

Annual Report 2011-12



Foreword

The fisheries resources of the Bay of Bengal form an important source of food and livelihood for millions of people in the countries surrounding the Bay. To ensure that the resources meet the food and nutrition requirements of the growing population in the region, it is essential they are managed sustainably.

This second edition of the Annual Report summarizes the activities carried out by the Secretariat of the Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO) during the period April 2011 to March 2012. The activities have been carried out in close collaboration with a number of institutions/organizations/NGOs/ individuals from the BOBP-IGO member-countries (Bangladesh, India, Maldives, Sri Lanka) and we would like to extend our thanks to them. The funding and cooperation received from the Bay of Bengal Large Marine Ecosystem Project of the Food and Agriculture Organization of the United Nations and the Asia-Pacific Regional Office of the National Institute for Occupational Safety and Health of the United States is also greatly acknowledged.

While good progress has been achieved in many projects during the year, in some others the progress has been tardy. We hope that these projects will pick up momentum during the coming year and we will be able to meet the goals set up in the Strategic Action Plan: 2009 - 2014 of the BOBP-IGO.

Yugraj Yadava

Director
BOBP-IGO



Annual Report 2011-12



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About us

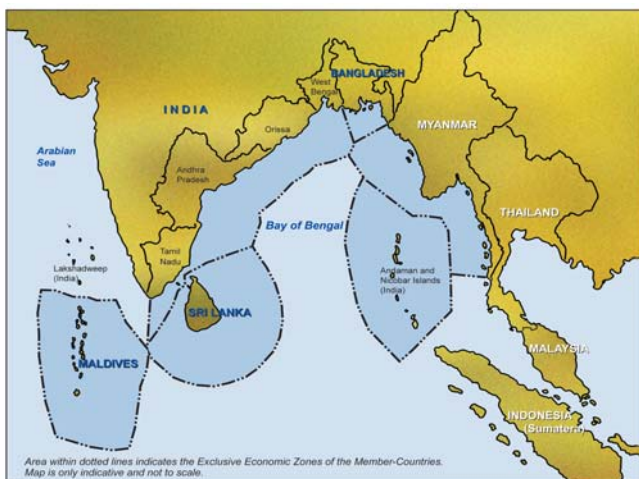
The Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO) is a regional fishery advisory body working in the Bay of Bengal (BoB) region. Its member-countries are Bangladesh, India, Maldives and Sri Lanka. The Organisation resurged from the erstwhile Bay of Bengal Programme (BOBP) – a field programme of the Food and Agriculture Organization of the United Nations, implemented in the region during 1979-2003. Since then, the BOBP-IGO has directed its energies to consolidate the fruits of technological developments in marine fisheries and bringing in socio-ecological sustainability in the sector. The Organisation has been instrumental in popularizing the 1995 FAO Code of Conduct for Responsible Fishing (or the Code) and in addressing the safety of fishermen at sea and improving their social security net by ushering in many useful policy decisions in the member-countries. The Organisation is also playing a critical role in developing monitoring, control and surveillance system in its member-countries to deter illegal, unreported and unregulated fishing and assisting member-

countries in formulation of management plans for important species to ensure balance in exploitation of the resources.

What sets BOBP-IGO apart is the trust it enjoys from its member-countries as being the “Organisation where members can raise their concerns freely and equally and contribute wholeheartedly towards programme development and implementation”. Working from its headquarters in Chennai, India with a small complement of staff and an ever-increasing network, the Organisation is accessible and approachable to all stakeholders: public and private around the year with skill and determination to address their needs and provide sound options to their problems.

Vision & Mission

To promote and establish responsible fisheries in a time bound manner to ensure socio-economic well-being of the marine fishers and ecological security of fisheries resources in the Bay of Bengal while catalyzing the growth of the sector to substantiate economic development of the member-countries.





Activities

The BOBP-IGO undertakes the following tasks to achieve the objectives of its Vision & Mission:

- **Implement** programmes and activities which are of immediate requirement for the sustainable development and management of marine fisheries;
- **Consolidate** the establishment of an expanded network to share the responsibility of fisheries management, training and information exchange essential to marine fisheries development in the region;
- **Assist** the Members in increasing the livelihood opportunities and improving the quality of life of the small-scale fishers in the region;
- **Increase** awareness and knowledge of the needs, benefits and practices of marine fisheries management;
- **Assist** the Members in harmonization of policy and legal framework necessary for sustainable development and management of marine fisheries resources of the region;
- **Train and upgrade** core personnel needed for marine fisheries planning, research, training, extension and development;
- **Establish** a regional information system to provide appropriate information for development, planning, research and training;
- **Assist** the Members in strengthening their national capabilities in development and management of marine fisheries;
- **Transfer** to the Members appropriate technologies and techniques for development of small-scale fisheries;
- **Promote** regional self-reliance in small-scale fisheries development through Technical

Co-operation among Developing Countries (TCDC) and facilitate the exchange of national experts, technical know-how and information within the framework of TCDC;

- **Develop** programmes for the promotion of women's participation in marine fisheries development at all levels;
- **Assist** the Members in feasibility studies and project formulation; and
- **Undertake** such other activities related to the objectives of the Organisation as may be approved by the Governing Council.

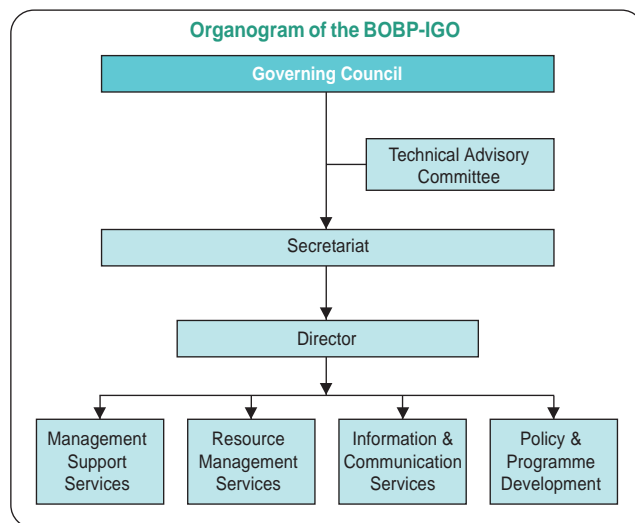




Organizational structure

The BOBP-IGO is a tri-layered organization headed by the Governing Council drawn from the constituent Ministry/ Department of Fisheries of the four member-countries (The Governing Council). The Governing Council functions through the BOBP-IGO Secretariat located in Chennai, India. The Secretariat is headed by the Director, appointed by the Governing Council, and professional and administrative staff. To help the Governing Council and the Secretariat in designing the work plan and undertake performance evaluation, the Governing Council has appointed the Technical Advisory Committee (TAC) of the BOBP-IGO comprising leading marine fisheries research institutes/organisations of the respective member-countries.

The TAC meets once in a year to draw up and evaluate the work plan and submits its recommendations to the Governing Council for review.





Strategic Plan of Action, 2010-14

The *Strategic Plan of Action, 2010-2014 (SPA: 2010-14)* of the BOBP-IGO was developed and adopted during the Sixth Meeting of the Governing Council of the BOBP-IGO in Colombo, Sri Lanka in 2010. Six areas were identified based on discussions with various stakeholders in the member-countries. These areas are:

- (i) ***Improving Monitoring, Control and Surveillance (MCS) of fishery resources in the member-countries. This also includes formulation of Management Plans for commercially/biologically important fish stocks in the region;***
- (ii) ***Safety at Sea for artisanal and small-scale Fishermen;***
- (iii) ***Taking the Code of Conduct for Responsible Fisheries to the grassroots level;***
- (iv) ***Improving health and hygiene in fisheries;***
- (v) ***Adapting to climate change and***
- (vi) ***Livelihood enhancement for small-scale and artisanal fishers.***



Time-map for activities proposed in the Strategic Plan of Action, 2010-14

Area	Activities	2010	2011			2012		2013		2014	
		1	2	3	4	5	6	7	8	9	
Improving Monitoring, Control and Surveillance (MCS) of fishery resources in the member-countries. Formulation of Management Plans for commercially/ biologically important fish stocks in the region.	National MCS Plans of Action (Reports).	█									
	Formulation of Regional MCS Programme.		█	█	█						
	Review of implementation.										█
	National Programme for commercially- important fisheries.	█	█	█	█	█					
	Regional Programme for commercially-important fisheries.				█	█	█	█	█		
	Review of implementation.										█
Safety at Sea for artisanal and small-scale fishermen.	Awareness campaign.	█	█	█	█	█	█	█	█	█	█
	Developing accident reporting mechanism.		█	█	█	█	█	█	█	█	█
	Implementation.					█	█	█	█	█	█
Taking the Code of Conduct for Responsible Fisheries to the grassroots level.	Publication of CCRF+ Technical Guidelines in vernacular.	█	█	█	█	█					
	Training for Fisheries Officials on CCRF.	█	█	█	█	█	█	█	█	█	█
	Awareness campaigns.	█	█	█	█	█	█	█	█	█	█
	Adaptation of the CCRF to meet local needs.				█	█	█	█	█	█	█
Improving health and hygiene in fisheries.	Documentation of existing fish handling practices.	█	█	█	█	█	█	█	█	█	█
	Analysis of information.				█	█	█	█	█	█	█
	Development of training/ policy modules.					█	█	█	█	█	█
	Implementation.							█	█	█	█
Adapting to climate change.	Networking with research institutions.	█	█	█	█	█	█	█	█	█	█
	National meetings.				█	█	█	█	█	█	█
	Regional meeting.									█	█
Livelihood enhancement for small-scale and artisanal fishers.	Training and advocacy (part of CCRF).	█	█	█	█	█	█	█	█	█	█
	Documentation of existing livelihood programmes.	█	█	█	█	█					
	Analysis of information.			█	█	█	█	█	█	█	█
	Pilot-scale implementation.			█	█	█	█	█	█	█	█
	Policy suggestion.									█	█



Status of marine fisheries in the BOBP region

The BOBP region, for the purpose of this report, is defined as the Exclusive Economic Zones (EEZs) of the four member-countries of the Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO), viz., Bangladesh, India, Maldives and Sri Lanka and the EEZ of Myanmar, which is working closely with the BOBP-IGO (Map on page 5). This area mostly falls under the FAO Statistical area 57 and to some extent in area 51 (as in the case of Maldives). Together, these countries have a jurisdiction over 2/3rd area of the Bay of Bengal (BoB).

