

# The Sundarbans—First to Disappear

Dan McDougall

*The disappearance of Lohachara beneath the waters of the Bay of Bengal created the world's first environmental refugees. Dan McDougall reports on other islanders in the Sundarbans delta who have no escape from the rising ocean.*

His exhausted body a prisoner to the Bay of Bengal's violent tides, Dependra Das stretches out his bony arms to show his flaky, ravaged skin. He is covered in raw saltwater sores. His fingers submerged in greasy mounds of soft, black clay for up to six hours a day, the 70-year-old's life consists of little more than stemming the tide as he frantically shores up the remains of a crude sea dyke surrounding his remote island home in the Sundarbans delta, the world's largest mangrove forest.

Alongside him, stretched across the beach in long, thin lines, the villagers of Ghorama Island—including the women, elaborately dressed in their purple, orange and green saris - work daily to prop up the same black mud-and-sand fortress. For the villagers, each day begins as it ends. As dusk falls over the stark, eroded landscape, they slowly file back to their thatched huts. By dawn the dyke will be breached by the sea once more and their work will have to start again.

Here, amid the vastness of the low-lying Sundarbans, the largest mangrove wilderness on the planet, Dependra Das is preparing to lose his third home in as many years to the sea. For the grandfather of seven, global warming is a reality, not an ominous prediction on a computer spreadsheet.

During the course of a three-day boat trip through the Sundarbans, visiting half-a-dozen separate villages on four inhabited islands, it became clear that Dependra Das's plight was far from unique. Across the Indian portion of the delta, homes have been swept away, fields and fruit trees ravaged by worsening monsoon rains, livelihoods sunk beneath the waves.

The experience of the locals confirms what many experts are already warning: that the effects of global warming will be most severe on those who did the least to contribute to it and can least afford measures to adapt or save themselves. For most, building clay walls to stem the tides is the only option they have.

A third of the Sundarbans lies in India and two-thirds in Bangladesh, and it is here that the waters of two of Asia's biggest rivers, the Ganges and Brahmaputra, broaden and violently roll into the world's largest delta. Scientists believe the Ghorama islanders' fate is being sealed 2,000km away, at the source of the Ganges, where the Himalayan glaciers are melting faster than ever before and the islands are bearing the brunt.

Lohachara island, once visible from Ghorama, two kilometres to the east, is already gone beneath the waves, succumbing to the ocean five years ago. It was the world's first populated island to be lost to climate change and its disappearance left more than 7,000 people homeless. Neighbouring Ghorama has lost a third of its land mass in the last five years. To the north, Sagar, the largest of India's Sundarbans islands, already houses 20,000 refugees from the tides. The influx of displaced people is swamping the original inhabitants of Sagar, putting pressure on the island's already fragile resources.

'These people are victims of global warming,' says leading geologist Sugata Hazra, director of the School of Oceanographic Studies at Kolkata's Jadavpur University. "The accelerated melt of the Himalayan glacier is producing larger volumes of water in the rivers, water that violently carves its way through the flat delta where they live. The Sundarbans and the four million people who inhabit the area on the Indian side of Bengal are dreadfully vulnerable. The area has lost 186 sq km in the past few decades. This entire region is holding back a disaster and could ultimately serve as a warning of what is to come.

'Environmental refugees are the worst kind of refugees because they can never return, their land is lost forever, and the government has no plan for these stricken people.'

Living on the edge is nothing new in the Sundarbans; locals do it in more ways than one every day of their lives. The hamlet on Ghorama where Gita Pandhar, 25, lives can only be reached by a narrow path along the mud dyke braced against the swell of the sea. To get to the only local market, each day she negotiates three kilometres of deep, slippery mud with disconcerting ease, stopping only to talk to her neighbours.

'When I was young, this was all rice fields and herds of cows' she remembers. 'It was beautiful, a wonderful place to grow up, in isolation away from the mainland. The farmland my grandfather first tended is now poisoned with salt. All the arable land has been replaced by swamp. We used to burn dried cow dung as fuel but there is nowhere to graze and now we have to cut the last of the wood here on the island to cook with.'

Flooding is normal in the Sun-darbans. Ninety-two per cent of the water that flows through the area is carried from India, Tibet, Bhutan and Nepal along hundreds of waterways, including three of the world's great rivers, the Ganges, the Meghna and the Brahmaputra. Most of it arrives during the monsoon, flooding a third of the country.

According to Gita, the severity of recent storms has made the area one of the most dangerous places to live in the world.

'The sea is so violent at night'; she says. 'We know nothing of global warming. Scientists who visit tell us the West and its pollution is to blame. This is a very backward area. We have no belongings apart from a few pots. At night there is no electricity, no lights, no television, no entertainment except batteryoperated radios; there are no newspapers, little contact with the Government, so we are the first people to suffer from global warming and the last to find out why we are suffering. You can see our houses: they are made of the same mud that props up the dykes; the water that rushes through the dykes does the same to our homes. When the typhoons come we lose everything, then we have to start again.'

'Nature used to give us food and crops, now all it gives us is misery. Our island was famous for the production of good-quality chillies, besides other vegetables and crops - now to feed ourselves it is the women who wade out into the shallow sea that covers our fields. We fish for small fry, for tiny little prawns, in mosquito-infested pools of water.'

It is at night, with the changing tides, that the reality of this lunar island landscape comes alive, as water pours its way on to the beaches and through the mud dykes around the villages.

Flowing across the seabed, underwater rivers reverse course with the tide, making the sea the most treacherous in Asia. At high tide the water flows inland, submerging most of the mangroves; everywhere you look narrow channels of brackish water burrow into the land, snaking their way through the dense brush. Each evening tens of thousands of islanders go to sleep in fear of the sea.

'We have no safety net when the sea comes. So many times the embankment we have built collapses under the weight of the rising tide. Most of those who have lost their land here, a third of the islanders, have already fled to Sagar Island; says Malata Bala Das, Dependra's wife, chewing on a large chunk of nutmeg pulp.

'We can't rest our heads at night; we all listen for the water rushing through. Many of our young people have already left for Kolkata or the Andaman islands to find work. It is a struggle here but we know no other life. Soon there will be only old people and grandchildren left here, until our island is gone like the others.'

In Rudranagar Colony, a refugee camp built recently for the latest exiles from Ghorama, families huddle together around oil lamps in tiny thatched huts with floors and walls of black earth. Their eyes straining in the light, the children attempt their homework by matchlight before giving up until dawn.

Small and withered by work, Angur Bala Dolui recalls the night last year when she lost her home and her land. 'Everything changed when the water burst through our home,' she says. 'My grandson almost drowned. The water took everything; it even buckled the trees. We made the decision to leave for a government camp but here is no better. We were promised our own freshwater well, but the land here on Sagar is also bad. Now all the water is salty and you can't use it. We are close to the mangrove swamp and worry the same thing could happen to us here. It feels like we have no escape from the sea.' —TWN □□□