Ideas Abound at Sea Safety Workshop in Chennai

Forty three persons took part in the National Workshop on Safety at Sea for Small-scale Fisheries, held in Chennai on 3 - 4 December 2007. They represented the Ministry of Agriculture; the Coast Guard; the coastal States of Andhra Pradesh, Orissa and Tamil Nadu and the Union Territory of Puducherry; fisheries education institutions; fisheries associations; fishing boat manufacturers; NGOs; the National Institute of Occupational Safety and Health (NIOSH) of the United States; the Food and Agriculture Organization of the United Nations (FAO) and the BOBP-IGO.

Mr Ajay Bhattacharya, Joint Secretary, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, chaired the workshop.

Welcoming participants, Dr Y S Yadava, Director of BOBP-IGO, said the workshop took forward two earlier initiatives – the Chennai Declaration on Safety at Sea for Small-Scale Fishers (October 2001) and the Third International Fishing Industry Safety and Health Conference (February 2006).

Mr Per Danielsson, Fishery Industry Officer (Safety at Sea), Fishing Technology Service, FAO Rome, briefly explained the objectives of the South Asian component of the Global Project on 'Safety at Sea for Small-Scale Fisheries'. He said the project aims at improving the livelihoods of small-scale fishing communities by reducing the number of accidents at sea. It will implement a whole gamut of safety-related activities, such as awareness-building to promote a safety-at-sea culture in fishing communities; education and training to understand sea safety requirements; guidelines for design and construction of small FRP fishing vessels; appropriate reporting systems for accidents at sea; and adequate representation for women and youth in promoting safety-at-sea work ethics.

Mr Bhattacharya said the Government of India is implementing an insurance scheme that provides some relief to a fisher family in the event of death or permanent disability to the earning member. Tamil Nadu utilizes a substantial part of the assistance provided under the scheme, he said. He suggested that accidents statistics should be analyzed so that it could be ascertained why more accidents are reported from Tamil Nadu than from any other coastal state.

Mr Bhattacharya said that sea safety continued to pose problems despite a few measures – construction of 30 patrol boats during the mid-1990s, and the setting up of a Coastal Security Wing in Tamil Nadu under the control of an Additional Director General of Police, and an active Indian Coast Guard. He promised full government support to the project, and said the government would carry its lessons to other states.

Mr R Ravikumar, FAO Regional Project Coordinator- South Asia for the Safety at Sea Project, made a presentation on 'A Holistic Approach to a Safety-at-Sea Programme'. He said that neglect of safety at sea resulted from inadequate awareness of its importance; lack of safety guidelines for fishing craft and methods; poor distress response strategies and infrastructure; and inadequate rules and regulations in small-scale fisheries.

He said the regional project would be complemented by an IMO-FAO project relating to Recommended Guidelines for the Design, Construction and Equipment of Small Fishing Vessels.

Mr Ravikumar said that training and awareness campaigns for fishers must address a number of issues such as (i) understanding the service limitations of fishing vessels and occupational hazards; (ii) use of life-saving appliances and communication devices; (iii) survival at sea; (iv) hull and engine maintenance; (v) pre-voyage and post-voyage checks; (vi) awareness of national and international rules & regulations; (vii) weather warning mechanisms; (viii) distress response

Mr Per Danielsson, Fishery Industry Officer, FAO speaking at the inaugural session

protocol; (ix) reporting of accidents; (x) life and vessel insurance; and (xi) community role in developing a sea safety culture and community health programmes.

He also said that skippers of boats that are equipped with GPS and VHF must be well-versed in using such equipment. All fishers need to be trained in rescue at sea. Boatbuilders must be made to understand the need for technical guidelines for fishing vessel construction and must be trained to adopt good boatbuilding practices.

Mr Ravikumar said that the Merchant Shipping Act, which came into being in 1958 largely focusses on fishing vessels above 24 meters. Smaller fishing vessels are presently not being attended to. Consequently, they do not conform to any particular standard.

It is imperative that a set of technical guidelines for fishing vessel design, construction and equipment should be made available, Mr Ravikumar said. He also said that safety at sea must be integrated into the general management of fisheries in all coastal states.