The total fish production from the BOBP region has increased to about 12.92 million tonnes (mt) during 2010, recording a growth of 15 percent over the previous year. The region now supplies 9 percent of global fish supply, which has increased from 8 percent during the last year. The per capita daily availability of fish has also increased from about 21 grams to 26 grams in 2010. The fisheries sector is a net exporter. The total fisheries export from the region has increased from USD 2 493 million in 2006 to USD 2 804 million during 2006-2010. Correspondingly, its share in the global export has also increased from 2.88 percent to 2.90 percent.

This growth in fish production is largely attributed to the phenomenal increase in aquaculture production in the region, which is estimated at 23 percent during the same period (Fig. 1 on page 14). Aquaculture, which accounted for about 1/4th of the total fish production till the early 1990s, now contributes about half of the production. This is in tune with the trend observed globally and it is likely that supply from aquaculture will far outstrip supply from capture fisheries in the next five years. Sri Lanka and Maldives are now taking measures to strengthen and or introduce aquaculture, while in Bangladesh and India, where aquaculture is well-established, only about half of the full potential is being achieved.

Table 1: Fisheries production and trade in the BOBP region

	2006	2007	2008	2009	2010
Production (million tonnes) & availability					
Capture	5.74	5.81	6.12	6.36	6.95
% of World	6.38	6.43	6.82	7.10	7.85
Aquaculture	4.08	4.07	4.87	4.87	5.97
% of World	8.63	8.15	9.20	8.74	9.97
Region (Total fisheries)	9.82	9.88	10.99	11.23	12.92
% of World	7.15	7.04	7.71	7.73	8.70
Population (in millions)	1 275	1 294	1 313	1 332	1 351
% of World	19	20	20	20	20
Per capita daily fish availability (gram)	21.11	20.91	22.93	23.11	26.21
Trade (million USD)					
Export	2 493	2 589	2 472	2 804	NA
% of World	2.88	2.75	2.41	2.90	NA
Import	164	183	211	227	NA
% of World	0.18	0.18	0.19	0.22	NA

Source: FAO

While the impressive growth of aquaculture can contribute in addressing the increasing food security needs of the region and facilitating fisheries trade, the larger question that remains to be solved is how to use aquaculture to divert excess effort from capture fisheries in a productive manner. Although, theoretically and during some pilot-scale activities, aquaculture has shown its potential in addressing the problems of capture fisheries, especially those related to livelihood sustainability, a broad-spectrum macro-level adoption of the activity by small-and artisanal fishers is still a distant dream. A host of factors, including landless nature of fishers, needs to be considered to adopt aquaculture as a meaningful alternative livelihood strategy for fishers engaged in capture fisheries.

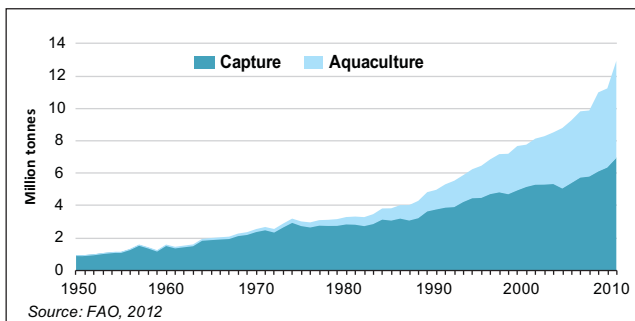


Fig. 1: Fisheries production in the BOBP region

During 2009-10, capture fisheries in the region recorded a growth of 9 percent, which mostly came from inland capture fisheries. However, on a positive note, marine capture fisheries in the region is showing a positive trend unlike the global trend, which seems to be tapering off. During 2009-10, marine capture fisheries grew at 3.38 percent. However, at the country-level, while Sri Lanka achieved a remarkable growth of 24 percent, other countries have achieved only negligible (Bangladesh, 01%) or negative growth [India, East Coast, (-) 1.51%] and Maldives (-) 19%] in marine capture fisheries (Fig.2 on page 15).



Decline in fish production in Maldives may be due to a combination of both positive and negative factors. On the positive side, there is a decline in the number of fishing fleet. While the size of fishing vessels is on the increase, but it is not clear what is happening to the total fishing capacity. Also, the size of the workforce in fisheries has declined significantly. Due to lack of locally available workforce, some fishing companies are now engaging migrant workers in their fleet. In addition, the pole and line method of fishing, which is the dominant method of tuna fishing, depends much on personal skill and knowledge. Considering that the Government of Maldives is now promoting tuna long lining for Maldivian fishers, it is expected that tuna catch may increase in the future.

However, there is an overall decline in the availability of tuna in the Indian Ocean. Landings of tuna and tuna-like species from the Indian Ocean reached its peak in 2004 and since then a downward trend is seen, except a marginal improvement in 2010 (Fig. 3 on page 15). At present about 56 nations are engaged in tuna fishing and among the countries in the region, Sri Lanka (3rd) and India (5th) are amongst the top five exploiters (2010). Other countries are Indonesia (1st); Iran (2nd) and Spain (4th). In India, tuna landings reached its maximum in 2007 at 149 452 tonnes and since then it is gradually declining. In 2010, the country landed 134 616 tonnes of tuna (down by 10%). However, tuna landing is steadily increasing in Sri Lanka. During 2007-10, tuna landings in Sri Lanka increased from 133 902 tonnes (2007) to 197 438 tonnes (2010), recording a growth of 41 percent.

Fisheries under management plans

The following paragraphs provide detailed description of the iconic fisheries - hilsa and sharks, for which management plans are also being formulated by the BOBP-IGO member-countries.

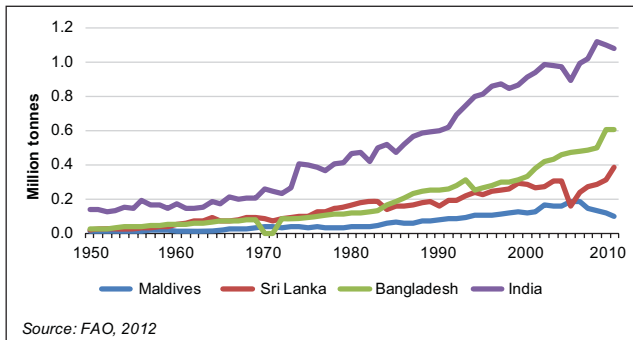


Fig. 2: Growth in marine capture fisheries

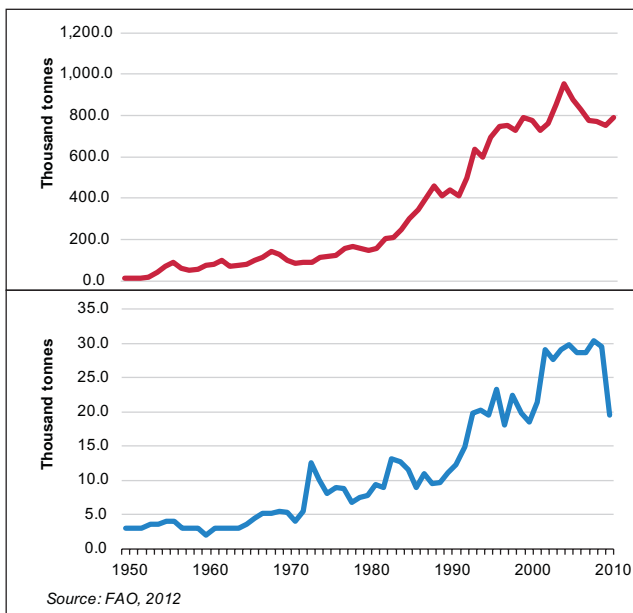


Fig. 3: Tuna fishing in Indian Ocean (Top) and the Maldives (Bottom)

State of hilsa fishery

Hilsa (*Tenualosa ilisha*) forms an important commercial fishery in Bangladesh and northern parts of the Indian east coast (West Bengal). Hilsa is an anadromous species and transboundary stocks largely occur in the upper Bay of Bengal. Through the riverine network in Bangladesh, the species migrates upstream in the river Ganges and its tributaries and the river Brahmaputra in India. Hilsa fishery is by far the largest single species fishery in Bangladesh and also its national fish. It was also declared as the State fish in West Bengal, India. Due to its anadromous characteristics, hilsa is also an indicator of the state of land-ocean interface. The combined production of hilsa from inland waters reached its peak in 1993 and since then the production is on the decline (Fig. 4).

Overall, during 2000-10, the total hilsa production in Bangladesh increased from 219 532 tonnes to 313 753 tonnes and in India (East Coast) it has declined from 84 733 tonnes to 69 296 tonnes. Recent reports show that in West Bengal, hilsa catch has declined drastically. According to the Department of Fisheries of the Government of West Bengal (DoF-WB), hilsa catch during the first fortnight of July declined from 25 tonnes per day in 2010 to about 10 tonnes per day in 2011.

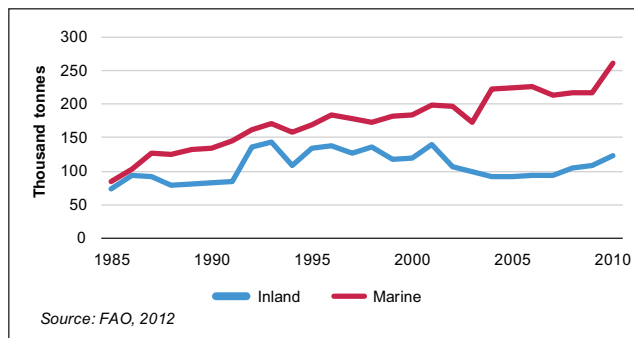


Fig. 4: State of hilsa fishery



The reasons behind this stress in hilsa stock are attributed to factors exogenous to the sector such as infrastructural projects, which are primarily affecting water flow in the rivers as well as endogenous factors. In West Bengal, a study by the DoF-WB shows that rampant use of destructive fishing gear such as set bag nets, gill nets with very small mesh size (< 12 mm), locally known as mosquito nets, trawling and obstructing river mouths with set bag nets is destroying the fishery. Moreover, while there is a seasonal fishing ban in the marine sector, the same is not observed in the inland sector thus making the objective of the ban futile. On the other hand, siltation in the river mouth and reduced water flow is hampering the migration of hilsa from marine to inland waters. In terms of fishing effort, different studies carried out in Bangladesh, show that the existing fishing effort is both unsustainable and unprofitable and there is a need to reduce fishing effort by 2/3rd of the existing level to make hilsa fishing both environmentally and economically viable. Although there is lack of data to clearly establish the status of the fishery given its

transboundary nature, there is now growing concern over the future of this fishery both in India and Bangladesh from precautionary perspective. Bangladesh has also adopted a National Plan for hilsa and is largely successful in reducing catching of juvenile hilsa (popularly known as *jatka*). As a result, there is a marked improvement in hilsa landings in Bangladesh from inland waters. However, a regional effort and plan of action is necessary to ensure the health of the stock.

