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Sea safety for small-scale fishermen:

Moving from rhetoric to action

There has been more rhetoric than action on sea safety for small-scale fishermen. In this issue, we look back at the Chennai Declaration adopted four years ago. What's the progress on implementing its recommendations? It's time to move from rhetoric to action.

Sea safety for small-scale fishermen: Moving from rhetoric to action

From February 1 to 7, some 70 experts from many countries will meet in Mahabalipuram for IFISH-3, the Third International Fishing Industry Safety and Health Conference. It is being organised jointly by the BOBP-IGO, the FAO of the United Nations and the Alaska Field Station of the National Institute for Occupational Safety and Health, USA.

This is the first time IFISH is being held outside the U.S. Appropriately enough, the conference will place a special emphasis on the safety and health of small-scale fishermen.

This issue therefore focuses on sea safety issues. Pages 6 to 11 summarise the report of Mr Agnar Erlingsson, consultant who visited four countries of the region and did a comprehensive survey of sea safety for small-scale fishermen.

It is therefore pertinent to recall the efforts of the BOBP and the IGO in this area. Four years ago, the Chennai Declaration on sea safety for artisanal and small-scale fishermen was adopted at a regional workshop in Chennai (See box). Leading representatives from the seven member-countries of BOBP at that time (Bangladesh, India, Indonesia, Maldives, Malaysia, Sri Lanka, Thailand) attended.

Let us re-visit the Chennai Declaration, study its recommendations and the action taken since by governments, fishermen, NGOs and others.

Integration of safety issues into member-countries' fisheries policy and holistic fisheries management frameworks: As Mr Agnar Erlingsson puts it, "While some efforts are being made at provincial and national levels to improve the safety of small-scale fishermen, they are not commensurate with the magnitude of the problem."

Life jackets have been distributed to fishermen, subsidies have been given for the Global Positioning System (GPS). In India, a comprehensive marine policy says that sea safety issues ought to be addressed, but it contains no specifics.

In small-scale fisheries, the concept of co-management is coming into focus. The success of community-based fisheries management (CBFM) has been demonstrated successfully in the past. (The BOBP-supported extension services project in Ranong Province, Thailand, is an example. However, this project had no sea safety component.) Wherever CBFM is strong, it would provide an entry point for sea safety.

Legislation, regulation and enforcement at the national level: The remarks of consultant Agnar Erlingsson (pages 6-10) are pertinent.

To take his comments on Tamil Nadu, there are no regulations for design and construction of fishing boats. Fibre-reinforced plastic (FRP) boats are of poor quality. Enforcement of rules for safety equipment is lacking. He recommends a process of certification of boatyards manufacturing FRP boats, training of boat surveyors, encouraging registration by linking it to subsidies, updating of safety regulations and marine accident statistics.

Most small-scale fishing boats in this region are not insured. There's unfortunately no mechanism to make insurance compulsory. Whenever a calamity occurs, the entire cost of boat restoration and rehabilitation has to be borne by the government. A car cannot take the road without insurance; a similar rule should apply to fishing vessels in the sea.

Incorporation of FAO/IMO/ILO voluntary guidelines for the design, construction and equipment of small fishing vessels: There's not much evidence of this happening.

Fisheries and maritime administrations should enhance their knowledge of the operations and constraints of artisanal and small-scale fisheries sectors …. Unlike commercial fishing and registered vessels, small-scale fishing boats are so numerous and so varied in size, capacity, engine power and operational range, that it's an enormously challenging task for any government to set norms or certify safety. The government should organise studies and programs that systematically set out the status of fishing boats.

Strategies to involve the participation of fisher communities: Sea safety campaigns may flop unless the fishing community is fully involved in the exercise. It's a question of attitude. The fisher should be aware of the dangers he faces and co-operate with efforts to reduce the danger. Fisheries departments need to work with fisheries co-operative societies and fisheries associations to spread the message of safety.

Financial and other incentives to encourage the wide use of safety equipment: These should be linked to registration of boats and compliance with safety and training regulations, as consultant Erlingsson points out.

The following extracts from an FAO report on sea safety are enlightening:

"Some of the factors which have made fishing the most dangerous

Excerpts from Chennai Declaration

1. Sea safety issues should be comprehensively integrated into member countries' fishery policy and management frameworks.
2. Legislation, regulation and enforcement at the national level.
3. Measures for a harmonized and holistic fisheries management framework for the Bay of Bengal.
4. Incorporation of the FAO/IMO/ILO voluntary guidelines for the design, construction and equipment of small fishing vessels and the FAO/IMO/ILO document for guidance on the training and certification of fishing vessel personnel into regulatory frameworks, as appropriate.
5. Fisheries and maritime administrations should enhance their knowledge of the operations and constraints of the artisanal and small-scale fisheries sectors in order to formulate effective guidelines, standards and regulations for the safety of fishing vessels, including certification and training of crews.
6. Development and implementation of education, training and awareness programmes which satisfy regulatory requirements, while also building a culture of sea safety within artisanal and small-scale fishing communities.
7. Strategies that involve the participation of fisher communities, families, the media and other stakeholders to promote adoption of a wide range of safety measures.
8. Measures to enhance the economic viability of artisanal and small-scale fishing enterprises as an essential element of sea safety.
9. Financial and other incentives to encourage the wide use of safety equipment, and training in the use of such equipment.
10. R & D for cost-effective safety-related equipment relevant to the needs of artisanal and small-scale fisheries.
11. Formulate a regional sea safety programme.
12. Address the issue of sea safety on an urgent basis.

occupation in the world are: excessive fishing effort; increased competition; reduced profitability; economies in vessel maintenance, equipment and manpower; fatigue; recklessness; fisheries management measures (which do not take sufficient account of the human element or fishers' safety into consideration); diversified fishing operations unaccompanied by training, traditional experience and skills.

In developing countries, the consequences of loss of life can be devastating: widows have a low social standing, there is no welfare state to support the family and with lack of alternative sources of income, the widow and children may face destitution.

Effective approaches to safety at sea everywhere in the world and at all levels, rely on three lines of defense:

- prevention (the most reliable and cost-effective component): suitable equipment, training, experience, information and judgement to avoid getting into trouble in the first place;
- survival and self-rescue: the equipment, training and attitudes necessary to survive and effect self-rescue when things start to go wrong;
- Search and Rescue (the most costly and least reliable of the three levels): systems of alert, search and rescue, which are called upon when the first two lines of defense have failed.

There are a number of areas where improvements can be made at the national level with FAO assistance:

- provision and analysis of data identifying the cause of accidents;
- education and training of trainers, extensionists, fishermen and inspectors;
- improved fisheries management, safety regulation and enforcement;
- increased collaboration between fishermen, fishers' organizations and government."

From Alaska to Mahabalipuram

Dr George A Conway, Chief of the Alaska Field Station of the National Institute for Occupational Safety and Health (NIOSH) is one of the drivers of IFISH-3. He was also a key figure of IFISH 1 (held in Woods Hole, Massachusetts, USA in 2000), and IFISH 2 (held in Alaska in 2003). Excerpts from his conversation with ***Bay of Bengal News.***

How his work with sea safety started: "We have been working on sea safety issues from 1991, because Alaska had the highest number of fatalities in the fishing industry in the U.S. (some 35 deaths a year). We were asked to set up surveillance, prevention, and safety activities.

We provided technical assistance to the Coast Guard, and collaborated with the Alaska Marine Safety Education Association and the North Pacific Vessel Owners' Association. There were regulations implemented for cold water fisheries in the U.S. under the Commercial Fishing Vessel Sea Safety Act of 1988. That law required such devices as life rafts, personal floatation devices, EPIRBS (Emergency Position Indicating Radio Beacons) which are satellite-based communication devices.

The combined effect of all this: the mortality in Alaska fell dramatically, by more than 70%. It now stands at 10 to 12 deaths per year.

How did IFISH come about? We held three domestic conferences in the U.S. in 1992, 1995 and 1997. The last one, held in Seattle, suggested that we expand the scope of the conference. Result: IFISH 1 in 2000. There were some 135 participants including FAO and ILO, from 17 countries. IFISH-2 had some 125 participants from 20 countries. The FAO sponsored participation by eight developing countries.

