

Hunt for hydrocarbons could sink Pichavaram, fear activists

• Environmentalists raise red flag over the Centre giving nod for taking up EIA in the region

• Experts say it will further damage Cuddalore, which is already a global toxic hotspot

• The mangrove forests shielded the region from the killer waves of 2004 tsunami



Under serious threat: The picturesque mangrove forests in Pichavaram near Chidambaram are the second largest in the country after Sundarbans; besides being a tourist destination, the region also is the only source of livelihood for Irula tribes who have been living in the hamlets for generations together. •S.S. KUMAR

S. PRASAD
CUDDALORE

The Pichavaram mangrove, a bio shield that protected the stretch of the coast from natural calamities such as the 2004 tsunami, is facing a threat from hydrocarbon exploration.

The verdant mangrove region, a unique ecosystem spread over 1,000 hectares, straddles the Vellar and the Coleroon which flow into the Bay of Bengal. *Avicennia marina* and *Rhizophora* are the predominant flora and act as a buffer and prevent tidal onslaught.

The Centre's decision to grant Terms of Reference (ToR) to Vedanta Ltd.'s Cairn Oil & Gas, to carry out Environment Impact Assessment for drilling offshore and on-shore wells barely 490 metres from the mangrove forests has not gone down well with various stakeholders, including fishermen

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SHWETA NARAYANAN,
Environmentalist

and farmers in the tail-end Delta region, which is set to witness another bout of agitations.

Environmentalists warn that the mangrove, which is home to several species of flora and fauna, would face extinction if the project is implemented.

Shweta Narayanan, an environmentalist, said the project would severely damage the ecologically sensitive Pichavaram region.

"The Pichavaram mangroves are the second largest

in the country after Sundarbans and are not only valuable as they act as carbon sinks but also form an important line of protection for the coast from natural disasters like cyclones, floods and tsunamis."

Allowing any industrial project in the vicinity will give a massive blow to these mangroves, which are already stressed because of numerous jetties, ports and power plants in the area, she said.

Critically polluted Cuddalore is a critically polluted region, according to the Ministry of Environment and Forests data, CEPI study of 2010 to 2013. Numerous studies about pollution and health in the Sipcot industrial complex of Cuddalore clearly show that it is a global toxic hotspot.

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"It is surprising that instead of fixing a serious environmental and public health problems, the government is planning to further distress the population by locating more polluting industries in the region," Ms. Narayanan added.

S. Killai Ravindran, president of the Joint Action Committee against Disasters, an umbrella organisation of farmers' and civil society organisations, said it was absurd to locate a "high risk" project in an ecologically sensitive region like Pichavaram.

"We request the Centre to rescind the permission granted to the private firm for exploration of hydrocarbon. If that is not done, the people in the coastal hamlets will oppose it tooth and nail."

During the 2004 tsunami, the mangrove mitigated the onslaught of the tidal waves. While 176 people were killed in Killai town panchayat, which bore the brunt of the tidal fury, over 3,000 families living in hamlets near the Pichavaram mangrove region escaped.

The mangroves provide alternative livelihood options to the Irula tribes and inland fishermen in the surrounding villages. The project will convert the region into a desert, he said.

According to M. Anbarashan, ecologist and Post-doctoral Research Fellow with the French Institute of Pondicherry (IFP), a recent experimental study in the mangrove forests revealed that the salinity in mangroves, which usually ranges between 0.6% and 36.2% had increased by more than 5% due to an average temperature rise of 3.1 degrees Celsius

and an annual rainfall decline of 4%. "The presence of several aquaculture farms in and around the mangroves has caused severe water and heavy metal pollution resulting in biomagnification in wetland biota."

Death and decay

"Many trees of *rhizophora* species are either dead or in dying condition were observed in the mangrove region due to high salinity, inadequate rain and fresh water inflow, pollution and climate change," he said.

Mr. Anbarashan pointed out that the hydrocarbon projects would increase the ecological risk of the sensitive wetland ecosystem.

The initiation of hydrocarbon exploration in Pichavaram would lead to drastic change in wetlands hydrological system by accumulation of hydrocarbons in its sediment.

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"The ingestion of hydrocarbon accumulation in the sediments by micro flora and fauna will result in mortality while surviving organisms will exhibit developmental and reproductive abnormalities resulting in drastic changes in the food cycle of the entire ecosystem. In addition, the oil spills from exploration will destroy the insulating ability of fishes and affect bird feathers leading them to die from hypothermia," he added.

K.V. Elangeeran, president of Cauvery Delta Farmers Association, alleged that the government was trying to turn the Cauvery delta region, the rice bowl of Tamil Nadu, into a desert by implementing the hydrocarbon project.

The project will wipe out large tracts of *Thillai*, a medicinal plant found only in the Pichavaram mangrove forests.

A number of villages in Nagapattinam district are bearing the brunt of the hydrocarbon project implemented by Oil and Natural Gas Corporation Ltd (ONGC). "We fear that this project will bring in a devastating effect on the livelihood of the coastal communities. The project will be environmentally dangerous and is unwarranted. If the project is not scrapped the Centre and the Tamil Nadu Government will have to face the wrath of the people," he said.