State of shark fisheries

In terms of economics, shark fishery is a minor player. However, it is important on account of its role in the ecosystem and its inherent vulnerabilities. Keeping the larger ecosystem functions in mind, the BOBP-IGO member-countries are working towards National Plans and a Regional Plan to manage shark fishery. Maldives has already banned shark fishing within its EEZ including any trade in shark and shark products. Among the BOBP-IGO member-countries, India and Sri Lanka are major exploiters of sharks. Although, the endangered shark species are protected under law in both the countries, it is difficult to implement without a proper plan for monitoring shark fishing as a whole. Shark landings from the Indian Ocean reached its maximum in 1996 (300 822 tonnes) and since

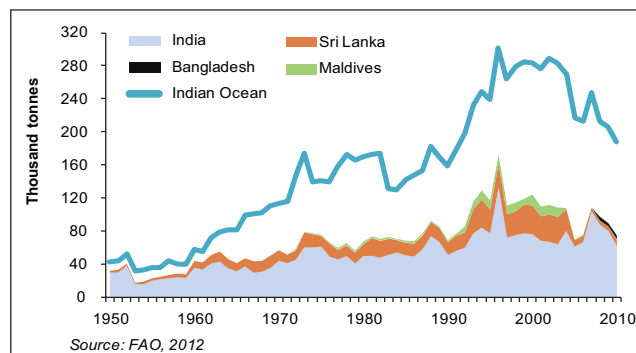


Fig.5: Shark landings in Indian Ocean



then declined (Fig. 5 on page 16). Given the lucrative market for shark products and noting that the Maldivian efforts of complete ban are of recent origin, the trend indicates that shark stocks in the region are probably over-exploited. At the country level, shark landings in India have declined from 79 747 tonnes to 61 871 tonnes, while in Sri Lanka it has increased from 4 861 tonnes to 7 507 tonnes. Shark landings in Maldives, which used to catch between 11 000 -13 000 tonnes of sharks in early 2000s, declined to 128 tonnes in 2010. Bangladesh, which is not a traditional shark fishing country, is now increasingly landing sharks and between 2009 and 2010, the landings have increased from 3 933 tonnes to 4 033 tonnes. In the case of Maldives, with the permission of longlining being given to the national fishing vessels, a plan of action may be necessary for the by-catch of sharks that is normally associated with tuna longlining.

Biodiversity and ecology

The Bay of Bengal is a biological hotspot. The region hosts two major critical ecosystems, Sunderbans between India and Bangladesh and the Gulf of Mannar shared by India and Sri Lanka. Maldives due to its unique physical

characteristics is rich in biodiversity. However, the concerns are mostly about protecting what exists and then recovering what has degraded. It is also well recognized that biodiversity conservation needs coordinated effort across the region. In this regard, India and Sri Lanka have now come together to work on a mutually acceptable and implementable management paradigm for Gulf of Mannar. A similar coordinated effort is necessary for Sunderbans.

In terms of catch composition, the story in the Indian Ocean is quite dramatic (Fig. 6 & Table 2 on page 18). The major highlights are rise of forage fishes like the Indian Oil Sardine. The sardine fishery was earlier prominent in the western Indian Ocean only, but is now increasing in the eastern Indian Ocean also, as shown in the fish landings of the region and also documented in various studies. Indian Oil sardine was rarely caught in Bangladesh waters, but the species is now being increasingly caught by the fishers in Bangladesh. There are two possible reasons behind this geographical expansion of Indian oil sardines, as indicated in the literature: first and the worrying one, is the reduction in the population of top predators, such as sharks; the second and uncertain one is the impact of global warming, which also indicates the possibility of oil sardine colonizing new areas. Given the strength of both the theories, it seems that a cumulative factor is at play in the Indian Ocean, further complicating the prediction models. From livelihood angle, since oil sardine fishery is not developed in new areas, the fishermen are unable to reap optimum benefits from this fishery. Another concern is that how this colonization will affect the ecosystem, especially in terms of feed competition with species feeding in the same ecological niche like hilsa, whose mobility is also limited by its unique migratory characteristics.

At the same time, there is an urgent need to monitor pollution in the marine waters. A study done by the Central Marine Fisheries Research Institute (CMFRI), Kochi, India in 2010 found that the extent of heavy metal pollutants

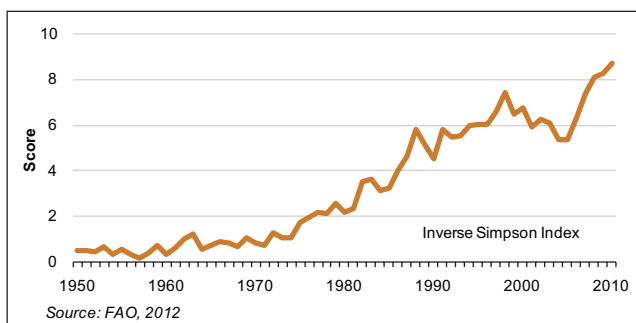


Fig. 6: Increasing diversity in landings from Indian Ocean

Table 2: Changes in catch composition of important fish species/ stocks in the Indian Ocean

1960-69	1970-79	1980-89	1990-99	2000-10
IOS	NDS	IOS	CRK	SJT
NDS	IOS	NDS	SJT	IOS
CLP	BBD	CRK	YFT	YFT
BBD	INM	SJT	IOS	CRK
INM	CRK	CLP	NDS	NDS
SRS	CLP	YFT	INM	HIL
CRK	CAT	BBD	BBD	GTP
YFT	SRS	SRS	HIL	BBD
CAT	HSF	CAT	CLP	CLP
ANC	ANC	INM	GTP	CAT

Species	Code	Species	Code
Anchovies, etc.	ANC	Indian oil sardine	IOS
Bombay-duck	BBD	Natantian decapods	NDS
Clupeoids	CLP	Pike-congers	PKC
Croakers, drums	CRK	Sea catfishes	CAT
Giant tiger prawn	GTP	Sharks, rays, skates, etc.	SRS
Hairtails, scabbardfishes	HSF	Skipjack tuna	SJT
Hilsa shad	HIL	Yellowfin tuna	YFT
Indian mackerel	INM		

Source: Estimated from FAO

along the Tuticorin coast in Tamil Nadu has exceeded the recommended safe levels. Tuticorin is a highly industrialized belt and most of these industries are located along the coastline. Therefore, a stronger monitoring and surveillance mechanism is necessary for industrial units, especially along the coast. This task of monitoring usually lies with the Union Government and the provincial Ministry/ Department of Environment in India and a similar business rule is also practiced in the other member-countries. However, at present the interaction of fisheries and environment is mostly unidirectional, tracking impact of fisheries on environment and ecology and not *vice versa*. Thus there is a need to strengthen the linkages so that the Ministry/Department in-charge of environment can play a more effective role in reducing exogenous impacts on fisheries.



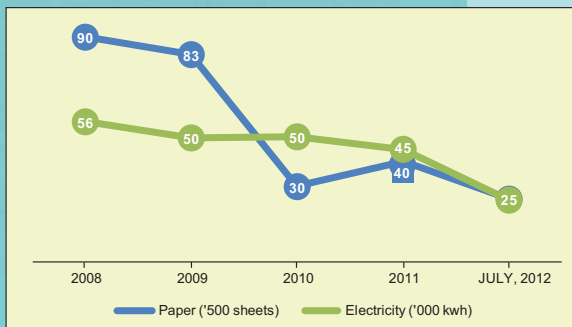
Greening the BOBP-IGO

Since the last few years, the BOBP-IGO is taking measures to make its office and working environment greener. Electrical equipments with higher energy saving rating are being installed. Thus, the Organisation is able to reduce electricity consumption by 20 percent since 2008 without trading off the working environment. During this period, the Secretariat has on an average worked for 19 000 hours per year implying that consumption of electricity per working hour has been cut down to 2 kilowatt-hour (kwh) from 3 kwh.

Apart from saving power, the office is also taking measures to go paperless, initially for internal records. While, we still underline the importance of hard copies, especially keeping in mind a relatively low rate of penetration of computers in the sector and low bandwidth, for communication and draft reports we are now increasingly using electronic formats. Also, the staff is trained not to waste paper unless it is completely utilized. One-side printed papers are used for making draft copies and preparation of notepads for internal use. The Organisation is further moving towards using recycled paper in its publications. However, the process is slow due to higher costs of such paper. With the growing use of email for communication, the Organisation is able to cut down mailing cost from INR 0.32 million in 2010 to INR 0.22 million in 2011, which again indicates saving of paper though higher use of e-communication.

The BOBP-IGO is also taking measures to reduce plastic and e-waste from the meetings and seminars, which until recently were a necessary evil. Slowly, the Organisation is replacing personal plastic water bottles with centralized water dispensers and eliminating the use of CD-ROM for distribution of meeting documents. The Organisations is now moving towards the larger use of cloud services and other IT applications.

Not only environment, the BOBP-IGO is also health-friendly. It was declared as a 'no smoking office' way back in 2000 even before the law regarding prohibition on smoking in public places was implemented in India and many other countries in the region.



Fisheries-dependent livelihood

Marine capture fisheries form an important source of livelihood along the coastline. South Asia, especially the BOBP-IGO member-countries are host to the largest concentration of small-scale fisheries in the world and about 15 percent of the total fisher population engaged in capture fisheries in the world is from the BOBP-IGO member-countries (Table 3). Apart from the population traditionally engaged in fisheries, there is a growing trend now where people from other sectors are joining fisheries as part-time or full-time workers. This trend is quite visible in Bangladesh, India and Maldives.

The two marine fisheries censuses carried out in India in 2005 and 2010 by the Department of Animal Husbandry, Dairying and Fisheries and the Central Marine Fisheries Research Institute (CMFRI) show that there is striking increase in the number of part-time fishers *vis-à-vis* population growth and increase in number of full-time fishers (Table 4). The 2010 census also provides information on the number of fisher families and number of traditional fisher families and it shows that about 91 percent fisher families are traditional, indicating that the balance 9 percent families have entered fisheries in different time period. However, in earlier days during the wake of mechanization, non-fisher families entered fishing mostly as boat owners but as the above data indicates that the recent entry is mostly for meeting the labour shortages in the marine capture fisheries sector.



