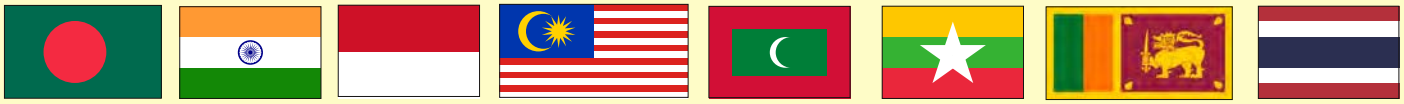
BOBLME Newsletter

Bay of Bengal Large Marine Ecosystem Project

SEPTEMBER 2011

Bangladesh, India, Indonesia, Malaysia, the Maldives, Myanmar, Sri Lanka and Thailand are collaborating through the Bay of Bengal Large Marine Ecosystem (BOBLME) Project to better the lives of their coastal populations by improving regional management of the Bay of Bengal environment and its fisheries.



Bangladesh **India** **Indonesia** **Malaysia** **Maldives** **Myanmar** **Sri Lanka** **Thailand**

Help for hilsa

Fishery experts in India and Bangladesh are trying to assess whether the population of the much loved hilsa fish is in serious decline. Hilsa (Tenualosa ilisha) is the national fish of Bangladesh (where it is known as Ilish) and a popular dish in that country and in the Indian states of West Bengal, Orissa, Tripura and Assam.

Unusually among tropical fish, the hilsa spends most of its life at sea but migrates as much as 1,200 km inland to spawn, with the lower Ganges, lower Brahmaputra, Godavari, and Rapnarayan being the main spawning rivers.

There are concerns that overfishing may be leading to a decline of the species - both of adults caught at sea and of young fish (known as jatka), caught on their first journey to the sea.

In May, meetings were held in Kolkata, India, and Dhaka, Bangladesh, to examine the current state of the species.

The first workshop was held in Barackpore, India at the Central Indian Fisheries Research Institute (CIFRI) where lead scientists, Dr. Suresh, Dr. Vivekanandan, Dr. Zacharia, Dr. A.P. Sharma, National Coordinator (NC) Dr. Vijaykumaran and National Technical Adviser (NTA) Dr. Sugunan discussed various issues including the approaches to take for stock assessment and the likelihood of developing a good understanding of the species in the Hoogly-Matla system - an important hilsa habitat.

Dr Rishi Sharma, BOBLME Stock Assessment Coordinator, who joined the meetings, reported, "Scientists in India are working hard to understand hilsa stock assessment dynamics and what kind of variability we see in production over time."

The impact of the fisheries on the livelihood of fishers was also discussed, along with artificial breeding methods for hilsa.

However, the supply of information for an integrated regional, marine and freshwater assessment appears to be lacking and an inventory of available data, river by river, needs to be set up for the West Bengal region.

Levels of catch in India are not well documented, the meeting heard. Although the current catch is known to be around 60,000 tonnes a year at sea, the freshwater catch is not known, though it is believed to have averaged around 12,000 tonnes a year in the late 2000s in the Hooghly and Matla Rivers.

It is also not clear whether the current levels of catch are sustainable.

The meeting noted that while hilsa is a very productive species and this may protect it somewhat from overfishing, pollution and loss or degradation of habitat are affecting both the distribution and the productivity of the stock.

Central Indian Fisheries Research Institute (CIFRI) lead scientist Dr. Suresh, with assistance from Dr Sharma, will look at developing a simplistic assessment for the Hooghly-Matla river sub-system.

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Short-term objectives set at the meeting include research into the life history and migration characteristics of the hilsa, along with protection of essential fish habitat.

In Dhaka, Mr Shamsul Kibria, Joint Secretary of Fisheries and Livestock, presided over the meeting of Bangladesh scientists. Also involved were Dr Gulam Hussain and Dr Yousuf Haroon, along with Dr Anis Rahman, Dr Jalilur Rahman and Dr GC Haldar, all working on research related to stock assessment.

In Bangladesh, Dr Sharma noted, there are some distinctive signals from the fishery.

"While catch trends show an increase over time, the average size [of fish] seems to have declined."

The Dhaka meeting heard that, from data collected up until 2005, the species is affected on three main levels:

- Serious recruitment over-fishing, particularly indiscriminate catching of the juvenile jatka;
- Growth over-fishing, through the indiscriminate killing of mature female hilsa;
- Fishing pressure leading to a decrease in size of fish caught.