The view was expressed that the next IFISH conference should be held in a developing country, and should emphasise sea safety in small-scale and artisanal fisheries. Dr Y S Yadava volunteered to host IFISH-3 on behalf of BOBP-IGO, and that's how the conference has moved here. Further, this was a logical sequel to the Chennai Declaration adopted in October 2001.

Any conclusions from IFISH-3 are not mandatory, but we believe that the process of information, discussion and exchange of views among a variety of fisheries experts from different parts of the world about safety issues, takes both knowledge and constructive action forward. We are very optimistic about the potential of IFISH-3.

The Chennai Declaration recommended the formulation and implementation of a regional sea safety programme, employing a consultative and participatory approach, building upon institutionally derived data, together with the operational experience of artisanal and small-scale fisher communities. It also recommended that the issue of sea safety be addressed on an urgent basis. However, little has been achieved so far and it is therefore time to address the multi-dimensional issues of sea safety on priority basis so that the rhetoric is turned into reality.

– Y S Yadava

Coping with 12/26: They Will Overcome

"It was so brutal, so quick, so extensive, that we are still struggling to fully comprehend it," said UN Secretary-General Kofi Annan.

Fishers and fisher communities were bewildered, disoriented. The sea was their mother, their protector. How could she do this? The tsunami of 26 December 2004 that struck 12 countries in the Indian Ocean area was more than a killer (at least 220 000 people) and destroyer (property worth several billion dollars). It deprived fishers of their families and livelihoods and shattered their confidence.

"Depression loses its power when fresh vision pierces the darkness," said Peter Sinclair. A tsunami of relief overwhelmed fisher communities, reflecting the richness and nobility of the human spirit.

Their terrible tragedy has given fishers and governments an opportunity to recreate a new world from the ruins of the old. "Build back better" is the motto of reconstruction.

This is what sustains fishers and fisher communities, a tribe whose everyday life is full of adventure. On the first anniversary of the tsunami, they recalled the event with prayers, flowers, candle-light ceremonies and sirens. They look to the future with trepidation — and hope. Encouraged by the dedication and compassion that governments, individuals and institutions have shown.

They will overcome.

Safety of small fishing vessels in India, Maldives, Sri Lanka and Thailand

In October 2005, an FAO consultant, Agnar Erlingsson, carried out a survey and a detailed assessment of the safety of small fishing vessels in India, Maldives, Sri Lanka and Thailand on behalf of the FAO of the United Nations and the BOBP-IGO. A valuable 52-page report resulting from his study will be discussed at the IFISH-3 Conference, to be held from February 1 to 7, 2006 at Mahabalipuram (Chennai). Here are glimpses into what Mr Erlingsson saw and what he said.

Mr Agnar Erlingsson's first-of-its-kind study on the safety of small fishing vessels (below 24m in length) in Tamil Nadu (India), Maldives, Sri Lanka and Thailand was carried out in October 2005. The study was an initiative of the Fisheries Industries Division of FAO, Rome, and the BOBP-IGO. It focused on "the extent and effects of all the mandatory requirements that existed for fishing vessels under 24m in length," and "how and why they are not effective".

In the course of the study, the consultant met transport and fisheries officials, interviewed the Coast Guard or those responsible for Safety and Rescue (SAR), visited fishing ports and met their administrators, surveyed fishing boats of all categories, a few in some detail; surveyed local boatyards and their production status and interviewed their managers.

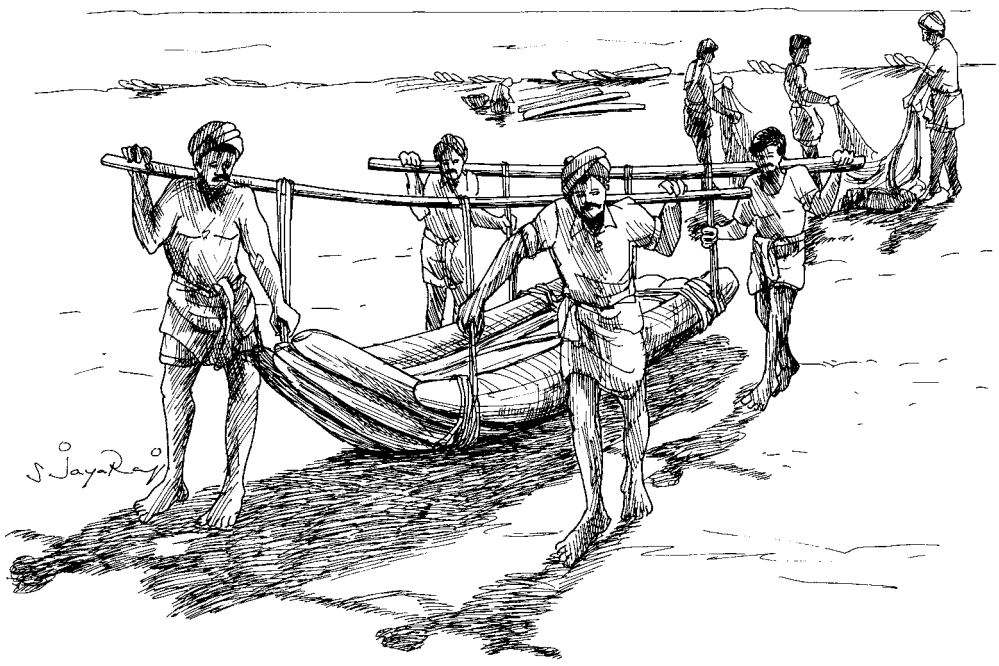
The study has led to a comprehensive report. It will also serve as a discussion paper for the Third International Fishing Industry Safety and Health Conference or IFISH-3 to be organised in Mahabalipuram (Chennai) from February 1 through 7, 2006, by the BOBP-IGO in co-operation with the FAO and the Alaska Center of the National Institute for Occupational Safety and Health (NIOSH), USA.

For each country, the report describes the current status of fishing vessels and of boatbuilding capacity, discusses registration procedures and regulations for vessels, and various aspects concerning safety. It concludes with a number of recommendations for the future. It also contains a "global perspective" and "issues for discussion".

General comments on safety: Mr Erlingsson says that safety aspects of a craft relate to the vessel itself and to ancillary safety equipment on board. "The best safety equipment is the boat itself". Safety features of boats relate to boat design, construction, watertight integrity, stability and machinery.

The boats: In Tamil Nadu, India, boats under 24m may be divided into three groups – some 35 000 kattumarams, lografts about 4.5 to 8m in length; some 8 000 vallams, previously made of wood, nowadays from FRP (fibre-reinforced plastic) generally 8 to 9m long; some 12 000 mechanised craft, between 11 and 15m long, decked vessels of wood, typically with a main diesel engine of 70 to 120 H.P.

Fishing vessels in the Maldives may be divided into three categories: the Bokkura, used for coastal reef fishing, a double-ended wooden rowing boat 7 to 15 feet in length; the Vadhu Dhoni, a wooden sailing



The kattumaram of Tamil Nadu, India, is an excellent craft for small-scale fishermen, but has safety limitations.

boat 15 to 18 feet long, traditionally used in line trolling for tuna; and the Mas Dhoni, which fish for tuna by the pole and line method, and range in size from 50 feet to 110 feet in length, mechanized with engines from 80 H.P. to 500 H.P.

Sri Lanka's fishing craft are of four types: some 15 000 traditional dugout orus with outriggers; about 12 000 open boats with outboard motors; and some 3 000 mechanised boats of which some, fitted with 15-25 H.P. inboard engines, go out fishing for a few days a week; and larger boats, fitted with 30-80 H.P. inboard diesel engines that do fishing trips of 30 to 45 days.

Thailand has some 2 800 traditional craft without engines; some 36 000 longtail boats, usually 5 to 8m long, with outboard motors; and about 15 000 mechanized boats, most of them between 15 and 25m long, with inboard engines. These are 1995 census figures, 11 years old. Most Thai fishing vessels are built of wood. There are very few FRP boats. But new boat hulls are usually of steel.

Main Findings

Mr Erlingsson's report has a two-page summary of "main findings" with a tabular statement of "issues and recommendations" for each country; plus observations and findings separately for each country in the main text.

