Rising sea levels to affect water table in T.N.

The Hindu, Chennai, Dated: March 24, 2019

The fragile water table in the city’s coastal areas, particularly along East Coast Road, is under threat of severe seawater intrusion due to anticipated rise in sea levels in the next few decades, according to a study by the Department of Geology, Anna University.

There is a rise in sea level by 2mm every year based on a report by the Indian Network for Climate Change Assessment under the Ministry of Environment, Forest and Climate Change.

The increasing sea level would also force the water table along the coastline to move upwards. But it would slowly replace the freshwater at the bottom of the aquifer. The study, published in the Journal of Environmental Monitoring and Assessment, has forecast the impact of sea level rise on the coastal aquifer in the coming years, till 2100.

L. Elango, Professor, Geology Department, Anna University, said given the rate of increase in sea level, the water table would witness an incursion of sea water to the extent of 2-3mm every year. The volume of fresh water would gradually reduce in the coastal areas due to climate change-induced sea level rise.

Rapid urbanisation and indiscriminate drawal have already led to salt water intrusion in areas from the Adyar river to Palavakkam. Residents are heavily dependent on other resources, including private water tankers.

“The sea would also be moving closer to the land by 0.5 m every year because of the increase in sea level.

We would lose 1.5 sq. km of land along the coastline by 2100, particularly in Thiruvanmiyur and Palavakkam, as the beach there is flat,” he said.

The water table along ECR is fragile as it is surrounded by the sea, the Adyar river, the Buckingham canal.