Short-term area closures and the establishment of nursery areas for jatka seem to be benefiting the fish population. The government has also made a significant effort to provide alternative livelihoods for fishers.

"While the data in Bangladesh are considerable and are well organised," Dr Sharma reports, "a review of methods used to develop the database, as well as ways to improve under-standing of the stock, will be developed.

Dr Anis Rahman

"Long-term and short-term goals [similar to those in India], such as building an integrated monitoring system on a stock basis, and understanding migratory and life history behavior, need to be developed. Capacity building is important as well."

In Bangladesh, the average catch in the past five years has been just over 202,000 tonnes a year in the marine sector and just under 90,000 tonnes in the freshwater sector.

"Again, it is not clear whether the current level of catch is sustainable," Dr Sharma commented, "But Bangladesh scientists believe that the jatka closures are the primary reason for the continuous increases in catch and the continuing persistence of stocks in Bangladeshi waters."

It was concluded that in Bangladesh the status of hilsa is uncertain.

A long-term research plan is being developed by both countries and will be presented to the BOBLME Fisheries Assessment Working Group in October. This may result in a long-term management plan for the region, including Myanmar.

Before their meeting, the PSC members attended the formal opening of the BOBLME RCU offices in Phuket.

Work plan go-ahead

The 2nd Meeting of the BOBLME Project Steering Committee (PSC) took place from March 29 to 31 in Phuket, Thailand.

The meeting was attended by 16 participants from the Project Partner Countries Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka and Thailand, representing the lead government agencies in environment and fisheries. Other participants included representatives from the donor and implementing partner agencies NORAD, SIDA, NOAA, and FAO.

The delegates first attended the official opening of the BOBLME Regional Coordination Unit offices and then gathered at the nearby Radisson Hotel. The meeting was opened by the out-going Chair, Mr. Shamsul Kibria from Bangladesh and then elected Mr. Pongpat (Thailand) for the current session.

Major topics of the first day of deliberations were the presentation and endorsement of the 2010 Annual Work Plan and discussions of matters concerning Project implementation, such as co-financing, raising of awareness levels on BOBLME among policy makers, promotion of the Ecosystem Approach to Fisheries, and the increasing importance of the roles of BOBLME National Coordinators. On Day 2, the PSC examined in detail the activities proposed in the 2011 Work Plan, and the related budget for each of the more than 100 outputs to be achieved.

Many of these relate to National and Regional Workshops of training events, and the reports resulting from these. Key areas of particular importance during this year include the finalization of the national consultations on the Transboundary Diagnostic Analysis (TDA) and its adoption in the 2nd half of 2011.

Preparation for drafting the Strategic Action Programme (SAP) will also begin in 2011, with SAP Teams holding their first working sessions. Other highlights of the 2011 Work Plan, which was adopted by the PSC, include the formulation of ecosystem-based fisheries management advice and the intensification of work on transboundary critical habitats in the Mergui/Myeik Archipelago and Gulf of Mannar.

Monitoring and Evaluation was discussed under a separate agenda item, recognizing its purpose and requirements as a management tool and noting the comprehensive information provided in the various monitoring reports prepared routinely. Preparation for a Project Mid-term Evaluation, to take place in late 2011 or early 2012 and capacity development in M&E are major activities in 2011.

The PSC congratulated and thanked the Chairman and host country Thailand for facilitating the 2nd PSC Meeting and for providing the very suitable facilities for the BOBLME RCU. The PSC agreed to hold the 3rd meeting in March next year, tentatively in Sri Lanka.

BOBLME PROFILE: PRAULAI NOOTMORN

Maximum enjoyment

Praulai Nootmorn says she loves her job, particularly being involved with local fishers.

"Working with fishermen is the most fun. We make proposals, suggest that they follow the measures we recommend. They keep thinking and thinking. We hold negotiations to get across what we would like to see happen, for example conservation areas.

"We share ideas. We learn about the real problems, and what they want from the government and other fishers. Negotiations are a challenge and that's what makes it fun."

Ms Praulai has also been involved in dialogues between commercial fishing operators and artisanal fishers. "We have established meetings between them so that they can share ideas and reduce gaps in understanding between them."

Ms Praulai wears many hats that qualify her for this work. She is Director of the Andaman Sea Fisheries Research and Development Center in Phuket, Thailand, and Acting Director of Thailand's Marine Fisheries Research and Technological Development Institute.

For the past three years she has also been BOBLME's national coordinator for Thailand, and was instrumental in securing

the building that houses the BOBLME RCU.