"The main finding of this study is that in general, the safety of these small fishing vessels is not under control," says Mr Erlingsson. "Regulations for registration may exist but enforcement is very much at random. Regulations for design, construction, safety equipment and crew qualifications are in most cases non-existent — though those responsible may have authority to set rules and enforce them. A notable exception to this is in the Maldives, where regulations for safety equipment are in place, although enforcement may be somewhat lacking. In another country, Thailand, there is usually some safety equipment available on board the fishing boats although there are no regulations to this effect."

Serious accidents to fishing vessels in the Maldives are rare, but awareness of safety regulations should improve.

Mr Erlingsson says that to ensure some control over the safety of fishing vessels, it is necessary that they be registered, at least those that are mechanically powered. Both governments and fishermen ought to be committed to this. Fishermen can be motivated by certification, award of fishing licences or subsidies — on fuel oil for example. Governments should bear in mind that search and rescue (SAR) is very costly, and registration is far cheaper.

Discussion on Tamil Nadu

Mr Erlingsson says that from the safety standpoint, fishing vessels in Tamil Nadu should focus on four main areas: registration, training, minimum practical safety equipment on board, certification of FRP boatbuilding.

"It boils down to changes in attitude and motivation on the part of fishermen as well as the government, and processes in place." Fishing vessels must be registered for any regulatory enforcement to be effective. "Present rules require all fishing boats that fish for profit to be registered, but the rules are apparently not being followed because there is no motivation for it," says Mr Erlingsson. He therefore recommends that such registration be tied up with the discount or subsidy fishermen are already getting on diesel oil. "Other ideas and methods will definitely develop as this system drops into place."

Training/Education should cover navigation, safety, first aid and minor engine repairs. Regulations do exist concerning minimum training and the qualifications of the skipper and the engine driver, but they are not enforced, These qualifications should be checked when the safety equipment of boats is surveyed.

On ***minimum practical safety equipment on board,*** Mr Erlingsson says that some rules that exist do not seem to be very effective. He has suggested a revised list of equipment.

Safety of Small Fishing Vessels: Issues and Recommendations by Country

Country	*Issues*	*Recommendations*
Tamil Nadu, India	Registration of boats is required. However, follow up is not clear. Enforcement of rules for safety equipment is seriously lacking. Control of qualifications and training of crew is deficient. No rules for design and construction. FRP boat building of poor quality. Marine accident statistics lacking.	Registration is imperative for safety; this may be done through subsidy motivation. Training of surveyors is necessary. Rules for for safety equipment may be enforced by linking diesel oil subsidy with compliance. Safety regulations to be updated. FRP boatyards to be certified. Statistics on accidents need to be improved.
Maldives	Registration pretty well in place. Vessels generally well-built, but construction rules not in place. Fairly adequate safety equipment rules, but compliance is unsatisfactory. So are qualifications standards of crew. FRP boats are generally good in quality. Boatyards maintain high standards, but lack standardization and certification. No statistics available on marine accidents.	Present status good, but can be made better. Training of surveyors and enforcement of rules to be improved. Qualifications of crew to be enhanced. Safety equipment quality to be improved. FRP boatyards to be certified. Accident statistics to be made available.
Sri Lanka	Regulations for registration are in place but enforcement is lacking. No regulations exist for construction, design or safety equipment, but rule-making authority exists. Only informal rules for boatbuilding – these do not seem to be working. Training and qualifications of crew not standardized, and are deficient. FRP boatyards of doubtful quality. No coastguard or SAR vessels. Statistics good but no record of accidents.	Better follow-up of registration needed. Regulations for design, construction and safety equipment to be put in place. FRP boatyards to be certified, boats to be inspected on completion. Surveyors of boats to be trained. Training and qualifications of crew to be given all due consideration. SAR boats to be made available. Statistics should include record of accidents at sea.
Thailand	Registration procedures random, not systematic. No regulations for construction, design or safety equipment in place. Crew qualifications inadequate. Use of safety equipment random. Thai Navy effectively controls SAR. No statistics on marine accidents.	Follow-up in all categories to be improved. This is to be done by applying fish licence motivation. Surveyors to be employed and trained for enforcement both in boatbuilding and for ships in service. Statistics on accidents at sea should be improved.

Enforcement of rules for safety equipment is often lacking in small-scale fisheries.

For non-mechanized kattumarams and similar boats: No particular rules apart from oars and paddle if that is considered sensible.

For motorized and mechanized boats of up to 9 m length: An electric torch (watertight), tools to repair motors, oars/paddle, a small buoyancy float to be marked with name /registration number of the vessel, a bucket or a bailer.

For mechanized vessels of 9 m in length and more: a compass, navigational lights in accordance with Colregs, bilge pumps, both manual and mechanically driven, anchor with rope, paddle/oars, bucket and bailer, buoyancy floats for all on board, marked with name/ registration number of vessel, first aid box, VHF communication, tool kit and spares for engine, including one or more watertight battery torches.

For vessels of more than 15 m length: In addition to the above, GPS and EPIRB, when an inexpensive type comes on the market.

Mr Erlingsson says that the quality of local production of FRP 27-30 foot vallams – in the matter of facilities, environment, materials, scantlings, methods and training – needs to be improved. Experienced master builders or organisations should be sought to set quality standards, provide training and qualify the yards for certification given by a local statutory body. "This way the customer would know what product he is getting and a certain degree of safety and durability would be assured."

Discussion on the Maldives:

Extracts from conclusions and recommendations:

- Registration of fishing vessels in Maldives is pretty well in place. All the vessels surveyed appeared to be well built and in fairly good condition.
- Serious accidents on fishing vessels are rare, mostly due to engine breakdowns. No one interviewed could recall a recent fatal incident on a Maldives fishing boat.
- Many interviewed said that awareness of safety regulations was generally lacking amongst fishermen.
- There are no rules for the making of FRP boats. Since these are taking over from wooden boats, some sort of control should be imposed on boat-builders and their methods.
- Some design features should be improved; this applies specifically to the height of coamings of engine room openings, hatches and hatch cover closures. Stability should receive some attention in larger vessels.
- Regulations for safety equipment seem to be appropriate. But it's questionable whether all the rules should apply for the smallest boats.

There do not appear to be serious problems concerning the safety of small fishing vessels in Maldives and their fishermen. A few recommendations:

***Training**:* Fishermen´s awareness of safety issues may be improved by training. Presently, all engine drivers take part in a course concerning navigation and engine use; first aid and safety should be included as a part of this course.

Quality of safety equipment: Life vests are required on all boats for all persons aboard. The quality of these is not defined; they are stored in various places. It is important that a minimum quality for life vests and

Fishing vessels at the harbour in Tuticorin, Tamil Nadu.

their storage facilities be described. The Ministry of Transport should propose a definition with respect to material, operational buoyancy, support angle and marking.

Safety equipment on small boats: Small boats may not always have proper storage facilities for prescribed safety equipment. Life vest requirements for at least two people on all such boats would mean adequate storage on those boats. Alternatively, life floats could be considered.

Certification of FRP boat yards: Some sort of a certification system could be developed in Maldives for boatyards so that customers know what kind of a contract they are entering into and what product they will be getting. This certification need not necessarily be of an international standard, assistance might be sought from FAO or some other organisation capable of providing such help.

Discussion on Sri Lanka:

Here are extracts from conclusions/ recommendations:

Registration: Registration of fishing vessels is in place, better follow-up is wanted. Fishing licenses or permits should be issued only to registered boats.

Regulations: Regulations should be formulated for construction, navigation, safety and manning standards. Requirements should be laid down about the training and qualifications of vessel operators.

Boatbuilding: Most boats, traditional or modern, are built in FRP by the country's 75 boatyards. None of these yards are certified; most employ workers with little or no formal training. Boatbuilding standards in accordance with internationally accepted levels and practices should be enforced. This is already being done by a handful of boatyards. They should be given a certificate or a letter of approval. Only certified yards should be given licenses.

Safety and Rescue: Though this report is about safety, the dearth of rescue vessels should be mentioned. They are sorely needed and should be supplied as soon as possible. The round-the-clock monitoring and surveillance system and the coastal network of radio stations is worthy of praise, and should be strengthened and modernized.

