



The Journal of the Bay of Bengal Programme
Inter-Governmental Organisation

A quarter century after: The BOBP's relevance today

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A quarter century after: The BOBP's relevance today

One of the development landmarks of 2004 is the completion of a quarter century of the BOBP, which began from Chennai in 1979. It can be honestly said that the BOBP quarter century saw a more wide-ranging, sustained, intensive and in-depth study of small-scale fisheries and fisherfolk communities in the Bay of Bengal region than at any other time in history.

BOBP was a pioneer in the region in many areas of small-scale fisheries development and management, and in systematic debate, discussion and documentation on these subjects. The quarter century's work led to scores of lessons, learnings and legacies in all areas of small-scale fisheries. These have been documented through print, video and CD.

The BOBP is now an IGO (inter-governmental organisation). On 7-8 September 2004, the first Governing Council of BOBP met. Delegates from Bangladesh, India, Maldives and Sri Lanka approved of the report for the first IGO year (April 2003-August 2004), also of the workplans for the year to follow (October 2004-December 2005). The Governing Council meeting is reported elsewhere in this issue. Delegates hailed the BOBP quarter century.

What's the significance of this quarter century? Two articles in previous issues of *Bay of Bengal News* (December 2000 and January 2002-March 2003) detailed the Program's work in many disciplines and many countries. To put it in a nutshell: the Programme implemented innovation and action in fishing technology, small-scale aquaculture, post-harvest technology, fishery resources, extension among fisherfolk



communities, women in fisheries, people's participation, bio-socio-economics, pollution control in fishing harbours, safety at sea, environment, fisheries management.

The Program's impact was equally significant in the areas of training (hundreds of workshops, training courses and study tours at many levels), documentation (publications, video films and CDs), and regional co-operation (seminars and consultancies).

Special mention may be made of BOBP's third phase which focused on fisheries management: that is a major priority of fisheries everywhere even today. The Program's work led to a gradual change in perception of fisheries management in the region. Once advocated only reluctantly, fisheries management is one of today's buzzwords. The Program's work in community-based fisheries management (CBFM), particularly in Thailand and India, and in introducing and promoting the Code of Conduct for Responsible Fisheries, is very relevant today – in fact it needs to be strengthened.

Three workplans were approved at the Governing Council meeting – Capacity-Building and Information

Services for Fisheries Development and Management in the Bay of Bengal Region; Women in Fisheries; and Fisheries Resources Management. These will serve as modest but important landmarks in the BOBP's ongoing effort at enabling and catalysing sustainable fisheries development and management in small-scale fisheries. All workplans relate to the period October 2004-December 2005.

Capacity-Building and Information Services for Fisheries Development and Management in the Bay of Bengal Region

This project will be a part of the BOBP-IGO's mandate to assist member-countries in strengthening their national capabilities in development and management of coastal fisheries.

- The marine fisheries technical guidelines of the Code of Conduct for Responsible Fisheries: Vernacular versions will be prepared and printed for dissemination in member-countries.
- A national workshop on implementation of the CCRF will be organised in Sri Lanka. (Similar workshops have been

organised in Bangladesh, India and the Maldives.)

- A Regional Information Network is to be set up through the BOBP-IGO website. It will provide information on development, planning, research and training. These will assist member-countries in strengthening their capabilities in development and management of coastal fisheries.
- A fishermen's week is to be organised in member-countries to help promote a participatory and community-based system to manage fisheries and aquatic resources.
- Information dissemination: **Bay of Bengal News** and other publications will be prepared and disseminated. These will serve to inform, enthuse and bind governments and other fisheries stakeholders in the region. Information will also be disseminated through the Organisation's website – www.bobpigo.org.

Women in Fisheries

This project will include both desk reviews and field work. It will review the status of women in coastal fishing communities in Bangladesh, Maldives and Sri Lanka, and the effectiveness of projects/interventions carried out so far to help these women. (A review has already been completed for India.) There will be a special focus on improving the livelihood opportunities of these women. Reports based on the reviews will be prepared. A national workshop will

Meeting of Heads of Government Cites BOBP-IGO

Six Prime Ministers and a President met recently in Bangkok. This was for the first summit meeting of BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation), held on 31 July 2004. The Prime Ministers were from Bangladesh, Bhutan, India, Myanmar, Nepal and Thailand, the President from Sri Lanka.

One of the few organisations cited by this VVIP meeting was the BOBP-IGO. The leaders agreed that they should strengthen co-operation in promoting the sustainable use of marine resources in the Bay of Bengal. They stressed that management and conservation was necessary, in close coordination with existing frameworks such as the Bay of Bengal Programme Inter-Governmental Organisation, BOBP-IGO.

We welcome the leaders' observations. We will be happy to coordinate with Governments and institutions in the region to promote sustainable management of marine resources.

discuss the findings of the reviews and formulate an action plan to address issues and problems.

Fisheries Resources Management

This project aims at stemming resource depletion in the coastal waters of member-countries, and at promoting responsible fisheries practices. Elements of the project:

- Assessment of the marine fishing fleet of member-countries. Information will be collected on the status of the fleet and its optimisation *vis-a-vis* resource availability.
- Organisation of a regional consultation on monitoring, control and surveillance. The consultation will improve understanding of needs and methods and options, and lead to regional action plans.
- Preparation of a management plan for one commercial fishery in each member-country.

Several useful suggestions were made at the Governing Council meeting.

They related, for example, to improving the safety of fishermen at sea, strengthening fish stock assessment, reducing post-harvest losses. BOBP has already done commendable work in these areas, and recommendations for action plans already exist.

Funding is of course vital, if the full potential of the BOBP-IGO is to be tapped. The many countries and institutions that supported the BOBP's array of activities during the first three phases, should continue promoting the causes they initiated, in the best interests of sustainable development and management of fisheries in the Bay of Bengal.

– Y S Yadava

Balancing the future of fishers with the cost of progress and the benefits of economic gain has been an area of concern for the global fishing industry. And BOBP-IGO is committed to managing change and partnering with stakeholders for a brighter tomorrow.



BOBP-IGO: A Flashback to the Signing Ceremony

Senior representatives of the Governments of Bangladesh, India and Sri Lanka met at Chennai on 26 April 2003 to sign the agreement on the institutionalisation of the Bay of Bengal Programme as an Inter – Governmental Organisation (BOBP-IGO). The Maldivian delegation led by its Minister for Fisheries, Agriculture and Marine Resources visited the BOBP-IGO headquarters at Chennai on 21 May 2003 to sign the Agreement on behalf of the Government of Maldives.

The signing ceremony, held in the Wallajah Banquet Hall of Hotel Taj Connemara, began with the lighting of the ceremonial lamp. Dr Y S Yadava, Interim IGO Coordinator of the Bay of Bengal Programme, welcomed invitees.

Dr Daniel Gustafson, FAO Representative in India & Bhutan, said in his welcome remarks, “This event has been a long time in the making. It is an honour for me to be here and represent the FAO”. He thanked member-countries present for ensuring the transformation of BOBP into an IGO.

Representatives of Bangladesh, India and Sri Lanka made brief statements hailing the event.

Inaugurating the meeting, Ms Binoo Sen, Secretary to the Government of India, congratulated the four member-countries for coming together to set up the BOBP-IGO. She noted that the IGO is a co-operative, multi-disciplinary and regional endeavour, the first of its kind in the region. She expressed confidence that it would facilitate important programmes and interventions to benefit small-scale fisheries. She urged other members of the erstwhile BOBP to join the IGO to strengthen it and share its benefits.



L-R: Dr Daniel Gustafson, FAO Representative for India and Bhutan; Dr Y S Yadava, Director, BOBP-IGO; Mr Abdul Haque, Secretary, Ministry of Fisheries and Livestock, Bangladesh; Ms Binoo Sen, Secretary, Ministry of Agriculture, India; Mr P K Pattanaik, Joint Secretary (Fisheries), India; Mr G Piyasena, Director-General (Fisheries), Department of Fisheries and Ocean Resources, Sri Lanka; Mr G D Chandrapal, Director (Fisheries), Ministry of Agriculture, India.



Mr Abdul Rasheed Hussain, Hon'ble Minister of Fisheries, Agriculture and Marine Resources, and Mr Ahmed Hafiz, Assistant Director-General (Fisheries), Republic of Maldives, at the BOBP-IGO office for signing the Agreement.



*Speakers at the BOBP-IGO
Signing Ceremony (clockwise):
Ms Bino Sen,
Mr P K Pattanaik,
Dr Daniel Gustafson,
Mr Abdul Haque,
Mr G Piyasena.*

Headquarters Agreement

The Headquarters Agreement was signed between the Ministry of Agriculture (Department of Animal Husbandry & Dairying), Government of India, and the BOBP-IGO at New Delhi on 14 January 2004. This Agreement relates to the establishment of the headquarters of the BOBP-IGO at Chennai, India and defines its status, privileges, immunities and facilities to be granted by the Government of India and related matters.



Ms Radha Singh, Secretary to the Government of India, presides over the signing of the Headquarters Agreement by Mr P K Pattanaik, Joint Secretary (Fisheries), Government of India, and Dr Y S Yadava, Director, BOBP-IGO.

Mr Abdul Rasheed Hussain, Hon'ble Minister of Fisheries, Agriculture and Marine Resources, Republic of Maldives, accompanied by Mr Ahmed Hafiz, Assistant Director-General (Fisheries), visited Chennai on 21 May 2003 to sign the Agreement. Mr Hussain noted with gratitude the services that BOBP had provided to the region since 1979. He said, "Maldives had benefited from a number of different projects. One of the most successful BOBP projects implemented in the Maldives was the Integrated Reef Resources Management Programme". He had no doubt that under the IGO, equally fruitful collaborations

benefiting fishing communities throughout the Bay of Bengal region would result.

The two meetings held for signing the BOBP-IGO Agreement also enabled review of the documents relating to the Rules of Procedure, recruitment of a Director, and activities carried out during the interim period. The activities to be implemented until the first meeting of the IGO's Governing Council were also finalised by delegates.

Bay of Bengal News

This issue of *Bay of Bengal News* covers the period April 2003 – August 2004. We are sorry for the long gap - but we were busy with procedures to set up the BOBP-IGO.

-Editor

“The State of World Fisheries and Aquaculture” (SOFIA) is a comprehensive biennial publication brought out by the Fisheries Department of the FAO. Accompanied by a CD-ROM, SOFIA facilitates “a balanced and comprehensive understanding of the fisheries sector, particularly its international aspects”. Reproduced here are excerpts from a chapter on small-scale fishing communities in the 2002 edition of SOFIA, which was out last year.

Poverty alleviation in small-scale fishing communities

The issue

While economic growth has helped to reduce the number of poor people in the world, the numbers of those that remain poor is disturbingly high. The positive impacts of growth on poverty have been less than expected, in part because of inequitable distribution of the benefits, population increases, and the effects of the HIV/AIDS epidemic. As a result, there has been a re-focusing on poverty from many governments and donor agencies.

