



# Improving Safety and Health of Fishing Communities: A Bay of Bengal Initiative

December 13-14, 2010  
Mahabalipuram, Chennai, India

## PROSPECTUS

### 1.0 The Event

An international workshop on Improving Safety and Health of Fishing Communities is being organized on 13-14 December 2010 in Mahabalipuram, India, at the Radisson Temple Bay Hotel, 60 km south of Chennai city, adjacent to a fishing village.

### 2.0 The Organizers

- The Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO), which has safety at sea as one of its mandates and is coordinating the Initiative.
- The FAO (Food and Agriculture Organization of the United Nations), which is helping Safety at Sea efforts for the region's fishers.
- The Alaska Pacific Regional Office of the National Institute for Occupational Safety and Health, US Centers for Disease Control and Prevention (APRO/NIOSH), which is providing assistance with public health (epidemiology) and technology development.

### 3.0 The Background

Fishing is a dangerous occupation. The FAO estimates that there are 34.5 million fishermen worldwide. They constitute less than 1% of the worldwide workforce, but account for nearly 7% of workforce mortality. According to the ILO (1999), some 24,000 fishermen die every year in accidents.

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**The organizers invite commercial investors and current and potential donors to consider participation in this important workshop that will strengthen knowledge and understanding, stimulate initiatives and generate action to improve and enhance safety at sea.**

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In developed countries, data is regularly collected on mortalities among fishermen, and vigorous action has been taken during the past two decade to reduce these deaths. The action is on many fronts: training and education, better survival equipment, a sounder weather warning system, a satellite-based emergency location system, a well-developed search and rescue infrastructure, and better-built better-constructed vessels – as in Alaska, Iceland, and Norway.

However, hazards and deaths continue unabated in most developing countries. Preliminary studies in coastal India found mortality rates of 87/100,000 fishermen/year – this means a probable 5,000 to 7,000 fishermen deaths in the region every year. That's a huge recurrent tragedy.

The BOBP-IGO-led initiative – the December 2010 workshop – aims at ensuring for fishers in the Bay of Bengal interventions comparable to those in developed countries. This is a daunting challenge, because:

- Data on fishermen mortality is meager, insufficient and unreliable. This makes sound interventions to strengthen safety and prevent mortality tough.





- The resource is dwindling. Too many fishermen chase too few fish.
- The communications infrastructure is weak. Search and rescue capabilities are extremely limited. Satellite access is sometimes non-existent.
- Many fishermen lack not merely safety equipment but safety skills as well.

#### 4.0 The Bay of Bengal region

Located as it is in the monsoon belt, the Bay of Bengal is rough most of the year. Cyclones are frequent and often sudden. Between May 1970 and May 2010, some 650,000 people died in coastal areas of Bangladesh because of cyclones, storm surges and rogue waves. The killer tsunami that struck the region on 26 December 2004, felled over 200,000 in several countries, mostly fishermen and their families, and disrupted lives and livelihoods by the million.

Global climate change aggravates the impact of such disasters. Bangladesh, as the lowest riparian country in the South Asian region that faces the sea – draining 92 percent of the snow-melt from the vast Himalayan mountain range – is starkly vulnerable to global warming and climate change. Storms and seasonal flooding of Bangladesh lowlands has gone up from a historical 40%



of all land surface area to 70% during the last decade. The country may lose 17.5 percent of its land if sea level rises about 40 inches (1 m). Result: nearly 14% of cropped area, some 402,000 hectares of mangrove forest and some splendid wildlife will be lost, and 10% of its population will become climate refugees.

Further, the rising sea level in the country has pushed salt water inland, lowering the productivity of rice – the country's key crop. Scientists believe that global warming will trigger bigger and more frequent cyclones in the region. Storm surges generated by cyclones will get worse too. The damage to Bangladesh's coastal infrastructure may go up to 12% of its GDP.

The islands and atolls of the Maldives have also been buffeted by storms more often – a possible consequence of global warming. There's greater risk of floods caused by heavy rain, swollen rivers and glacier melting. Water quality will deteriorate further.

Bangladesh, India, Maldives and Sri Lanka are members of the BOBP-IGO. All these countries depend heavily on the fisheries resources of the Bay of Bengal. An estimated 6 to 8 million fishermen engage directly in fishing, and some 35 - 40 million in ancillary activities. The Bay's coastal fishery resources are subject to heavy exploitation due to an open-access regime.