Discussion on Thailand

Here are extracts from conclusions/ recommendations:

Registration: All motor-driven boats in Thailand should be registered with the Marine Office. Proper registration and a valid certificate should be a prerequisite for a fishing license, otherwise safety regulations may be difficult to enforce.

Regulations: For all decked and mechanized fishing vessels, regulations will have to be put in place; this should be the responsibility of the Marine Office. The design, safety and qualification regulations should cover watertight integrity, vessel stability, safety equipment, navigation and communication equipment, training, and the qualifications of the skipper and engine driver. For longtail boats, only minimum requirements regarding life saving, navigation and communication equipment are

Regulations need to be formulated on construction, navigation and safety standards of fishing boats in Sri Lanka.

considered necessary. These may be administered by the Department of Fisheries if, and as, found practical.

Boatbuilding: At present the main building activity relates to the smaller, open, longtail boats and the larger steel fishing vessels. A long and successful tradition with longtail boats and an accident-free performance seems to indicate that no immediate improvement is necessary. As regards the larger mechanized steel vessels, it is imperative, to ensure both quality and safety, that they are approved and authorized before they are in business.

No FRP boatbuilding activity was seen. But it is very probable that, production of FRP boats is going on somewhere around the coast. The Marine Office should therefore be ready for such a development and formulate rules and regulations for the production of FRP boats.

Training: **S**kippers and engine drivers of decked mechanized boats should undergo some training in emergency procedures, elementary stability, navigation, communication, first-aid and engine repairs. With time, other crew member will also follow suit.

Global perspective:

The consultant says that safety-at-sea problems for fishermen differ in developed and developing countries. In the latter, political commitment to invest in the safety of fishermen in small-scale and artisanal fisheries seems to be lacking. This attitude must change.

It is true that there are no international rules or regulations for fishing vessels smaller than 12m in length. But the Nordic Rules for Construction and Certification of Vessels Less than 15m in length, were formed by a working group from Nordic countries in the early 1980s. They applied to recreational craft and working boats constructed of wood, steel, aluminium, ferrocement and FRP. These standards have been used to good effect.

Boatyards and landing centres in Sri Lanka (top and centre) and Thailand (below) are sometimes deficient in trained manpower and adherence to safety regulations.

Regional Training Course on Code of Conduct for Responsible Fisheries

The first Regional Training Course on the Code of Conduct for Responsible Fisheries (CCRF) will be held in Chennai during September-October 2006. It will be organised by the BOBP-IGO.

Background

The Committee on Fisheries (COFI) at its 19th Session in March 1991 made an appeal for responsible, sustained fisheries. Subsequently, the International Conference on Responsible Fishing, held in 1992 in Cancûn (Mexico), requested the FAO to prepare an international Code of Conduct to address the issue.

On October 31, 1995, more than 170 members of the FAO unanimously adopted the Code. It has been described as "one of the most important international instruments devised for management of our planet's aquatic resources."

Simply put, the Code consists of a collection of principles, goals and elements of action. It sets out principles and standards of behaviour for responsible practices in fisheries. The aim is to ensure effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity.

The Code is voluntary in nature. It is directed at members and non-members of the FAO, fishing entities, organisations of all kinds, fishers, people engaged in the processing and marketing of fish and fishery products – in short at everyone concerned with development and management of fisheries.

To support implementation of the Code, the FAO has brought out a series of 12 booklets known as "FAO Technical Guidelines for Responsible Fisheries". The booklets relate to fishing operations, the precautionary approach to capture fisheries, integration of fisheries into coastal area management, fisheries management, aquaculture development, inland fisheries, responsible fish utilization, indicators for sustainable development of marine capture fisheries, and implementation of the International Plans of Action to prevent illegal, unreported and unregulated fishing; conservation and management of sharks, management of fishing capacity; and reducing incidental catch of seabirds in longline fisheries.

Why is a course on CCRF needed?

Though the CCRF is more than 10 years old, understanding of it at the grassroots level is poor, awareness of its provisions at all levels is inadequate. Better understanding of the CCRF is essential for tackling the many problems that confront fisheries today – over-exploitation, pollution, etc.

The course can create a cadre of trained scientists and officials who are aware of the Code and its technical guidelines. These persons will constitute a resource pool to facilitate implementation of the Code in the region.

The course should ultimately influence community participation and grassroots action in promoting fisheries development and management. The Code will have a meaning only if fishers and fisher communities apply it from day to day, and fisheries officials and extensionists promote the Code in a pro-active manner. The ultimate triumph of CCRF also lies in its localization, and that's what the course is designed to bring about.

Course participants will be made conversant with the Technical Guidelines and the International Plans of Action. They will develop new capacities for planning, managing and evaluating fisheries programmes from the standpoint of effective implementation of the CCRF. Field-based experiences drawn from fisheries development programs will be included in the course.

Participants

Course participants will be from Government agencies, NGOs and research organisations interested in effective implementation of the Code. They could be fisheries extension workers, mid-level government officials, research scientists, donor agency representatives.

Duration

Fifteen days, including three to four days of field trips.

Expected outcomes

At the end of the course, the participants will have:

1. discussed and understood the Code and the technical guidelines better.
2. identified the advantages and constraints of various methods of the implementation of the Code through the analysis of case studies and field experiences; and
3. prepared an action plan to incorporate design, implementation and evaluation elements of CCRF implementation strategy into ongoing or planned activities, projects and programmes.

Contact: Director, BOBP-IGO at info@bobpigo.org *or* Yugraj.Yadava@bobpigo.org for further details and for booking a slot in the course.

Sri Lankan Fishers and Fisheries Today

Photographs: S Jayaraj

Fisheries is one of the drivers of the Sri Lankan economy (fish provides food and nutrition, jobs and incomes, foreign exchange earnings, tourism revenues). Sri Lankans love their fish. Fisheries images catch your eye in tourist brochures (the beautiful Oru, smiling fishermen, stilt fishermen on the coast, St John's market in Colombo, catches in Negombo), they have also adorned the pages of ***Bay of Bengal News*** many times during the past 26 years.

A few facts**:** coastal, offshore and inland fisheries together employ 250 000 active fishers, a population of over a million. Some 285 000 tonnes of marine fish is landed annually, of which 90 percent is consumed locally and 10 percent exported. But Sri Lanka imports an additional 70 000 tons of dried and canned fish annually to meet local demand. Some 610 species of coastal fish, 90 species of oceanic pelagic species, 60 species of sharks and 215 demersal species have been reported in Sri Lanka. For the domestic market, the high-value species are Spanish mackerel, horse mackerel, trevally, tunas and tuna-like species. There is a heavy consumption of shark and of small pelagics such as sardines, herrings, anchovies and Indian mackerel. Prawns, *beche de mer* and shark are important species for export.

There are 12 fishery harbours, several large and small anchorages and as many as 700 village-level landing sites. The total fishing fleet in 2004 consisted of more than 31600 boats – traditional craft (motorized and non-motorized), 6-7m FRP boats, 3 1/2 ton boats, offshore multi-day boats and beach seine craft. Traditional fishing craft (simple canoes with outriggers) make up nearly half

the fleet, in spite of all the development during the past few years. Government schemes for fishermen include low-cost housing, community centres for fishing villages, drinking water supply, bus services to transport fishermen and gear, an accident compensation scheme and a variety of other smaller schemes.

A narrow continental shelf is a major resource-limiting factor in Sri Lanka. Some issues: heavy exploitation of pelagic species and inadequate exploitation of demersal and other species (commercially valuable fish in deeper waters, such as large yellow fin and big eye tuna remain under-exploited); lack of protected landing facilities in some areas; unsatisfactory catch monitoring system and inadequate knowledge of fishery resources. The multi-gear multi-species coastal fisheries — and the use of environmentally harmful fishing gear by groups of fishermen – have triggered many user conflicts between different groups. The offshore fishery is characterized by its heavy reliance on gillnetting and associated post-harvest losses.

"Inadequate fisheries management overrides many of these issues," says Mr G Piyasena, Director-General, Department of Fisheries and Aquatic Resoruces. With inadequate numbers in personnel and facilities, Sri Lanka's MCS (monitoring, control and surveillance) capability is unsatisfactory. So is fishermen's compliance with management initiatives introduced by the authorities — such as boat registration and licensing.