Educated at Thailand's Kasetsart University, where she gained a degree in Fisheries and a master's in Fisheries Science, she went straight from university into the Thai Department of Fisheries. That was 24 years ago.

These days she is extraordinarily busy. Apart from the "fun" part of negotiations with local fishing communities, she is deeply involved with the work of the Indian Ocean Tuna Commission; a member of Thailand's ad hoc technical expert group on island biodiversity; Project Coordinator of the sampling program on data collection and processing systems for neritic tuna fisheries in Thailand; and Project Coordinator of a Thai-Norwegian cooperation project on the development of marine aquaculture and assessment of fishery resources in the Andaman Sea.

She is also a prolific producer of scientific papers - sometimes on her own and sometimes in collaboration with others. So far, she has 44 papers published, and there is currently another awaiting publication in the Kasetsart University journal, *Natural Science*.

Many of these are about tuna, but others cover topics as diverse as the stomach contents of large pelagic fish to the reproductive biology of purpleback flying squid.

One of the first to join the BOBLME project in 2008, she sees great potential value in the project.

"I want to see BOBLME supporting the situation in the Bay of Bengal," she explains. "I hope it can support human beings in making a decent livelihood."

Maldives ban shark fishing

The government of the Maldives has imposed a national ban on all types of shark fishing. The announcement of the ban drew applause when it was made at a meeting of the Sharks Working Group from July 5 to 7 in Malé, capital of the Maldives.

The first of its kind, the meeting brought together national organisations and concerned NGOs to discuss national plans of action to preserve sharks.

Representatives of six of the eight BOBLME member nations went to the meeting, their attendance underwritten by the BOBLME Project.

Recommendations from the meeting are charting the way towards a regional plan of action for the management and conservation of sharks, and also leading to concrete action at national levels.

The workshop validated existing information on shark fisheries in the BOBLME region, identified issues to address and compiled recommendations for actions at national and regional levels.

This covered topics ranging from capacity development in shark species identification and landing data collection, and also on raising awareness on the importance of conserving shark resources.

Draft proposals for activities also covered research topics

Safe in Maldivian waters. Photo by Tanaka Juuyoh.

on molecular genetics (DNA fingerprinting) in support of species identification.

The meeting also reviewed the status of National Plans of Action on shark management and conservation.

BOBLME support will become available for drafting these and also for supporting their implementation.

Making ideas sing

Scientists learn how to be convincing on paper

Maverick American business-man Lee Iacocca, who headed the Ford Motor Company and later Chrysler, once said, "You can have brilliant ideas, but if you can't get them across, your ideas won't get you anywhere."

For scientists this is particularly true. Scientific papers are the currency of academia. If scientists cannot be understood or if they fail to convince, then their papers may as well not be written.

This point was plainly in the thoughts of 20 scientists and technicians from nine countries who spent four days in Phuket, Thailand, in August, learning the art of writing persuasive papers.

Running the four-day course was Dr Peter Rothlisberg, formerly chief scientist and research fellow in the Division of Marine & Atmospheric Science of Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Now officially retired, he spends much of his time passing on his wisdom, especially his effective communication techniques, to make sure that generations to follow don't see their ideas wither away because the people they want to convince simply don't understand them.

"I'm a scientist who enjoys sharing what I know with others," Dr Rothlisberg told the BOBLME Newsletter.

"No one knows your data better than you do," he explained, "but you must recognise that you have to meet the expectations of the people reading your paper."

Dr Peter Rothlisberg, centre, with the four mentors, from left: Dr E Vivekanandan from India, Dr Sevvandi Jayakody from Sri Lanka, Dr Zelina Ibrahim from Malaysia and Prof TJ Pandian from India.

Below, Dr Rothlisberg chats with two of the participants, Janalezza Esteban (left) and Nisha D'Souza. Both work with Mangroves for the Future.

What makes things more complicated is that the readers one needs to convince may come from different knowledge backgrounds, and may expect different outcomes from one's research.

Here's a quick test from Dr Rothlisberg: Can you explain to your grandmother what you do and why it's important?

Here's another: You get into a lift and find yourself face-to-face with the Minister of Science. Can you convince him of her of the merits of your idea in the two minutes it takes for the lift to reach his office?

Dr Rothlisberg's Phuket course was intensive, but with plenty of help on hand; there were four mentors available for advice at any time, and the students were paired off in a "buddy" system so that they could bounce ideas off one another and get constructive criticism.