Discussing the project's approach, he said the first step would be to assess knowledge gaps among all stakeholders – the fisher community, government agencies and the service sector – besides assessing mechanisms already in place that may need improvements. The next step is to design an awareness campaign and develop technical guidelines for fishing vessels and fishing operations.

Mr Arvind Kumar, Commissioner of Fisheries, Andhra Pradesh, made a presentation on 'Safety at Sea Aspects of Small-Scale Fishermen of Andhra Pradesh'. He said that according to a 2005 census conducted by the Central Marine Fisheries Research Institute (CMFRI), the State's marine fisher population is approximately 0.51 million, including an active population of 0.138 million fishers spread over 498 coastal villages.

The marine fishing fleet comprises 2 541 mechanized, 14 112 motorized and 24 386 traditional boats. Increase in effort, particularly by the mechanized fishing fleet, had reduced catches in recent years.

Mr Kumar referred to the FAO-TCP project on Sea Safety Development implemented during 1997-1999, following the November 1996 killer cyclone of Andhra Pradesh. Under this project, radio transmission towers were set up at two locations; 100 VHF sets, 100 FRP life floats, and engines were supplied for search-and-rescue (SAR) operations; fisheries staff were given training; the capacity of the Department of Fisheries (DoF) was strengthened; Storm Safety Action Groups (SSAGs) were set up in the 30 most vulnerable villages, and equipped with a transistor radio, bicycle, first aid kit, mega phone, rain coats, gum boots, torch lights, etc. Contingency plans were prepared for these villages.

Mr Kumar said that after the success of the pilot project, the government extended its activities to other districts of the State. As a result, 12 shore stations were established, more SSAGs were formed, and training was provided at the State Institute of Fisheries Technology, Kakinada. The reduction of fishing-related deaths at sea in succeeding years reflected the project's success.

Mr Kumar said that mechanisms like registration, certification and inspection, carried out for larger fishing vessels, do not exist for small country crafts. Communication and navigation equipment on small-scale fishing vessels are inadequate. Construction standards are poor too.

Mr Kumar stressed the need for accurate weather bulletins that reached fishers on time; development of safe landing and berthing places along the State's coastline; a registry of fishing boats and crew. SAR effort is often jeopardized by delays in receipt of information about missing fishers, he said. In the absence of vital information, it's difficult for the Coast Guard to focus its SAR operations.

He said that to integrate safety at sea with the larger issue of fisheries management, a holistic approach would be required, encompassing the socio-economic uplift of poor small-scale fishers.

Mr Shambhu Kallolikar, Commissioner of Fisheries, Tamil Nadu spoke on 'Safety at Sea Aspects of Small-scale Fisheries of Tamil Nadu'. He said Tamil Nadu has 13 coastal districts. Its 1 076 km coastline is unique because of three distinct zones: the Coromandel Coast, the Palk Bay and the Gulf of Mannar. The total marine fishermen population of Tamil Nadu is 0.81 million. Against an estimated marine fisheries potential of 0.72 million tonnes, the fish production in the State is 0.392 million tonnes. The fishing boats are varied; they include wooden and FRP catamarans and vallams, and mechanized fishing boats.

Mr Kallolikar said that mechanized boats in Tamil Nadu had been registered and licensed for fishing nearly a decade ago. To assess the exact strength of the fleet after the 26 December 2004 tsunami, a new re-registration process was taken up by the DoF. Following this exercise, the total number of fishing crafts of various categories registered in Tamil Nadu was estimated at 44 688, Mr Kallolikar said. Identity cards have also been issued to 2 18 566 fishers.

On accidents at sea involving fishers from Tamil Nadu, he said that during the period 2001-2006, 64 fishers died and 55 were reported missing. To improve safety at sea, a subsidy of 25 percent (up to a maximum of Rs 30 000 per vessel) was provided by the government for fixing VHF and GPS units in mechanized fishing vessels below 25 meters in length. The state government had provided 50 VHF sets and 10 GPS on a trial basis to mechanized fishing vessels. A proposal for providing seamless

communication to all fishing crafts is being considered. Rules have been formulated for the safety of deep sea vessels.

Mr Kallolikar detailed the training being imparted by the DoF on various aspects of safety at sea, navigation, operation and maintenance of engine, etc. He also mentioned the supply of life-saving appliances (life jackets, waterproof lanterns first-aid boxes, etc) to fishers under various programmes; the role of the DoF and other State agencies in disaster mitigation; and response and insurance coverage for fishers and fishing vessels.