The December 2004 tsunami was a huge catastrophe. It killed more than 35 000 people in Sri Lanka from coastal communities, affected nearly 80 per cent of active fishers and destroyed or damaged more than 75 per cent of the fishing fleet. A large number of small-scale fishing craft

Right and facing page: Shots before and after fish landing in and around the Beruwala harbour.

and fishing gear were destroyed. Of the 12 fishing habours, 10 were severely damaged. Public and private utilities such as ice plants, landing ports, markets, and houses of the fishing community were destroyed. Production during Jan-August 2005 was less than 40 percent that during the corresponding period in 2003 and 2004.

But post-tsunami rehabilitation allows opportunities to build back better. Some key areas identified in the post-tsunami reconstruction and development strategy: Improved designs for offshore multi-day boats; technological improvements with onboard fish handling and preservation to minimize economic waste and improve quality of fish landed; strengthening of participatory fisheries management, particularly in coastal fisheries. through better awareness creation and better facilities for resource assessments, boat registration and licensing systems.

“Attitudinal changes are required right across the board to tap the opportunities of post-tsunami reconstruction and meet the challenge of building back better,” says Mr Piyasena.

The BOBP has since 1979 been an active partner of Sri Lanka in marine fisheries development and management. Several ideas and innovations have been introduced, and numerous lessons learned, in the areas of fisheries management, fisheries resources including ornamental fisheries, fishing craft, fishing gear, aquaculture, women’s empowerment, information dissemination (including radio programmes for fisherfolk). Several score seminars, workshops and training courses have helped strengthen know-how and facilitated flow and exchange of ideas. Two of the most recent activities initiated by the BOBP-IGO (workshop on the Code of Conduct for Responsible Fisheries, and an art contest on the tsunami among schoolchildren) have been reported elsewhere in the issue.

Top and centre: Typical examples of tsunami damage - a fisher’s home and a fishing boat. Bottom: Boats being repaired and restored at a boat building yard.

BOBP-IGO's Governing Council Meets in Colombo

The Governing Council of the BOBP-IGO, which met in Colombo on 12 and 13 December 2005, laid the ground map for the IGO's work next year, endorsed work done the previous year, and discussed and approved the report of the IGO's Technical Advisory Committee.

Representatives of the IGO's four member-countries (Bangladesh, India, Maldives and Sri Lanka) took part at the Governing Council meeting, besides observers from the FAO, INFOFISH, NACA (Network of Aquaculture Centres in Asia and the Pacific) and SACEP (South Asia Co-operative Environment Programme.)

Mr E Jinadasa, Secretary, Ministry of Fisheries and Aquatic Resources, Sri Lanka, chaired the inaugural session. In the second session, Mr G Piyasena, Director-General, Department of Fisheries and Aquatic Resources, Sri Lanka, was unanimously elected the new chairperson of the Governing Council.

The participants were welcomed by Mr Jinadasa, Mr A Hettiarachchi (Director-General, Ministry of Fisheries and Aquatic Resources, Sri Lanka), Mr Ajay Bhattacharya (outgoing chairman of the Governing Council and Joint Secretary, Fisheries, Ministry of Agriculture, Government of India) and Dr Y S Yadava (Director of the BOBP-IGO).

Dr Yadava pointed out that three years earlier, plenipotentiaries from the erstwhile BOBP had met at the same venue to finalise the setting up of the IGO.

Mr Jinadasa described the BOBP-IGO as an infant among sub-regional and inter-governmental groups. It was a matter of pride that within a brief period the IGO had planned numerous programmes –

Delegates at the Governing Council Meeting.

such as safety at sea of small-scale fishermen, resource assessment, capacity-building, information networking, and popularization of the Code of Conduct for Responsible Fisheries. He said member-countries had the "will and capacity" to work closely with the BOBP-IGO. He hoped its membership would expand. He thanked the secretariat of the IGO for organizing two activities in Sri Lanka along with the Governing Council meeting – an art contest for school children and a workshop on the Code of Conduct for Responsible Fisheries.

The BOBP-IGO's activity priorities for 2006 as agreed on at the meeting:

- Capacity-Building and Information Services for Fisheries Development and Management in the Bay of Bengal Region.
- Translation and printing of the FAO CCRF Technical Guidelines on Marine Fisheries and their supplements in the national languages of member-countries.
- Adaptation of the Code of Conduct for Responsible Fisheries to meet regional requirements.
- Third International Conference on Fishing Safety and Health and the Regional Workshop on Review of Post-Tsunami Fishing and Safety Assessment at Chennai, Tamil Nadu, India, 1- 7 February 2006.
- Setting of a Regional Information Network to provide appropriate information for development, planning, research and training. This will assist member-countries in strengthening their national capabilities in development and management of coastal fisheries.
- Organisation of a Fishermen's Week to promote and institutionalise a participatory and community-based system of management of fisheries and aquatic resources.
- Information dissemination through the ***Bay of Bengal News*** and other publications and the BOBP-IGO's website to inform, enthuse and bind governments and other fisheries stakeholders of the region.

(II) Women in Fisheries:

- Review of the Status of Fisherwomen in Coastal Fishing Communities of member-countries (Bangladesh, Maldives and Sri Lanka), and preparation of reports based on the reviews.
- National Workshops in member-countries to discuss the findings of the review and formulate an action plan.

(III) **Fisheries Resource Management**

- Assessment of the marine fishing fleet of member-countries.
- Organisation of a Regional Consultation on Monitoring, Control and Surveillance (MCS).
- Preparation of a management plan for one commercial fishery in each member-country.

BOBP-IGO's report for 2004-2005

Dr Y S Yadava presented the organisation's report for the period October 2004 - December 2005. He pointed out that some of the regular activities suffered because of the tsunami, which demanded immediate attention. The Governing Council complimented the BOBP-IGO on the number and variety of activities undertaken by a body of its modest size. Some comments on the report:

- The delegate from Bangladesh expressed his government's interest in resource assessment models for coastal and deep-sea fisheries and in alternative livelihood strategies for fisherfolk who collected shrimp post-larvae. Bangladesh was not hit directly by the tsunami; but in view of reports about the changing composition of fish species, and of coastal fish migration taking different patterns after the tsunami, participation in tsunami-related consultations would be useful.
- The Indian delegate said the recent census on marine fisherfolk would help planning processes relating to small-scale fisheries. He enquired whether BOBP-IGO could provide training and technical support in ornamental fisheries. (In response, Dr Yadava said that IGO could do so. A report on the status of ornamental fish trade in India is being finalized.)
- The delegate from Maldives said his country would like to see more collaboration with BOBP-IGO. He said the increasing pressure on reef resources in recent years called for serious interventions.
- The delegate from Sri Lanka suggested that BOBP-IGO should update publications produced during the first and second phases of BOBP. Assistance was requested for a detailed survey on the marine fisherfolk of Sri Lanka.
- The Secretariat said a Regional Workshop on MCS was proposed to be conducted in Bangladesh during mid-2006.
- The FAO would soon publish Technical Guidelines on Small-Scale Fisheries, the FAO delegate said.
- Observers from INFOFISH and SACEP welcomed closer co-operation with the BOBP-IGO. The SACEP representative expressed her organisation's interest in issues related to coastal livelihoods and marine and coastal protected areas.
- The Governing Council suggested that the Secretariat engage some more qualified staff to meet the many requirements stated by member-countries.

Presentations by Observers

The representative of NACA said his organisation could work together with BOBP on socio-economic uplift of small-scale fishers and fish farmers. The representative of SACEP said her organisation's priorities related to marine and coastal protected areas and natural disaster management. SACEP could work with BOBP on sustainable livelihoods.

The FAO representative described the progress of FAO-related projects on tsunami rehabilitation, the Bay of Bengal Large Marine Ecosystem and the Asia-Pacific Fisheries Commission (APFIC). He said that FAO was the lead organisation for tsunami rehabilitation activities in Sri Lanka and Indonesia. Reconstruction programmes included aquaculture, harbor infrastructure and improved livelihoods.

The Governing Council of the BOBP-IGO

The Governing Council is the supreme body of the BOBP-IGO. Every member-country is represented on the council; it meets every year; special sessions can be convened at the request of two-thirds of the members.

