# CONSERVATION

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Shadhin uses the medium of installation art and resorts to using local materials to create his art works.

"But you see, this is not art for the sake of art, alone. In the creeks of Sundarbans, the job of my art is to act as an agent, an agent of conservation for dolphins."

Shadhin also believes the connection that the villagers make with art is more direct. "When they see the dolphin boat, they immediately recognise it as 'shushuk', so the premises for our work is already established and they know our topic of discussion. They then come to find out what is it that we want to say," he adds.

dren and adults by the hundreds.

As the puppeteers sat behind a makeshift stage inside the boat, children crammed into the boat watching with rapt attention as the story unfolded in front of their eyes. It was a simple story by the Jolputul puppeteer team, as they showed how fishing practices, plastic pollution, factories, and other threats were hurting the animals, including the Ganges River dolphins and Irrawaddy dolphins, which call the Sundarbans their home.

"It becomes difficult to often relay a message through traditional, often cumbersome means such as seminars and so on but when we break it down into forms that are both entertaining and simple to grasp, they often stay with people for days," opines Shadhin.



Vistors walk in and out of the boat anchored in a village adjacent to Sundarbans.

Conversations with conservationists on the boat revealed the many threats these intelligent mammals face on a day-to-day basis. Overfishing, entanglement in fishing nets, the use of dolphin oil as bait by fishermen and the rising threat of pollution, all have conservationists worried. Lose these aquatic mammals, and we stand to lose so much more; they maintain the balance of riverine ecosystems as top predators.

I saw these conservationists, sit through the last light of the evening, somewhat excited, somewhat fearful of the days ahead as rampant developments take over the last stronghold of the dolphin habitat.

Their excitement, of course, is owing to the sighting of Ganges River dolphins at play. They watched, transfixed with their binoculars, as one after another of these majestic dolphins jumped out of the water, catching their breath and going back in, a lub-dub-dub sound breaking the stillness of the forest.

I spent a few more days in the forest, hopping villages by the rivers, watching artists, puppeteers and conservationists raise awareness. Full of hope, they believe that if children become more aware, then the possibilities are endless because they are the ultimate guardians of nature.

The conservationists also urged relevant stakeholders and the government to declare the dolphin as a national aquatic animal, thereby raising its profile and ensuring further conservation efforts.

The Sundarbans is home to Asia's last two remaining freshwater dolphins — Irrawaddy dolphin and the Ganges River dolphin — both globally endangered.

As our time inside the forest drew to a close, I watched longingly at the dolphinlike boat disappear into the horizon, exposed to elements, its golpata feathers blowing in the northern wind. Beside the boat, the Ganges River dolphins come out to play as well and the odd juxtaposition of the natural world and the one made by us gets seared into my mind. I realised, yet again, the fight for conservation is essentially humans trying to mitigate all the trouble they have caused; I hope we succeed, for a world, where dolphins do not come out to play and birds do not soar the sky, would be a bleak one indeed.

\*International Union for Conservation of Nature (IUCN) Bangladesh in partnership with CNRS organised the fair under a project initiated by United Nations Development Programme (UNDP) and Bangladesh Forest Department.



Children and adults alike watch with rapt attention as stories are being told inside the boat.

In the small village by the Sundarbans, the word of a dolphin boat carrying all sorts of bizarre exhibits –bioscope, puppet show by Jolputul, huge photographs of dolphins and whales frolicking in the rivers and oceans, and an arts and crafts show — brought chil-

### WATCHING THE DOLPHINS OF SUNDARBANS AT PLAY

As the programme at Joymoni drew its curtains around afternoon, we left the village and headed off on our boat — MV Chuti — to spend the night inside the Sundarbans.

### **SCIENCE I**

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the past two summers. The pathogen, carried by mosquitoes, has spread beyond control. The government launched pest-control services but to no avail—the disease affected thousands last year, leaving them with memories of intense joint pain.

"When the results came back positive for chikungunya, we could then perform a polymerase chain reaction (PCR)to detect the virus in other meningitis patients," says Dr Saha. A polymerase chain reaction is a technique where doctors take a sample and make billions of copies of a certain DNA or RNA in it. If for example a meningitis sample has the chikungunya virus, when run through Dr Saha's PCR, it will amplify vast numbers of the viral RNA.

The cloud-based metagenomics sequence database IDseq holds vast possibilities for Bangladesh, thinks Dr Saha. "Trying to diagnose a disease using



Dr Senjuti Saha setting up a reaction to detect chikungunya virus in patients

sequencing is not just expensive but also time intensive for hospitals here. But next time we have an outbreak of something we are not able to diagnose, we can simply sequence the genetic material of the samples and upload the results onto the database to find if it matches with any pathogen." The database's strength lies in its accessibility—once the sequencing is done, all doctors would need is an internet connection strong and fast enough to upload large amounts of data.

Can we see this being used for routine diagnoses however? Dr Saha does not think so. "We do not do sequencing as a

part of our normal day-to-day activities in our hospitals. This can however be used as a surveillance tool to detect new outbreaks."

"For example meningitis vaccines were sent to Bangladesh years after it was invented because we were not being able to prove that the Hib bacteria was indeed causing meningitis. Only after we could prove it were the vaccines introduced for our children. This database can really help with all that," says Dr Saha.

And the best part? Instead of limiting this to personal scientific achievement, she actually relayed the test results immediately to the hospital authorities to take necessary action. "We are routinely following up with the patients to understand the long-term impact of chikungunya meningitis," she states.

The research of meningitis was also supported by the Bill and Melinda Gates Foundation.