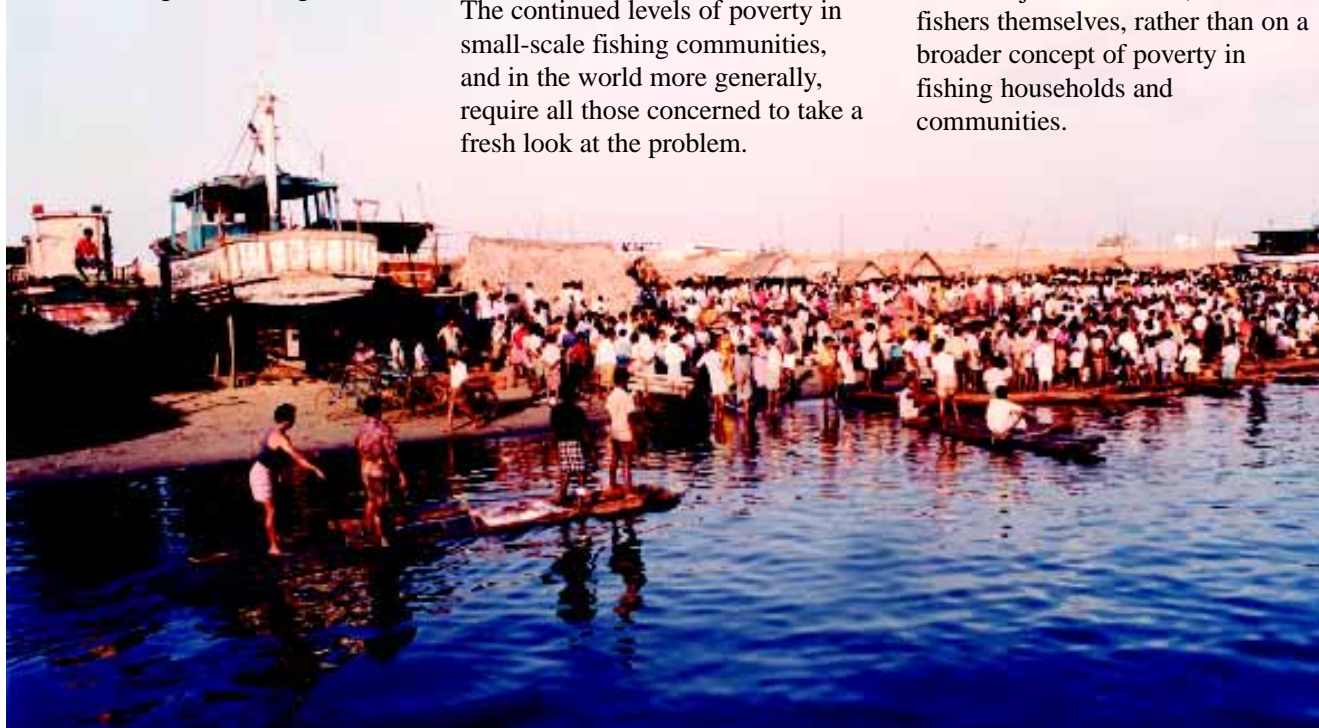
In the past, while many development interventions aimed at reducing poverty, most did not focus explicitly on improving the living conditions of poor people but on accelerating economic growth



through technology and infrastructure development, and market-led economic policies. The lack of an explicit focus on poverty may in part explain why many interventions have been neutral in their impacts on poverty, and some may actually have been detrimental. The continued levels of poverty in small-scale fishing communities, and in the world more generally, require all those concerned to take a fresh look at the problem.

Poverty is a very complex, multi-dimensional concept, has many determinants, and is about much more than just low earnings *i.e.* income poverty. An explicit emphasis on poverty is therefore necessary to better define and understand it, to measure progress towards poverty alleviation targets, and to gain an improved awareness of whom it affects and what strategies can best tackle it.

Poverty in small-scale fishing communities, as in other sectors, is difficult to measure. While there are many studies on poverty in farming communities and the urban poor, there are few empirical studies focussing on fisheries. Those that have been undertaken have often focussed just on income, and on the fishers themselves, rather than on a broader concept of poverty in fishing households and communities.





Oru, a traditional fishing craft of Sri Lanka.

Poor fishers and their dependents are not a homogenous, unchanging group of people. The level of absolute and relative poverty, within and between small-scale fishing communities, varies considerably by area, country, and region.

Although there are poverty traps in fishing communities, over time community members can sometimes become less, rather than more, poor. Fishing communities are often relatively cash-rich, compared to farming communities, mainly because fishers sell a larger proportion of their production, more frequently and consistently than do most farmers. They remain vulnerable to sudden variations in earnings, however. Some factors may be important determinants of poverty but not of vulnerability, and vice versa.

Small-scale fishing communities are vulnerable to many events, the outcome of which may be poverty. Examples: climatic/natural events such as yearly and seasonal fluctuations in fish stock abundance, poor catches, bad weather, and natural disasters such as cyclones and hurricanes; economic factors such as market price fluctuations, and variable access to markets; and the dangers of working at sea. People in small-scale fishing communities may also be vulnerable to poor health and other

wider determinants of poverty. Unfortunately, studies suggest that vulnerability is increasing among the poor in small-scale fishing communities.

In developing countries many millions of people live in small-scale fishing communities. Not all small-scale fishers can be assumed to be poor, but a large proportion certainly are, and remain so despite the efforts of donor agencies, national and local governments, NGOs, and the communities themselves. Reasons for continuing poverty include factors within and outside of the fisheries sector: vulnerability as already discussed; insecure access to resources; proneness to resource depletion; the remoteness of many fishing communities; the agro-ecological characteristics of nearby land; their low socio-economic, cultural and political status; a lack of political and financial support (often as a result of an emphasis on semi-industrial and industrial fishing); and competition and conflict with industrial vessels and other economic sectors in coastal areas.

Despite the difficulties of measuring poverty in small-scale fishing communities, and indeed of defining who is a fisher (as fishers farm, and farmers fish) and what is a “fishing community”, some crude estimates of the numbers of “income-poor” fishers can be

proposed. Global estimates of income-poor small-scale fishers and related employment in marine and inland capture fisheries suggest that 5.8 million, or 20 percent of the world’s 29 million fishers, may be small-scale fishers earning less than \$1 a day. The income-poor in related upstream and downstream activities e.g. boat-building, marketing and processing, may be as many as 17.3 million. These figures suggest an overall estimate of 23 million income-poor people, plus their household dependents, relying on small-scale fisheries (*See box on page 10*).

Possible solutions

Economic factors are not the only determinants of poverty; there are also social, cultural and political variables. Understanding these determinants is crucial in designing and implementing effective solutions.

The poor can often be difficult to help due to poor health, illiteracy, a lack of time, and a common aversion to risk. Their lack of influence and power is an especially important problem, and necessitates trying to identify win-win solutions that are in the interests not just of the poor, but also of the rich, the elite and the powerful.

The World Bank suggests that “*without economic growth, there can be no long-term poverty reduction*”, citing the experience of the last decade. Between 1990 and 1999 those regions of the world with the fastest economic growth made the most gains in reducing the numbers of people living on less than \$1 a day. In regions that experienced economic contraction, the numbers of income-poor increased. However, without concerted efforts to re-distribute wealth from economic growth, the gap between the rich and the poor is likely to widen.

Solutions outside of the fisheries sector can be as important, if not more so, than strategies employed within the sector, and may therefore require action and co-ordination across sectors.

Strong economic performance in a country, especially of labour-intensive sectors, is important for small-scale fishing communities because it can create alternative employment opportunities. Diversity and mobility are key livelihood strategies of the poor; improvements in general economic performance and diversification not only offer potential for some fishers to leave fishing, thus benefiting those that remain, but also create a wider range of opportunities and possible strategies to contribute to household livelihoods of those who remain. This appears to have occurred in Malaysia, one of the few developing countries where the number of fishers showed a decreasing trend in the 1990s.

Improvements in general economic performance also provide opportunities to improve health services, education, public service delivery (such as the provision of roads and thus access to markets), governance, political stability, and safety nets, all of which are likely to help with poverty alleviation in small-scale fishing communities. Even where there is little economic growth, there is scope for progress towards poverty alleviation if policy-makers address these issues. An example often cited is that of Kerala in India, where levels of social attainment (education, health, longevity) are high and incidence of poverty is low, despite limited economic growth and low per-capita income.

Solutions within the fisheries sector: As there is little scope for further expansion of capture fisheries given current levels of exploitation, it is crucial to manage fish resources to avoid further resource depletion. Effective and flexible management can improve incomes by limiting entry to the coastal fisheries, avoiding wasteful investments and over-capitalisation, and by supporting sustainable exploitation practices. It can also improve incomes for the poor by effectively protecting small-scale fishers from the activities of large-scale industrial fishing vessels, thereby



Shoe dhoni – a fishing boat of Andhra Pradesh that also serves as a home for the fisher family.

enlarging the resource base that the poor fishers can exploit.

There are many different types of fisheries management regimes including unregulated common property (*i.e.* de-facto open access), regulated common property (in which regulation ranges from weak to strong), and management regimes which seek to use private property rights as a management tool. A particular management regime can have a significant influence on poverty; so can the governance framework and institutional arrangements that determine the distribution of wealth. Management regimes must therefore be appropriate for each specific context, and effectively enforced, so as to contribute to poverty alleviation in small-scale fishing communities.

Community management, and perhaps even more so, co-management (the sharing of power and responsibility between the manager *e.g.* government, and the resource user *e.g.* small-scale fishers), offer promising solutions to poverty alleviation, although collective action and co-management can require many years of capacity-building before they are effective.

The importance of alternative employment opportunities has already been stressed. Aquaculture is often suggested as an obvious alternative, but although it does have potential, there may be constraints that prevent poor capture fishers moving into aquaculture. Such constraints may include high capital costs, lack of suitable sites, and the lack of access to land and water for the poor. Marine-based eco-tourism, another possible alternative, is generating interest in many countries.

Development assistance has often been found to be particularly effective when it supports women in post-harvest and value-added activities, because they often show a greater desire and ability than men do to save and contribute to enhancing household assets. Given that managerial ability and skill are key determinants of the success of individual fishing operations, interventions that upgrade management and skills and address dynamic entrepreneurship may have an impact on poverty in fishing communities.

Three other important solutions to poverty alleviation within the fisheries sector are worth mentioning.

- Reducing/removing subsidies on production inputs may lead to the use of smaller boats and engines, reduced expenditure on fuel, and increased expenditure on labour. In the long-term, this should increase profits, create more employment and income for poor fishers and reduce debt. The removal of subsidies to large-scale fishing operations and infrastructure would also remove market distortions that often disadvantage small-scale fishers.
- Support must be provided both for *ex-ante* risk management and *ex-post* coping mechanisms that are used to deal with shocks and stresses.
- Support for effective organisations in fishing communities (e.g. co-operatives, political lobbying groups, social support groups) can benefit the poor by increasing access to credit, effecting policy change in favour of the poor, and reducing vulnerability. Such organisations are most beneficial when Governments are supportive and enabling, rather than constraining or restrictive; fishers identify strongly with the aims and motivations of the organisations concerned; and there is able leadership within fishing communities.

Recent actions

Considerable work is now being undertaken to better understand who and where the poor are, why they are poor, and what mechanisms are most effective for poverty reduction. This explains the increasing importance of poverty mapping, development of poverty assessment methodologies, and the emphasis on well-being and capabilities (rather than just income) which focuses on sustainable livelihoods. However, few such analyses have been carried out in fishing communities.

Recent activities outside the fisheries sector include the development of Poverty Reduction Strategy Papers (PRSPs), jointly with the World Bank and the IMF. Although few of these currently

Studies on poverty in fishing communities

The principal findings of a review, indicate that of nearly 300 published and Internet documents on various aspects of poverty in fisheries there are very few studies and analyses on the extent, nature, causes and dynamics of poverty in fishing communities. Similarly, the extent to which the fisheries sector and its various linked activities (e.g. fish processing, marketing and distribution) contribute to poverty alleviation and food security has been subject to limited study. On the other hand, the literature abounds with statements, largely unsupported by empirical evidence, that suggest that fishing communities belong to the poor, or the poorest strata of society. There is also limited understanding of the impact of poverty (incidence, depth and dynamics) on technological change, community and fishers' organizations, and alternative fisheries management governance regimes. On the policy side, the review found that while government programmes (especially donor-supported fisheries development and management programmes) usually seek, at least implicitly, to reduce poverty in fishing communities, these programmes are rarely targeted on the poor.

Macfadyen, G; Corcoran, E
FAO Fisheries Circular. No. 979. Rome, FAO. 2002. 93p.

focus specifically on fisheries, they should help if fisheries are identified as a key economic sector, or more generally where strategies to reduce poverty are in place and small-scale fishers are poor.

Recent debt relief to Highly Indebted Poor Countries (HIPC), accompanied by efforts to improve health, education and other social services, should also benefit small-scale fishing communities.

Bilateral assistance is focusing increasingly on poverty reduction and food security. Most donors have now put in place strategies and

criteria that seek to ensure that their assistance is reaching the poor.

Recent activities within the fisheries sector include those carried out by civil society, donor agencies, and national governments.

NGOs and civil society continue to work with local fishing communities to reduce poverty through credit, re-training and alternative employment creation programmes, and through support for fishing-related and social organisations.