The First Meeting of the BOBP-IGO's Governing Council was held in Chennai from 7 to 8 September 2004.

The Governing Council determines the organisation's policy, its work programme, budget. Decisions are taken by a two-thirds majority, with due weight given to the recommendations of a Technical Advisory Committee. The Governing Council lays down standards and guidelines for management of the BOBP-IGO. It evaluates activities, including the accounts, appoints the director of the organisation and determines his conditions of service, formulates and adopts financial and administrative regulations, approves formal arrangements with governments and other institutions.

The Technical Advisory Committee established by the Governing Council advises the Council on all technical aspects relating to the organisation's activities. It will have one representative from every member-country, known for special competence and expertise in coastal fisheries. It will meet at least once a year, also at any time as requested by the Governing Council, and adopt a report which will be submitted to the Governing Council for its endorsement.

He said the proposed Regional Consultative Forum to be organised from 16 to 19 August 2006 in Kuala Lumpur, Malaysia, would discuss "Reforming Fisheries and Aquaculture", and cover areas such as the future of fisheries, co-management and governance and policy changes.

The Governing Council accepted in principle the proposal on secondment of technical personnel from member-countries to the Secretariat for a period ranging from 12 -18 months. But some delegates felt it might be difficult for their Governments to pay salaries for staff seconded to the BOBP-IGO.

Report of the Technical Advisory Committee (TAC)

The Governing Council endorsed the report of the first meeting of the IGO's Technical Advisory Committee (held in Maldives on September 4-5, 2005) as presented by the Secretariat. The TAC had agreed on a set of long-term thrust areas for the BOBP-IGO, as follows:

- Capacity-building for long-term interventions and strategies for safety at sea of artisanal and small-scale fishermen;
- Capacity-building for implementation of MCS programmes;
- Joint assessment of fish stocks through collaborative and participatory arrangements among member-countries. Assistance of major fisheries institutions in the member-countries could be availed for such a programme. The BOBP-IGO could provide an input to initial costs, and external funding could be sought.
- Development of management plans for important fisheries such as hilsa (*Tenualosa ilisha*) and shark fisheries.
- Information and Networking to assess and strengthen the networking capacity of the BOBP-IGO's member-countries; build the capacity of member-countries to integrate electronic media into their day-to-day operations; and develop networks among BOBP-IGO stakeholders at the regional level to share knowledge, experiences and best practices.

During discussions on the TAC report, the Indian delegation suggested that Bangladesh and India could cooperate on disease prevention in shrimp aquaculture, learning from each other's experiences. They could also reduce the spread of aquatic animal diseases from one country to the other. NACA could assist as necessary.

India also pointed out that the recent meeting of the BIMSTEC Technical Committee had suggested a role for the BOBP-IGO in two activities — assessing coastal fisheries stocks, and development and testing of a pilot-scale programme on a vessel monitoring system. Such a system could be a model for member countries in future. India also suggested FAO support for the proposed Regional Workshop on MCS in mid-2006 in Bangladesh.

Bangladesh suggested that issues related to safety at sea of poor fishermen be given priority. On fisheries surveys, India's fisheries institutions could be a role model and they could help train other member-countries. BOBP-IGO could initiate such training.

Sri Lanka described India's VMS programme as a good initiative. The BOBP-IGO could organise a visit by representatives of other member-countries to observe the working of the programme.

The FAO delegate complimented BOBP-IGO on highlighting the problems of member-countries in coastal marine fisheries through a prioritized list of activities. He suggested that FISHCODE could be approached to fund the MCS Regional Workshop.

Responding to a query from Bangladesh, Secretariat said that the IGO would support Fishermen's Week through awareness-creation activities and logistics.

The Governing Council proposed to hold its next meeting in late 2006 in the Maldives, subject to the government's approval.

Sri Lanka Holds Workshop on Code of Conduct for Responsible Fisheries

A National Workshop on implementation of the Code of Conduct for Responsible Fisheries was held in Colombo, Sri Lanka on 9-10 December, 2005. It was organised by the BOBP-IGO in association with Sri Lanka's Ministry of Fisheries and Aquatic Resources (MFAR). The National Aquatic Resources Research and Development Agency (NARA) hosted the two-day event.

Fifty-five participants representing leading fisheries institutions of Sri Lanka — such as the MFAR, Department of Fisheries and Aquatic Resources (DFAR), NARA, National Aquaculture Development Authority (NAQDA), National Institute of Fisheries Nautical Engineering, Ceylon Fisheries Harbor Corporation, and Central Fisheries Harbour Corporation – as well as NGOs, fisheries co-operative societies and the BOBP-IGO attended the workshop.

Mr H S G Fernando, Director, Ocean Resources, MFAR, served as facilitator for the Workshop's inaugural session. Dr Champa Amarasiri, Acting Director-General of NARA, welcomed the participants.

Dr Y S Yadava, Director of the BOBP-IGO, said in introductory remarks that the Workshop was meant to facilitate better understanding and more effective implementation of the CCRF in Sri Lanka. The Code could be adapted to suit the particular needs and circumstances of Sri Lankan fisheries. Implementing the Code has been one of the core activities of the BOBP-IGO, which is committed to taking the Code to fishers at the grassroots. He said the Workshop was being held against the backdrop of two important events – the December 2004 tsunami and the tenth anniversary of the CCRF.

Mr E Jinadasa, Secretary, MFAR inaugurated the CCRF Workshop.

In his inaugural address, Mr E Jinadasa, Secretary, MFAR, said that in confronting the aftermath of the December 2004 tsunami, the Government was following the motto of "build back better".

The Workshop consisted of three technical sessions. The first heard eight invited presentations. During the second session, four groups of participants discussed select issues. Their recommendations were discussed and finalised during the third session.

Technical Sessions

Mr G Piyasena, Director-General, DFAR, discussed implementation of the CCRF in Sri Lanka. Outlining the structure of the fisheries sector in Sri Lanka and the responsibilities of different agencies, he said that know-how on the IPOA (International Plans of Action) was lacking in Sri Lanka, so were resources to implement them. The open-access nature of marine fisheries, the poor status of resource information, and lack of awareness about CCRF were other drawbacks to the implementation of CCRF.

Dr D E M Weerakoon, Director-General, NADQA, talked about inland fisheries and aquaculture and their sustainable development. He said that reservoirs constituted the mainstay of inland fisheries and steps were being taken to enhance stocks for culture-based fisheries. In coastal aquaculture, ***Penaeus monodon*** was the main species farmed in the North-West Provinces. The total area under shrimp farming was estimated at 4 500 ha by the end of 2004. The white spot syndrome virus and brooder shortage were some of the main constraints. However, steps have

been taken to screen healthy brooders and provide quality seed to farmers.

Policies in inland fisheries and aquaculture were directed at achieving a total production of 60 000 metric tons by 2009. Dredging of the Dutch Canal would increase the carrying capacity of the area, and more farms could be set up in future. NAQDA is currently implementing regulations on inland capture, culture-based fisheries, shrimp farming; and best management practices in aquaculture.

Speaking on marine fisheries, **Mr G Piyasena** said that fisheries had been hit hard by the recent tsunami: some 4 870 fishers had died, 103 000 fisherfolk were displaced, 16 500 fisher houses were destroyed and 13 300 damaged. Some 24 000 fishing boats were either destroyed or damaged while 10 out of 12 fishing harbours sustained damage.

However, the pace of relief and rehabilitation had been rapid: 93 percent of the fleet was rehabilitated by November 2005. But a fall in fish production could not be avoided. Production during January - June 2005 was nearly 40 per cent less than that in the previous two years.

Mr Piyasena said that over-exploitation, use of illegal and harmful fishing methods, damage to critical habitats and user conflicts were some of the major problems faced by the sector. Some other issues: heavy reliance on the gill net fishery, imbalances in harvesting of resources, heavy post-harvest wastage. Dearth of reliable information on stocks and harvestable potential also impeded optimum exploitation.

Some major steps had been undertaken to "build back better" after the tsunami, such as striving for better-designed multi-day boats, improving on-boat handling and preservation, promoting sustainable fisheries management, engaging and empowering resource users, increasing export opportunities, building institutional capacities, improving safety at sea and ensuring minimum safety standards.