While there is an out-migration also, especially as observed in Maldives and to an extent in India and Sri Lanka, this trend of in-migration shows that over-employment in fisheries may not be solved by devising measures to take existing fishers out of fisheries, both through social upliftment and by creating exit avenues. Given the national and international mobility of labour and higher growth rate in lower strata of population, fisheries will continue to attract people due to quick and comparatively attractive returns. A stronger mechanism is needed to ensure that this entry

Table 3: Fisher folk population in the BOBP-IGO region

Countries	Bangladesh	India	Maldives	Sri Lanka
Fisher population (2005-10)	902 961	4 054 802	14 241	825 200
Total (BOBP)		5 797 204	(15%)	
World (FAO, 2010)			38 268 000	

Source: Statistical Abstracts of National Governments and FAO

Table 4: Changes in occupational magnitude of fishers in India (excluding Island Territories)

Source	Full Time	Part Time	Total Fishers	Fisher folk Population
Census 2005	717 999	117 628	889 528	3 519 116
Census 2010	826 142	163 931	990 083	3 999 214
Change (%)	15.06	39.36	11.30	13.64

Source: CMFRI

and exit is monitored. Further, fisheries being a skilled activity where lack of experience increases occupational hazards manifolds, it is essential that the in-migrating labour force receives adequate training working on the fishing fleet.

On the scope of livelihood, as mentioned earlier, aquaculture is considered as a viable exit option. However, efficacy of aquaculture in drawing out fisher families is still doubtful. In India, a study carried out by the BOBP-IGO in Andhra Pradesh found that most of the shrimp farmers are converted farmers (mainly from agriculture). The reason is their access to land and lucrative returns from shrimp farming. The 2010 census data also provides figures for number of fisher families engaged in aquaculture. At the national level, the data shows only about 2 percent fisher families are engaged in aquaculture. This is in spite of the fact that aquaculture is well-established in the country for over three decades. On the east coast of India, the situation

Table 5: Involvement of fishermen in aquaculture

State/Union Territories	Fisher Families		
	Total	Practicing Aquaculture	Ratio (%)
West Bengal	76 981	4 688	6.09
Odisha	1 14 238	3 480	3.05
Andhra Pradesh	1 63 427	5 385	3.30
Puducherry	14 271	2	0.01
Tamil Nadu	1 92 697	352	0.18
Total	5 61 614	13 907	2.48

Source: CMFRI

is relatively better (Table 5). In the States of West Bengal and Odisha about 6 percent of fisher families are involved in aquaculture. However, in Tamil Nadu, only a negligible proportion of fisher families are engaged in aquaculture.





Fishing fleet

Recently available figures show a decline in the number of total fishing fleet in some States of India and Maldives. In Maldives, the trend is towards making bigger fishing vessels and the same trend seems to be happening in India. In Sri Lanka, except motorized traditional fleet, other categories of fishing vessels are growing. This expansion in the fleet in Sri Lanka, in a way is necessary to adequately cover the northern waters, which were earlier inaccessible due to the civil conflict and also for realizing its potential from the deep sea fishery. However, lack of information on the targeted fish stocks and their role in the ecosystem needs to be reviewed from a precautionary approach to avoid any over-capacity of fishing fleet in the future. In Bangladesh also the fishing fleet in all categories (powered and non-powered and single day and multi day) is expanding, albeit at a slower rate (Table 6). However, as regular data collection mechanism is inadequate in Bangladesh, the Department of Fisheries, Government of Bangladesh is carrying out a census of the fisheries sector to fill up this gap. The result of this exercise, which is expected to be in public domain later this year, will give a better picture of the fishing fleet structure and fisher population in Bangladesh.

Catch monitoring

Catch monitoring and identification of various species landed remains a weak area. Although, a host of factors such as fishing in new areas and expansion of fisheries are responsible for clubbing a large portion of catch as marine fishes, it is a greater concern from an ecological perspective. Such species are often of low commercial value, thus further discouraging their identification and recording the magnitude of their landings. However, from ecological perspective every species has its unique place and role in the marine ecosystem and by clubbing them, the probability of missing the trends in their stock becomes very high. In terms of monitoring, lack of trained taxonomists at the field-level is a major constraint. In addition, fishers are not educated about new varieties of species when the fishery is extended. Thus even anecdotal information on large number of species is and will remain unavailable. On an average, 21 percent of the catch in the region was clubbed under marine fishes in 2009 and 2010. At the country level, a large portion of the catch in Bangladesh, India and Maldives is clubbed under the marine fish category in the FAO database. The situation is relatively better in Sri Lanka (Table 7 on page 24).

Table 6: Changes in fleet size in BOBP-IGO member-countries

Country/Type	1998 - 2001			2008 - 2010			Change (%)		
	P	NP	T	P	NP	T	P	NP	T
Bangladesh	21 513	22 257	43 770	27 226	23 329	50 555	27	5	16
India	44 268	51 940	96 208	1 43 872	50 618	1 94 490	225	-3	102
Maldives	1 197	119	1 316	901	78	979	-25	-34	-26
Sri Lanka	11 949	15 200	27 149	25 973	20 165	46 138	117	33	70
BOBP region	78 927	89 516	1 68 443	1 97 972	94 190	2 92 162	151	5	73

Note: P = Powered including mechanized fishing vessels, industrial trawlers and fishing vessels with inboard or outboard motors. NP = Non-powered, fishing vessels without any mechanical means of propulsion but including sailing boats. For Maldives, data shows average number of fishing vessels engaged. The number of registered fishing vessels in Maldives is 4 587 (2008) which has also declined from 7 154 in 2003.

Sources: Compiled from Annual Reports of corresponding Ministries/ Departments of Bangladesh, Maldives, Sri Lanka and for India from CMFRI, Vivekanandan, et. al. 2010.

Table 7: Proportion of catch clubbed under 'marine fish' category

Year	Bangladesh	India (East)	India (West)	Maldives	Sri Lanka
2009	43.06	17.68	19.41	17.74	4.40
2010	43.81	11.15	26.35	17.08	5.08

Source: Estimated from FAO

Moving towards sustainability

Sustainability is a state of affair where cost-benefit matrix from fisheries is in balance. However, with growing inter-linkages between sectors and economies, sustainability in a particular sector is difficult to achieve unless there is sustainability at the macro-level. What is more important here is to first organize our own house (by bringing in responsible fisheries within the sector) and then campaigning for responsibility in the closely interlinked sectors (such as coastal industry and tourism) and in this way moving towards sustainability.

The fishery, at this point of time in this region as well as in global arena is suffering from both endogenous and exogenous factors, probably in equal numbers. In most cases, fisheries being a primary activity carried out mostly outside the limits of sight of the civilization, it is difficult to address the exogenous problems. However, being a natural



resource dependent sector, fisheries can set an example before other sectors in behaving responsibly and targeting sustainability, thus encouraging a movement in the economy, ultimately benefitting all the stakeholders. The first step towards this can be by improving monitoring, control and surveillance (MCS) in marine fisheries.

State of MCS

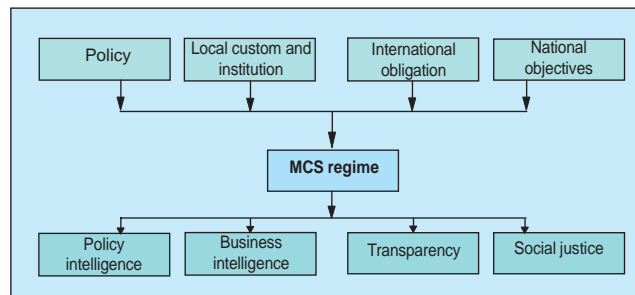
A pre-requisite for effective MCS is an adequate legislative framework, clearly defining management objectives, means and penalties. It is of utmost importance for all MCS managers that laws and regulations are enforceable, which is not always the case. The ability to enforce a regulation depends on its content and resources available for the enforcement authority. Unenforceable regulations drain credibility from MCS systems and affect the overall effectiveness. It is thus important that MCS managers are consulted when laws and regulations are formulated. It is also important that laws and regulations are generally accepted by major stakeholders.

The reality is that fishers are a set of entrepreneurs engaged in one of the riskiest occupations of the world and creating livelihoods for millions of people, both upstream and downstream. Therefore, the ultimate objective of MCS tools for small-scale and artisanal fisheries is not just to protect the resource but to stabilize the sector, minimize occupational hazards and optimize policy benefits. The small-scale fisheries sector can get immediate benefits from successful MCS measures through (i) effective demarcation of fishing areas, (ii) better insurance deal from data strengthening, (iii) target fishing through resource mapping, (iv) sea-safety, (v) reflecting their stakes in fishing policy, (vi) stabilization of catch per boat and hence income and (vii) possible jobs in land and sea-based monitoring systems.

Management plans should likewise be clear, concise and understood by stakeholders. Management plans for small-

scale fisheries should focus on effort control and other measures such as gear restrictions, minimum sizes, closed areas and closed seasons. Catch quotas are largely unenforceable in small-scale fisheries, except when sustainable co-management has been introduced. Management plans can and should include elements of decentralization, when and wherever possible, towards co-management and community management to be effective.

The governments, especially the Ministry/Department of Fisheries have a major role to play in this movement. Firstly, by enforcing existing rules and regulations and then by bridging gap between research and development with actual practitioners. Given the size of the budget available with the fisheries agencies, it is necessary to develop a holistic plan by setting the goals and then coordinating all the activities towards these goals through a participatory approach, which is unfortunately still missing in the region.



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Activities and Performance: 2011-12

The Governing Council at its Seventh Meeting held in Malé, Maldives in June 2011 had approved 20 activities apart from 3 special programmes and other complimentary services. These 20 activities are spread in three domains: capacity building and information dissemination; fisheries resource management and improving safety at sea for small-scale fishers in the region.

The Governing Council also advised the BOBP-IGO Secretariat to prepare a cost-benefit matrix towards institutionalizing the BOBP-IGO as a regional fisheries management body and present the same in the Second Meeting of the Technical Committee set up for this activity; provide advisory services to the member-countries on agenda of the meetings of the Committee on Fisheries of the Food and Agriculture Organization of the UN (COFI) and its sub-committees; and further emphasized on the need for the BOBLME Project and the BOBP-IGO to work in close cooperation in the region and to formalize their relationship. Towards this both the Organizations discussed their work plans and agreed on common areas where BOBLME Project and BOBP-IGO could work together.

Apart from these core activities, other activities approved by the Governing Council include:

- **Collaboration and support to organizations/ individuals from member- countries/region/ international fisheries organizations.**
- **Participation in international activities to promote the causes of the BOBP-IGO member-countries.**
- **Regional networking.**

1. Second Meeting of the Technical Committee for Establishment of a Regional Fisheries Management Organization (RFMO) in the BoB Region

The Governing Council at its Sixth Meeting in 2010 constituted a Technical Committee (TC) under the chairpersonship of the Hon'ble Minister of State for Fisheries and Agriculture, Government of Maldives to consider the need for establishment of a Regional Fisheries Management Organization (RFMO) in the BoB region. The First Meeting of the TC was held on 25-26 November, 2010 in Chennai, India. Senior country representatives from Bangladesh, India, Maldives and Sri Lanka attended. Delegates from Myanmar and FAO attended the TC as observers. The TC observed that such restructuring of the BOBP-IGO needs complete overhauling of its mandate, activities, budget and staffing. Considering this, the TC will further review the tangible and intangible costs and benefits of the restructuring to chart out a developmental path for the Organisation.