National governments are becoming increasingly involved in

Chandi boat – a commonly used traditional fishing craft in the estuarine waters of Bangladesh.



co-managing the control of industrial vessels' activities in waters where small-scale fishers operate, and in ensuring fairer international access agreements.

There is also a growing realisation that many small-scale fisheries need to be restructured. The Philippines is implementing a governance model, based on community management systems, with some degree of success; A much broader approach to poverty alleviation in fishing communities is being tried out in 25 West African countries by the Sustainable Fisheries Livelihoods Programme (SFLP), which is funded by the United Kingdom (DFID) and implemented by the FAO.

Outlook

The objective of poverty reduction requires special strategies and targeting.

Given the importance of overall economic performance, the expected expansion in the world economy can be viewed positively; so can an improving balance of external debt in HIPC. But questions remain about whether this overall growth will be sustained, whether it will be reflected in developing countries, whether small-scale fishing communities will benefit, and whether the gap between the rich and the poor can be narrowed.

It is promising that the weaknesses of many conventional centralised fisheries management regimes are increasingly being recognised. There is now a greater awareness of the need for a process approach to fisheries management (accompanied by capacity-building and reform), that is participatory and flexible enough to adapt to changing conditions. Co-management and community-management arrangements offer some potential in this regard.

Greater awareness that good governance (by administrators, politicians, local elites, fishermen and scientists) lies at the heart of many of the solutions to poverty in small-scale fishing communities is vital. However, despite this

Global estimates of income-poor small-scale fishers and related employment in marine and inland capture fisheries						
Assumptions:						
1. Overall figures for the numbers of fishers are based on 1990 FAO data.	assumed that the level of poverty in fisheries is the same as it is in other sectors.					
2. Marine deep sea fishers and those engaged in aquaculture are excluded, along with all those in North America and Europe.	4. There are assumed to be three people in related jobs for every one fisher.					
3. The percentage of total fishers and those engaged in related employment who are estimated to be income-poor is based on the <i>World Development Report 2000/1</i> figures for the share of the population in each region in 1998 that was living on less than US\$ 1 a day, i.e., it is	5. One hundred per cent of all inland fishers are assumed to be small-scale, while 90 percent of all marine coastal, unidentified marine and unspecified fishers are assumed to be small-scale.					
<i>Sources: FAO 1990 data on total number of world fishers and World Bank. 2000. World Development Report 2000/1, Washington, DC.</i>						
Poverty in small-scale fisheries communities						
	Africa	South America	Asia	Oceania	Former USSR	Total
% of population on < US\$ 1 a day	46.3	15.6	25.6	11.3	5.1	0
Inland	279 598	2 583	514 023	0	0	796 203
Marine Coastal	112 119	10 148	95 837	458	1 331	219 892
Marine other	112 875	43 867	551 133	13 515	0	721 390
Unspecified	320 733	40 716	3 660 428	0	0	4 021 876
Total	825 325	97 313	4 821 421	13 972	1 331	5 759 362
Number of related income-poor jobs	2 475 974	291 940	14 464 262	41 916	3 993	17 278 087
Total income-poor	3 301 299	389 254	19 285 683	55 889	5 324	23 037 449
World population on < US\$ 1 a day	1 198 900 000					
% of world population on < US\$ 1 a day	1.9%					
<i>Source: SOFIA 2002. FAO, Rome</i>						

realisation, improving governance and the institutional capacity to effect meaningful change in the poverty status of small-scale fishing communities is still a formidable challenge; even though it is at least a challenge that is now being embraced.

Without outside assistance, poverty in small-scale fisheries can be combated only gradually. Improved governance paradigms and capable management institutions are needed. They will become effective only if public resources are provided, at least at an initial stage.

Alaska hosts the Second International Fishing Industry Safety & Health Conference (IFISH II)



Sitka, the historic city of Alaska (and also its capital during Russian governance of Alaska) hosted the Second International Fishing Industry Safety & Health Conference from 22 to 24 September 2003. The Conference drew experts from around the world to discuss the latest developments in commercial fishing safety and injury prevention – including safety promotion, occupational health, injury prevention, and public safety. The National Institute for Occupational Health and Safety, USA, Alaska Marine Safety Education Association and Alaska Sea Grant College Program sponsored the Conference. The FAO, Rome supported the participation of BOBP-IGO and of some delegates from developing countries.

IFISH I, held in Woods Hole, Massachusetts, USA, in October 2000, explored strategies to prevent fishermen from being injured or killed on the job through measures such as improving vessel stability and hull integrity; making safety equipment like survival suits and life rafts more universally available; furthering education and training; implementing safer management regimes; heeding weather information; averting falls overboard; and addressing industrial safety problems that exist on board many fishing vessels.

Building on the foundation of the first Conference, IFISH II brought together experts interested in all aspects of fishing safety from around the world, in order to raise consciousness, build coalitions, disseminate information, and encourage action to prevent injury in the commercial fishing industry. It also placed special emphasis on papers and presentations describing programs, coalitions, and interventions with proven success in reducing risk to commercial fishermen. During the three-day long sessions, more than 40 fishing industry safety experts from around the world presented their research, observations and injury prevention strategies, covering the following topics:

- Industrial/ mechanical hazards on fishing vessels
- Cold hazard and injury, cold-water drowning - treatment, prevention and survival
- Community/ industry-based research and interventions
- Health promotion and interventions
- History of fishing vessel safety
- Vessel stability, hull integrity and safety equipment - success stories and/or needs

- Relationship between fishery management and safety
- Model programs for fishing injury prevention
- Safety management systems on fishing vessels
- Hazards associated with small fishing vessels
- Safety and survival education and training

The papers presented in the Conference will be shortly available in a comprehensive volume now being edited by the National Institute for Occupational Safety and Health, USA.

BOBP-IGO and Safety at Sea

The Bay of Bengal, unlike many other seas, is rough for most parts of the year; cyclones are frequent and come without warning. The monsoon increases the perils of fishing at sea. With the resource getting scarce in coastal waters, artisanal and small-scale fishing vessels are venturing deeper into the sea, risking their lives. Fishing-related deaths are on the increase - more likely the result of economic pressures and human factors such as risk-taking, fatigue, lack of vessel maintenance, stress or simply an attitudinal problem.

Many lives that are lost at sea can be saved if simple safety and communication equipment are kept onboard. The reasons for this human tragedy are all well-known. Regulations governing boat construction, availability of onboard safety and navigation equipment and timely warnings on rough weather are either absent or not strictly enforced. Who is responsible for this? The government, the boat owners or the fishermen? All the three are equally responsible. The case of artisanal and small-scale fisheries is perhaps the most pertinent in terms of promotion of responsible fisheries operations, and the most problematic, because safety regimes are the weakest here.

The issues concerning safety at sea can be tackled, but call for firm resolve and sound long-term programmes. BOBP-IGO is committed to creating a safer working environment for artisanal and small-scale fishers, and to carrying forward the Chennai Declaration (*Bay of Bengal News*, Vol. III, Nos. 2&3, June – September 2001).

The ILO and the FAO estimate that 7 per cent of all worker fatalities worldwide occur in the fishing industry, although the industry accounts for less than 1 per cent of the worldwide workforce.

Revisiting Chinnapalem: The Women Seaweed Collectors Today



The December 1987 issue of Bay of Bengal News carried a photo essay headlined “We are hungry only for seaweed”. Written by the then editor of Bay of Bengal News, the essay profiled the women seaweed collectors of Chinnapalem fishing village in Tamil Nadu in words and pictures. Gitanjali Chaturvedi recently visited Chinnapalem – 16 years after the BBN story. She describes what she saw and heard.

A half-smile, a stick-on bindi, a diaphanous saree, underwater goggles – in her sunburnt hands she clutches an enormous chunk of seaweed that trails into the sea from one end... her eyes reflect energy and a lust for adventure... she is one of the women

Chinnapalem – 16 years back

The sun is blazing fiercely now. Pleasantries with their friends in Mannali island over, the nine Chinnapalem girls walk to the other side of the island, put on their goggles, strap the forecal bags around their waists and enter the sea. Soon they are in neck-deep water and also in the thick of seaweed territory. They fan out in different directions. They dive, grope around and come up with thick bushy seaweed, which they slip deftly into the forecal bag.

The girls are now animated, like a hunter after prey, as they repeatedly dive and grab the precious paasi as seaweed is known in Tamil. It belongs to one of three varieties – *Gracilaria edulis*, *Gelidiella acerosa*, *sargassum*.

“We go out to collect seaweed 10 to 15 days a month,” says Maniyayi. “The best period is two days before and four days after full moon and new moon”. Reason : the tidal variation during these days makes for easy sea trips.

“On every trip we collect 10 to 15 kg of seaweed. If our collection is consistently poor for four or five days, we go and stay in an island for a few days at a stretch. We take with us rice, chillie powder, tamarind, salt, plus a barrel of fresh water for cooking and drinking. Over a single stay in an island, we can return with a few hundred kilos of seaweed.

– From the Bay of Bengal News , December 1987.

seaweed collectors of Chinnapalem immortalised in print by Bay of Bengal News 16 years ago. She and her fellows said “We are hungry only for seaweed,” and that was the heading of this evocative cover story.

The story talked about women diving into the sea with their improvised scuba gear and underwater goggles, a bag strung sideways across their shoulders for collecting their harvest of seaweed. After paddling about for three hours, they dump their seaweed into a boat moored on the shore, change into a fresh set of dry sarees, picnic on the beach before rowing to their village half an hour away.

What’s the situation some 16 years later? Seaweed collection in Chinnapalem has been seriously curtailed. With the birth of the Gulf of Mannar Biosphere Reserve Forest, officials have



prohibited women from venturing to Krusadai Island, a rich source of seaweed. There is resentment in the village; people are refusing to consider any other livelihood options.

I decide to visit the village, 20 minutes from Pamban on the Rameswaram island. The BOBP had initiated a seaweed cultivation programme here 17 years ago; it is likely the village will articulate its grievances to me. Accompanying me are three members of Mundalmunai village – which is known for a success story in pearl culture.

My friends from Mundalmunai tell me that I will be dealing with a very obstinate bunch of women in Chinnapalem. ‘They are adamant about collecting seaweed. They have refused to listen to reason... we suspect it is all politics.’

Chinnapalem is not a prosperous village. It has no source of fresh water, no electricity or public health centres. Vagrants linger about, staring into space. Infants naked save for a single black string tied around their waist, play with pebbles on the mud paths. Speckled hens peck tentatively at huge

mounds of refuse. A few women string beads and shells into garlands. A woman with flaking skin and knotted hair sits by the fish, waving mechanically at the flies with a hand-held palmyra fan.

Almost every fishing village has at least three pregnant women, and Chinnapalem is no exception. A few men stutter about, wobbly with the previous night’s excesses. Chinnapalem has a high rate of alcohol addiction – a local fisherman with bloodshot eyes directs me to the panchayat hall where a meeting has been organised. A few women are in the process of sweeping the sand out of the rectangular hall with a palmyra broom. Straw mats are dusted and placed on the floor for me to sit on. Some 50 people assemble in a matter of minutes. My interpreter introduces me, saying I’m from the BOBP; they can tell me about their problems, I’m here to help them.

A section of the gathering sniggers. A village elder gets up and addresses the crowd. ‘It is all for our benefit. She is not from the Forest Department. She wants to speak with the seaweed-collecting women, so let them speak first...’ Some one

else butts in, perhaps a politician: ‘Let me give you some vital information about our village... It has 350 houses, 50 are made of cement, the rest of thatch... there are 800 adult men, 750 fisherwomen. All the women collect seaweed. They leave at 6 a.m. and return by noon after having collected seaweed for three hours...’

I tell him that I would like to speak with the women... I begin with straight questions. How many boats leave for the island? Do you still have your scuba equipment? Did you see the photographs taken 16 years ago? There is plenty of excitement. Underwater goggles, still wet with seawater, are passed round for us to see. I distribute copies of photographs from BOBP’s archives. People are identified; there are squeals of delight, shrieks and gasps as the copies are snatched and passed from one person to the next.

The women speak, and respond sporadically to questions.