Mr A Hettiarachchi, Director-General (Development), MFAR, discussed trade in marine products. He said that fisheries accounted for 1.5 to 2.8 percent of Sri Lanka's GNP and met nearly 75 percent of the population's protein requirements. Shrimp, tuna, lobsters and shark fins are the main items of export. Sri Lanka's recently acquired GSP+ status would help promote exports to European countries; but it also imposed obligations relating to good governance and sustainable development. He said Rs 500 million had been allotted in the recent budget for setting up a new fish market in Colombo. He suggested a detailed survey of people in the fish trade.

Dr Ranjith Edirisinghe, who head's NARA's post-harvest technology division, dealt with post-harvest and quality control issues. Detailing the country's post-harvest infrastructure, he said Sri Lanka has 12 fishing harbours, 37 small landing sites and a central fish market situated in Colombo. About 79 to 87 percent of the fish is marketed fresh, 13 to 21 percent as dry. The private sector accounts for about 98 percent of marketing.

Mr A Hettiarachchi, Director-General, MFAR (top), Dr (Ms) Champa Amarasiri, Action Director-General, NARA (middle), Dr R Edirisinghe, Head, Post-Harvest Technology Division, NARA (bottom).

Mr G Piyasena, Director-General, DFAR, discussed the present status of implementation of the Code in Sri Lanka.

Sixteen EU-approved factories in the country comply with export regulations.

The tsunami has damaged post-harvest fisheries to the extent of Lankan Rs 260 million. It has also reduced production of fish (by about 28 percent) and per-capita consumption, and contaminated the quality of ice and water. The immediate and long-term needs of the marketing sector are to renovate or re-establish fish markets and auction halls, promote the use of ice boxes, modernise fishing vessels to include on-board preservation and processing, identify market opportunities for fishery products, and raise public awareness on hygienic handling of fish and on preventing wastage.

Dr S S Tabrez Nasar of the BOBP spoke about information networking and extension linkages. He stressed the need for better awareness and knowledge of fisheries management, sustainable exploitation and conservation; linkages among individuals and organisations; and networking. He said that facilities in print and electronic media, as well as recent developments in information technology, could be tapped to strengthen networking.

Discussing gender issues in fisheries and aquaculture, **Dr Rekha Maldeniya** of NARA said that women are active mainly in fish processing.

Most fisheries programmes supported male-oriented activities, she said, because women in fishing communities lacked clout both collectively (they are not organised) and individually. To make matters worse, the tsunami had made widows of many fisherwomen; they were now fully responsible for maintaining their families. She urged a more gender-sensitive approach in fisheries, development of women's cooperatives, and creation of a national network for women in fisheries. Projects should target men and women together, not separately.

Group discussions (top) and technical presentations (bottom) highlighted the meeting.

Dr Champa Amarasiri of NARA spoke about research support to CCRF implementation, which is at present provided by NARA and a network of 13 universities. With a staff strength of 325 including 40 researchers, NARA is active in nine major research areas; it also helps out with legislation on fisheries and aquaculture. It supports post-tsunami research in three areas — impact of the tsunami on fishing habitats and communities; rehabilitation monitoring; and sea-level monitoring for an early warning centre. Dr Amarasiri said that NARA offices and facilities had suffered heavy damage from the tsunami.

Group discussions and recommendations

After the eight technical presentations, participants formed four groups to discuss critical issues in detail.

Group I discussed marine resources, stock assessment and production potential, crafts and gear, safety at sea, tsunami rehabilitation, FAO Plans of Action, policy and legal issues. Group II discussed inland fisheries and aquaculture resources, production potential and sustainability issues, FAO Plans of Action, policy and legal issues, etc.

Group III discussed post-harvest and value addition, marketing, eco-labelling and other trade-related matters, impact of globalisation, subsidies in fisheries, policy and legal issues. Group IV discussed extension linkages, information

networking, gender in fisheries, welfare programmes, research programmes, tsunami rehabilitation, policy and legal issues, etc.

During the third technical session, the four groups presented their observations and recommendations. A few specifics:

- Fisheries societies should be set up and strengthened in major and medium-size reservoirs. Ultimate objective: A Fisheries Management Authority.
- Community-based fingerling production should be encouraged in mini nurseries. Facilites should be set up to screen broodstock.
- Reservoirs should be enhanced by stocking with tilapia species. Reservoirs where an Indian carp fishery has been established should be enhanced with the same varieties.
- Advanced technology should be provided to aquaculture development centers for preserving genetic material for spawning activities.

The BOBP-IGO has held similar workshops in other member-countries also. In India, a National Workshop on the Code of Conduct for Responsible Fisheries was held from 29-30 September 2000, in Bangladesh on 23-24 April 2002 and in Maldives during 18-19 January 2004.

- Farmer organisations should be strengthened.
- Shrimp farming should be promoted in new areas, especially in the southern and eastern coasts.
- State marketing organisations should help promote the processing and marketing of shrimps.
- Research and development of commercially important seaweed should be promoted both for aquaculture and for research and development (breeding and fattening of sea cucumber juveniles in pens for the export trade).
- Safe and wholesome fish products for consumers should be encouraged by developing awareness at the school and community levels; developing awareness among traders through the mass media on maintaining the freshness of fish; introducing a national safety and quality assurance system; and by reviewing existing rules and regulations on fish trade and quality assurance.
- Raising awareness on the need for change in the social attitude towards widows. Recognition of the role of women in fisheries.
- Development of non-formal education schemes for fisher communities, better health facilities, and alternative income generating activities.

Mr Hettiarachchi thanked the BOBP-IGO for organising the Workshop. Dr Yadava thanked the participants for their contributions, and the MFAR and NARA for the excellent Workshop arrangements.

Database on Fisheries Scientists and Institutions in the Bay of Bengal Region

The BOBP-IGO proposes to set up databases of scientists and scientific organisations in the region active in fisheries, aquaculture and related activities. A decision to this effect was taken at the recent Colombo meeting of the BOBP-IGO's Governing Council. The databases will focus initially on member-countries of BOBP-IGO.

The databases will facilitate sharing and exchange of information and knowledge among individuals and institutions of the region. Such information can also be accessed through the BOBP website by a global fisheries audience, thereby expanding opportunities for development and co-operation.

"There is a large pool of fisheries scientists from many disciplines in the Bay of Bengal region," says Dr Y S Yadava of the BOBP-IGO. "But in the absence of a database, it is often difficult to identify the right scientist for a development project. Further, linkages among these scientists are poor. An information mechanism to link them would be a great asset."

"The same problem exists as regards fisheries institutions," says Dr Yadava.

"Not many scientists outside India know about all of India's fisheries institutions. Likewise, scientists in India are not fully aware of other institutions in the region."

Scientists from member-countries are invited to log on to our website www.bobpigo.org, or the link http://www.bobpigo.org/database.htm and fill up the form **Information for Individual Scientists.** Organisations may fill up the form for **Organisational information**.

Kindly submit the completed forms online by **31 March 2006.** We will compile them, add the necessary hyperlinks and post the information on the BOBP-IGO website by 01 May 2006. Subsequently, a directory will also be printed and distributed within and outside the region.

The database forms for fisheries organisations (above) and fisheries scientists (alongside).

Sri Lankan child-artists react to the tsunami

The young artists' work drew praise from the judges as well as from professional artists.

Scenic Panadura in Kalutara district, Sri Lanka, is a 90-minute drive out of Colombo. The tsunami has left its tell-tale marks all along the drive. But the people of this town have left the trauma of 12/26 behind them.

Many of the tsunami's survivors – adults and senior citizens – have since spoken about the tsunami, but children have not. The BOBP-IGO therefore decided to let some talented schoolchildren express their viewpoint creatively, artistically, broadening awareness among the young on the value of our coastal and marine environment.

An on-the-spot art contest for schoolchildren of Sri Lanka was held at Shri Sumangala Girls School, Panadura, some 40 miles from Colombo, on December 8, 2005. The theme: "Life after the tsunami". Forty eight students from 15 schools took part. Twenty eight juniors (ages 11 to 13) used crayons, 20 seniors (ages 14 to 17) displayed their water-colour skills.

