

# India, Bangladesh and Myanmar Lay out Road Map for a Management Plan for Hilsa Fisheries



Delegates from Bangladesh, India and Myanmar have laid out a road map for a management plan for hilsa fisheries. This was done at a regional consultation organized by the BOBP-IGO on March 14-15, 2008, at the Central Inland Fisheries Research Institute (CIFRI), Barrackpore (Kolkata).

Welcoming delegates, Dr Y S Yadava, Director of the BOBP-IGO, recalled that management plans for two important commercial fisheries – hilsa and sharks – were first mooted at the Second Meeting of the Technical Advisory Committee of the BOBP-IGO in Chennai in February 2007. It was suggested that the management plan for hilsa fisheries should be prepared by Bangladesh, India and Myanmar and the management plan for shark fisheries by India, Maldives and Sri Lanka. Although Myanmar is not a member of the BOBP-IGO, its inclusion was considered essential since hilsa forms an important commercial species in the Irrawady River System.

At the Barrackpore consultation, the opening session was followed by a technical session (with papers from the three countries on the status of hilsa). On the basis of guidelines put up by the BOBP-IGO secretariat, the delegates prepared information logframes and laid out a road map as follows for a management plan:

- A comprehensive status paper would be prepared on hilsa fisheries resources, including a bibliography on research work. Action: R&D institutions and



Participants at the Regional Consultation.

- universities in the region. (The status paper would discuss resources, production, MSY, stock assessment, impacts, legal and policy support, projects & programmes, etc.)
- A stakeholder consultation on hilsa management would be organized in each of the three countries. Alternative livelihoods for hilsa fishers would be an important part of the consultation.
- A data collection, collation and compilation mechanism would be set up in member-countries; a National Task Force would be established in India and Myanmar; a ‘Hilsa portal or website’ would be created for the Bay of Bengal region.
- Awareness materials on conservation and sustainable exploitation of hilsa fisheries would be prepared.

Key Institutions	Supporting Institutions
<b>Bangladesh</b>	
Bangladesh Fisheries Research Institute, Mymensingh	<ul style="list-style-type: none"> <li>• Ministry of Fisheries &amp; Livestock</li> <li>• Department of Fisheries</li> </ul>
<b>India</b>	
Central Inland Fisheries Research Institute, Barrackpore	<ul style="list-style-type: none"> <li>• Ministry of Agriculture (Department of Animal Husbandry, Dairying and Fisheries)</li> <li>• Fishery Survey of India, Mumbai</li> <li>• Central Marine Fisheries Research Institute, Kochi</li> </ul>
<b>Myanmar</b>	
Fisheries Resource Conservation Unit, Yangon	<ul style="list-style-type: none"> <li>• Ministry of Livestock &amp; Fisheries</li> <li>• Department of Fisheries</li> </ul>

- A Gantt chart (on page 18) covering the period April - September, 2008 was prepared to carry out these activities in a systematic time-frame.

During the opening session, Dr Yadava said the hilsa fishery – which is a source of food, nutrition and livelihoods in the coastal, estuarine and inland areas of the three countries – is at present subject to severe stress from natural and anthropogenic impacts. Both qualitative and quantitative changes have occurred in the landings of this species in recent years.

A management plan is therefore urgent to check further impacts on the fishery.

Dr Musharaf Ali, Assistant Commissioner (Fisheries), Government of India, expressed concern over the declining stocks of hilsa due to human intervention, and called for all-out management effort.

Dr K K Vass, Director of CIFRI and chairperson of the Consultation, congratulated the BOBP-IGO on its initiative of a Regional Consultation. He said a management plan for hilsa fisheries should look beyond commercial aspects and take into account sustainability and livelihood issues.

#### **Technical Session**

Dr Khan Kamal Uddin Ahmed, Principal Scientific Officer of the Bangladesh Fisheries Research Institute, Mymensing, Bangladesh, made a presentation on the “Status

of Hilsa Fishery in Bangladesh”. He described hilsa as the “national fish of Bangladesh”, and said it accounts for 50-60 percent of the global hilsa catch, 12 to 13 percent of national fish production and about 1 percent of the country’s GDP.

Dr Ahmed said the annual average of hilsa landings during the period 1983-84 to 2006-07, was 2 10 498 tonnes. During the last two decades, hilsa production from inland waters declined about 12 percent, while production from the marine sector increased two-fold. The number of marine fishing boats and gear has increased about four times since 1984-85, resulting in tremendous fishing pressure on hilsa fisheries in marine waters.

Explaining the results of a scientific study, Dr Ahmed said that the hilsa of Bangladesh, India and Myanmar belong to the same stock. Most hilsa born in fresh waters live and grow in the sea and migrate upstream for breeding and feeding. The adults again return to the sea after spawning.