- “We collect seaweed some 15 days a month... it isn’t a regular activity. We are upset because we can’t go to the island anymore.”

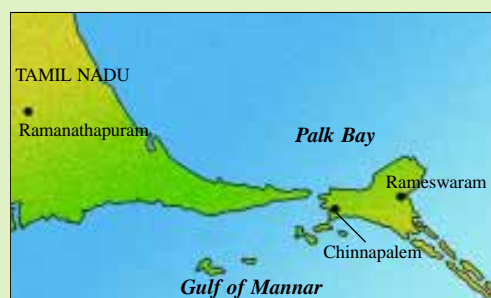
Seaweed: the Wider Picture

Seaweed is a recognised source of food the world over. Seaweeds like nori and wakame are consumed in abundant quantities in Japan, Korea, China, and Taiwan. Internationally, the seaweed industry is worth anywhere between 6 and 7 billion dollars. It covers a number of seaweed products of both edible and non-edible usage. Some examples: alginates, agar, carrageenan, kelp meal, liquid extracts, nori, wakame, kombu.

Carrageenan, one of the most important products extracted from seaweed, is a hydrocolloid, consisting mainly of the potassium, magnesium, sodium and calcium sulphate esters. It is commonly used as a clarification or gel-forming agent in food processing applications, although its usage in other industries such as dentifrice and pharmaceuticals is also significant.

India harvests approximately 22 000 metric tonnes of various macro-algae annually, against a potential of about 870 000 mt. Most of the seaweed harvested are natural agarophytes and alginophytes that can be used to produce agar-agar and alginates on a smallscale. With about 8 000 km of shoreline, India could be well placed to become one of the world’s largest and most competitive producers of *Eucheuma* and value-added carrageenan.

Due to its many geographical advantages, Tamil Nadu can organise a seaweed-based industry capable of creating sustainable alternative livelihoods, particularly for coastal and fishing communities.



- “Earlier, men would mend their nets on the beach, we would collect seaweed and join them and picnic. Now the Forest Department guards harass us if we go there. They even take away our dry clothes and hide them if they see us collecting seaweed.”
- Earnings from seaweed collection? “About 50 rupees a day, on the good days.” An argument ensues about the earnings. The politician exclaims: “Weren’t you collecting between 15 – 20 kg a day? And didn’t you get about Rs. 6 a kilo? Doesn’t that work out to Rs. 120 a day?” The women retort: “If we really earned that much, you men would have prevented us from collecting seaweed.”
- How long have the women been collecting seaweed? “We started doing so regularly only in the 1970s. We collected four different kinds of seaweed that we sold to traders – local traders from Ramnad or traders from Madurai and faraway places.” What do the men do? “They are fishermen, but they laze about most of the time... they also mend nets sometimes.”
- Wouldn’t the women earn more in some alternate activity that occupied them all the time? “When we supplemented the family income with seaweed collection, the household income was about Rs. 1 500... now we just about manage to earn Rs. 1 000.”

The politician bristles at this talk. He gets up and waves his arms furiously. He says that since I’m talking about alternative livelihoods, I must be from the Forest Department. “I forbid any of you women to speak with her! You are gullible women... you could fall for anything.” He tells me ‘If you want to help us out, we are willing to consider fish culture. But we need several acres of land that you must buy in our name... We will of course form a society’.

An elderly man rises and implores the gathering to calm down. He says the village must not look at



Chinnapalem women harvesting seaweed.

everyone with suspicion, then NGOs which can help them will stay away from the village. Make the best use of your opportunities, he advises.

Bickering breaks out. Abuses fly from all corners. Women shriek, men shout, children bawl. The Panchayat hall resembles a battle field. “Breakdown,” my interpreter whispers. I decide to leave. I motion to my friends from Mundalmunai who have now been embroiled in the melee. ‘*Nandri!*’ I thank the people in Tamil. The meeting breaks up. From the corner of my eye, I see the politician smirk. He’s gleeful that the meeting has come to nought.

Are the Chinnapalem fisherfolk justified in their demands? The community stubbornly looks to the sea for resources and employment – it is not their fault. The sea is an integral part of their identity, and the women have got used to earning money from seaweed collection.

I wonder whether the rules of natural resource management applicable to forests in the mainland can be applied to marine ecosystems – which is what I fear the Forest Department is unimaginatively doing in this case. All varieties of seaweed have a life span after which they are swept on the shore. Surely

it should be possible to design a management strategy that can allow seaweed to be exploited in a sustainable manner? Over 2 000 people in the Gulf of Mannar depend on seaweed collection as a source of livelihood. The women in Chinnapalem form only a fraction of this number.

But my sympathy for the people of Chinnapalem is guarded. They have been closing all avenues for negotiation. The Forest Department had agreed to allow the women of Chinnapalem to visit Krusadai Island every alternate day until a management strategy could be evolved; the village rejected the proposal outright. All or nothing, they averred.

It can be argued that the people have a right to the resources that they have historically exploited. But at the same time, they also have a duty to preserve the resources. What worries me most is the inability of the Chinnapalem population to accept change. When they are offered options or alternatives, they should seize the opportunity and not waste it. If the obdurate populace at Chinnapalem walks a tightrope between subsistence and survival, aren’t they partly responsible?

Fiscal reforms for fisheries:

An International Workshop deals with issues and novel ideas to promote growth, poverty eradication and sustainable management.

An international workshop on fiscal reform for fisheries was conceived and organised by the Support Unit for International Fisheries and Aquatic Research (SIFAR) and subsequently hosted by FAO from 13-15 October 2003 in Rome, Italy. The Workshop brought together 29 participants, from 10 countries and 6 organisations. The primary goal of the Workshop was to exchange of ideas on:

- How to generate maximum value from fishery resources?
- How to ensure efficient revenue collection?
- How best to use fiscal methods to achieve fisheries policy objectives? And also to achieve broader economic, social and environmental objectives?

Mr Grimur Valdimarsson, Director, Fishery Industries Division, FAO, said in his opening remarks that formerly FAO helped fishers to catch more fish; now the focus was on helping countries to reduce fishing effort. He said, "Landings of the 10 most valuable species have declined by 45 percent due to overfishing and reducing effort is proving a difficult challenge. The most promising approach appears to be some kind of system of limited rights coupled with charging for the rights".

Mr Tim Bostock, Coordinator, SIFAR, stressed that an important output expected from the Workshop was the discussion between participants on this important but relatively novel topic. Mrs Nancy Gitonga, Director of Fisheries, Kenya, chaired the first day of the meeting and Dr Y S Yadava, Director, Bay of Bengal Programme, days 2 and 3.

To facilitate exchange of experiences and ideas, the Workshop sessions were organised in a series of phases. Presentations were made by participants of the situation in each country represented at the meeting. Discussions were then organised through thematic sub-groups on the following three themes:

- How to define the mix of fiscal instruments and set the right levels?
- What to do with the resource rent?
- How to manage fiscal reform and negotiate access agreements?

The Workshop came out with the following major recommendations:

- The rationale underlying fisheries management, exploitation and development is beginning to change. Where once the focus was primarily on producing greater quantities of fish, the emphasis is now gradually moving, through concepts such as responsible fishing and sustainable management, towards wealth and revenue generation and their appropriate distribution. This change in focus presents new challenges for fisheries administrations.



Participants at the Workshop.

- With the new emphasis on wealth and revenue generation, the issue of resource rent becomes central. Although calculating such rents precisely is a difficult exercise, tools exist to estimate orders of magnitude. Developing and implementing fishery management instruments (such as licences) that allow this value to be revealed in a marketplace will help.
- Where wealth can be generated, choices must be made concerning its distribution. Rent can be left with resource users, or can be extracted by Government on behalf of all citizens. Consideration must be given on how best to use fisheries to meet socio-economic objectives.
- Appropriate fiscal arrangements can also play an important role in fisheries management. First, by helping to control the overall level of effort. Second, by encouraging effort reallocation between fisheries. The challenge is to identify and implement such appropriate arrangements.
- Given the novelty of the approach, which represents a major break with the past, there is a need for extensive communication and discussion of the ideas with all stakeholders.
- In order to achieve fiscal reform, there will be a need to ensure that appropriate institutional arrangements exist and perform well. Capacity will also have to be built up among fisheries managers. Technical assistance in calculating resource rents and in institutional analysis would be of particular interest.
- In order to ensure sustainability, holistic management systems, which integrate all fishing effort, should be developed.
- Where resources are shared on a regional basis, there is a need to ensure effective management and collaboration between partners, including the harmonisation of fiscal arrangements. The Workshop recommended strengthening or establishing regional bodies to play this role.

The full report of the Workshop is available as a FAO Fisheries Circular.

First Meeting of Governing Council Takes BOBP-IGO Forward



The work of the BOBP-IGO came in for generous praise at the first meeting of the Governing Council of the BOBP-IGO, held in Chennai on September 7 and 8, 2004. The Council discussed and approved the IGO's workplans for the current year as well as its report for the previous year, and appointed a director for the IGO for the next three years.

Representatives of the four member-countries (Bangladesh, India, Maldives, Sri Lanka) attended the meeting, besides observers from the FAO and the Network of Aquaculture Centres in Asia-Pacific (NACA). Mr P M A Hakeem, Secretary to the Government of India, Department of Animal Husbandry and Dairying, Ministry of Agriculture, was in the chair.

Dr Y S Yadava, Director *a.i.* of the BOBP-IGO, welcomed the participants and noted that 2004 is a historic year, since it marks a quarter century of the BOBP. Mr V S Shegaonkar, Secretary for Fisheries, Tamil Nadu, said the Government of Tamil Nadu is proud of its association with the BOBP as host. The State has benefited substantially from the BOBP; he hoped the IGO would continue the Programme's record of service.

Inaugurating the meeting, Mr P M A Hakeem, Secretary to the Government of India, hailed the "significant achievements" of the BOBP. He said "regional cooperation is even more important than international since member-countries of the region share



Participants at the Governing Council Meeting: left to right, front row: Mr S R Madhu, Dr V S Somavanshi, Mr Fakhurul Islam, Mr P M A Hakeem, Mr P K Pattanaik, Dr Sepalika Jayamanna, Dr Abdulla Naseer. Second row: Mr V S Shegaonkar, Dr M A Mazid, Mr G D Chandrapal, Dr Y S Yadava, Dr K Kapila C K Perera, Dr Simon Funge-Smith.

common resources. He described the following programmes as priorities for the BOBP-IGO – resource conservation and implementation of the Code of Conduct for Responsible Fisheries, avoiding discard and wastage of fish, stock assessment programmes, safety of fishermen at sea, and effective communication with fishermen at sea.

After an overview of the status of fisheries in the Bay of Bengal and of issues confronting the sector, Dr Yadava made a presentation of the BOBP-IGO's report for the period June 2003-August 2004. He briefly

discussed the IGO's activities (the Code of Conduct for Responsible Fisheries, Women in Fisheries, the Information Service including the IGO website) and described fisheries management as the single most critical issue before member-countries.

Comments on the Report of the BOBP-IGO

Commenting on the report, Dr M A Mazid, Director-General, Bangladesh Fisheries Research Institute, Mymensingh, stressed the importance of the BOBP-IGO in organising training and cost-effective study tours. (He said major



Lighting the traditional lamp.



Mr P M A Hakeem delivering the inaugural address at the meeting.

training areas included “best management practices”, stock assessment and marine pollution). He complimented the IGO on the many workshops it had conducted on the Code of Conduct for Responsible Fisheries. He also suggested preparation of a directory of fisheries experts and institutions in the Bay of Bengal region. The Maldives representative, Dr Abdulla Naseer, Director, Marine Research Centre, Malé praised the publication “Fishes of the Maldives” and said “Such work must go on.” He urged that regional fisheries organisations in the BOB region (such as the Indian Ocean Tuna Commission, NACA and the BOBLME) should avoid duplication and work in close association and co-operation with each other.

Dr K Kapila C K Perera, Chairman, National Aquatic Resources Research and Development Agency, Sri Lanka, said that improvements to traditional fisheries, post-harvest technologies and employment generation are some of the areas in which Sri Lanka can benefit from the IGO. Studies on climate and temperature change and their effect on fish production and migration would be useful.

