalists and social organizations.

Addressing the Cauvery dispute between States over sharing water resources, she called for a people-to-people dialogue.

People in the basin are not only facing environmental problems from the upstream but encroachments, like in Thanjavur by ONGC, are also creating problems.

This is an infringement not only on the people's resource base but on their Right to Life and Livelihood as well. They will not shift to tree planting unless there is money and market influence that would count, she said.

Cauvery water dispute needs interdisciplinary approach

'Trees will help revitalise the river basin'

With a length of 802 km, the Cauvery is the fourth longest river in South India, after the Godavari, the Krishna and the Mahanadi. Karnataka and Tamil Nadu are the principal States in the Cauvery basin; a small part of Kerala and Pondicherry also belong to the basin.

Originating from the Tala Cauvery in the Western Ghats, the east-flowing river meets the Bay of Bengal in Tamil Nadu. From the origin to the confluence with the Bay of Bengal, the main river flows for 381 km in Karnataka and 357 km in Tamil Nadu, the two larger basin States. The interests of Kerala and Pondicherry in the water of the river are limited.

The Cauvery is also known as the Dakshina Ganga or "the Ganges of South India," reflecting its sacred status.

There are a large number of temples built along the river, signifying its religious and cultural significance.

Due to great dependence on the river for drinking water and irrigation, the Cauvery has been a subject of myth and legend in all parts of the basin, and finds unbridled citation in music, poetry, literature, and folklore of the region.

The Cauvery basin receives rain from both monsoons – the South-West (SW) Monsoon (June-September) and the North-East (NE) Monsoon (November-January). The SW Monsoon generates heavy rain in the Western Ghats, where the Cauvery and its tributaries in Karnataka originate. The eastern and lower parts of the Cauvery

This is an edited extract from the monograph titled "Conflict over Cauvery Waters: Imperatives for Innovative Policy Options" written by Nilanjan Ghosh Jayanta Bandyopadhyay Jaya Thakur and published by Observer Research Foundation in 2018.

basin in Tamil Nadu receive the major portion of rain from the NE Monsoon.

The dispute between Karnataka and Tamil Nadu over sharing the Cauvery water seems to have a meteorological root—that is, the lack of adequate rainfall from the SW Monsoon in June.

The intensity of the conflict increases with competing demands for water for irrigated paddy during the dry season.

In Tamil Nadu, the kuruvai crop in June depends on irrigation from Cauvery water. In the event of the SW Monsoon arriving late or not bringing normal rainfall in the initial weeks, the dependence becomes acute.

In Karnataka, the irrigation needs of the summer paddy continue till the end of July. Therefore, whenever the rainfall is low in the Karnataka parts of the basin in June, the demand for Cauvery water goes up. This is the crux of the conflict.

Complicating the problem has been the rapid growth of urban demand for water especially in Bangalore in Karnataka, driven by its burgeoning population.

On February 16, 2018, the Supreme Court reduced the allocation of the Cauvery water for Tamil Nadu from 192 tmcft (thousand

million cubic feet) annually to 177.25 tmcft annually and allocated 14.75 tmcft to Karnataka for use of Bangalore, in a clear recognition of the need to diversify water needs away from agriculture.

The verdict has paved the way for a sustainable resolution of the dispute through an integrated approach to river basin governance.

The judgment is historic on two counts: first, it marks the culmination of the centuries-old water dispute that has been an epitome of hostile hydro-politics; second, it sent a signal to the agricultural economy to practise demand management of water through water-use efficiency, and crop-diversification.

The principle followed here apparently seems like "robbing Peter to pay Paul" (by reducing 14.75 tmcft for Tamil Nadu and providing the same to Karnataka for its burgeoning urban industrial water use) but it recognises a bigger global phenomenon of inter-sectoral water conflicts: agriculture versus urban-industrial demand.

Interestingly, departing from the existing view of water being a State subject, thereby leading to divergent definitions of property rights, the Supreme Court has observed that the Cauvery is a "national asset and no single State could

claim ownership over it."

The verdict therefore presents an unprecedented benchmark in Indian water governance by seeking a departure from age-old practices.

However, one more thing remains to be taken care of. The verdict does not have the cause of the ecosystem in its scope.

Ecological scientists must advocate a more scientific approach to the cause of the ecosystems for life in the basin.

It is a difficult task to suggest solutions to nuanced problems such as the Cauvery conflict as they are further compounded by socio-political considerations.

A scientific body ought to be created to work out a formula for water allocation across the various needs, keeping in view the integrity of the basin ecosystem.

It is urgent that the effects of climate change on water availability are studied more seriously to create a holistic knowledge base for water allocation in the basin.

