Reports of River Dolphin conservation meetings

R.S. Lal Mohan

Report : Workshop on Effects of Water Developments on River Dolphins 26-28 February 1997, Rajendrapur, Bangladesh

The workshop on the effects of water development on River dolphins was inaugurated by the Chief Conservator of Wildlife, Bangladesh on 26.02.97 in the CDM hall, Rajendrapur, Bangladesh.

Eight scientific papers were presented by specialists in water development. Twenty-four delegates from 8 countries participated in the seminar. Participants from India, Nepal, Bangladesh, U.S.A., U.K., Hongkong, China, Japan and Canada contributed papers in the workshop.

The workshop suggested that there is no "surplus" water and any water withdrawal has some cost in terms of ecological damages. It also reiterated that the river is a part of floodplain, and alluvial rivers must be allowed to move or it will die. Dolphins need adequate living space and conditions suitable for life -- feeding and reproduction. The river must be sufficient for dolphins to have access to deep pools along the entire course of their distribution. The biodiversity of dolphin habitat should be studied routinely when assessing the impact of water development.

An environmental impact assessment should be conducted by an independent panel of qualified experts before taking into consideration sanctioning or funding the project. If impact of the project is serious, the option of not implementing such project should be considered seriously.

Availability of sufficient food is essential for maintaining a healthy population of dolphins. Water development projects such as dams and barrages often block the migratory routes of forage fishes. Fishways should be designed properly to suit specific needs.

Construction of dams drastically affect the ecology of the upstream and downstream habitats. Dams should be located above downstream tributaries to ensure an adequate supply of sediments for maintaining the morphologic integrity of the river system. The water discharge should be matched to bedload supply, so that an equillibrium between soil erosion and siltation is maintained.

The barrier effect of the dams on the river dolphin population and other biodata should be studied in detail. The long-term effect of inbreeding due to isolation caused by the dams and the loss of hybrid vigour should be investigated. The possibility of translocation of dolphins that are fragmented into smaller than 10 numbers in the upstream of the dams should be studied. From the genetic perspective, the safest kind of traslocation is into the downstream population. But due to the panicky behaviour of the dolphins, utmost care should be taken when capturing them.

The worshop was sponsored by the Whale and Dolphin Conservation Society, U.K. and the Ocean Park Foundation Hongkong. It was convened by the Cetacean Specialist Group of Species Survival Commission, (IUCN).

Report : Second Asian River Dolphin Committee Meeting 22-24 February 1997, Rajendrapur, Bangladesh

The second Asian River Dolphin Committee meeting was inaugurated by the Chief Wildlife Warden, Dept. of Forest, Govt. of Bangladesh at the CDM hall, Rajendrapur, Bangladesh on 22.02.97.

The committee discussed the status of the Asian River Dolphins *Lipotes Vexillifer* (Chinese river dolphin), *Platanista gangetica* (Ganges river dolphins), *Platanista minor* (Indus river dolphin) and the *Orecella brevirostris* (Irawaddy river dolphin).

The Chinese river dolphin is stated to be on the verge of extinction mainly due to the fishing activities like electric fishing and rolling hooks. Its total number is estimated to be about 200. The large dams proposed in the river Yangtze may have great impact on the ecology of the habitat of the dolphin. The work on the captive breeding of the finless porpoise, *Neophocaena phocaenoides* and *Lipotes vexillifer* is continued though without much success.

The ganges river dolphin has a wider distribution in India, Nepal and Bangladesh, their number is getting depleted mainly due to gillnets. About 100 dolphins are killed in its range of distribution by the fishing nets. Dams, water extraction, boat traffic and pollution are stated to be the contribution factors for its population depletion. The existence of a fishery based on its oil for the last few decades has greatly affected its population. The use of fish oils and other vegetable oils as an alternative to dolphin oil for fishing were suggested. The Farraka dam across the river Ganges has restricted the free movement of the dolphins and blocked the migratory route of many species of fishes that formed the food of dolphins.

The Indus river dolphin population seem to be stabilised to about 400 numbers. Numerous barrages and the extraction of the water for irrigation and power have constricted the habitat of the dolphin and restricted its free movement.

