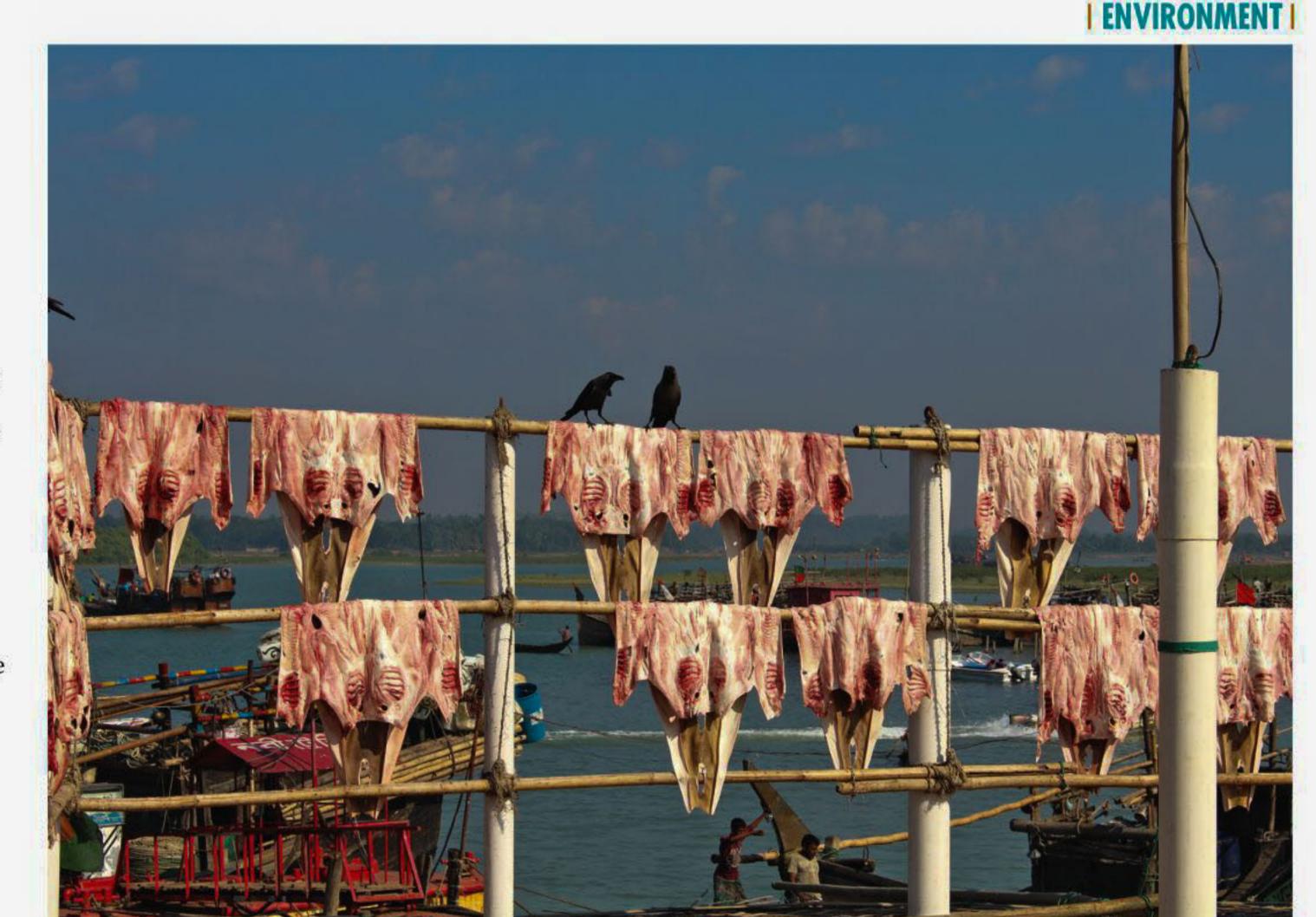
quick visit to the six no. Fisheries Ghat in the busy tourist town of Cox's Bazar and you will Let be greeted with the intense smell of the town's sludge flowing into the sea, and busy fishermen screaming their lungs out auctioning off their day's catch of sea fish in all shapes and sizes.

Boat after boat dock by the derelict fish market and unload their catch. To even the naked eye, it becomes obvious there is something unusual about the catch. Mingled with the usual sea-fish fare are endangered Hammerhead sharks, Tiger sharks and many different kinds of rays—some as broad as the rugs in your living

Some of the sharks and ray species that land in these markets, to be eventually processed and traded, are globally 'Threatened, Vulnerable or Endangered' and their unregulated, fishing and often illegal trade will threaten their existence more with extinction.