Economics can play an important role in institution building as well as provide an objective tool for conflict resolution. It has been suggested that a water futures market developed over time might be another mode of resolving the conflict through a market-based allocation.

One crucial lesson from the Cauvery dispute is that conflicts occur due to, among other reasons, a failure of institutions. This institutional failure, in turn, is contingent upon the fact that the laws of the land are not conducive enough to tackle situations arising out of conflict over perceptions of property rights.

The loopholes in the Inter-State Water Disputes Act have often been used by tribunals to delay their award. Despite placing time limits, often the ambiguity related to the deadlines has led to delay in the delivery of justice. No standardised mechanism or principle for water allocation has emerged for the Cauvery basin so far.

An appropriate institutional arrangement in the form of the Cauvery Management Board can create resolution mechanisms through best practices in governance.

However, analysts have stressed the need for taking time, and devising this institutional mechanism with a lot of care, after considering the global best practices.

They have cautioned that a hasty decision on getting the Board in place with a narrow professional base of reductionist engineers could only aggravate the problem. A critical interdisciplinary knowledge and human resource base is important with multi-disciplinary expertise.

The court order has indeed opened up the opportunity for a more holistic thinking than what has prevailed so far.

Let that opening be made bigger, capable of delivering a lasting solution by including a diversity of expertise.

ABHINAV CHAKRABORTY

Cauvery Calling aims to revitalize the Cauvery river by planting 242 crore trees in the river basin, says Isha Foundation which has initiated the campaign.

"Cauvery has been the source of well-being, prosperity and the very source of life for these lands. A forest-fed perennial river is fast becoming a seasonal stream as 87% of tree cover has been removed in 50 years," said Isha Foundation head 'Sadhguru' Jaggi Vasudev at the campaign launch earlier this July.

The campaign is an extension of the Rally for Rivers movement, which was launched in September 2017 by Sadhguru to raise awareness about India's depleting rivers.

The movement presented itself as primarily an economic program with a significant ecological impact, supported by over 162 million people, according to the Isha Foundation Outreach website.

The website says the disappearance of trees along the Cauvery has led to soil erosion, which in turn has resulted in the river drying up. It says that the Cauvery has been depleted over 40 per cent in the last 70 years and almost half the river basin has suffered critical groundwater depletion.

This has contributed to farmer distress due to droughts, debt and suicides, especially in states like Karnataka and Tamil Nadu through which the river flows.

As many as 17 districts in Tamil

Nadu were drought-hit in 2019 and 15 of the last 18 years have been drought years in Karnataka, according to the website.

Citing river depletion and farmer distress as two faces of the same problem, Cauvery Calling will adopt 'agroforestry' methods to yield triple benefits, the website says.

The simplest way to make the Cauvery flow again is to plant trees. Cauvery Calling will support farmers to plant 242 crore trees in the Cauvery basin by adopting agroforestry.

First, soil health will improve through replenishment of its organic content.

Second, the Cauvery basin will retain about 40 per cent more water by reviving groundwater levels.

Finally, farmers' incomes will increase 300 to 800 per cent in 5 to 7 years, the website claims.

Cauvery Calling accepts donations of Rs 42 for one tree and the campaign will support farmers in planting them.

The website's Social Media Buzz section showcases tweets by Prime Minister Narendra Modi; Cricketers Ravichandran Ashwin and KL Rahul; and actors Kamal Haasan, Akshay Kumar and Tamannaah Bhatia

Sources: Cauvery Calling <https://www.ishautreach.org/en/cauvery-calling>

Rally for Rivers <https://isha.sadhguru.org/rally-for-rivers/>

VIDEO MESSAGES

'Not a job for godmen'

RITUPARNA PALIT

"This job should not be entrusted to godmen or governments that don't really know what they are doing. It needs a huge amount of knowledge and preparation," says Pradip Krishen, filmmaker and environmentalist, referring to the Cauvery Calling Project.

"Unless you understand the character of your soil, all the money and effort you put into a plantation drive is a total waste," he points out.

Recalling other failed attempts at increasing the green cover, Krishen says, "We have often

seen local authorities conduct humongous projects of tree plantation, but end up in vain due to the wrong choice of trees that are not even remotely suited; they do not survive the minute you withdraw watering."

Studying trees since 1995, the self-taught field botanist believes that knowing the adaptability of the trees, as well as the soil is important before carrying out a plantation drive.

Krishen, who has stationed himself in the deserts of Rajasthan for the last 15 years working for the restoration of degraded habitats, says "For a project as large

as the Cauvery Calling, it is very important to know in detail about the soils you are planting trees in, and the condition that your trees are adapted to."

Explaining the difficulty in analysing the soil patterns on river banks, Krishen says, "The soil bedrock keeps changing as you go along the course of a long river. Also, there is transported soil brought down by the river itself."

