

## The Sinking Island- Munroe Thuruthu

### What is the issue?

Munroe Thuruthu, in Kollam district, Kerala is slowly going under water, and its fleeing residents join the swelling ranks of climate refugees.

### Where is Munroe Thururthu?

- Munroe Thuruthu (13.4 sq. km.) is a string of eight islets at the confluence of the Ashtamudi Lake and the Kallada River.
- It was named after Colonel John Munroe, the British Resident of erstwhile Travancore State.

### What are the primary problems faced by the people in the area?

- **Inundation of Land and Houses:** In low-lying Pattamthuruthu, one of the islets in the island's mid-western part, the houses are inundated by the sea water.
- The water which enters their houses leaves the walls damp and turns the yard into a brown pool of filth.
- The land is being reclaimed by water.
- The pool of water also acts as a breeding ground for vectors and creates an unhygienic environment for the residents and children in particular.
- **Connectivity:** It is a major problem for the residents.
- Access to the only school in the region and hospital is a great challenge.
- **Scarcity of Drinking water:** Another problem on the island is the scarcity of drinking water.
- During high tide, the public water supply system stops functioning and water has to be transported in canoes.
- **Impact on the society:** Families, find it difficult to get a good matrimonial alliance due to the lack of basic facilities in the region.
- The island lies barely 20 km from Kollam city and it presents a stark contrast to the bustling business centre.
- **Environmental Refugee:** There has been a steady exodus from Munroe island, which currently has only 2,200 families, and is dotted with abandoned houses in varying stages of decay
- The island currently has 9,800 residents and in the past it was over 15,000.
- The island can also be seen as the first casualty of global warming in Kerala,

creating a band of environmental refugees

### **How and to which extent the problem affected the resident's livelihood?**

- Munroe Thuruthu is used to be a hub of coconut farming.
- But over the years, saline intrusion has stripped the soil of its fertility.
- Now the coconut trees on the island are mostly barren stumps.
- The local coir industry too collapsed due to a shortage of the raw material.
- Many farmers then turned to aquaculture.
- But the recent floods have wrecked the island's fragile ecological balance.
- The floods caused a sudden change in the physico-chemical parameters of the water, making it a less suitable environment for many species.
- Then the change in the salinity level led to the vanishing of plankton which, in turn, will affect fish production in future.

### **What are the causes for the island sinking?**

- **Construction of Thenmala dam:** It is located 70 km away and constructed in the 1960s under the Kallada Irrigation Project.
- The dam blocked the flow of fresh water as result sediments from the Kallada River was also stopped.
- It was the main determinant of the land's fertility.
- Now, the whole area has turned saline.
- **Tidal Surge:** The threat of tidal surge became aggravated after the Indian Ocean tsunami in 2004.
- The whole island called Ekkappuram is completely submerged.
- According to a report prepared in 2016-17 by the Government Engineering College, Thrissur, the 2004 tsunami caused a sudden rise in the volume of building settlements, affecting the life of islanders

### **What is the scientific explanation for the phenomena?**

- While several studies have tried to pinpoint the reason for the island's steady sinking, none has come up with a fully satisfactory explanation.
- The National Centre for Earth Science Studies (NCESS), based in Thiruvananthapuram, has been monitoring the island for the past one year.
- An NCESS study has found that the total water-holding capacity of Ashtamudi Lake has decreased by 15% in the last 17 years.
- As munroe's canal system is not properly maintained once the astronomical tide from the Neendakara harbour ,40 km away, reaches Ashtamudi, water gets trapped in the island.
- Global warming and climate change are also seen as the main forces driving the steady inundation.

## What is to be done to tackle the situation and revive the livelihood hope of the people in the region?

- The concept of disaster-proof amphibious houses that can either be floating type or built on stilts is seen as a way to build a stable dwelling unit.
- Under normal conditions, the structure stays on the ground.
- But when flooding happens, it rises over the level of water.
- Many experts had suggested that the entire island be divided into different zones based on vulnerability and those residents of only specific areas are rehabilitated in safer locations.
- The island can also be marketed as a model showcasing the terrifying consequences of global warming.
- The area still holds the potential to be a tourist destination.
- Shikara rides on the river are very popular and mangroves and migratory birds are another attraction.
- The potential shouldn't be tapped to meet the ever increasing demand.
- However, the stress should be laid mostly upon the responsible and eco tourism.

**Source: The Hind**