Some 4 60 000 fishers from 1 83 000 families are active in hilsa fisheries in Bangladesh. About 88 percent of the fishers have no land or less than 0.5 acre of land. Some 1 00 000 crafts engage in hilsa capture in inland waters, while mechanized and non-mechanized boats and gear in the marine sector number around 106 000. Commercial hilsa fishing occurs in the marine and riverine areas throughout the year and peaks during September and October.

A majority of hilsa catch (60-70%) occurs during the peak breeding season.

Dr Ahmed referred to three important management measures undertaken recently by the Bangladesh Department of Fisheries. These are the special operation to protect and conserve juvenile hilsa, the *jatka*; declaration of hilsa sanctuaries in major nursery grounds; and conservation of gravid hilsa in the major spawning grounds for uninterrupted spawning. Since hilsa is a common resource of the Bay of Bengal, with Bangladesh, India and Myanmar together harvesting 90-95 percent of the resource, a tri-country initiative for hilsa management and conservation is urgently required for sustainability.

Dr K K Vass presented a country paper on “Status of Hilsa Fishery in India”. He said hilsa occurs on the east coast of India (river Ganga and its tributaries, the Chilika brackishwater lake), the rivers Brahmaputra and Barak in Assam and rivers of the west coast.

Dr Vass said that increased market demand for hilsa and the high price it commands have increased the fishing pressure on the species during the past three to four decades. The trend is continuing. Driven by the urge for higher harvests, fishers are deploying more and more effort, paying little attention to size or season. Such indiscriminate exploitation has resulted in a remarkable decline in mean length and weight of catch, especially in larger river systems.

Dr Vass suggested regulations on mesh size (for example, an increase in mesh size from the existing 8-12 cm to 9-13.5 cm) and optimum fishing effort on hilsa. Besides increasing the mean weight and overall production, this would also allow fishes to spawn at least once before being caught.

Dr Vass recommended that a better understanding be obtained of the population dynamics and MSY of



*The Regional Consultation in progress.*

**Gantt Chart for proposed activities to support preparation of a management plan for Hilsa.**

Sl. No	Management aspects	2008					
		April	May	June	July	August	September
1.0	Preparation of comprehensive status paper on hilsa	←		→			
2.0	Stakeholder consultation		←	→			
3.0	Setting up the data collection mechanism	←	→				
4.0	Setting up of National Task Force	←	→				
5.0	Setting up of a 'Hilsa Portal/ Website'				←	→	
6.0	Preparation of awareness materials				←	→	

hilsa species through stock assessment conducted by countries sharing the resource. He also suggested a bibliography on hilsa; development of effective harvest and post-harvest technologies; and investigations on the feasibility of raising of hilsa in the lacustrine environment.

Mr U Aung Htay Oo, Senior Fisheries Officer (Research), Department of Fisheries, Government of Myanmar, said that in his country, small-scale fisheries generally comprise two categories of fishermen – the fishing boat owner and the crew. Most fishing boat owners do not go out to the sea; but in the inland sector, many of the boat owners are active in fishing.

Discussing the state of information on hilsa, Mr Oo said that no specific

research activities are being carried out at present on hilsa fisheries. Technical assistance from regional organizations like the BOBP-IGO and from developed countries would be useful for a hilsa management plan. As precautionary measures, Mr Oo suggested mesh size control and protection of juvenile hilsa. Awareness-creation among fishers for conservation and sustainable exploitation of the hilsa fishery would be essential.

#### **Preparing a road map for the management plan**

After the three country status reports on hilsa, Dr Y S Yadava discussed three peculiar characteristics of hilsa. Its stocks are shared among three coastal states; it is migratory in character; it is predominantly an artisanal fishery distributed far and wide in the

coastal areas. These factors render a sound monitoring and control mechanism in a given fishing area difficult, particularly when harmonized management practices are absent.

He said the BOBP-IGO had drawn up guidelines on working toward a hilsa management plan from the 1995 FAO Code of Conduct for Responsible Fisheries (CCRF). The Guidelines include a “Framework for a Management Plan on Hilsa,” which has four main heads relating to information, institutional arrangements, stakeholders, and finance and funding.

On the basis of this framework, an indicative discussion map with six log-tables was prepared and given to the participants. The log tables were headed as follows:

Log 1: Status of Hilsa fishery in the Bay of Bengal.

Log 2: Natural and anthropogenic impacts.

Log 3: Socio-economic analysis – institutional arrangements.

Log 4: Socio-economic analysis – awareness creation and training.

Log 5: Socio-economic analysis – livelihood and trade.

Log 6: Economic analysis – funding requirements and provisions.

Representatives of each country together analyzed the situation of hilsa fisheries in their respective countries in terms of information sought in the log tables for a management plan. Gaps in information, and the future course of action, were identified. The resulting log tables were presented to the Consultation.

The Consultation constituted a technical committee in each country – key institution and supporting institutions – to initiate action on the management plan. It was also agreed that the next Regional Consultation on the subject will be held in Bangladesh during the last quarter of 2008, subject to the approval of the Government of Bangladesh.