To identify the scope, needs and constraints in restructuring of the BOBP-IGO to assume management functions, the Organisation during the reporting year involved itself in programmes with management implications. The Organisation is now working with BOBLME Project and Mangroves for the Future (MFF) in the Gulf of Mannar, which is a shared ecosystem between India and Sri Lanka. During the reporting year, BOBP-IGO took steps to bring these countries together and also to bring institutions within these countries together. Apart from the Gulf of Mannar, BOBP-IGO is actively contributing to the work of the Regional Fisheries Management Advisory Committee (RFMAC) spearheaded by the BOBLME Project. The Organisation has also had interactions with a couple of Regional Fisheries Management Organizations (RFMOs) elsewhere in the world to learn from their experiences and the processes they went through in setting up of their

RFMOs. Through these exercises, BOBP-IGO is moving ahead in the learning curve. Analysis of experiences from these activities will be presented in the form of a corroborated cost-benefit matrix during the Second Meeting of the TC which is proposed to be organized during the end of 2012.



2 Capacity building and information dissemination

Taking the Code of Conduct for Responsible Fisheries (CCRF) to the Grassroots

Promotion of CCRF as a tool to encourage responsible fishing practices by the stakeholders is a flagship programme of BOBP-IGO. Growing familiarity of the stakeholders to the provisions of the CCRF and their implementation in the member- countries can be attributed to the continuous awareness and capacity building programmes undertaken by BOBP-IGO since 2004. Apart from ensuring the access of the stakeholders to the collective wisdom of CCRF through vernacular versions of the main document and its Technical Guidelines and conceptual posters, the Organisation is also actively engaged in training of fisheries officials from the member- countries and other countries in the region in adopting CCRF in their working environment.

Regional Training Course on Strengthening Fisheries Data Collection and Stock Assessment, 25 April- 7 May 2011

The Regional Training Course on Strengthening Fisheries Data Collection and Stock Assessment (RTC-SFDC) instituted in 2011 is aimed at providing necessary skills and exposure to junior and middle-level fisheries personnel working at the field-level in latest scientific methodologies in collection, collation and analysis of fisheries data; basic taxonomy and modeling information to draw inferences for fisheries sector of their respective countries.

The first RTC-SFDC was organized during 25 April- 7 May 2011 in Kochi, Kerala, India in association with the Central Marine Fisheries Research Institute (CMFRI), a premier marine fisheries research institute in the region and the Fishery Survey of India (FSI), nodal agency for survey of India's fishery resources. 16 participants, 4 each from the member-countries took part. The course covered species



identification: theory and practical; basic statistics, sampling and biological data collection: theory and practical; growth models; holistic models; growth estimation; stock assessment: theory and stock assessment through cruise survey: theory and practical. The Institute provided the classroom and lab facility and faculty and FSI extended the cruise facility and faculty. After attending the course, the participants found it enriching and comprehensive. However, some participants observed that an orientation course preceding the actual course could make the programme more useful as the participants had varied levels of skill and experience.

Regional Training Programme on CCRF, 10 - 23 July 2011

The Regional Training Programme for training junior and middle-level fisheries officials on CCRF (RTC-CCRF) was instituted in 2008. The 4th RTC-CCRF was conducted during 10 - 23 July 2011 in association with the CMFRI. Under this two-week long programme, 16 participants; 4 from each member-country were trained. This interactive programme envelopes a series of lectures covering theoretical aspects of CCRF, lectures on trends, problems and prospects of fisheries in the region, personal and group exercises, interactions with fishers and fisheries associations and sharing and analysis of experiences of participants from their respective countries.

Along with the course activities, participant were exposed to the vibrancy of Indian coastal areas as they traveled to different parts of southern India, visiting fishing hamlets and meeting the fishers and their associations. In evaluating the programme, all the participants recommended the programme to their parent organizations with a request to BOBP-IGO to extend the duration of the course. So far, a total of 68 participants from the member-countries and Myanmar have been trained under the programme. The RTC-CCRF is now receiving wide acclaim and will continue till a critical mass of fisheries cadre is available in the member-countries and other countries in the region to popularize responsible fisheries at the grassroots.

Continuing its activity of translating and publishing the CCRF documents in vernacular, Technical Guidelines (TGs) on Integration of Fisheries into Coastal area Management (TG-3); Fisheries Management (TG-4) and Guidebooks on 'Stopping illegal, unreported and unregulated fishing' and International Plans of Action for reducing incidental catch of seabirds in longline fisheries, conservation and management of sharks and the management of fishing capacity were translated and published in Sinhala



language. These TGs and other guidebooks including international plans of action will be useful for stakeholders in Sri Lanka. The translation of these and other TGs in Dhivehi, Sinhala and in Telugu (for the Indian East Coast State of Andhra Pradesh) are in progress. Last year, the Organisation had printed a set of TGs in Tamil and Malayalam language and provided to the corresponding Departments of Fisheries for distribution in India and Sri Lanka.

Improving health and hygiene in fisheries

Video documentation

Since 2009, the BOBP-IGO has taken a programme on "Safe Fish" that aims at Improving health and hygiene in fisheries in the member-countries. The strategy for this programme is to first document the existing fish handling practices in the member-countries audio-visually, analyze the information to identify critical areas of improvement and then structure training programmes and policy interventions to address them. During June 2011, documentation was carried out in Maldives. The BOBP-IGO team visited L.



Maandhoo Island and nearby Islands during 23 – 26 June. During visit to Maandhoo, the team carried out documentation of tuna processing in Maandhoo Fisheries Complex of Horizon Fisheries. The team also visited L. Maavah Island where small-scale fish processing is carried out. The visit was facilitated by the Ministry of Fisheries and Agriculture, Government of Maldives. The team also took part in a pole and line fishing trip from 24 – 25 June and documented bait fishing, pole and line fishing and onboard handling of tuna catch. With this documentation, the BOBP-IGO has archived fish handling process in all its member-countries and the Organisation is now involved in processing of video footage to prepare an educational video on fish handling practices in the region.

Implementing Integrated Seafood Quality Improvement Programme in Mudasalodai Fish Landing Centre and Annankoil Beach Landing Centre in Cuddalore District, Tamil Nadu

Fish is safe when harvested in a clean environment and handled hygienically till the point of consumption. However,

lack of knowledge, poor management practices in critical areas and absence of suitable regulations to curb unhygienic practices in the fisheries sector are largely responsible in post-harvest losses as also marketing of poor quality fish and fish products in the domestic sector, a scenario quite common in the region. The BOBP-IGO had earlier made interventions in onboard handling of fish and distribution of fish through introduction of ice boxes and specially designed containers. It has also taken a different initiative to promote cleaner fishery harbors, which again has contributed towards improving post-harvest practices. The objective of this present pilot-scale programme is to bring all these experiences together to develop a safe supply channel from boat to plate. The BOBP-IGO in conjunction with the National Fisheries Development Board (NFDB) of the Government of India had identified two prospective sites: Mudasalodai and Annankoil in Cuddalore, Tamil Nadu for implementing the pilot project. However, after conducting preliminary studies it was decided that the project will be implemented only in Mudasalodai.

The Mudasalodai Fish Landing Centre (FLC) has the basic infrastructure facility including a wharf, auction hall, drying yard, compound wall and water supply, sanitation and drainage. This facility is being used by about 80 mechanized vessels. The association of mechanized





vessels owners is also responsible for maintenance of the FLC and uses it for landing, parking and auctioning of catch. About 200 motorized boats use this facility for auctioning of catch and procurement of inputs. Besides, about 60 fisherwomen are involved in the FLC in auctioning and fish drying.

After consultation with the stakeholders including the primary users, village community, Department of Fisheries, Government of Tamil Nadu (DoF-TN) and NFDB it was decided that a total package comprising software (skill, knowledge, training, exposure) and hardware (necessary infrastructure and equipment) will be provided at the FLC. The project will be implemented through a project management committee comprising the stakeholders with backstopping from BOBP-IGO. It was decided that BOBP-IGO will prepare a Detailed Project Report (DPR), for which detailed socio-economic and engineering studies were carried out during July-October, 2011, in consultation with the DoF-TN, NFDB and the local stakeholders.

The project cycle which is now at the DPR stage will be submitted to the NFDB for funding and its subsequent development will be shared and implemented in the member-countries to improve post-harvest practices in

marine capture fisheries. The experience also sheds light on needs of different stakeholders, gender dimensions and conditional access for different groups of stakeholders. These experiences will be helpful in designing all-inclusive projects at a later stage. The DPR will also serve as a guide for people engaged in developing FLCs in the region.

Study visits and training programme

During the reporting year, BOBP-IGO received request from Maldives to visit training institutions/facilities in India regarding boat building, fish aggregating devices and post-harvest activities. The Organisation is now networking with prospective institutions and organizations to facilitate the visit.

Technical support

BOBP-IGO is providing technical know-how to NFDB in formulating and implementing its activities, especially in marine fisheries sector. Earlier, the Organisation assisted NFDB in modernizing a fish market in Nellore, Andhra Pradesh.

Mapping of fish markets in Chennai and Dhaka, 2010-12

Wholesale and retail markets act as critical control points in fisheries supply chain. Due to their defined geographical characteristics and countability, it is easier to utilize them to influence both ends of the supply chain. However, lack of information on these nerve centres render them ineffective as policy tools. Towards this, the BOBP-IGO since 2012 has taken up a project of mapping fish markets in its member-countries. After discussions with the member-countries, it was decided that initially mapping will be carried out in Chennai, India; Dhaka, Bangladesh; Colombo, Sri Lanka and Malé, Maldives.

Subsequently, BOBP-IGO carried out a detailed study in Chennai during 2010-11 and a preliminary study is also



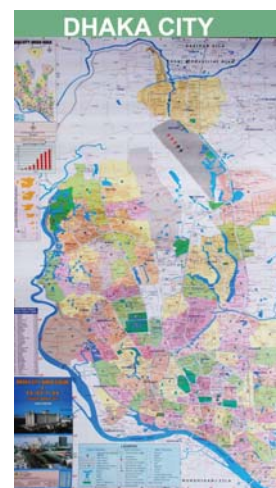
completed in Dhaka, Bangladesh. Similarly, the documentation of Peliyagoda Fish Market in Colombo and the Fish Market in Malé city has been completed.