Mr Hasan Manikfan, Director, Central Institute of Fisheries Nautical and Engineering Training (CIFNET), briefed the audience about the 'Role of CIFNET in Training of Seafaring Fishers'. Mr Manikfan said that CIFNET had a well-equipped nautical division, marine engineering division, and a craft and gear division, to train fishers.

He said that CIFNET conducts regular courses for those who man fishing vessels. These include a Mate Fishing Vessel Course and an Engine Driver Fishing Vessel Course, both upgraded now to 24 months from 18 months; and a four-year degree course in Bachelor of Fisheries Science (Nautical Science). The institute also conducts ancillary courses, statutory courses, refresher courses and short-term courses in different fisheries disciplines, plus a number of short-term programmes.

Mr Manikfan said that basic safety training should be provided to all fishing vessel personnel before being assigned to any fishing vessel. The training should be based on an analysis of the prevailing needs and conditions in each particular area. He proposed a simplified course for training small- boat fishers at the village level.

Mr Oyvind Gulbrandsen, FAO Consultant spoke about 'Status of Fishing Boats on the East Coast of India'. He said that communication is the key to sea safety. Nowadays even small-scale fishers carry mobile phones, GPS, etc. Bigger fishing vessels carry echo sounders & VHFs. "We know the limitation of mobiles, but it is better than nothing. Very few fishers had these 10 years ago", he said.

Mr Gulbrandsen pointed out that navigation lights were either missing or defective in 80 percent of fishing vessels. "Very few fishers use life jackets or life floats. The smaller crafts are our biggest challenge. The wooden catamaran may look primitive, but it cannot sink regardless of the danger. But the new FRP catamarans are defective and vulnerable to danger." He said that 25 years ago BOBP had introduced FRP boats (the IND-20) on the east coast. Today, they are scattered everywhere in Tamil Nadu. "Thousands of boats are being built by inexperienced people. FRP has come here to stay. But FRP is not a good material to take abrasions and many boats can be seen with cracks that need patches."

Mr Gulbrandsen was critical of the 'long-tail' system of propulsion in boats. "These are not suitable for the surf-beaten coast. Lots of deaths and injuries are taking place; some protection around the propeller is essential. The BOBP-liftable propulsion system – the bellow drive – is a much safer option," he said.

In a brief presentation, Dr George Conway, Director, Alaska Center of NIOSH, USA, recalled that mortality among fishers in Alaska was high because safety measures were lacking. But once the causes were examined and interventions made, the fatalities and accidents reduced significantly. Alaskan fisheries today are a good example of safety at sea. "It is worthwhile to examine whether the Alaskan experience can be exported to other parts of the world."

In a question-answer session that followed the technical presentations, Commandant B P Singh, Chief Staff Officer, Indian Coast Guard (Visakhapatnam Base), said that on the Andhra coast, 11 SAR operations were carried out during the previous 12 months (each operation lasting 72 hours) at a cost of approximately Rs 0.5 - 1.0 million. Twenty three fishermen had been rescued. He urged that boats should have a uniform system (design, colour, etc) for display of boat registration numbers. FM Radio can be a useful tool in the hands of fishers. "Since fishers are not the actual boat owners, their safety is compromised. The Coast Guard comes in late, often very late".

Participants raised the issue of insurance coverage for fishers, suggesting that it should be raised to a million rupees. Fishing vessels should be provided with life time insurance coverage.

After the technical sessions, participants formed three groups to discuss three topics: (i) knowledge gaps in fisher communities on safety awareness; (ii) knowledge gaps in national agencies on safety at sea initiatives; and (iii) knowledge gaps in the service industry on safety aspects for fisheries sector.

Mr Jagan Seshadri, Additional Director General of Police, Coastal Security Group, Tamil Nadu, chaired the discussions on group presentations.

Participants said cell phone companies should be persuaded to increase the seaward range of mobiles.

Mr Vijay Boda, President, RESTORE, urged a comprehensive and sustained examination of the health of fishers. It was suggested that health camps should be organized for fisher communities, and that a first aid clinic should be set up in each fishing harbor. Participants also emphasized the need to establish a formal mechanism to report accidents at sea, and to formulate an action plan to integrate safety at sea with fisheries management.