With coastal resources dwindling, small-scale fishermen are moving offshore for their catch – using vessels not designed, constructed or equipped for offshore fishing. Result: hundreds of fishermen die every year leaving families destitute. Many drift and end up on alien land – and in jail. A harrowing experience for them, and for those who await them at home.

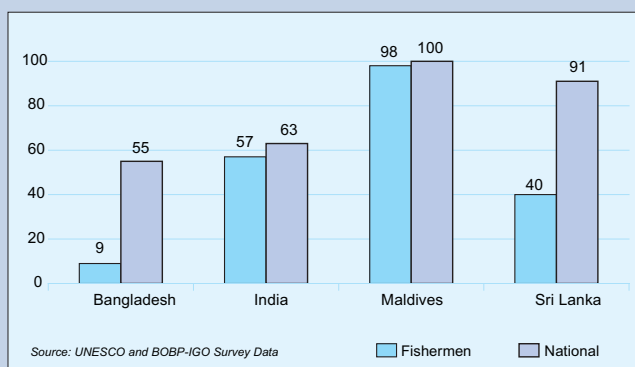
The crews of large commercial fishing vessels in the region belong to strong maritime unions which have some safety and welfare measures in place. On the other hand, small-scale fishers are unorganized and at the mercy of middlemen and boat owners who care little for their safety and well-being. Further, these fishers and those engaged in ancillary activities will face the brunt of climate change.

#### 4.1 The BOBP-IGO countries, a socio-economic profile

A snap shot of the socio-economic status of the four BOBP-IGO countries is presented below.

Indicators	Year	BGD	IND	MDV	SRL
Human Development Index	2007	0.543	0.612	0.771	0.759
Total GDP (US\$ billions)	2007	69	1 177	1.1	32
GDP per capita (PPP US\$)	2007	1 241	2 753	5 196	4 243
Population living below \$1.25 a day (%)	2000-2007	49.6	41.6	–	14

**Literacy, fishermen vs general population in the BOBP-IGO member-countries**



Besides low education levels, some of the other socio-economic indicators in respect of fishermen in the region are also disturbing. Example: Only 17% of the fishermen population in Bangladesh has access to safe drinking water. In India, the access to safe sanitation is restricted to about 15% of the total fishermen population.

Members of the BOBP-IGO vary in size and socio-economic status, but all of them are developing countries with limited resources for effective fisheries management systems. However, in recent years, they have made some commitments to develop data gathering and surveillance systems for fishermen's safety.

#### 4.2 International safety promotion efforts in the Region

During 2007 – 2009, FAO implemented a Global Project on Safety at Sea for Developing Countries (GCP/GLO/200/MUL) with support from the Swedish International Development Cooperation Agency (SIDA), the International Maritime Organization (IMO), and the Swedish Maritime Administration (SMA). The South Asian component of the Project was implemented in the BOBP-IGO member-countries in close cooperation with the BOBP-IGO.

The Global Project drew its objectives largely from the Chennai Declaration [<http://www.bobpigo.org>] and IFISH-3 [<http://ifishconference.org/>]. The following key issues were highlighted during the Project:

- understanding the dangers and risks in small-scale fisheries, and the causes of accident at sea;
- the importance of communication between fisheries and maritime agencies;
- addressing safety at sea as an integral part of fisheries management;
- training of fishermen and their families;
- developing and introducing safety guidelines or safety standards for vessels, crew and equipment;
- developing an improved system of reporting and analysis of incidents at sea;
- framing rules and regulations for design, construction and equipment of fishing vessels in small-scale fisheries.



Unfortunately, donor funding shrunk because of the worldwide recession, leaving this very promising program at an early stage of implementation.

One of the goals of the present initiative, the December 13-14 workshop, is to reconstitute this Project effort, including activities such as capacity building and human resources development, good boatbuilding practices, strengthening of legal and policy measures to meet safety-at-sea requirements, integrating safety at sea with fisheries management, improving hygiene and sanitation in fishing villages, developing indemnity programs for fishermen and their families and improving access to credit and public finance, including micro finance.

As part of the earlier multi-national Safety at Sea effort, the FAO asked BOBP-IGO and APRO/NIOSH to provide technical assistance in enumerating, understanding, and preventing commercial fishing mortality in BOBP-IGO member-countries. Since then, APRO/NIOSH and BOBP-IGO have collaborated in assessments in India, Sri Lanka, Bangladesh and the Maldives, covering the following key aspects:

- On-site fishing community field work in each nation;
- Setting up focus groups for workers, vessel owners and employers in fishing communities in each country, in both well-established and remote sites;
- Regional workshops with relevant ministries, fisher associations and NGO representatives in each country taking part;
- On-site research for availability of death records, insurance data, and search and rescue (SAR) data; and
- Formulation of new/improvised systems of reporting/and or collation of information on accidents at sea.