Mr P K Pattanaik, Joint Secretary (Fisheries), Ministry of Agriculture, Government of India, and vice-chairman of the Governing Council, said that the Ministry has looked upon the BOBP as an “Information Bank” that provides revealing inputs. Subjects stressed by India for IGO interventions included: stock

assessment, studies on socio-economics and on the livelihoods of traditional fishermen, revalidation of earlier studies concerning small-scale fisheries, harmonization of standards and conventions for traditional fisheries throughout the region, reduction of post-harvest losses.

Dr Simon Funge-Smith, Aquaculture Officer representing FAO, expressed appreciation of the IGO’s efforts to raise awareness of the CCRF. He recalled his Organization’s “historic relationship” with the BOBP and said the BOBP-IGO was unique in its emphasis on small-scale fisheries; its work would be particularly relevant to the FAO during the next two years, because of a special focus on small-scale fisheries during this period.

In a message, Mr Pedro B Bueno, Director-General of NACA, said the BOBP-IGO joins two other inter-governmental bodies in the region fathered by FAO - INFOFISH and NACA. He said NACA and the IGO could co-operate in several areas such as the Asia-Pacific Marine Fish R & D Network, and the Fish Health Management Program. “NACA will very be happy to come to the table to develop ideas for joint projects or complementary activities. These would provide more and better services to the countries and the region as a whole”.

The Governing Council agreed that the following agencies be nominated to the Technical Advisory Committee of the IGO: Bangladesh Fisheries Research Institute, Mymensing, Bangladesh; Fishery Survey of India, Mumbai, India; Marine Research Centre, Malé, Maldives; and the National Aquatic Resources Research & Development Agency, Colombo, Sri Lanka.

Maldives will host the First Meeting of the Technical Advisory Committee in early 2005 and Sri Lanka will host the next Meeting of the Governing Council in November 2005, subject to the confirmation of their respective Governments.

Gazing at the Crystal Ball:

Fish to 2020

The book "Fish to 2020: Supply and Demand in Changing Global Markets" projects likely changes in fisheries over the next two decades, using a global model of supply and demand for food. The book grew out of a 1997 conference in Denmark to define key policy research issues concerning fisheries in developing countries. The book addresses a number of key policy issues such as: Will growth patterns continue for fish demand in the North and South? Where will supply come from? What will happen to trade and fish prices? What are the implications for sustainable use of the oceans and coastal areas? Can aquaculture alleviate the pressure on capture fisheries? What are the implications for the poor? What are the entry points for making the 'Blue Revolution' most favourable to the poor?

The International Food Policy Research Institute (IFPRI) and the Worldfish Center (formerly ICLARM) were the main players behind the conference and the book. Here are some excerpts from the book brought out by Worldfish Center. The book has been authored by Christopher L Delgado, Nikolas Wada, Mark W Rosegrant, Siet Meijer and Mahfuzuddin Ahmed.



The seemingly inexhaustible oceans have proved to be finite after all. Landings of wild fish have levelled off since the mid-1980s, and many stocks are fished so heavily that their future is threatened. And yet the world's appetite for fish has continued to increase. Aquaculture has arrived to meet this increasing demand. Production of fish from aquaculture has exploded in the past 20 years and continues to expand round the world.

But will aquaculture be sufficient to provide affordable fish to the world over the next 20 years? And what environmental and poverty problems will aquaculture face as it expands? Using IFPRI'S International Model for Policy Analysis of Agricultural Commodities and Trade (IMPACT), this report projects the likely changes in the fisheries sector over the next two decades, given present trends. Fish prices are expected to rise, reflecting a demand for fish that outpaces the ability of the world to supply it.

The model shows that developing countries will consume and produce



a much greater share of the world's fish in the future, and trade in fish commodities will also increase. As aquaculture expands, especially in developing countries, environmental concerns such as effluent pollution, escaped farmed fish, land conversion, and pressure on stocks from fishmeal demand will only increase with time, unless technologies and policies promote sustainable intensification. And small poor producers are at risk of being excluded from rapidly growing export markets unless ways can be found to facilitate affordable certification of food safety and environmentally sound production.

Recent trends in fish supply and demand

Since the early 1970s, production, consumption and long-distance

trade of fish have risen dramatically, almost entirely because of changes taking place in developing countries. The primary driver of most of these changes has been the increased consumption of fish in developing countries. As population in these countries has grown and consumers have become richer, the resulting increased demand for fish has altered markets for seafood around the world.

China dominates aggregate consumption of fish products. It accounted for about 36 percent of global consumption in 1997, compared with only 11 percent in 1973. India and Southeast Asia together accounted for another 17 percent in 1997, with total consumption doubling since 1973. Total consumption levels have declined in the developed countries since the mid-1980s, mainly as a result of dramatically lower per capita consumption in the former Eastern Bloc countries.

The changing profile of fish consumption around the world comes as no surprise, partly because countries with rapid population

growth, rapid income growth and urbanization tend to have the greatest increases in consumption of animal products including fish products.

The shift of wild fish production to developing countries: During the 1970s and 1980s, exploitation of wild fish stocks soared, thanks to expanded fishing fleets, new fishing technologies and increased investments in the fishing sector. Global capture of fish for food jumped from 44 million tons in 1973 to 65 million tons in 1997. By the late 1980s, however, the stocks fished by many wild-fishing operations were fully exploited and even over-exploited. Since then, despite increases in investment and fishing capacity, fish production from wild fisheries has slowed or stagnated.

Developing countries now account for more than 70 percent of the total production of fish for food, including both wild fisheries and aquaculture. By 1997, developing countries were producing twice as much as developed countries. Developing countries have also gone from being net importers of fisheries products to large net exporters over the past 30 years. Part of this shift is due to the establishment of 200-mile Exclusive Economic Zones (EEZs) within which coastal nations can claim exclusive fishing rights, excluding some developed-country fleets and forcing others to strike deals in order to gain fishing access. In some cases, creation of these zones led to the reclassification of fish production from developed to developing countries, as vessels merely changed flags. Meanwhile, developing countries were expanding their own fishing fleets as developed countries were contracting theirs.

One of the most striking trends in the capture of fish for food has been China's emergence as the largest producer and the simultaneous decline of Japan's production. In 1973, Japan was the world's largest producer of wild food fish, accounting for 18 percent of global production. By 1997 its share had

Crisis in developed countries!

In recent decades, capture fisheries in developed countries have entered into a crisis. Global capture fisheries production for human consumption grew through the late 1980s, largely driven by technological improvements that increased capacity, but it has stalled since then. In fact, food fish production from capture fisheries is lower in developed countries than it was 30 years ago, and has declined steadily since the late 1980s. Although some of this decline is attributable to the establishment of 200-mile exclusive economic zones and the resulting reduced fishing access for some developed countries like Japan, overfished and declining stocks are also responsible.

plummeted to 7 percent, and its absolute level of production had dropped by nearly half. Enforcement of EEZs significantly reduced the fishery resources available to Japan, and dwindling stocks of fish such as pilchards further reduced Japanese catches. Meanwhile China increased its

output from 9 percent to 21 percent, boosting production from under 4 million tons to 14 million tons. One study concluded that Chinese fishery production – including aquaculture – was overestimated by 43 percent in 1995, and suggested that institutional incentives that reward or punish local officials

Tuna landings at the Malè fishing market.



based on reported productivity may be largely responsible for the increasing distortion. If China has indeed over-reported its fish production, trends in global fish production appear much less favourable to the health of stocks than they otherwise do.

The rising share of aquaculture

With wild fish production stagnating, growth in overall fish production has come almost entirely from the global boom in aquaculture, especially in developing countries. Aquaculture now represents more than 30 percent of total food fish production, up from just 7 percent in 1973. From 1983 to 1997, developing-country production of fish from aquaculture grew at an annual rate of 13.3 percent, whereas production in developed countries grew at a rate of 2.7 percent. Asia accounts for 87 percent of global aquaculture production by weight, and China alone commands a stunning 68 percent share, rising from 32 percent in 1973.

Projections

Global food fish production is projected to total 130 million metric tons in 2020, equivalent to an annual rate of increase of 1.5 percent from 1997 onward (see Table). Of the 37 mmt increase in global food fish production, over two-thirds comes from aquaculture, which is projected to represent 41 percent of global food fish production in 2020 (up from 31 percent in 1997).

The crucial role of technology in the outlook for fisheries

With global fish supply struggling to keep pace with demand over the next 20 years, technology will play a crucial role in determining the prices of food fish both to the poor and to developed-country consumers. In capture fisheries, information technology and waste reduction will be useful in stabilizing production; more intense exploitation is unlikely to yield significant growth on a global scale. Aquaculture has much greater potential for growth, and requires a broader array of technologies not

Total production of food fish, 1997 and 2020							
	Actual 1997		Projected 2020		Projected annual growth rates 1997-2020 (percent)		
	Million metric tons	Share from aquaculture (percent)	Million metric tons	Share from aquaculture (percent)	Capture	Aqua culture	Total
China	33.3	58	53.1	66	1.1	2.6	2.0
Southeast Asia	12.6	18	17.5	29	0.8	3.6	1.4
India	4.8	40	8.0	55	1.0	3.7	2.3
Other South Asia	2.1	23	3.0	39	0.6	4.0	1.7
Latin America	6.4	10	8.8	16	1.1	3.5	1.4
West Asia and North Africa	2.2	9	2.8	16	0.6	3.6	0.9
Sub-Saharan Africa	3.7	1	6.0	2	2.0	5.8	2.1
United States	4.4	10	4.9	16	0.1	2.7	0.5
Japan	5.2	15	5.2	20	-0.3	1.2	0.0
European Union ¹⁵	5.9	21	6.7	29	0.0	2.1	0.5
Eastern Europe & former Soviet Union	4.9	4	5.0	4	0.1	0.4	0.1
Other developed countries	4.8	12	5.8	20	0.5	2.9	0.8
Developing World	68.0	37	102.5	47	1.0	2.8	1.8
Developing world excluding China	34.6	17	49.4	27	1.0	3.6	1.6
Developed World	25.2	13	27.6	19	0.1	2.1	0.4
World	93.2	31	130.1	41	0.7	2.8	1.5

Source: Actual data were calculated by authors from FAO 2002a; Projections for 2020 are from the baseline scenario of IFPRI'S IMPACT model (July 2002).

Notes: Actual data are three-years averages centered on 1997. Projected growth rates are exponential, compounded annually using three-year averages as endpoints.

only to increase productivity but also to deal with the attendant problems of intensification. In high-value aquaculture, the possible limiting constraints of fishmeal and fish oil can only be surmounted through feed replacements, and this need will become more important both for aquaculture and the health of fish stocks as aquaculture's demand for fishmeal and fish oil increase.

The introduction of new species and new traits into ecosystems, however, must be regulated and monitored with great caution. As global aquaculture intensifies, technology's role in controlling externalities and minimizing net resource demands will become even more important.



Bay of Bengal News is a quarterly publication of the BOBP-IGO. Readers are invited to send their views and experiences on development of sustainable coastal fisheries in the countries surrounding the Bay. We also solicit scientific/ popular articles on subjects related to coastal fisheries management. The articles should not exceed 4 – 5 typed pages and preferably with good illustrations/ colour photographs. Scientific articles will be subjected to peer review and edited before they are published.

- Editor

Maldivians meet to discuss the Code of Conduct for Responsible Fisheries

Malè hosted a National Workshop on the Implementation of Code of Conduct for Responsible Fisheries during 18 - 19 January 2004. The Workshop was organised by the Ministry of Fisheries, Agriculture and Marine Resources (MOFAMR) of the Government of Maldives in association with the BOBP-IGO, Chennai, and FAO, Rome.

The major objectives of the National Workshop were to facilitate a greater understanding of the Code of Conduct among all those concerned with fisheries in the Maldives; foster steps towards the more effective implementation of the Code in the country; engender a sense of direct participation, thus facilitating a greater commitment to local and national implementation; and identify specific problems and priorities, including those relating to fisheries and management practices



as well as to fishery enhancement techniques and the need for diversification.