In Chennai, the mapping was initiated with a list of 34 markets received from the DoF-TN. However, on completion of the survey, it was found that there are about 96 fish markets in Chennai functioning as wholesale, retail and street markets (markets without any permanent structure). The study indicates that while wholesale and retail fish markets are developed on traditional demographic clusters, more and more street markets have sprung up to match with the growing cosmopolitan nature of the city and fading away of the traditional clusters. In addition, while in earlier days, Chennai was mainly catered by the near-by fish landing centres, now it is a hub of fish arriving from all parts of the country. The study also shows that this growth in fish markets has far outstripped supply of infrastructure. Especially, the government run fish markets are suffering from many infrastructural problems such as lack of water for washing, proper drainage, garbage disposal, etc. Privately run markets are relatively better in terms of hygiene and sanitation. A visual archiving was also carried out with the survey and an interactive map has been

prepared. This interactive map provides information on location and background of the market, its domain, management structure, products offered and business practices, product inflow and outflow, volume of business, hygiene and cleanliness and infrastructure requirements. This interactive map hosted in BOBP-IGO website can be accessed at: <http://www.bobpigo.org/fishmarket/index.htm>.

Mapping of fish markets in Dhaka

The preliminary study for mapping of Dhaka fish markets was initiated in early 2012. The geographical limits of the study correspond to the area of Dhaka City Corporation. The Corporation, established in 1983, has an area of 360 sq. km and a population of about 17 million. It is now divided into two administration units- North and South. The study found that there are 122 fish markets in Dhaka comprising 10 wholesale and 112 retail fish markets. North Dhaka has 4 wholesale markets and 84 retail markets, while South Dhaka has 6 wholesale markets and 28 retail markets. Most of the markets are under private (including associations) ownership. The study indicates that about 5 000 people are involved in wholesale and retail trade. Presently, validation and photo documentation work is being carried out on Dhaka fish markets. Subsequently, an interactive map for Dhaka will also be prepared.





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Technical assistance to the member-countries

In accordance with the directions of the Governing Council, the Secretariat analyzed the agenda for important international and regional conferences and provided advisory services to the member-countries.

During the reporting year, member-countries took part in four international events. The Thirteenth Meeting of the COFI Sub-Committee on Fish Trade was held from 20 - 24 February, 2012 in Hyderabad, India. The BOBP-IGO has provided advisory services to NFDB, India for organizing the event. In addition, the Secretariat also prepared and circulated a detailed note on agenda items highlighting the regional trade and related issues needing international support, such as the issue of integrating small-scale fisheries with global fisheries trade.

The Sixth Meeting of the COFI Sub-Committee on Aquaculture was held from 26 - 30 March, 2012 in Cape Town, South Africa. The BOBP-IGO assisted the member-countries in raising issues on inflation of feed prices and interaction of capture and culture fisheries. In this regard, the Organisation prepared and circulated a detailed note on the agenda items, highlighting possible options and issues for the region.

The Sixteenth Session of the Indian Ocean Tuna Commission (IOTC) was held in Freemantle, Australia from 22 to 26 April 2012. Except Bangladesh, the other three member-countries attended the Session. Decisions taken at the IOTC are having far reaching implications for the member-countries as they are consolidating their tuna fisheries. The BOBP-IGO Secretariat analyzed the agenda for the 16th Session in the background of the objectives and the role played by IOTC and resource potential and prepared a detailed note on the agenda items for the Government of India.

The Secretariat also assisted the Government of Sri Lanka in preparation of its shark management plan for placing at the IOTC Session.

Training of students

Since 2007, the Secretariat has been providing placements for Summer Interns from local colleges/universities. Every year two students are admitted for a period of about 45 days during summer months (May - June) and are assigned topics relating to the work programme of the Organisation. During 2011-12, two students from Stella Maris College, Chennai worked on international fisheries treaties, rules and regulations and their impact on Indian Fisheries. During 2011, a group of students from the College of Fisheries in Tripura, India visited the Organisation to discuss about the prospects of marine fisheries sector in India. The Organisation also provided them publications and study material free of charge.



Celebrating the International Year of Coastal and Marine Biodiversity

To mark the 'International Year of Coastal and Marine Biodiversity' (2012), the BOBP-IGO published a set of two posters. The posters depict the importance of biodiversity in sustaining nature and importance of traditional knowledge in conservation of biodiversity. The first edition of these posters is published in English, Bengali and Tamil languages. The Sinhala and Dhivehi versions will follow once the translations are complete.



Information dissemination & social networking

BOBP-IGO @ YouTube

The YouTube channel of BOBP-IGO is gradually gaining popularity. Since, October, 2010 the channel has attracted 11 374 views and during the reporting year the channel attracted 6 401 views. The viewers are distributed not only in South Asia but also in the Gulf countries and USA. While initially engine maintenance videos attracted the viewers, recently videos on Therukoothu, a Street Play in Tamil and video documentary on Seaweed Culture in Mandapam, Tamil Nadu are attracting more views. Among the engine maintenance videos, vernacular versions in Tamil, Bengali and Telugu are attracting more views than the English versions. This highlights the importance of communication in vernacular to reach the people. The BOBP-IGO channel in YouTube can be viewed at <http://www.youtube.com/user/BOBPIGO>

Top 10 videos in BOBP-IGO @ YouTube

1.	Therukoothu (A Street Play)
2.	Seaweed Culture in Mandapam
3.	Improving Safety and Health of Fishing Communities (Safety at sea) : A Bay of Bengal Initiative
4.	Use of ice aboard fishing boats of Andhra Pradesh
5.	Maintaining long tail engines use by fishermen in India and Sri Lanka (Tamil version)
6.	Maintaining Marine Engines in Fishing Boats of Bangladesh (Bangla version)
7.	Cleaner fishing harbours in the Maldives
8.	Technology for shrimp fry nursing
9.	Pollution in fishing harbours
10.	Maintaining long tail engines used by fishermen in India (Telugu version)

BOBP-IGO@Facebook

In our endeavor to keep in touch with our colleagues around the world, the BOBP-IGO joined Facebook in February, 2012. The Facebook page is now acting as the dashboard highlighting events organized by the BOBP-IGO, fisheries news, and also a daily news analysis. The readers may like us on Facebook at <https://www.facebook.com/BOBPIGO>.



Library services and distribution of publications

The Organization regularly receives reprint orders and provides library services to host of organizations, research scholars, students and individuals from both within and outside the region. Besides, the Organization has provided sets of publications (extra copies received from time to time from FAO and various other organizations on exchange basis or as gratis) to various fisheries organizations in the member-countries.

Creation of digital library of visuals

The unparalleled visual heritage of the BOBP and its successor BOBP-IGO from the region and also from around the world is undergoing digitization for some time. This visual archives chronicle the development of fisheries (and also aquaculture) in the region and possibly the last place to see some of the artisanal fishing vessels and gear, which no longer exist. About 50 000 visuals have been archived so far with details on their location, topic and other important features. The BOBLME Project has now joined hands with BOBP-IGO to upscale the print quality of the images. Work is also going on to create an e-library of the images so that it can be placed in public domain.



Publication

BOBP-IGO since its beginning is using publications as a means to reach to people and create awareness. The annual table calendar for the year 2012 is based on the theme “Small-Scale Fishers: Sustaining Livelihood”. The 12 images in the calendar vividly depict the various activities performed by the fishers in the Bay. A list of the publications brought out during the year is given on page 47.



Art exhibition on ‘Lives and Livelihoods of Fisherfolk’

As a part of its awareness building programme on the importance of fisheries and social outreach initiatives, the BOBP-IGO teamed up with reputed artists from Chennai on the occasion of the World Food Day (16 October 2011) through an Art Exhibition entitled ‘Lives and Livelihoods of Fisherfolk’ from 16 – 23 October. To mark the occasion a ‘Live Painting Event’ was also organized on 16 October 2011 for budding artists from the States of Tamil Nadu and Karnataka and the Union Territory of Puducherry. The art works are now available in BOBP-IGO website.





3. Fisheries resource management

The objectives of this Programme are to stem resource depletion in the marine waters and to promote the principles of responsible fishing practices in the member-countries. The programme also aims at community mobilization by involving fishermen and women in resource monitoring. The following activities were approved by the Governing Council for implementation during April 2011 - March 2012. However, due to paucity of time, some of the activities could not be implemented as per the plan.

- Strategic Consultation on the Scope of Fisheries Management in the Bay of Bengal Region: Organization of Regional Strategy Meet on Reviewing the Development of Small-Scale Fisheries in the Bay of Bengal region. The output of the meetings will go towards building of a Report on the Scope of Fisheries Management in the Bay of Bengal Region.
- Organisation of the Second Regional Consultation on Monitoring, Control and Surveillance and further assistance to member-countries on implementation of the National Plans of Action (NPOA).
- Preparation of Management Plan for Hilsa Fisheries in the member-countries.
- Preparation of Management Plan for Shark Fisheries in the member-countries.
- Bi-National Workshop on the Gulf of Mannar Marine Ecosystem.
- Stakeholder consultation on preparation of management plan for important national fisheries (Maldives).
- Scoping study on small-scale tuna fisheries and fleet development plan (including suggestions for management of bait fisheries).
- Scoping study on the status of tiger shrimp brood stock fishery.

Organization of Regional Strategy Meet on Reviewing the Development of Small-Scale Fisheries in the Bay of Bengal region

Toward run-up to the regional meeting, the BOBP-IGO in association with its member-countries is organizing National Workshops on Governance of Marine Small-Scale Fisheries (SSF). The first workshop in this series will be held in Dhaka, Bangladesh from 29-30 April, 2012. The Second workshop is scheduled in Colombo, Sri Lanka during August, 2012. The other two national workshops in India and Maldives will be held later in 2012. These workshops, *inter alia*, will highlight the problems in defining the SSF – its attributes and scope; integration of SSF with national and international economy; technology and capacity building; implementation and information gaps in fisheries governance and to reach an understanding on global positioning of the SSF.



Organisation of Second Regional Consultation on Monitoring, Control and Surveillance and further assistance to member-countries on implementation of the National Action Plans

The BOBP-IGO has developed comprehensive guidelines for the Government of India for preparation and implementation of the national MCS Plan. Accordingly, project components were developed for implementation during the 12th Five-Year Plan (2012-17). The Indian experience will be helpful in designing the MCS Plan for other member-countries.

