

Turning the Tide on River Dolphin Extinction

Only a few centuries ago, tens of thousands of Ganges river dolphins filled the vast stretches of water that make up our river systems. Dolphins existed in abundance in the Ganges and Brahmaputra Rivers and their tributaries in Bangladesh, India, and Nepal. Now the World Conservation Union has categorized them as endangered.

“... the river dolphin population declined from 6,000 in 1982 to around 2,000 in 2005. It is further reduced to less than 1,800.” - Ravi Singh, CEO of World Wildlife Fund India

Why the Decline?

The causes of this disappearance range from direct killing and indiscriminate fishing, to habitat fragmentation and pollution. Over fifty dams and barrages separate dolphins from feeding and breeding grounds, pollution continues to turn the waters into poison, and fishermen kill dolphins either inadvertently or deliberately.

What is Being Done?

Despite the fact that the government of India has recognised the endangered Ganges river dolphin as its National Aquatic Animal, the numbers continue to decline. Many environmental groups have turned their attention to the plight of the dolphins, but progress is slow. Two notable reasons for this slow progress are the absence of accurate data needed to make a coordinated conservation plan and the lack of community awareness.

What Are We Doing About It?

We at the Ganga Organization have been attacking the problem on several fronts including:

- Supporting further study of the problem through IVAS dolphin survey
- Educating the riverside villages on dolphin conservation
- School visits to inform and encourage students in dolphin conservation
- Raising awareness among the thousands of annual visitors to the river

Integrated Visual and Acoustic Survey (IVAS)

IVAS is the achievement of a dedicated team of innovators from several organizations including Ganga Sansthan, NTT Data, the Foundation for Innovation and Technology Transfer - Indian Institute of Technology, Delhi (FITT-IIT Delhi) and DELSIG Systems Pvt Ltd.

IVAS uses new technology and unique design to accurately monitor Ganga dolphin numbers and habitat. The data collected by IVAS will be made accessible to interested parties for the purpose of creating effective and lasting conservation strategies.

IVAS is an integrated system of high definition cameras above the water and hydrophones below. The hydrophones are tuned to detect the bio-sonar clicks of dolphins as they forage for food. A central processor uses the signals from the hydrophones to determine direction and distance of the dolphin.

When the dolphin surfaces to breathe, the sonar clicks stop temporarily and the processor triggers the cameras and captures an image. The audio and visual data is collected and processed for easy acquisition by users. The system is fully mobile and self-contained, being mounted on a small boat. It can detect dolphin activity within a range of approximately 300 metres.

The acquired information including sounds, images, GPS location and pollution levels, will be uploaded and made accessible for further dolphin population research.

Village Meetings

Between September 2016 and February 2017 The Ganga team held meetings in 29 villages along the Ganges River. Villagers were keen to learn of the imminent dangers facing the dolphins and other marine life. We addressed threats such as pollution, fishing, chemicals from farmlands and hunting.

Pollution, particularly in the form of polythene bags and other household waste, was a regular focal point. The team encouraged villagers to refrain from throwing their waste in the waterways, but rather to allow their biodegradable waste to decompose in farmland and to seek alternative means of disposal for the remainder. We also urged the local people to share the information about the importance of protecting the Ganga River Dolphin with their neighbours.

School Education Programme

At the same time, our team also visited 31 schools around the river area and ran educational programmes. Students were eager to learn about the lives of these fascinating creatures and the grave dangers they face. Many students expressed their desire to save the dolphins through posters and artwork on the dolphin conservation theme.

Our quiz competitions, essay competitions, slogan competitions, and debates were also popular. Students of Devyarta Inter College and Beforce School focused on 'The journey of the waste.' We pursued topics such as liquid waste from houses and industry endangering marine life and concepts such as wastewater runoff. Other discussions ranged from pollution control to conserving bio-diversity to organic foods and saving electricity. The school students were always enthusiastic to show their care for the environment.

The team also organized and equipped a Dolphin Conservation Club at each school, a vehicle for raising awareness within the school and community regarding dolphin conservation.

Mahashivarti

Mahashivarti is a major festival in India, one that is solemn and marks a remembrance of "overcoming darkness and ignorance" in life and the world. During this time, in the area around Ramghat, Narora, Bulandshehar, the Ganga River receives about 40 – 50 thousand visitors.

From 21st of February to the 24th, we took the opportunity to raise public awareness about the critical state of the Ganga River. The team placed hoardings and posters on Dolphin Conservation, Waste Reduction and related issues around the area. We also distributed pamphlets relating to the program.

The people of the surrounding villages have a strong faith and a deep connection with the river; they received the message well. They understood that a declining dolphin population indicated that the river itself was in a bad state.