

# When the hungry tide gets hungrier

A new commission to study impact of rising sea levels on human well-being might hold hope for the Sundarbans, says **Jayanta Basu**

The tides that were hungry two decades ago — as Amitava Ghosh wrote in his popular book based in the Sundarbans — have grown hungrier. The Sundarbans, roughly one-third in India and the rest in Bangladesh, is one of the regions most vulnerable to the rising sea.

Recently, the Lancet Commission on Sea-level Rise, Health and Justice — a joint initiative of the scientific journal *Lancet* and the World Health Organization's Asia-Pacific Centre for Environment and Health (WHO ACE) — was launched in Seoul, South Korea. It brings together experts from around the world to address the growing health and social impacts of sea-level rise.

An impact of global warming, sea-level rise is triggered by the melting of glaciers and ice sheets and the thermal expansion of seawater. "It poses an escalating threat to health and well-being, equity, global ecosystems and plane-

tary health, with disproportionate impacts on coastal and low-lying communities," reads the *Lancet* communiqué. The commission will examine these intersecting challenges through a health lens.

Christiana Figueres, former executive secretary of UNFCCC — United Nations Framework Convention on Climate Change — and co-chair of the Lancet Commission, says, "Sea-level rise is no longer a distant threat. It is already disrupting lives, health and well-being."

And the Sundarbans is just such an area. Says Harjeet Singh, climate activist and founding director of the Satat Sampada Climate Foundation, "In the Sundarbans, we are seeing entire communities being swallowed by the rising sea, deepening the injustice for those who contributed the least to this crisis."

The neighbouring Bay of Bengal has recorded the highest sea-level rise in the country. At Diamond Harbour, a fishing port on the bay,



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water levels have risen by 5.16 millimetre per year over the past four to five decades, according to data placed in Parliament.

"The surface temperature of the Bay of Bengal is increasing by 0.5°C Celsius every decade. The sea around the Sundarbans is rising more than twice as fast as the global average," says Kalyan Rudra, chairperson of the state Pollution Control Board. According to the state climate action plan report,

which is currently awaiting the Centre's approval, the sea level there has risen by nearly 275 millimetres since Independence.

A WWF assessment shows that around 210 square kilometres in the Sundarbans, an area bigger than Calcutta, has been submerged in the last six decades. This includes the islands of Lohachara and New Moon as well as a large part of Ghoramara. "Both human-inhabited and wildlife-inhabited islands have been affected," said Sugata Hazra, Sundarbans expert.

"The rising sea level is causing salinisation and putting pressure on the community's livelihood. The consequence is rampant migration," says Tuhin Ghosh, professor of oceanography at Jadavpur University. Agriculture is a major source of livelihood. Ghosh's study on migration in the area shows that one or more members of nearly 70 per cent of families have moved out for work.

A recent study by Climate Action Network South Asia (Cansa), on loss and damage in the Sundarbans triggered by climate change, found it is "impacting the people at large; triggering mental trauma within nearly 90 per cent youth, severe erosion in several areas leading to loss of households". Sanjay Vashist, director of Cansa, thinks the vulnerability of the Sundarbans should be placed before the Lancet Commission.

Data shows that the Sundarbans suffered losses worth ₹1.5 lakh crore because of three cyclones — Bulbul, Amphan and Yaas between November 2019 and May 2021, but there is no data on what their health implications were.

A detailed valuation of climatic impacts on the Sundarbans has not been carried out and is urgently needed, pointed out Nilanjan Ghosh, ecological economist.

Perhaps the new commission can help.