## 5.0 The Workshop

### 5.1 The Objectives

The objectives of the workshop are to bring together representatives of key ministries of the Bay of Bengal region, international experts in sea safety, potential



investors in infrastructure – such as telecommunications, warning systems, and safety equipment – and potential donors. They will discuss ways to assist in creating the necessary social infrastructure for safety at sea (training, staffing for these critical systems, seed funds for life and disability indemnity insurance where none exists).

### 5.2 The Content

Some of the matters the workshop will take up and discuss in detail:

- Reconstitution of the FAO Safety at Sea Program.
- The broad technology and finance landscapes for different safety-at-sea products and mechanisms, which the commercial sector or public and small private enterprises could take up. These would include venture capital arrangements, local manufacture, distribution, and ownership for:

#### Communications and warning devices such as,

- Waterproof dual-chipped (VHF plus GMS/GPS) mobile devices. These would enable calls from fishing craft to larger vessels during emergencies, also calls home, and fish marketing calls.
- Small portable EPIRBS (emergency position-indicating radio beacons).
- Solar-powered lighted masts, preferably with radar facilities, to inform and caution larger vessels when traversing shipping lanes.

#### Communications infrastructure

- cellular telephone continuity.
- satellite signal sensing (for EPIRBS).
- weather radio (for cyclone and tsunami warnings).

#### Related services

- cyclone and tsunami warnings and follow-up.
- weather forecasts and warnings broadcast in local languages.
- search and rescue.
- access to medical and preventive services.
- freshwater and sanitation.

### Other technologies and activities

- Personal flotation devices.
- Life-floats or buoyant apparatus made of FRP.
- Surveillance and monitoring of accidents at sea, data analysis and planning for interventions, public health planning, etc.
- Revitalizing or setting up new indemnity (life and disability insurance) programs.
- Initiating a regional approach to SAR (search-and-rescue) mechanisms.

### 5.3 The Participants

Workshop participants will include:

- Officials from India, Bangladesh, Sri Lanka, and the Maldives.
- Representatives of several non-governmental organizations (NGOs).
- International experts on sea safety.
- Representatives of international organizations.
- Representatives of current and potential donors.
- Representatives of commercial investors.
- Representatives of the three host organizations (FAO, BOBP-IGO, APRO/NIOSH).

They will make a collective effort to better understand safety and prevent deaths among fishermen, and strengthen the safety and health of fishing villages and communities around the Bay of Bengal.

### 5.4 The Proceedings

The workshop will be conducted in English. A draft agenda is given on the facing page. The workshop will comprise an introductory session and technical presentations. The output of the workshop may include a statement of consensus or a declaration.

### 5.5 The Arrangements (Travel, etc)

The BOBP-IGO will make arrangements for travel, board and lodge of the BOBP-IGO member-country participants.

## 5.6 The Contacts

For any further information or clarification on the workshop please contact:

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## Workshop Agenda

<b>13 December 2010 (Monday)</b>	<b>Day 1</b>
0800 - 0900	<b>Registration</b>
0900 - 1300	<b>Session I: Opening of the Workshop</b>
	Welcome and Introductory Remarks
	Framing and Intent for the Workshop
	Inaugural Address by Chief Guest
	Overview of the FAO Safety at Sea Program
	APRO/NIOSH and BOBP-IGO collaboration on surveillance and prevention
	Post-tsunami status, including tsunami readiness and warning system status
1400- 1600	<b>Session II: Technical Presentations</b>
	Satellite sensing for EPIRBs and telecommunication infrastructure
	Flotation and personal protective equipment and basic health needs
	Social security nets for small-scale fishing communities
1600 - 1730	<b>Session III: Open Question/Answer Session/Panel Discussion</b>
<b>14 December 2010 (Tuesday)</b>	<b>Day 2</b>
0900 - 1130	<b>Session IV: Country circumstances and needs</b>
	Bangladesh
	India
	Maldives
	Sri Lanka
1130 - 1300	<b>Session V: Open Question/Answer Session/Panel Discussion</b>
1400 - 1600	<b>Session VI: Concluding Session</b>
	Statements by partners and possible major donors or a declaration
	Concluding Statements
	Concluding Address by Chief Guest
	Vote of Thanks