"It's all about the content – the organisation," Dr Rothlisberg explained. "It's a matter of putting the data in logical order. That's 50 per cent of the job. The other 50 per cent, once you have your order, is fleshing it out and keeping it focused and interesting.

"Some [of the participants] will have to do more research. But based on the feedback I've had, I wouldn't be surprised if we get 10 papers [out of the course]."

The Phuket session was the first of two, and was aimed at helping participants to get clear, convincing papers written.

The second session, which will be held in the Maldives in October, will be rather more daunting for the quieter participants, but no less essential.

There, they will be taught how to present their carefully crafted papers to an audience. "We'll spend two days building the talk, and then two days presenting before the cameras."

It's a frightening prospect for anyone who has never delivered a speech before. Even Dr Rothlisberg admits, "I still get nervous [before a presentation]." But, he adds, "I'm not afraid any more."

Participants agreed that the course, and Dr Rothlisberg's infectious enthusiasm, were very useful. Nisha D'Souza, a programme assistant in the India Country Office of Mangroves for the Future, said, "It's very good. I'm learning a lot."

■ The workshop was organised and underwritten by BOBLME and Mangroves for the Future.

TDA identifies challenges

The BOBLME transboundary diagnostic analysis, or TDA, has identified the three major factors affecting the health and fisheries of the Bay of Bengal as overexploitation of marine living resources; degradation of mangroves, coral reefs and seagrass; and pollution.

All countries in the BOBLME project have been working hard since January to review the TDA document that now runs to more than 180 pages and confirm these factors and their causes.

Along the way the TDA has been translated into local languages and been subjected to considerable debate by a wide range of stakeholders. The TDA consultations have been well attended and many countries embarked in roadshows that travelled the length of their coastlines.

Project counterparts in all countries have reported that one thing of great value to have come out of the consultations was the insights that were revealed into many of the national issues and concerns that stakeholders have.

Indra Ranasinghe, the Director General of the Ministry of Fisheries and Aquatic Resources in Sri Lanka, was one of the high ranking officials who joined the consultations because it offered a great opportunity for him to gauge personally the concerns and issues that are important to the fishers and fishing communities.

"We held eight consultation meetings around the entire coast of Sri Lanka; aside from the TDA consultations, I was very impressed by what we learned about the national issues that are important to the grass roots of our coastal communities," Mr Ranasinghe said.

"I would like to think that we can repeat similar consultation meetings on a regular basis so that stakeholders can have their say and the government can be better informed, and both government and stakeholders can collaborate better on approaches to solving problems."

The TDA executive summary and related documents can be downloaded from www.boblme.org/key_documents_TDA _SAP.html

BOBLME champion retires

Dr Mohammad Gulam Hussain has retired from his post as Director General of the Bangladesh Fisheries Research Institute (BFRI).

One of the great friends of the BOBLME project, Dr. Hussain graduated from the Bangladesh Agricultural University in Mymensingh in 1975 with a first-class honours degree in fisheries science and followed this up with a master's in aquaculture management in 1976.

In 1992 he received his doctorate in aquaculture from Stirling University in Scotland.

In 1978 he joined what was then the Department of Fisheries as a Scientific Officer. From 1981 to 1986 he worked as a UN Volunteer Fishery Specialist and then as a UN Volunteer Inland Fishery and Aquaculture Specialist with the UNDP, before returning to government service with the Bangladesh Fisheries Research Institute.

There, he climbed steadily through the ranks from Principal Scientific Officer to Chief Scientific Officer to Director (Research and Planning) to Director (Admin. and Finance), reaching the pinnacle as Director General of BFRI two and a half years ago.

For a dedicated researcher there can be nothing more satisfying than seeing one's research making a practical difference in the world, and Dr. Hussain is particularly proud of the guidance his research group has provided in promoting tilapia farming.

Dr Mohammad Gulam Hussain

"More than 150 tilapia hatcheries have been established all over the country. From 1999 to 2010 production increased from 2,140 tons to more than 100,000 tons.

"Another thing in which I take pride was the genetic research that led to the generation of five superior strains of freshwater fish, enhancing commercial aquaculture in Bangladesh."

He has also greatly enjoyed working with the BOBLME project. "Working as an executive of a nodal government institution and as National Coordinator [NC] of the BOBLME project was most enjoyable. I felt very good working with the project and its RCU staff."

He plainly feels that the work of BOBLME is important. "Before the project started, the large marine ecosystem approach in the Bay of Bengal was non-existent. BOBLME started this, harmonising emerging issues such as policies, data collection, stock assessment, best practices, the Transboundary Diagnostic Analysis (TDA) and [moving towards] a Strategic Action Plan (SAP).