The event began with a traditional lamp-lighting ceremony. Ms Sampathini Nepala, Headmistress, said her school felt honoured to host the event. Dr Y S Yadava, BOBP-IGO Director, thanked Ms Nepala and her school. He said similar contests conducted earlier in Tamil Nadu, India and in the Maldives, were a sparkling success.

The setting for the Panadura contest was most appropriate: native paintings adorned the walls. Six judges — Mr W Gunasinghe and Ms Susila Abeyasinghe (both art instructors at the Zonal Education Office, Kalutara); Mr Shanta Bhandara, Director, Planning and Monitoring of the Ministry of Fisheries and Aquatic Resources (MFAR); Mr M A Wijepala and Ms W W M C Geetharani (art teachers both) and BOBP-IGO artist S Jayaraj – were to pick first, second and third prizes and five consolation prizes for each of two categories – 16 prizes in all.

The Contest & the Paintings

The 48 child-artists were a picture of concentration throughout the 150-minute contest. BOBP-IGO artist S Jayaraj was all praise not merely for their focused interest and commitment but also for the work they turned out. He remarked "Almost all the paintings filled the canvas. This reflected the rich imagination of these kids and their maturity. The figures they drew were full figures, anatomically accurate – no symbols or half-figures. Consciously or unconsciously, they used techniques such as surrealism, palette-knife, or paintings layer-by-layer."

The first prize winner in the senior category (by Ms Amanda Gunawardena, Panadura) was in the surrealist style. It showed a wall under construction and five figures of men and women – three busy, two others in pensive contemplation. The second prize-winner among seniors (Ms Shashikala Chathurani Peiris) showed a woman vegetable vendor under a tent bargaining with a male customer. On the background: two fishermen about to go out on their craft. The third prize among seniors (by Ms Nimmi Shiranthi Fernando, Panadura) did an engaging painting of two neat little huts, two women

Facing page: The young artists busy at the contest. Students receiving certificates from Dr Y S Yadava (top) and Mr A Hettiarachchi (middle). A dance presentation by Sri Sumangala Girls School at the Art Contest (bottom).

engaged in cleaning, two children busy with pottery, a man busy brick-laying. "Look at the full figures," Jayaraj comments.

The first prize winner in the junior category (Chamari Madushika Samaraweera) drew a smart little housing colony. Jayaraj praised "the tight organisation, the symmetric pattern of the houses, the very even colours."

One colourful painting showed multiple activities — beach seining, house building and watering of plants. A physically challenged youngster who came to the contest in a wheel chair drew an aerial view of reconstructed houses. He won a consolation prize.

Dr Yadava remarked on the "positive attitude and viewpoint" of almost all the paintings. He also noted that girls outnumbered boys in all the art contests – whether in India, Sri Lanka or the Maldives. Does it reflect the fact that painting as an art form today attracts girls, while boys are drawn more to cinema and television? Perhaps.

The art contest captivated parents and teachers alike. They praised the theme of the art contest, the organisation, the opportunity it gave the students. Said the mother of one student, who was physically challenged: 'This is the first art contest my son is taking part in. It is a proud moment for us. It's wonderful to see my son's excitement."

An art teacher commented "This contest was very different from all others. The awards were cash prizes. The materials needed for the contest, such as crayon boxes and water-colour paint boxes, were made available by the organisers themselves – a great help since some of the children would not have been able to afford them."

All artists were given certificates of participation immediately after the contest, much to their excitement. The parents were very pleased at the quality of the certificates – bright, laminated and therefore durable. "This will last long," said one of them.

A surprise item followed the painting contest – a dance show by a group of girls from the host school, the Shri Sumangala Girls School, Panadura. Clad in eye-catching traditional maroon-and-yellow costumes, the girls did a graceful folk dance on stage that captured their pride, their vivacity, their ***joie de vivre.*** It was as if the youngsters said: "It will take much more than a tsunami to get our spirit down."

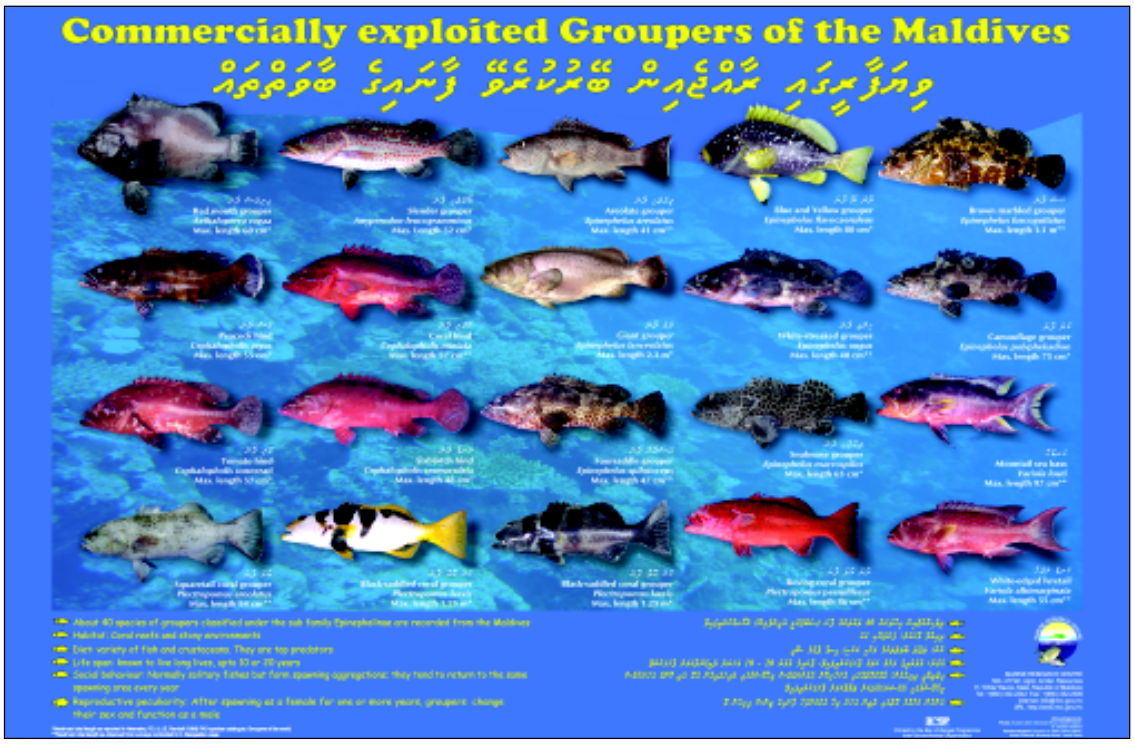
The art contest prize-winners were honoured at a special ceremony on December 10 at the office of NARA (the National Aquatic Resources Research and Development Agency), where the National Workshop on Code of Conduct for Responsible Fisheries was being held. Workshop participants cheered as Dr A Hettiarachchi, Director-General, MFAR, and Mr G Piyasena, Director-General, Department of Fisheries and Aquatic Resources, gave away the prizes.

The contest was made possible through the energetic co-operation of the Ministry of Fisheries and Aquatic Resources, particularly Mr H S G Fernando, Director, MFAR.

Does catharsis stimulate art? Most certainly, yes! The Panadura art contest provided stunning proof.

— Text by Tabrez Nasar
Photographs by S Jayaraj

Protecting the Grouper: Maldives Poster Raises Awareness



Groupers are an important reef fish in the Maldives, which depends heavily for food, export earnings and tourism revenues on its coral reef system.

But stocks of grouper are said to be dwindling, and sizes of catch thinning. Earlier fished only for local consumption, groupers have in recent years been heavily fished for export to China, Hong Kong and Taiwan. Besides Maldives, several Caribbean, South Pacific and Indian Ocean countries have also reported dwindling stocks of grouper.

Groupers are normally solitary fish, but they gather in "spawning congregations" during full moon, normally between September and November. Local fishermen are now aware of the exact times and days when groupers gather for spawning. This makes the spawning groupers very vulnerable.

As part of a management and awareness-raising campaign for groupers, the Ministry of Fisheries, Agriculture and Marine Resources (MOFAMR) in the Maldives is using an attractive poster on commercially-exploited groupers of the Maldives. The poster was prepared by the Marine Research Centre of the MOFAMR and printed by the BOBP-IGO.

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