The Irrawady dolphin is affected mainly due to the habitat loss and gillnet mortality. The co-operative fishing method practiced by the fishermen and the dolphins in Irrawady river is also explained. Its population seems to be very low in the Mekong river and in Irrawady rivers.

Constant monitoring of their production and mortality, implentation of Wildlife Protection Acts, promoting awareness, and more scientific studies life radio-telemetry studies were suggested. It was cautioned that while making attempts for radio-telemetry studies, proper care should be taken against septic infections as the dolphins are in fresh water.

The Asian River Dolphin committee was convened by the Cetacean Specialist Group of Species Survival Commission (IUCN) and sponsored by the Whale and Dolphin Conservation Society, U. K. and Ocean Park Foundation, Hongkong.

The next meeting of the Committee will be held in Nepal in 1989.

Dolphin correspondence

Editor: January 1997

In the July 1996 issue of ZOOS' PRINT which I received only recently, I went through the article entitled "Status of river dolphin *Platanista gangetica* or `SHIHU' of Upper Assam" by R.S. Lal Mohan. The article is informative but I would like to draw your attention towards what I believe to be some factual mistakes in the article.

1. Mammary gland in *P. gangetica* is not found near the "arms", rather it is situated on the lateral sides of the female genital aperture. The nipples are concealed, and a small slit is visible on both sides. Moreover there is no trace of "hind-arms" in this dolphin and the "fore-arms" have been modified in to flippers.

2. It is not clear how an earthquake caused death of hundreds of dolphins in Brahmaputra in 1950. Recently on 21 August 1988 there was an intense earthquake in north Bihar and in 1934 there was more devastating earthquake in the areas through which the Ganga flows in Bihar. During both the occasions no killing of dolphin was recorded in Ganga. I would like to know the scientific basis of this explanation.

3. Regarding shark liver oil as a substitute of dolphin oil I would like to submit that we should not kill shark to save Ganges Dolphin. It is not eco-friendly. The fisherman should be educated to stop such fishing practices altogether. *Clupisoma garua* fish are caught easily in fishing nets. Fishermen should be asked to use fishing nets and not bait. Fishermen should be asked not to use either dolphin oil or shark liver oil. Moreover fishermen need to invest a major part of their earning to prepare bait to lure fishes and they have to sell their catch at cheaper rate as the fishes start decomposing quickly if caught by bait using dolphin or shark liver oil. Further I would like to add that we have analysed DDT and other organochlorine pesticides in the blubber (adipose tissue) of Ganges dolphin. Oil is extracted out of this tissue. The blubber of Ganges dolphin was found to contain 1.2 million times more DDT as compared to the river water. I hope shark liver oil must be containing such toxic chemicals as our marine ecosystems where sharks reside are also subjected to various kinds of pollution. Considering all such hazards it will always be advisable to discourage the fishermen from using bait and encourage them to use fishing nets for the economically important fish *Clupisoma garua*.

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Dr. R.S. Lal Mohan's reply:

Editor, 2 April 1997

Dr. R.K. Sinha has pointed out a few basic questions, which are the accepted facts.

1. The location of nipples in dolphins are near the genital opening. It was mentioned as near the arms to make the layman understand it better.

2. Regarding disturbance by earthquake, it is a well-known fact that loud sounds damage the ear drums of the dolphins. I may bring to your attention that the Cetacean International, U.S.A., has questioned the U.S. Navy for producing underwater sound more than 100 dB for defence purposes as such sound will affect the marine cetaceans which are less sensitive to sound than the river dolphins. It is common knowledge that sound (Explosive sounds) kill fishes and dolphins.

3. Regarding the fish oil as an alternative to the dolphin oil, I may state that it is not practicable to suggest to the poor fisherman, not to use the dolphin oil, without offering an alternative. Further we are not going to hunt for fish to get its oil. The fish oils are the by-products of the fishery. This fishery is rampant in Patna and Khahalgaon in Bihar. But no steps are taken to stop this practice.

In shark liver oil no accumulation of DDT is noticed sofar. In the sea there is a dilution factor.

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