"We have to ensure our fishermen begin to understand sharks and rays are slow-growing species and they cannot be harvested commercially," says Jahidul Kabir, Conservator of Forests, Wildlife & Nature Conservation Circle of the Bangladesh Forest Department

However, catching sharks and rays brings much needed extra income to the poor fishermen in the region. And what is even worse is it is not always the poor fishermen but the traders who enjoy the ultimate profit. The fishermen who don't have their own boats only get the salary, says Alifa Bintha Haque, lecturer at the Department of Zoology at Dhaka University.



The skins of Guitar fishes are left out in the open for drying. The skin is consumed as food and also used as leather for accessories.

PHOTO: ALIFA BINTHA HAQUE

FIGHTING TO SAVE THE GIANTS OF THE SEAS

Uncovering processing of Shark and Ray products in Bangladesh, their trade and conservation actions

ABIDA RAHMAN CHOWDHURY

Not the primary catch

"Sharks are essentially by-catch which is not discarded and targeted by the fishermen as they recognise it is of high value and will bring them some extra income,"

No part of the shark or ray is discarded during processing; products comprise fresh and dried meat, skin, vertebrae, jaws, teeth, dried whole fish, intestines and so on, she adds.

Bangladesh's mark in the global map as a big shark product producer and exporter cannot be ignored. In Cox's Bazar and Teknaf, processing centres were identified, during a study conducted to observe the processing of shark and ray products in Bangladesh, that have the capacity to turn over thousands of kilogrammes of sharks and rays each day of the year during peak season.

The products are exported to the international market to meet the demand of shark-fin soup, leather products and traditional medicine in China, Thailand and Myanmar. There is also a niche domestic market for dried and fresh meat, liver oil, jaws and teeth. They are sold to tribal groups and non-Muslim communities,

traditional medicine practitioners and also to the fish feed industry in Bangladesh.

Owing to a demand for these products in neighboring countries, many sharks and rays and their processed products are "exported" to Myanmar informally through the Teknaf region, according to a short note published on the TRAFFIC Bulletin.

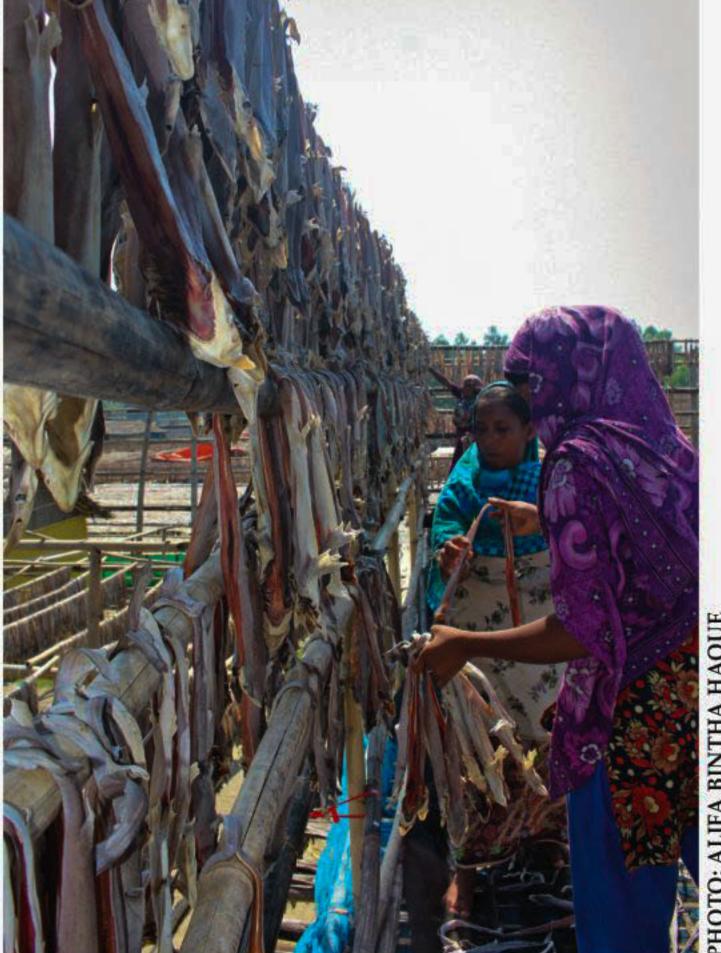
What is important to understand here is that trade of sharks and ray products is not an ecologically sound idea as these species are slow growing. They reach sexual maturity sometimes at nine or ten years age and reproduce very minimal number of pups; and if this practice goes unabated, these species could be lost forever.

"Unlike commercially harvestable species such as Hilsa fish which lay thousands of eggs potentially producing a thousand other Hilsas each season, sharks are slow growing species and a sustainable management plan is required if there is a plan to harvest any particular species at all," opines Jahidul Kabir.

Absence of proper regulations and appropriate export documentation or evaluation of the sustainability of these fisheries means increased pressure on these marine megafaunas.

Is there any legal framework to help protect these species?