"The best way to start with would be building up a huge nursery of plants that are suited to different kinds of soil," suggests Krishen.

The myths of Ganga, Cauvery

RITUPARNA PALIT

"Whenever anybody calls a woman in the name of a river, she better take to her heels," says Dunu Roy, a social activist.

With his satirical take on the Cauvery Calling project, Roy hints at the misery that tree plantation on the banks of the Cauvery river will bring.

He says, "The patriarchal society will try to burden her with its sins, and she will have to jump from one place to another, trying to get rid of them."

Referring to Hindu mythology, Roy reminds the viewers of "the many sons of Ganga" who ended up abandoning her each time after their purpose was served.

Talking of the origins of the Cauvery, he says that it descended from heaven to answer the call of a drought-stricken Earth.

Cauvery fled to the sea after being abandoned by Agasthya, a Hindu mythological character, who brought her to Earth and married her.

Referring to the brunt borne by rivers of South India, Roy narrates how Bhagirathi, a Hindu mythological character, brought down the Ganga from the heaven to wash away the sins of his 60,000 ancestors.

Ganga, who turned into a 'black cow' after being polluted by the sins, travelled south so that she could cleanse herself after meeting the Narmada and the Cauvery.

'Governance of river basins must be improved'

ANJALY RAJ & MAHIMA MANIAR

Monitoring and reporting systems that would regularly tell us about the health of the Cauvery River and the catchment in a credible and independent way should be put in, said Himanshu Thakker, who works with South Asian Network for Dams, Rivers and People, in a video message.

"We need to improve the governance of the Cauvery basin," Thakker said. The governance had to start from the micro water sheds and connect people whose lives and livelihood depend on the river directly. "It has to be a bottom-up mechanism, and not the top-down mechanism we have now."

Suitable use of water from various sources including groundwater and ponds could help sustain the health of the river.

The water holding, storage and the recharging capacity of the catchment areas had been decreasing over the years.

Thakker said the rain fell all over the ground and not just on the river. When and how much of the water ended up in the river depended on the health of the catchment system including the local water bodies, the soil and its carbon capacity, the wetlands, the local water sheds and most importantly the aquifer. All those source could help store water.

Their condition would decide how much of water would end up in the river.

Without these basic ingredients for sustaining the river, "there is little hope for Cauvery", said Thakker.

According to published data, in 2016, the Cauvery went dry at its source in Karnataka as rainfall fell by 40-70 per cent even though Tamil Nadu suffered some of its worst floods in 2015. A year later, in the summer of 2017, Tamil Nadu faced drought, the worst in 140 years, while Karnataka stared at a 36 per cent shortfall in food grain production.

Expert voices at the seminar

THE FOLLOWING EXPERTS TOOK PART IN VARIOUS PANELS IN THE DAY'S SESSION

Dr. Mihir Shah

A former Member of the Planning Commission, Dr. Mihir Shah has lived in tribal central India for the last 30 years, working with Adivasi communities for sustainable and equitable development. He was recently asked to chair the committee to draft the National Water Policy.

Dr. P. S. Easa

Dr. Easa is a member of the IUCN Specialist Group and the Kerala State Expert Appraisal Committee, in addition to various technical committees on Forest Department Projects. With over 42 years of experience in Biodiversity Research and Management, Easa retired as Director in-charge of the Kerala Forest Research Institute.

Suprabha Seshan

Suprabha Seshan lives and works at the Gurukula Botanical Sanctuary, located by the Kallampuzha river in Kerala. She is working on a book, "Rainforest Etiquette in a World Gone Mad" which will be published next year by Context Publishers.

Shrinivas Badiger

Shrinivas Badiger is a Fellow at the Centre for Environment and Development, Ashoka Trust for Research in Ecology and the Environment, Bengaluru. He's been working on issues of climate-water-agriculture-environment-livelihoods. He has a PhD in Water Resources Engineering from the University of Illinois at Urbana-Champaign.

Viju B

Viju B is the author of 'Flood and Fury' where he documented large-scale mining, quarrying, deforestation and mismanagement of water resources in the Western Ghats region. He currently works as Metro Editor of The Times of India, Kochi. Viju reports chiefly on issues at the intersection of development, ecology and culture.

Jagdish Krishnaswamy

Jagdish Krishnaswamy is a Senior Fellow at ATREE Bengaluru. He was a coordinating lead author

of the IPCC report on Climate and Land. He maintains instrumented catchments in the Western Ghats where he studies the impact of extreme weather and vegetation change on hydrology.

M. Siva

M. Siva is an environmental activist and writer who has worked extensively on issues concerning the Noyyal river Basin. He campaigned against construction of Karunya University and the Isha Centre for "violation of laws on forest land."