A total of 67 participants attended the two-day National Workshop. The participants came from the Ministries and concerned offices of the Government of Maldives (38),

Above: Opening of the National Workshop (seated L – R):

Dr Y S Yadava, Mr Ahmed Hafiz, Hon'ble Abdullah Kamaludeen, Mr Jadullah Jameel, Mr Rolf Willmann.

Below: Participants at the Workshop.



the atoll fishermen (6), fish exporters (10), boat builders (2), and school children (11). Mr Rolf Willmann, Senior Fishery Planning Officer, Fisheries Department, represented FAO, Rome. Dr Y S Yadava, Director, and Mr S Jayaraj, Publication Officer, represented the BOBP-IGO.

The National Workshop began with the recitation of the Holy Quran. Mr Ahmed Hafiz, Assistant Director- General, MOFAMR, welcomed the participants and said that a useful starting point to commence the process of national adaptation of the Code is to have a National Workshop. Mr Jadullah Jameel, Executive Director-General, in his opening remarks stressed the need for adaptation of the Code to meet the specific requirements of Maldives. "Popular participation in adapting the Code to suit national conditions may lead to enhanced acceptance of the Code," said Mr Jameel.

Dr Y S Yadava said that implementation of the Code has been one of the core activities of the BOBP, and the Organisation is committed to take the message of the Code to fisherfolk.

Mr Rolf Willmann, Senior Fishery Planning Officer, FAO Rome, said that this Workshop would be a big step in furthering the implementation of the CCRF in Maldives where fisheries plays such a central role.

Inaugurating the National Workshop, the Hon'ble Minister of Fisheries, Agriculture and Marine Resources, Mr Abdullah Kamaludeen, complimented the BOBP-IGO for taking the lead in organising the Workshop.

The Workshop agenda included technical presentations by Mr Ahmed Hafiz ("The Code and its Adaptation for Sustainable Development of Fisheries in Maldives"), Dr Mohamed Shiham Adam, Director, Fisheries Research ("Overview of Fisheries in Maldives"), Mr Mohamed Faiz, Assistant Director, Fisheries Management ("Fisheries Management in Maldives"),



A group discussion in progress.

Dr Abdulla Naseer, Director, Reef Resources ("Code of Conduct for Responsible Fisheries. What should the Government do to Promote its Implementation?") and Mr Hassan Shakeel, Marine Resource Officer ("Implementing the Code of Conduct: Role of Stakeholders including NGOs and the Private Sector").

The country presentations were followed by presentations on the FAO's International Plan of Actions (IPOA for the Conservation and Management of Sharks, IPOA for the Management of Fishing Capacity and IPOA to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing).

To enable detailed discussions on critical issues, the participants were divided into four groups: fisheries management and fisheries research; fishing operations, post-harvest practices and trade; aquaculture development; integration of

fisheries into coastal area management.

Each Group had three facilitators to assist in the discussions and also prepare a summary of the major recommendations made by the Group. The Group Presentations highlighted the requirements of the fisheries sector in Maldives with respect to the implementation of the Code. A set of valuable recommendations also emerged from the summary presentations made by the Groups.

In the concluding session, Minister Kamaludeen expressed his satisfaction over the outcome of the Workshop. He said that the Code and its technical guidelines should be translated into Dhivehi so that they reach fishermen and other stakeholders at the earliest.

The Report of the National Workshop is under finalisation and will be published in Dhivehi and English.

Congratulations to FAO on a top-class seafood award!

The Fisheries Department of the Food and Agriculture Organization of the United Nations, Rome, received the Swedish Seafood Award for its work with the Code of Conduct for Responsible Fisheries (CCRF) at a ceremony in Gothenburg on 21 October 2004. FAO was awarded the prize in the Sustainable Fishing category for its work on the CCRF and Supporting Technical Guidelines. The Award is organised by the trade organisation Svensk Fisk (Swedish Fish), which is run by the Swedish fishing industry. The award also brings with it 300 000 kronor (US \$ 41 300), which FAO intends to devote to further strengthen its assistance towards developing countries for the promotion of responsible fisheries.

Indonesian Team Visits BOBP-IGO



It was a flurry of black jackets at BOBP-IGO. The occasion: a team of 12 Indonesians and two Australians paid a 10-day visit from 10 July 2003 to the BOBP-IGO and other institutions in Chennai and Kakinada to acquaint themselves with safety-at-sea projects. The visitors are active participants in the 15-year program COREMAP, which seeks to rehabilitate damaged coral reefs and conserve undamaged reefs in Indonesia. The trip to India was funded by Ausaid.

The 12 Indonesians belonged to the Indonesian Media Center, which has been established to promote resource conservation among coastal dwellers. For the past two years, the Media Center has organised creative and innovative project activities in Makassar, South Sulawesi (see map). Leader of the group was Mr Baharrudin Nur (from the Bureau of Economic Development in Makassar). Three other members were fishers, two of whom were village heads. The remaining members were social activists, trainers, graphic designers and project staff. Some came from remote islands; this trip to Chennai was the first time they had left their homeland.

Last year, after an awareness-raising exercise, the Media Center established a foundation with safety and survival at sea as its focus. Since then the Center has been working with remote communities and introduced some significant innovations. Examples: a vessel with built-in buoyancy chambers; a fibreglass cover for external engines and an enclosure for inboard engines (this prevents morbidity in exposed engine parts). Besides, the foundation has set up data banks detailing accidents and incidents

with fishing vessels at sea in order to systematically analyse patterns of morbidity and mortality in Indonesian fishing villages.

The Indonesian team visited the BOBP-IGO office and was given an overview of BOBP's past and current initiatives on sea safety. The team then travelled to Kakinada. (Kakinada was the nucleus of an FAO-assisted project to help fisherfolk and the Department of Fisheries, Andhra Pradesh, to combat frequent cyclones.) For many the trip to Kakinada was very exciting, as it was their first journey on a train.

- The team was briefed on sea safety and preparedness programmes by Mr C M Muralidharan, senior specialist of AFPRO (Action for Food Production) and officials of the State Institute of Fisheries Technology. Mr V Babu Rao,

a boat building engineer who has specialised in construction of fibreglass boats, and Mr S B Sarma (former Assistant Director of Fisheries who was earlier BOBP's coordinator based in Kakinada) gave the visitors talks and demonstrations on engine/ motor repairs and maintenance, occupational hazards in respect of engines/ motors, training in safety and best-use practices.

- The team met the Joint Director of Fisheries (Coast), and discussed shore-to-sea communication systems and satellite weather forecasting systems installed in the state.
- The team visited the Kakinada fishing harbour, where members acquainted themselves with shore-to-sea communication systems onboard fishing craft. They interacted with artisanal

The Indonesian Team at BOBP-IGO office. Sitting L – R: Andi Israhuddin, Abdul Salam, Andi Muhammad Riady, Melody Kemp, Sugiartanty, Ahmad Mauliddin. Standing L – R: Robert Kingham, Abdul Razak, Anis Tejakusuma, Nurung Abdul Muin, Hamzah Baso, Baharuddin Nur, Y S Yadava, Mus Arifin, Ahmad Latta.



boat owners on traditional sea safety mechanisms.

- The team visited the Integrated Coastal Management project in Kakinada, and learned about initiatives taken by NGOs concerning sea safety and disaster preparedness. Mr N Harikrishna of Oxfam, Hyderabad, and others gave the team a briefing.
- On return to Chennai, the team attended a lecture by SIFFS (South Indian Federation of Fishermen Societies), Trivandrum, on safe use of outboard motors in small fishing crafts.

“We were impressed by what we saw, particularly the fibreglass technology with flotation devices. Mr Babu Rao demonstrated these in Kakinada,” said team leader Baharuddin Nur. All the members praised the community organisation efforts in Kakinada to prevent or combat cyclones. “Indonesia is not subject to cyclones. But we are vulnerable to earthquakes and tsunamis, so we need emergency plans,” one of them said.

Indonesia hasn’t joined the BOBP-IGO yet, but the team from Makassar acknowledged the importance of regional co-operation, and will keep itself informed about the IGO, its ideas and activities. In the immediate future, it hopes to benefit from Mr Babu Rao’s expertise in fibreglass technology and mechanical maintenance.

The visitors said they were taking back from India knowledge and awareness of how problems similar to their own can be effectively tackled. They had gained in confidence as well. The men in black jackets left India with suitcases that bulged with glistening Indian fabrics, and proceeded to Sri Lanka to spend a week with the National Fishers Solidarity Organisation (NAFSO).



Interactions with the community (above) and demonstration of a fibre-glass safety float at the boat building yard in Kakinada, Andhra Pradesh (below).



COREMAP, Safety at Sea and BOBP

The health and safety of fishers is related to the health and safety of marine ecosystems. The “types of thinking and the notions of consequence” that would help fishers to survive would also help reefs and marine ecosystems. That is the rationale behind the visit of the COREMAP team to the Bay of Bengal region.

It was believed that by travelling to India and seeing and listening to fishers who were part of a Safety-at-Sea (SAS) programme, the Indonesian teams could broaden and enrich their knowledge and learn to independently develop and monitor SAS activities. The fact that small-scale fisherfolk in the Bay of Bengal region use an infrastructure and face problems comparable to those in Indonesia, made the India trip all the more useful.

BOBP’s materials relating to safety and survival at sea have been enthusiastically received, particularly by World Bank consultants designing Phase 2 of COREMAP. They would like to incorporate these materials in a Reef Watcher Manual.

The visitors’ itinerary, prepared in consultation with BOBP’s Dr. Yadava, called for trips to field sites which had developed organisational structures for SAS of small-scale fishers. The Indonesian participants were carefully selected to include trainees from SAS workshops already conducted such as village safety officers, reef watchers, field facilitators, NGO personnel – plus staff of the Media Centre in Makassar.

The IGO Spotlights Women in Fisheries

Glimpses into two useful publications brought out recently by the BOBP-IGO: a review of women in fisheries on India's east coast, and a manual on self-help groups, both authored by Gitanjali Chaturvedi.

In 1980, a delegate to a BOBP workshop said that “Women in fisheries” was “an area of darkness” because little reliable information was available on the subject. There were few factual reports, very little documentation. Interventions had to be based on conjecture and guesswork.

The picture is now dramatically different. The “area of darkness” has been brightly and boldly illuminated by the BOBP. Between 1979 and 2003, the Programme brought out 13 publications on women in fisheries – reports of workshops, investigations and pilot activities carried out in member-countries. Plus a few score articles in the newsletter *Bay of Bengal News*. The BOBP-IGO has now added two worthy publications to this list.

‘Women in Fisheries on the East Coast of India: A Review’

Between October 2003 and March 2004, the IGO carried out a review of women in fisheries in coastal areas of Tamil Nadu, Pondicherry, Andhra Pradesh, Orissa and West Bengal.

A combination of desk study and field work, the review resulted in an 88-page booklet. It contains a 20-page overview on the status of women and of interventions made by BOBP and other organisations; a 36-page report on what’s happening in selected villages and what some NGOs are doing for women in fisheries (based on field visits to 30 villages); 16 pages of annexures and tables, which include a questionnaire

for NGOs and a “checklist for project sites”; and a glossary.

Some glimpses into the booklet: facts, quotes, revelations, nuggets of information:

- In several fishing villages of India’s east coast, women’s role in marketing and processing fish has been diminished in recent years by the advent of middlemen and resource depletion. Women have not been dynamic enough to take up other occupations.
- What were BOBP’s main interventions concerning women? Training fisherwomen of Tamil Nadu to act as links between their villages and the outside world; expansion of the link worker scheme; improving credit facilities; organising an exclusive fish market for women fish vendors of Besant Nagar, Chennai; promoting post-harvest facilities (ice boxes to preserve fish; new and better fish containers for fish vendors; fish drying racks and smoking bins); several socio-economic studies.

“I am pleased to note that these two publications contain valuable information and once more confirm the long-standing determination of BOBP to improve the living conditions in fishing communities and in particular, that of women.”

**– Dr Jacques Diouf,
Director-General, FAO, Rome.**

Further, several BOBP activities aimed at fishing communities in general (such as introduction of beachcraft, extension training, non-formal education) helped women as well.