As we enter the eye of the great storm of extinction, wildlife and habitats all around the world continue to take blow after blow from economic development.



Local women working on drying small sharks. They are often dried with their skins as smaller sharks are not eligible for the skin trade.

For sharks and rays, in Bangladesh, a lack of baseline data and species-specific research on ecology and habitat use or catch patterns are some of the major challenges in coming up with a conservation action for these species.

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FIGHTING TO SAVE THE GIANTS OF THE SEAS After page 6

In terms of a legal framework, the two most important regulatory instruments to conserve wildlife and fish in Bangladesh are the Protection and Conservation of Fish Act, 1950 and Wildlife (Conservation and Security) Act, 2012. The former, which falls under the jurisdiction of the Department of Fisheries, does not contain any provision to protect sharks and rays. However, the Wildlife (Conservation and Security) Act, 2012, which falls under the jurisdiction of the Bangladesh Forest Department, has the provision to protect species under threat from being exported or traded.

Only 23 species of shark and six species of rays are protected by the Wildlife (Conservation and Security) Act, 2012, and some species are protected under CITES, (Convention on International Trade in Endangered Species of Wild Fauna and Flora) an international agreement which Bangladesh is party to.

The problem though is that it is nearly impossible to determine the species when the products are processed. Dr. AKM Aminul Haque from the Bangladesh's Department of Fisheries admits that the emphasis on



An endangered Giant freshwater whipray which is frequently caught in fishermen net. PHOTO COURTESY: WILDLIFE CONSERVATION SOCIETY, BANGLADESH



The fresh skin of a Guitarfish is kept on the floor of a processing centre in Cox's Bazar. Three varieties of Guitarfish that were found in the processing centres were listed as 'Vulnerable' on the IUCN Red List.

monitoring the catch of these megafaunas has been

"It is the duty of the Fisheries department to protect the marine fishes which includes all cartilaginous and bony fishes. However, it does not provide species-based protection. Also sharks and rays are non-traditional catch which is why emphasis on monitoring them has been minimal," says Dr AKM Aminul Haque, Director of Marine, Department of Fisheries.

"You see under the Protection and Conservation of Fish Act, 1950, the instructions are not clear cut. When this act was prepared, there was very little awareness regarding sharks and rays protection. It was just a broad set of rules," argues Aminul.

"The need for conservation and protection of threatened species that are being affected due to unregulated fishing and trade are only coming up now. We are working tirelessly but it is almost impossible to monitor each boat and its catch. The way we are currently ensuring protection is by controlling fishing gear. We make sure the fishing nets do not have extremely small mesh sizes to ensure small sharks and rays do not get caught," he adds.

According to Aminul, a new Marine Fisheries Act is under the vetting process in the Law Ministry and is in waiting to be passed by the parliament.

ray products, by strengthening the capacity of the Government of Bangladesh to comply with CITES.

Just like the tigers in the Sundarbans or elephants in our hills, sharks and rays, both top predators, maintain a healthy ecological balance in the places they live.

"Efforts to manage fisheries sustainably and establish well-managed marine protected areas will prove beneficial for both species," says Elisabeth.

There are long-term plans to engage with multiple stakeholders—the government, local communities,



No part of the shark or ray is discarded during processing and even the jaw and teeth is dried. They are worn as jewellery and is usually sold locally. They are also used by traditional medicine practitioners.



The fins of different kinds of sharks being dried at a processing centre in Cox's Bazar. This is one of the principal shark product exported from Bangladesh.



The meat of sharks and rays is being dried in one of the processing centres. There is a niche domestic market for both dried and fresh meat, liver oil, jaws and teeth.

Research and subsequent conservation taking shape slowly

Everywhere, wildlife is at threat and without the science to back it, conservation efforts become futile.

"Discoveries about the cetacean diversity and their abundance in our waters were the foundation of the Wildlife Conservation Society Bangladesh Programme We are currently building on that knowledge while assessing the status of sharks and rays and developing national strategy for their conservation in Bangladesh, says Elisabeth Fahrni Mansur, Director of the Education, Training and Livelihoods program of the Wildlife Conservation Society Bangladesh.

The organisation is closely collaborating with the Bangladesh Forest Department to counter wildlife trafficking in Bangladesh, including that of shark and

traders and consumers to improve the survival chance of Bangladesh's threatened marine megafauna.

"We plan on more research in part with citizen scientists such as fish landing site enumerators, coastal gill net fishermen; as well as at sea investigations and market supply chain surveys and consultations," says Elisabeth.

The work on all fronts, science, research, monitoring and regulation and eventually conservation of sharks and rays has just started in Bangladesh. More questions remain unanswered as more discoveries are being made.

But conservation work, where so many different parties are involved requires a coming together of many parties and playing their small part to kick off a chain reaction.

Abida Rahman Chowdhury is an online journalist of The Daily Star.