Preparation of Management Plans for Sharks and Hilsa Fishery

Shark fishery

The BOBP-IGO assisted Sri Lanka in development of its national shark-plan. The Organisation is also finalizing the plans for carrying out a study on understanding the economics of shark trade in India. The study will serve as a foundation for preparation of management plan for sharks. The study will include case studies in two areas where major landings of sharks and rays take place. These include Thoothoor (Tamil Nadu/Kerala) and Veraval (Gujarat). The outcome of this work will help understand the shark fishery and its trade dynamics in India and inform future policy making about the potential consequences of catch restrictions and other management decisions. A questionnaire based rapid survey will also be undertaken to gather information on fishing operations, knowledge of fishermen concerning shark resources and post-harvest activities of shark fishers and their families.



Hilsa fishery

In respect of hilsa fishery, a civil society-led initiative spearheaded by the International Union for Conservation of Nature (IUCN, Bangladesh and India) further strengthens the ongoing initiative of BOBP-IGO toward formulating NPOA in India and Myanmar (Bangladesh already has a national plan which will be reviewed) and later developing a Regional Plan of action for hilsa fishery (RPOA-Hilsa). The BOBLME and BOBP-IGO have also consolidated their work programmes and will now be working closely in achieving the objectives.

First Bi-National Stakeholder Consultation on Sustaining the Gulf of Mannar Ecosystem and its Resources, 5-6 September 2011, Rameshwaram, India

A Bi-National Stakeholder Consultation on Sustaining the Gulf of Mannar (GoM) Ecosystem and its Resources was organized from 5-6 September 2011 in Rameshwaram, India involving stakeholders from India and Sri Lanka. The Consultation was jointly organized by the BOBLME Project and the BOBP-IGO. 54 participants representing government agencies; research institutes and universities; fisher associations of both the countries and concerned international organizations including the Organizers took part. The aim of the Consultation was to bring the stakeholders together and initiate a process of dialogue, which is expected to culminate in an ecosystem-based management framework for the GoM – a critical habitat. The objectives were to evaluate policy, science and information regarding the GoM and raising its profile in regional discourses. Based on the deliberations in the Workshop, five activities were agreed for implementation with the support of the BOBLME Project: (i) Collaborative effort in conservation and management of charismatic species (e.g. Dugong, etc); (ii) Capacity building and training (e.g. stock assessment, water quality monitoring and use of GIS and remote sensing); (iii) Education and



Meetings of Expert Group on Finalization of the Response of India on the Transboundary Diagnostic Analysis (TDA) of the Bay of Bengal Large Marine Ecosystem (BOBLME) Project, 24 November 2011 & 29 December 2011, Chennai, India

On invitation of the Government of India, The BOBP-IGO joined an Expert Group drawn from the Ministry of Environment, Ministry of Agriculture, universities and regulatory bodies to finalize the response of India on the Transboundary Diagnostic Analysis (TDA) of the BOBLME Project. The TDA is a basic requirement for the project and is expected to guide the process of preparation of the Strategic Action Programme (SAP) for institutionalizing the Project activities. The draft TDA document was prepared and circulated by the Regional Coordination Unit of the BOBLME Project among the Project Countries for its endorsement at the national level and in the process evaluating it. In India, a series of national consultations were organized along the east coast and the outcome of these consultations was presented before the Expert Group for drafting the response. The Group met twice in Chennai on 24th November and 29th December, 2011 to finalize its response. The BOBP-IGO also facilitated these meetings. While reviewing the TDA document, the Group observed that some transboundary issues portrayed in the report were more of a conjecture than scientifically reached conclusions. While these conjectures may or may not be valid, it would be hard to translate them into policy measures as it required certain amount of trade off. The Expert Group was also of the view that while the region shares a common ecosystem, it is highly diversified in terms of customs, policy and style of governance and a common instrument may not be possible to derive. The Group concluded that the TDA is a commendable attempt to draw attention to the regional nature of fisheries and environmental issues. However, it is partially successful in doing so due to data vacuum and lack of clarity in

awareness building; (iv) Strengthening of data collection and processing mechanism; and (v) Sharing of information and networking. It was also agreed that the support of the BOBLME Project to implement the above activities will be in the form of capacity building. At the next Consultation, which was agreed to be held in mid- 2012 in Jaffna, Sri Lanka, these activities will be developed into projects and programmes. Once developed, these projects and programmes will be finalized at the next Consultation due in late 2012. It was also agreed that these projects will be implemented under the aegis of the BOBLME Project and its partner organizations such as BOBP-IGO and Mangroves for the Future. At the next Consultation institutional arrangements for bilateral cooperation between India and Sri Lanka will also be developed.



understanding the nature of diversity and inter-dependency in the region. The Expert Group suggested that while developing SAP such partial knowledge can be detrimental. The Group also agreed that since the Project is already at halfway mark, updating of the TDA may not be possible. Therefore, it is necessary that the information gaps are filled-up to the maximum extent possible while the SAP process is underway.

4. Improving Safety at Sea for small-scale fisheries

The objectives of this Programme are aimed at improving the livelihoods of small-scale fishing communities by decreasing the number of accidents at sea and the effects of such accidents. Within the overall objective, the programme specifically focuses on fisherwomen and children to mobilize them for onshore monitoring and pre-voyage checks to ensure real-time reporting and reduction of accidents due to personal negligence.

- Organization of the Fifth International Conference on Fishing Industry Safety and Health (IFISH-5) in Sri Lanka (postponed to 2013 by the co-organizers).
- Construction of improved model fishing boats and their extension to additional areas in Tamil Nadu, India.
- Provision and analysis of data to identify the causes of accidents;
- Technical support to member-countries to implement sea safety programmes through awareness building, outreach programmes and training of trainers, extension workers, fishers and inspectors in safety requirements and good working conditions in fisheries sector.
- Organization of Regional Workshop on “Establishing a Cooperative Mechanism for Protection of Met-Ocean Data and Tsunami Buoys in the Northern Indian Ocean Region”, 6-7 May 2011, Chennai, India.



Construction of the improved model fishing boats and their extension to additional areas in Tamil Nadu, India

The BOBP-IGO concluded trials of the prototype fishing vessels IND 30 and IND 30A built under the Global Project on Safety at Sea adhering to international safety standards in Devaneri, a fishing village about 60 km south of Chennai city. The early feedback from the user group shows that the prototype vessel is relatively heavy and it is difficult to use the vessel for beach landing. Based on this feedback, fresh trials will be conducted in Mudasalodai fishing village in Cuddalore, District of Tamil Nadu where ramp for landing the catch is available. The BOBP-IGO is now finalizing the trial formalities with the targeted user groups in association with DoF-TN.



Demonstration of FRP float in Maldives

The low-cost, high-efficacy Fibre-reinforced Plastic (FRP) floats developed during the Global Project on Safety at Sea are getting popular across the region. While one obvious factor is its cost compared to conventional methods, the other advantage noticed is the saving of storage space. In Maldives, where fishing boats are getting bigger and voyaging deeper into the sea, this float seems to be a viable alternative. Towards this, the BOBP-IGO provided a prototype FRP float to the Ministry of Fisheries and Agriculture, Government of Maldives in October 2011 for demonstration to Maldivian fishers.

Provision and analysis of data to identify the causes of accidents

The surveillance programme initiated at the Marine Checkpost of the Department of Fisheries, Government of Bangladesh at Patenga, Chittagong in 2008 is still continuing. The objective of this surveillance programme is to collect and collate data on fishing related injuries and mortalities.

Regional Workshop on “Establishing a Cooperative Mechanism for Protection of Met-Ocean Data and Tsunami Buoys in the Northern Indian Ocean Region”, 6-7 May 2011

Time-series observations are vital to improving our understanding of ocean dynamics and are used to monitor the marine environment and to improve weather and ocean state forecasts. Systematic real-time meteorological and oceanographic observations are also necessary to improve oceanographic services and predictive capability of short and long-term climatic changes. The existing systems for collecting ocean related information are remote sensing, ships of opportunity and moored/drifted/profiling platforms. Among these the moored buoys play an important role by providing time-series information on meteorological variables and surface/sub-surface observations of a specific location. However, globally, about 10 percent of data buoys are lost annually due to human interventions. The Ocean Observation Programme in India is passing through a challenging phase as the data buoys in the deep



seas have been damaged due to acts of vandalism mostly during fishing. While the National Institute of Ocean Technology (NIOT), the nodal agency is working with fisher associations and the Coast Guard in India to address the issue of safety of data buoys in the national waters, there is an urgent need for regional cooperation and regionally coordinated effort to protect the data buoys in international waters. At the national level also, cooperation from all the coastal states and fisher associations is required. Towards this a Regional Workshop on “Establishing a Cooperative Mechanism for Protection of Met-ocean Data and Tsunami Buoys in the Northern Indian Ocean Region” was organized by the NIOT and BOBP-IGO at the NIOT Campus, Chennai from 6 - 7 May 2011. A total of 83 delegates representing 53 organizations participated in the Regional Workshop. The delegates included Government representatives from eight countries surrounding the Bay of Bengal viz., Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka and Thailand; Inter-Governmental Organizations such as the United Nations Educational, Scientific and Cultural Organization- Intergovernmental Oceanographic Commission (IOC/UNESCO), the Food and Agriculture Organization of the United Nations and South Asia Co-operative Environment Programme; Industry representative from USA, UK, Norway and India; and NGOs and Civil Society Organizations.

The main objective of the Regional Workshop was to promote awareness amongst concerned stakeholders in the Bay of Bengal rim countries on the importance of data buoys and tsunami buoys and to evolve common strategies to tackle the issue of vandalism. The outcome of this Workshop includes following tiers of action to tackle the vandalism problem: (1) Ocean buoys network design and operating practice; (2) Technical innovations and improvements to protect data buoys; (3) Administrative measures to deter vandalism, including regional and international cooperation, and (4) Reaching

the fishers (communications and engagement). The Regional Workshop agreed on focal points in each Bay of Bengal rim country, which would be further coordinated by the BOBP-IGO.

The Workshop concluded that this initiative, first of its kind in the world, could be a role model for other regions to follow. This initiative also supports the global cause often raised in the UN General Assembly, wherein the UN member-states are asked to safeguard the floating buoys placed within their EEZs or in the high seas. The regional Workshop is now being widely referred to in the UN and other inter-governmental organizations concerned with the data buoys. The Regional Workshop also saw release of one poster and one leaflet on the issue and multiple copies were distributed to the delegates to create awareness in their respective areas of work.

5. Collaborative and supportive activities

BOBLME

International Symposium on Ecosystem Approach to Fisheries Management, 21 December 2011, Chennai, India

The BOBP-IGO assisted the India chapter of the BOBLME Project in organizing an International Symposium on Ecosystem Approach to Fisheries in BOBLME (EAF-BOBLME) on 21 December 2011. This Symposium was pegged as an important event at the 9th Indian Fisheries Forum (9th IFF) held at Chennai during 19-23 December 2011.