- Self-help groups (SHGs) have become the new *mantra* for social and economic uplift in fishing villages. They have replaced co-operatives which

Cleaning the fish before drying – fisherwomen of Kakinada, Andhra Pradesh.



have become increasingly corrupt. However, SHGs have developed as micro-savings institutions; they have not succeeded in channelling savings into income-generating activities. Reason: the risks of individual enterprise scare women; marketing of finished products is a challenge too. An exception: In Tuticorin, Tamil Nadu, self-help groups in Vellapatty village have helped women to start and run businesses such as petty shops, fish pickle units, crab fattening.

- In 1992, NABARD (National Bank for Agriculture and Rural Development) launched a programme to link SHGs with banks.

266 banks are part of the SHG network and link 7.8 million families.

90 per cent of SHG members are women; 66 per cent of the SHGs are in the southern districts of Tamil Nadu and Andhra Pradesh; the repayment rate of loans to SHGs is 95 per cent; Punnakkayal, Tamil Nadu, has the largest number of SHGs in an Indian village (50).

- “Empowering fisherwomen is a multi-pronged exercise of inculcating awareness, finding income alternatives, assuring livelihood security.”
- What are the non-fisheries livelihoods open to fisherwomen? Agriculture (in many areas of the east coast); tailoring and allied services (fisherwomen in Rameswaram, Tamil Nadu; Nallavadu village, Pondicherry, Bheemunipatnam, Andhra Pradesh, have been trained in tailoring, but need help to start businesses); salt pans (Tuticorin); shell collection and shell craft (Rameswaram); palmyra craft (Keelakarai, Tamil Nadu); shrimp farms (Andhra Pradesh); labour for construction sites and cashew plantations (Telugu-speaking women in Orissa); animal husbandry and pisciculture (West Bengal); growing medicinal plants and herbs (Veerampattinam



Interactive sessions help in identifying activities that can sustain the SHGs.

village, coastal Pondicherry); handicrafts (opportunities for business in shell craft and palmyra leaf craft exist throughout the coast. Fisherfolk could supply shells to factories that require lime.)

- What about livelihood opportunities in coastal or marine ecotourism? Tamil Nadu has some beautiful churches and forts in coastal areas. Pulicat lake is a bird sanctuary; Pulicat town has some beautiful Dutch relics; The Gulf of Mannar sports religious, educational, leisure and adventure tourism features; Pondicherry has a world-famous ashram which draws people who want an alternate lifestyle; the Orissa coast is dotted with tourist attractions such as Gopalpur-on-Sea, Chilka lake, Konarak and

Puri. The Sundarbans in West Bengal is a tourist attraction. But most opportunities offered by the tourist industry are grabbed by resorts, multinational companies and the local elite.

The author suggests that SHGs be organised among fishing communities. They could cater to tourists by offering beach shacks and restaurants, public call centres (STD booths) and boat rides for tourists. In Goa, Kerala and Sri Lanka, fishing communities are active in the tourism industry. This phenomenon should be studied.

Women from east coast fishing communities could play an important role in tapping the benefits of ecotourism if given proper training.

Women's fish market in Besant Nagar – an enterprise that failed to sustain.



The author notes that Government institutions such as the Central Marine Fisheries Research Institute (CMFRI), Kochi, and the College of Fisheries, Tuticorin, train fisherwomen to prepare value-added fisheries products. In the Gulf of Mannar, institutions like the M S Swaminathan Research Foundation (MSSRF) and CMFRI teach pearl culture. In Pondicherry, women have been trained in ornamental fish culture. But such training can't be converted to cash in the absence of management and marketing skills. "Teaching skills that do not generate income will only serve to dampen enthusiasm and increase the dependence of fisherfolk on the government."

- NGOs working with fisherwomen have generated awareness on domestic violence, alcoholism and gender rights; they have helped with capacity building, leadership training and occupational training; they have formed SHGs to promote savings and credit; they have organised programmes on literacy, health awareness, sanitation and hygiene.
- The booklet provides information about selected fishing villages on the east coast, women's activities and NGOs assisting them. It also reproduces a questionnaire for NGOs that seeks basic information about the background, achievements and contact details of the NGO, its perception of the problems and needs of coastal communities, and the kind of skills it can impart to them. The BOBP-IGO has a database of 40 NGOs



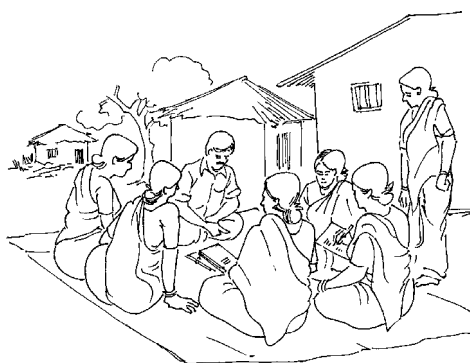
Make the SHGs market-savvy!

The SHG movement has effectively transformed the lives of rural women in many parts of the country. However, the weaknesses that have emerged in the overall growth of the SHGs need to be addressed to sustain the movement and empower rural women in a true sense. SHGs lack the skills to penetrate the market; they have been so far hovering on the periphery. Efforts are required to make them market-savvy, and build up functional linkages between SHGs and the growing market.

— Editor

that have answered the questionnaire.

- The booklet contains a 10-page checklist for factual data about project sites on the east coast. A database has been organised about a number of project sites on the basis of information provided through the checklist.



Working Together: A Manual on Self-Help Groups

This slim and attractively illustrated little publication answers basic questions about SHGs, narrates a few success stories, describes how an SHG is set up and contains an interactive guide for social workers and facilitators. It also contains a useful directory of organisations concerned with SHG formation.

The manual notes that SHGs have been extremely useful in enabling rural credit, but have yet to impact

the rural grassroots because they have been inactive in skill development or market orientation.

Some SHG success stories:

- Women in a remote Karnataka village run a successful courier service, after investing in a few scooters.
- In Thirukanchipet, Pondicherry, a Dalit community SHG has invested in a 16-seat autorickshaw that is a boon since public transport facilities are 5 km away. The UNDP, the District Rural Development Agency (DRDA) and MSSRF helped out with money for the vehicle. The autorickshaw makes 70 trips a day and runs on a battery.
- In Rameswaram island, Tamil Nadu, a group of physically challenged people run a centre (Nesakarangal) that imparts training in shell and palmyra leaf craft to people with similar disabilities.
- An SHG of 16 women in Gadimoga village, East Godavari district, Andhra Pradesh, provides mid-day meals to the village school.
- Two women's SHGs in 24 Parganas district, West Bengal, successfully breed and market fish and prawns, and improve sanitation by constructing and maintaining low-cost latrines.

— S R Madhu



Traditional Fishing Crafts of the Bay of Bengal

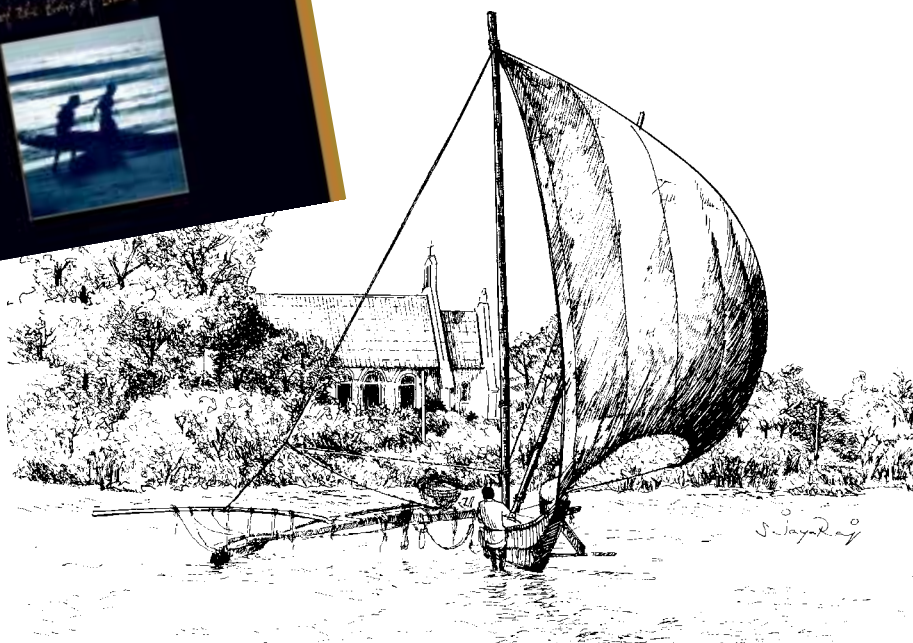
by Y S Yadava

This splendidly pictorial booklet, which records and describes the traditional fishing craft of the Bay of Bengal, is 60 pages of sheer enchantment. It is packed with facts, statistics and quotes about traditional fishing craft from India, Bangladesh, Maldives Sri Lanka, Indonesia and Thailand; but its charm lies in the 40-odd photographs and a few sketches.

The log kattumarams, raft kattumarams and boat kattumarams of Tamil Nadu; the navas and shoe dhonis of Andhra Pradesh; the sabada and chhoat of Orissa; the chandi of Bangladesh; traditional boats from Thailand; the canoes of Indonesia; the beautiful oru of Sri Lanka; the teppam of Sri Lanka; the dhoni of the Maldives – what are their distinctive features? What are their pluses and minuses?

As Dr M S Swaminathan says in the booklet's foreword, "I am impressed by several obvious characteristics of the traditional crafts – their simplicity, their beauty, their compactness. I can well believe that some of these crafts are perfect for their users, the artisanal fishermen who operate in the inshore waters of the Bay of Bengal."

The choice of the black-and-white medium for photographs of traditional craft is apt. If colour photographs reflect the life of a subject, it's black-and-white that captures its soul, as Henri Cartier-Bresson demonstrated many years ago. This publication, of course, can't boast of any picture by that great master, but it does have some



memorable photographs by Harry Miller — many of them shot in 1979, the year BOBP was launched. "Austere, yet beautiful" to quote Dr Swaminathan again, the photographs "capture not merely the small-scale fishing craft but also the lives of small-scale fishermen: full of peril, full of challenge and adventure, full of meaning."

Traditional Fisheries Management Systems in Six Provinces of Indonesia

by Sihar Siregar, Reza Shah Pehlevi, Riyanto Basuki.

Fisheries management was the mandate of the BOBP's third phase. Diverse activities and approaches to management were tried out in member-countries. In Indonesia, it was considered useful to study the experiences and practices of customary fishing rights systems, and obtain learnings and lessons that could be applied to community resource management today.

This report documents case studies of traditional or customary fisheries management systems from six provinces of Indonesia – North



Sumatra, West Sumatra, Aceh, Jambi, South Sumatra and Riau. The Directorate-General of Fisheries, Indonesia, organised the exercise in collaboration with national institutions and the Provincial

Fisheries Service of South Sumatra province.

The three authors who put the case studies together adopted a three-fold approach: they reviewed and synthesised existing literature; conducted a number of interviews with fisherfolk communities; and carried out a two-month field survey in the six provinces.

The concepts contained in the traditional management systems were straight-forward in their simplicity. For example, a leader “should be clean”; he should be honest; he shouldn’t go back on his word. No killing, no stealing, no poisoning, no sexual intercourse before marriage. Rules for fishing in common property areas were clear, and penalties were spelled out. The rules and penalties were apparently enforced, because compliance was high.

“There’s much that modern fisheries managers can learn from these traditional systems,” says the book’s foreword.

Coming Together to Manage Fisheries:

A Field Guide to Stakeholder Analysis

by R N Roy

If several people have a stake in a project, a property or a proposal, they should organise and manage it together. It’s difficult to dispute the wisdom or common sense behind this statement. But in fisheries, few things are regarded as more difficult than management by all stakeholders.

This little 68-page booklet, a “field guide to stakeholder analysis” therefore meets a serious need. Well-illustrated with sketches and diagrams by S Jayaraj, the booklet is based on the BOBP’s experiences in fisheries management. A Prologue points out: “The stakeholder approach described in this guide is more an approach to managing those involved in fisheries than managing the fisheries.”

This field guide is regarded as useful to fishery extension and technical staff, representatives of NGOs working in fisheries, members of fisher co-operatives, people working with communities, anyone interested in enabling communities to better manage the resources they depend on.