Bhargavi S. Rao

Bhargavi S. Rao works as an independent researcher and consultant at the intersections of law, policy, planning and governance. She has worked with and is still a trustee at the Environment Support Group (ESG). She is currently engaged with the Public Health Foundation of India.

Sundarrajan G

Sundarrajan G is an engineer by profession and volunteer with Poovulagin Nanbargal, a Tamil Nadu-based voluntary environmental group. It is involved in the campaign on climate change issues.

Bittu Sahgal

Bittu Sahgal is the editor of Sanctuary Asia and founder of the Sanctuary Nature Foundation. He works towards restoring the ecological underpinnings of the Indian subcontinent to guarantee water, food, health, livelihoods and economic security for its over one billion people.

Nityanand Jayaraman

Nityanand Jayaraman is a Chennai-based writer and social activist, and member of the Chennai Solidarity Group, an anti-corporate collective that fights environmental injustice and discrimination. He received the Praful Bidwai Memorial Award for Journalism and Cultural Activism in 2019. He teaches "Covering Environment & Ecology" at the Asian College of Journalism.

R. Nagendran

R Nagendran is a former faculty member of Anna University, Chennai. After his retirement as Professor of Environmental Engineering and Science, he was an

Expert Member of the National Green Tribunal. He offers environmental consultancy as a freelancer.

Dr. Venkatesh Athreya

Prof Venkatesh Athreya is an economist who has worked extensively on political economy of development, with special reference to rural India and Tamil Nadu. He has also worked and published in the areas of food security, gender education and Marxian political economy.

Dr. S. Janakarajan

Dr S Janakarajan is president, South Asia Consortium for Interdisciplinary Water Resources Studies, Hyderabad, and executive committee member of the International Water Association. He is the author of Cauvery Family, which brought together farmers of Tamil Nadu and Karnataka.

S. Ranganathan

S. Ranganathan is the general secretary of the Tamil Nadu Cauvery Delta Farmers Welfare Association. He has been a staunch voice in the Cauvery water dispute between Tamil Nadu and Karnataka. He is the one who first filed a case on behalf of Tamil Nadu delta farmers.

Dr.V.R.Devika

Dr.V.R.Devika is the founder trustee of The Aseema Trust linking traditional performing arts and education. She has authored a biography of Dr.Rangabashyam and an English textbook series; has edited a journal on folk forms for the Sangeet Natak Academy; and writes and lectures on Bharatanatyam, folk forms and history.

Prof. Thanga Jayaraman

Born in a delta village in 1949, he has been cultivating paddy as a small farmer in two villages, one in the Cauvery system and the other in the Vennar system. He has been contributing articles to the The Hindu (Tamil) on aspects of non-urban culture of the Cauvery Delta. He has a doctorate in structuralism.

Dr. Rama Kausalya

Dr. Rama Kausalya is the founder of the Marabu foundation and musicologist with a deep knowledge of music, dance, literature, culture and heritage. She hails from Thillaisthanam situated

along the Cauvery in Thanjavur District. She is a descendant of the Thillaisthanam Sishya Parampara of Saint Tyagaraja

Dhanya Rajendran

Dhanya Rajendran is the editor-in-chief of the digital portal, The News Minute. Previously, she worked as the South India head of Times Now. Dhanya is a graduate of the Asian College of Journalism.

Henri Tiphagne

Henri Tiphagne is co-founder of the human rights organization, People's Watch. He is also the national working secretary of Human Rights Defenders Alert - India. He is the first Indian to receive the Human Rights Award from Amnesty International, Germany. He is the chairperson of the International Dalit Solidarity Network and executive committee member of the World Organisation Against Torture.

Jayaram Venkatesan

Jayaram Venkatesan is the convener of Arappor Iyakkam. It has been actively campaigning for restoration of waterbodies in Chennai city, by holding citizens audit, public hearings and protests, and by filing cases.

Piyush Manush

Piyush Manush is a green entrepreneur and environmental activist. He has been planting trees, restoring lakes, creating forest patches and striving to protect them.

N.Ram

N Ram, Chairman, The Hindu Publishing Group, and former Editor-in-Chief and Publisher of The Hindu and Group Newspapers, is a political journalist. He has written on a range of socio-political subjects and specialised in investigative journalism.

Dr. Vandana Shiva

Dr Vandana Shiva, trained in physics, began activism as a volunteer with the Chipko movement. She started Navdanya, the seed and biodiversity conservation movement. Her books include Violence of the Green Revolution, Water Wars and Stolen Harvest. Dr Shiva is a recipient of many environmental awards, including the Right Livelihood Award.