SEAFDEC

The BOBP-IGO has assisted the Southeast Asian Fisheries Development Centre (SEAFDEC), Bangkok, Thailand in organization of the ‘Regional Training Course on Monitoring, Control and Surveillance (MCS) in Combating Illegal, Unreported and Unregulated (IUU) Fishing in

Southeast Asian Region', held at the SEAFDEC Training Department, Samut Prakarn, Thailand from 05–17 March 2012. Copies of the BOBP-IGO publications on MCS and IUU fishing were provided to SEAFDEC for distribution to the trainees.

Government of Tamil Nadu

The BOBP-IGO assisted the Government of Tamil Nadu in preparation of their proposals for implementation during the Twelfth Five-Year Plan on fisheries and aquaculture.

Government of India

The BOBP-IGO assisted the Government of India in preparation of the report of the Working Group set up for finalization of the Twelfth Five-Year Plan programmes for fisheries and aquaculture development in India.

The Working Group was constituted by the Planning Commission, Government of India including BOBP-IGO as one of the members.

6. Participation in international activities to promote the causes of the BOBP-IGO Member-Countries

During the reporting year, the BOBP-IGO participated in the following national and international workshops and meetings to share its experience, learn from the initiatives and to raise the profile of the region:

- National Consultation on Ecosystem Indicators in the Bay of Bengal Large Marine Ecosystem (BOBLME), Kochi, India, 26-27 April 2011.
- ASEAN-SEAFDEC Conference on "Sustainable Fisheries for Food Security Towards 2020: Fish for the People 2020: Adaptation to a Changing Environment", Bangkok, Thailand, 12 – 17 June 2011.
- Bay of Bengal Large Marine Ecosystem Project National TDA Consultation Workshop, Visakhapatnam, India, 30 June 2011.
- Workshop on Marine Fisheries in India, New Delhi, India, 07 July 2011.
- Observer Research Foundation International Conference on India-Sri Lanka Fishing Issues: International Experience regarding

livelihood concerns, New Delhi, India, 18 -19 July 2011.

- FAO-Government of Sri Lanka Asia Regional Pre-Ministerial and Ministerial Meetings on Aquaculture for Food Security, Nutrition and Economic Development in Asia, Colombo, Sri Lanka, 28-29 July 2011
- International Collective in Support of Fishworkers' (ICSF) National Symposium on Sustainable Small-scale Fisheries: Towards FAO Guidelines on Marine and Inland Small-Scale Fisheries, Kolkata, India, 21 September 2011.
- Indian Ocean Tuna Commission's (IOTC) Capacity-building Workshop on 'Bridging the gap between IOTC Science and Environment', Chennai, India, 17 – 18 November 2011.
- FAO-World Bank Final Result Sharing Workshop of the Project on 'Fisheries Management for Sustainable Livelihoods-FIMSUL' Project, Chennai, India, 12 December 2012.
- BOBLME Partners' Meeting, Bangkok, Thailand, 28-29 February 2012.
- BOBLME SAP Development Meeting, Phuket, Thailand, 15-18 February 2012.
- Thirteenth Meeting of the FAO COFI Sub-Committee on Fish Trade, Hyderabad, India, 20-24 February, 2012.
- ICSF Workshop on Fishery-Dependent Livelihoods, Conservation and Sustainable Use of Biodiversity: The case of marine and coastal protected areas in India, New Delhi, India, March 2012.
- BOBLME Regional Fisheries Management Advisory Committee Meeting, Bangkok, Thailand, 14-15 March 2012.





List of Publications of the BOBP-IGO: 2011-12

Reports

1. Annual Report of BOBP-IGO, May 2011
2. Report of the Seventh Meeting of the Governing Council, June 2011.

Books/ Guides/ Translations

3. Leaflet on Protection of Data Buoys, May 2011.
4. Brochure for Art Exhibition, October 2011.
5. Brochure for BOBLME International Symposium on Ecosystem Approach to Fisheries Management, December 2011, Chennai, India.
6. Book of Abstracts for 9th Indian Fisheries Forum, December 2011, Chennai, India.
7. Booklet on Tuna Fish Handling prepared by the Marine Research Centre, Government of Maldives.
8. Integration of Fisheries into Coastal area Management (CCRF TG No. 3) (Sinhala version), 2012.
9. Fisheries Management (CCRF TG No. 4) (Sinhala version), 2012.
10. Stopping illegal, unreported and unregulated fishing. (Sinhala version), 2012.

11. International Plans of Action for reducing incidental catch of seabirds in longline fisheries, conservation and management of sharks and the management of fishing capacity. (Sinhala version), 2012.

Newsletter, Posters, Calendar, etc.

12. Poster on protection of data buoys, May 2011 (in English).
13. Small-Scale Fisheries: Sustaining Livelihood (2012 Calendar), December 2011.
14. Blue Ocean Themed Poster on Conservation of Coastal and Marine Biodiversity, 2012 (in English).
15. Warli Art Themed Poster on Conservation of Coastal and Marine Biodiversity, 2012 (in English, Tamil and Bengali).



Status matrix of activities undertaken by the Secretariat during 2011-12

Special Programmes	Capacity Building & Information Services	Fisheries Resource Management	Safety at Sea		
Preparation for 2nd Meeting of the Technical Committee for Establishment of an RFMO in the Bay of Bengal Region	Promoting CCRF (Vernacular versions & Training)	Strategic Consultation on Scope of Fisheries Management in the Bay of Bengal Region	Organization of Fifth International Conference of Fishing Industry Safety and Health (Postponed)		
	Mapping of fish markets (Chennai, Dhaka, Colombo and Malé)	Organisation of 2 nd Regional Consultation on Monitoring, Control, Surveillance	Trial/ Construction of the improved model fishing boats		
Advisory Services for COFI Meetings	Regional Training Course on Strengthening Fisheries Data Collection and Stock Assessment	Preparation of Management Plans for hilsa and sharks	Provision and analysis of data on accidents at sea/ land		
	Capacity building for improving food safety	Gulf of Mannar Bi-National Workshop	Technical support		
Formalization of workplan with BOBLME Project	Information Dissemination (Networking, Newsletter, Posters)	Scoping study on tuna fisheries	Regional Workshop on Protection of Met-Ocean Data and Tsunami Buoys in the Northern Indian Ocean Region		
	Formalization of cooperation between BOBP-IGO and Fisheries Research Institutes in the Region	Scoping study on tiger shrimp brood stock management			
<i>Colour scale (% of work completed against annual target)</i>		100	75-99	50-74	<50



Training of Fisheries Officials and Fishers

Training of fishers and fisheries official in various aspect of fisheries management is one of the main activities of the BOBP-IGO. Since 2008, the Organisation has trained 220 persons, including 119 fisheries officials, 91 fishers and 10 boat builders. These training programmes are custom-made to suit the requirements and levels of skill in the region and are not only useful for the BOBP-IGO member-countries but also for other countries in the region. Presently, the Organisation has two regular training programmes on the Code of Conduct for Responsible Fisheries, targeted at junior and middle-level fisheries officials and Strengthening Data Collection & Stock Assessment in Fisheries. These training programmes are conducted in cooperation with the premier research institutes of the region. The table below gives a snapshot of the officials and fishers trained by the BOBP-IGO during 2008-09 to 2011-12.

Fisheries Officers and fishermen trained by BOBP-IGO during 2008-09 to 2011-12

Training Programmes	Bangladesh	India	Maldives	Myanmar	Sri Lanka	Total
Regional Training Course on Code of Conduct for Responsible Fisheries (2008-11: 4 Programmes)	15	16	16	4	17	68
Training Programme on FRP Boat Construction (2009: for boat builders)	–	10	–	–	–	10
Training Programme on Life saving techniques, rescue, navigation and communication at sea (2009-10: 3 Programmes for fishers)	21	70	–	–	–	91
Adapting to Climate Change: Field-level Capacity Enhancement Programme in Fisheries Sector (2009)	–	15	–	–	–	15
Study Tour and Training Programme on Fish Processing Technologies (2010)	–	–	4	–	–	4
Workshop on Improving Communication Skills in Fisheries (2010)	–	16	–	–	–	16
Strengthening Data Collection & Stock Assessment in Fisheries (2011 -)	4	4	4	–	4	16
Total	40	131	24	4	21	220

Staff position during April 2011 - March 2012

#	Staff	Designation	Date (month/ year)	
			Joining	Leaving
Professional				
1.	<i>Yadava Y S</i>	Director	05/03	Till date
2.	<i>R Mukherjee</i>	Policy Analyst	09/09	Till date
General Duty/Consultants/Casual Assignments				
3.	<i>S Jayaraj</i>	Publication Officer	08/06	Till date
4.	<i>V Srinivasan</i>	Administrative Assistant	11/06	Till date
5.	<i>R Ponnuchamy</i>	Consultant	11/10	Till date
6.	<i>V Venkatesan</i>	Consultant	WAE Basis*	
7.	<i>Cheryl Verghese</i>	Secretary	01/08	Till date
8.	<i>M Krishna Mohan</i>	Secretary	01/08	Till date
9.	<i>Em Shivakanth</i>	Videographer	WAE Basis*	
Seconded Staff from Member-Countries				
10.	<i>Md Sharif Uddin</i>	Assistant Director Marine Fisheries Office, Chittagong, Bangladesh	05/07	Till date

* When Actually Engaged

Audited Consolidated Financial Statement for the Year 2011

Details	Year 2011			
	Receipts		Payments	
	US \$	INR	US \$	INR
Opening Balance	25185.84	1133363.00		
Income				
Contributions from Member Governments	105099.62	4729483.00		
Other sources	183285.28	8247838.00		
Government of India Reimbursements for Office Expenses	76115.44	3425195.00		
Redemption from Reserve Fund	75282.77	3387725.00		
Sale Proceeds	56.88	2560.00		
Total	465025.83	20926164.00		
Expenditure				
Administration Expenses			25232.44	1135460.00
BOBP-IGO Activities			231988.24	10439471.00
Office Maintenance			70182.75	3158224.00
Printing			13348.55	600685.00
Reserve Fund			11111.11	500000.00
Salary and Allowances			104799.06	4715958.00
Closing balance			8363.68	376366.00
Total			465025.83	20926164.00
<i>The figures are also reflected in INR since the Audit is carried out using INR as the base currency.</i>				

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The BOBP-IGO Team

Top to bottom: Y S Yadava, S Jayaraj, Rajdeep Mukherjee, Md Sharif Uddin, V Sreenivasan, Cheryl Verghese, M Krishna Mohan, R Ponnuchamy, S Samsudeen



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