It is believed that the guide enables the reader to understand the problems faced in managing small-scale fisheries; it proposes stakeholder approaches that may overcome the problems; it defines a stakeholder and proposes methods of identifying stakeholders of a fishery; it suggests methods of undertaking stakeholder analyses; it suggests ways and means of bringing stakeholders to the table; it proposes the way forward, including stakeholders agreeing on problems; it raises issues and concerns that may confront stakeholder approaches to fisheries management.

The field guide makes it clear that “more explorations need to be made” to refine the maps and tools of the methodologies advocated in the book.

Fishes of the Maldives

This massive 450-page book, in English and Dhivehi, identifies and describes as many as 370 fish species of the Maldives, with sketches, English and local names and some brief technical



description. It has been organised by the Marine Research Centre in the Ministry of Fisheries, Agriculture and Marine Resources, Male, and printed by the BOBP.

The book was first published in 1997; this second edition was published in 2003. The book will be found useful by students of fisheries science, and by everyone who needs to identify commercial fish species. A major aim of the book is to present information in Dhivehi to local populations who do not have access to specialised literature.

One of the highlights of the book is the Preface by the President of Maldives himself, His Excellency Maumoon Abdul Gayyoom. Written in Dhivehi, the Preface reflects the profound interest of the President in the fisheries of the Maldives, and in this book in particular.



Asia-Pacific Countries Meet in Thailand to Decide a New Role for APFIC

Representatives of 15 member-countries and 10 Regional Organisations met at Chiang Mai, Thailand, during 3-5 August 2004. The occasion was the Twenty-Eighth Session of the Asia-Pacific Fishery Commission (APFIC). The agenda included an overview of the status and potential of fisheries and aquaculture in Asia and the Pacific; APFIC's potential as a consultative forum for fishery issues; regional arrangements for fisheries – an analysis of gaps and opportunities; and APFIC's work plan for 2004-2010. Dr. Y S Yadava represented BOBP-IGO at the session.

Inaugurating the Session, Mr Sitdhi Boonyaratpalin, Director-General of the Department of Fisheries, Thailand said the decline in capture fisheries production in many coastal fisheries in the region was alarming. He urged effective action to address management needs in small-scale fisheries.

Dr Derek Staples, Secretary, APFIC (and Senior Fishery Officer, RAP-FAO, Bangkok) presented an overview of the status and potential of fisheries and aquaculture in Asia and the Pacific. He said the Asia-Pacific region continued to be the largest producer of fish and fishery products in the world, with 92 millions tonnes or approximately 69 percent of global production in 2002. He also said that despite the significance of fisheries and aquaculture in the region, this sector is often overlooked in national policy development and given less priority than other agriculture production sectors.

The Commission agreed that a more holistic approach to fishery management was needed that balanced the needs of different parts of the fishery sector, and also balanced human well-being against ecological well-being.

Making an important decision on the future role of APFIC, the Commission unanimously agreed that APFIC should function as a Regional Consultative Forum (RCF). It should provide a framework for members to discuss fisheries issues which affect groups of States across the wider Asia-Pacific region and to formulate recommendations for action. APFIC could act as a platform to discuss emerging issues relating to fisheries, trade and sustainable management facing its members. In its work plan for 2004-2010, the Commission agreed

What is APFIC?

The Asia-Pacific Fishery Commission was established in 1948 as Indo-Pacific Fisheries Council (IPFC). The name changed to Indo-Pacific Fishery Commission in 1976, and its present name in 1994. Set up under the aegis of FAO (Article XIV of FAO Constitution), the Commission works from the FAO Regional Office for Asia and the Pacific, Bangkok, Thailand. The Commission covers the Indo-Pacific area (including inland waters). The members are Australia, Bangladesh, Cambodia, China PRC, France, India, Indonesia, Japan, Korea RO, Malaysia, Myanmar, Nepal, New Zealand, Pakistan, Philippines, Sri Lanka, Thailand, UK, USA and Viet Nam. The Commission is mandated to “promote the full and proper utilization of living aquatic resources by the development and management of fishing and culture operations and by the development of related processing and marketing activities in conformity with the objectives of its members”.



to hold two regional consultative workshops possibly in 2005 –one on “Trash fish and discards in the Asia-Pacific region”, and the other on “Coastal and inland fishery co-management in the Asia-Pacific region”.

The Session also saw the release of a CD archiving the reports and technical papers of past sessions of APFIC, the launching of the APFIC website (www.apfic.fao.org) and a handbook on “Regional fishery bodies and arrangements in Asia and the Pacific (RAP Publication: 2004/12)”.

The Commission agreed to hold its 29th session in August 2006. Malaysia and Indonesia were unanimously elected Chairperson and Vice-Chairperson of the Commission respectively. The Republic of Korea, India and Thailand were unanimously elected to serve as members of the Executive Committee. The full report of the session is available from the FAO Regional Office for Asia and the Pacific, Bangkok (RAP Publication 2004/19)

– Editor

The Vernon I Knew

by Lars Engvall

BOBP's first Director pays a moving tribute to Vernon Pietersz – who served as Fisheries Secretary of Sri Lanka, as BOBP's first Development Adviser and as FAO's Regional Fishery Adviser in Bangkok. Vernon passed away in Bangkok on August 30, 2004.

My association with Vernon dates back to 1975, when he was Director of Planning in the Ministry of Fisheries in Sri Lanka and I was Project Manager of a FAO regional fisheries project headquartered in Colombo.

Vernon was a first-class fisheries bureaucrat. He never accepted anything at face value. He always did his homework before any decision or action. A fisheries generalist with wide general knowledge, he took great pains to cope with any specialist subject.

He was never voluble: a listener rather than a talker. But when he did speak, it was the voice of reason, of confidence, of authority. Tact and diplomacy were his watchwords. He had a great flair for conveying a negative decision or outcome in a pleasant manner, without offending the person concerned. Result: his decision was immediately accepted.

In the early days of BOBP, Vernon was an invaluable manager. As officer-in-charge during my absence on duty travel, he always took the same action as I would have done myself. The only difference was that he did it better.

Vernon had a rare command of the English language. He often sat late in the office to help refine an important report or a confidential presentation. While ordering another new safari suit on a visit to Bangkok, he advised a leading tailor there to correct the English in his advertisements.

Vernon was warm-hearted as friend, colleague or boss. He was a source of sage advice to the many young "Associate Experts" from Europe who came to Chennai and BOBP, helping them adjust to their new environment.

His integrity was unimpeachable; his quiet manner was always appreciated; his wit and sense of humour clinched many an argument and won him many a friend. I'll miss him.

A Diplomat to the Core

by S R Madhu

His full name was Vernon Lionel Constantine Pietersz, but his middle name was "diplomat". In the early and middle 1980s, BOBP was often in ferment. The 40-odd people in its Chennai office apparently touched people a hundred times that number in many countries. Days were long and tempers short. VLCP was an ace problem-shooter. Sometimes one saw a staffer charging into his office, nostrils afire – and 10 minutes later the same person stepped out gingerly, looking sheepish and abashed. Vernon's reasonableness rubbed off on every one.

"Your Customs people at the airport are very nice," Pietersz once told me. "Not many people say that," I responded truthfully. He said: "The young man at the Customs looked at my passport and said 'You were Secretary of Fisheries in Sri Lanka, I'm sorry I can't stand up while talking to you because I have an injured knee'." Only someone special inspires that kind of respect among the Customs staff at airports.

I was a personal witness to the respect that Festus Perera, then Minister for Fisheries, accorded him. Festus told him in detail about a new policy he had in mind, and asked anxiously, "Am I doing right, Vernon?" "Very right," said Vernon reassuringly, but added many reservations. I'm sure that resulted in a better policy.



Mr Vernon Pietersz (1929–2004)

He was soft-spoken, but he urged speakers at workshops to be loud and clear. "Maybe it's a cultural trait but often we speak too soft. Please speak up." He was the ideal workshop rapporteur because he combined fisheries competence with proficiency in English.

He was a good writer too, concise and precise, with a rare ability to convert masses of technical data into crystal-clear statements. I still remember his article in *Bay of Bengal News* assessing the impact of BOBP's aquaculture project in Phang Nga, five years after the project. Or his technical paper summarizing 15 years of BOBP work on beachcraft development.

Says Arne Andreasson, who succeeded Vernon as Development Adviser at BOBP: "Vernon was the leader on my first mission to Bangladesh in 1977. He taught me a lot about fisheries and fisheries administrations in South Asia. When we were writing up a report on small-scale fisheries in Bangladesh more than 25 years ago, he virtually rewrote every sentence. A very frustrating experience. But what a learning process on fisheries, diplomacy and report writing!

"Many years later (early 1990s), we were together again, this time producing a workshop report. I handed my draft to Vernon, expecting it to be slaughtered. I was surprised that there were almost no corrections. I asked: "Vernon, what is wrong, are you getting old?" The typical Vernon reply: "No, but I

believe your writing has improved a bit over the years”.

Says Uwe Tietze, a senior fisheries officer in FAO Rome: “I remember Vernon as a person with a deep sense of humour. On one occasion I was invited to his house for dinner. He showed his guests around and talked about his new antenna dish on the roof terrace with which he could see Sri Lanka. One of the guests wanted to be shown the terrace. Vernon took us there. The guest: “From where can I see Sri Lanka?” Vernon: “Not from here, from downstairs in the living room on TV.”

Says Rolf Willmann, now a senior planner in FAO Rome, “Way back in 1979, one of the little problems of daily life was getting pure unadulterated milk. The bicycle boys often supplied milk diluted with water of varied origin and quality. Vernon and his wife got a farmer to come home every morning with his cow, where she was milked under the supervision of his house-helper! “As a young professional I have greatly benefited from Vernon’s guidance in many ways but I remember this practical lesson very well.”

Dr Armin Lindquist, formerly Assistant Director-General of Fisheries at FAO, Rome, describes Mr Pietersz as a “dedicated officer” whose knowledge and competence helped in better understanding and implementation of FAO policies.

Some Personal Insights from a Close Friend

by K Sivasubramaniam

Vernon Pietersz was born on the 11th of March 1929, in Wennapuwa, and had a brother and two sisters. His college education was in Wennapuwa, Katugastota and Peradeniya University, from where he obtained an honours degree in history in 1951.

He joined the Fisheries Department in 1955 as an Assistant Director, and rose to the position of Director, Planning and Programming. His contribution to development schemes such as motorisation of fishing craft, introduction of synthetic materials, fabrication of fishing gear or establishment of training schools for youth from coastal communities, was immense. Hailing from a coastal area, he had an inherent interest in the well-being of coastal communities. He was appointed Secretary to the Ministry of Fisheries in 1977 and retired from government service towards the end of 1978.

He was ever mild-mannered and soft-spoken and never visibly angry. He was courteous to his superiors, silent if he was ignored or overlooked, and unfailingly kind to his subordinates and to the many fisherfolk who came to him with their problems. He was always very fair in his judgements and decisions. He smiled often but rarely laughed

out aloud. Since he was equally good to everyone, it was difficult to gauge his inner feelings.

Vernon was known as much for his dedication as for his honesty. He rarely took leave. Working late in the office was a habit – whether he had to scrutinise reports, hold discussions or attend meetings. He never wasted time in gossip or idle chatter.

No wonder he was very popular with the entire staff of the Fisheries Department. He would break no rules, nor encourage anyone else to do so, and would not defend anyone who did.

In 1979, he joined the BOBP as Senior Development Adviser in Chennai. Five years later, he moved to Bangkok as FAO’s Regional Fisheries Officer, and retired from the FAO in 1991. He and his wife Chandra spent their retirement in Sri Lanka, also visiting their two daughters in the US and a son who now lives in Thailand. Vernon also helped out Sri Lanka’s Ministry of Fisheries whenever necessary as a consultant. He served on the Board of Governors of NARA for a few years in the late 1990s.

I remember with pleasure the social chats and meetings with Vernon after we had both retired. We had a lot to talk about — fisheries, the fishing industry in Sri Lanka, FAO, family and friends. His death in August 2004 was a shock. I have lost a much-valued friend.



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