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"It is always a joy to come here," said Gulbrandsen. "Fisherfolk in this part of the world are the most friendly and happy people that I have encountered anywhere." Gulbrandsen took masses of photographs of fishers and fishing boats with his compact Fuji 8 mega pixel digital camera to visually document his findings.

He spoke about what he saw and learned on his east coast tour at the National Workshop on Safety at Sea organised by BOBP-IGO in Chennai on 3-4 December, 2007.

"Imagine fishers battling strong waves and rough weather on a dark night. It's a tough life," Gulbrandsen observed. "We must make his life easier and safer, and of course prevent him from drowning."

"I was here last after the 1996 cyclone hit Andhra Pradesh and more than 500 fishers were killed. Since then, there have been some positive steps. A key word is communication. Even small-scale fishers carry mobile phones. These have their limitations but are better than nothing. They are useful when fishers have to be warned about approaching cyclones."

Gulbrandsen said he noticed that trawlers in Andhra Pradesh and Tamil Nadu have some equipment such as echosounders. But there were no navigation lights, very few life floats, not a single life jacket. "Formulating sea safety regulations is important, but there is no point if they are not implemented, Gulbrandsen noted. He added that the trawlers could do with a lot of improvements to engine installation and fittings."

Gulbrandsen was critical about the use of 'long-tail' propulsion units on boats operating from surf beaten beaches as they could cause fatal accidents to shore crew. "Long-tail engines have been used with thousands of boats provided by donors. In calm conditions these are good, but there is a problem during surf-crossing." Deaths have occurred because of fishers being hit by the propellers.

Gulbrandsen's main observation related to the large-scale introduction of FRP craft in Tamil Nadu after the December 2004 tsunami which devastated fishers, their boats and livelihoods.

Most of these craft had been financed by donors who wanted to do their bit for tsunami relief. But the construction quality of the craft was poor and the boats started leaking very soon. They had been made by inexperienced builders who knew little about FRP. "I wish donors who provided these boats assist fishers with the repairs." He added that concrete steps were needed to assist and train boatbuilders, and improve both their awareness of regulations and compliance with them.

"In a wooden plank you notice a problem immediately, not so with an FRP craft. FRP has come to stay, so it is vital to improve the skills of boatbuilders," Gulbrandsen said. "BOBP introduced the first FRP fishing boat to the east coast through the IND-20 beachlanding craft designed by R Ravikumar. It is still being used in Puri, and has a safe installation for surf-crossing, which could be demonstrated any time to those interested."

Referring to Sri Lanka, Gulbrandsen said he had visited the Island after the tsunami in connection with rehabilitation work. He didn't notice any major change there during his current trip.

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On the basis of the group discussions, the workshop adopted the following three action points for implementation of the Safety at Sea Project in India:

- All pilot-scale activities will be carried out in a fishing harbor/ fish landing site – such as Chennai in Tamil Nadu, Visakhapatnam in Andhra Pradesh.
- A committee comprising nominees from national fishery agencies, district fishery bodies, fishery cooperative societies, local leaders of influence, and women from the fisher community will be formed to oversee the pilot activities.
- A baseline survey will be conducted to assess present knowledge and awareness of safety at sea. A consultant will conduct the survey on the basis of a questionnaire prepared by BOBP-IGO for each category of stakeholder. This will serve as a benchmark for monitoring the effectiveness of the awareness campaign.

During the workshop's concluding session, Mr Per Danielsson said that the poor quality FRP boats constructed during the post-tsunami period in Tamil Nadu should be repaired. Boats beyond repair should be recalled. Insurance for fishing boats should be linked to their construction standards.

Mr Seshadri said that liquor is a major problem in the fishing community, and compounds other social problems. The open-access nature of fisheries needs to be urgently addressed. There are too many boats; they must be regulated if fisheries is to be sustained.

Mr Seshadri further said that analyses of all fishing-related mortalities are a must – we must go into the cause before looking for the solution. He referred to the three E's of safety – engineering, education & enforcement. All three factors must be studied and addressed simultaneously to improve the safety and health of small-scale fishers.

He thanked the BOBP-IGO for organizing the workshop and all participants for smooth conduct of the workshop. Dr Y S Yadava proposed a vote of thanks.