"The BOBLME project initiated all these activities, involving all the member countries."

Although retirement means he is no longer NC for Bangladesh, he plans to remain involved with the project. "If the opportunity arises, I will be ready to serve as a consultant to BOBLME in any way I am qualified to do so," he told the *BOBLME Newsletter*.

In search of ICM solutions

Graduate students from the eight BOBLME countries have begun a five-week postgraduate certificate course in integrated coastal management (ICM) at the Asian Institute of Technology (AIT) in Pathum Thani, Thailand.

The course is part of a commitment by BOBLME, the AIT and Mangroves for the Future (MFF) to address the growing need for qualified coastal practitioners.

ICM - which was born out of the 1992 Rio de Janeiro Earth Summit - is a multidisciplinary process aimed at promoting sustainable management of a coastal zones, with the participation and cooperation of all stakeholders.

Over the long-term, the aim is to balance environmental, economic, social, cultural and recreational objectives.

The aim of the ICM course at the AIT is to build a strong cadre of coastal managers and policy makers with the knowledge, tools and skills to design and implement sustainable ICM programmes for countries in the Asia region.

The course has five modules: Marine and coastal ecosystems; Principles of ICM; Tools for ICM; Coastal Project Management; and Coastal Management and Evaluation, with 90 hours of home-based assignment, including field work.

AIT President Said Irandoust speaks to the students. Photo courtesy of MFF

Graduate students gather for a group photo at the start of the BOBLME/MFF-sponsored ICM post-graduate course at the Asian Institute of Technology in Bangkok. - Photo courtesy of MFF

India is already in the process of implementing its first BOBLME-supported ICM pilot project, having chosen Puducherry (Pondichery as was) as the site. See story on following page for details.

It has become increasingly clear that a top-down approach to coastal management, run by government, has failed. The alternatives are co-management by government and stakeholders, or community-based ICM, in which government has a very limited role.

A BOBLME-sponsored sub-regional workshop was held in Colombo, Sri Lanka, in July last year, which was attended by 50 people, mostly from Bangladesh, India, the Maldives and Sri Lanka.

The workshop reviewed a report on lessons learned from earlier ICM implementation and issued a report that recommended much greater involvement of all interested parties, particularly at a very local level. Its specific recommendations were:

- State recognition of traditional and self-formed organisations of fishing communities;
- Willingness of the government to work with fishing communities in a equal partnership and acceptance of the co-management concept;
- Changes in laws that will facilitate transfer of power to community organisations;
- Creation of higher-level platforms of fisher organisations that can address issues across longer stretches of the coast and get into co-management arrangements with the government;
- Better documentation of the role of community organisations, their strengths and weaknesses;
- Providing a new direction and content to existing organisations through suitable capacity building activities;
- Stronger linkages with the scientific world; role for civil society and fishing communities in setting agenda of scientific/academic institutions;
- The need to recognise rights of fishing communities to coastal space for their cooperation in ICM.

Another BOBLME-backed sub-regional workshop in Bogor, Indonesia, in January this year, brought together experts from the other four BOBLME nations - Indonesia, Malaysia, Myanmar and Thailand.

This WS came up with similar views in its report, especially the view that there must be greater involvement of local communities in ICM.

It also stressed the need for:

- Education and raising of awareness.
- Adequate legal and policy frameworks, with capacity for effective law enforcement.
- The creation of truly integrated pilot programmes.
- Ensuring that ICM recognises the necessity of a contribution to economic returns and people's livelihood.

Delegates of all the BOBLME countries are due to meet in December in Bangladesh to chart a way forward and identify and formulate key messages for outreach materials and community information.

Plainly, a great deal remains to be done before effective, widespread ICM is a reality, but with the two workshops, the AIT course and the Puducherry initiative, a start has been made.

Puducherry pilot moving along

The Indian National Coordination Unit of the BOBLME Project has taking its first steps toward community-based integrated coastal management (CB ICM) by securing coordination among different development sectors at local, regional and national level.

These efforts attempt to promote the development and implementation of regional and sub-regional collaboration to tackle common and shared issues affecting the health and status of the Bay of Bengal.

The first steps include identifying and evaluating a diverse body of information and experience associated with promoting community-based fisheries and habitat management; co-management; the creation of alternative livelihoods among fishing communities in the region; and activities designed to reduce the impact on coastal resources.

Following on from the international Workshop on ICM held in Colombo in July last, which was attended by participants from the four South Asia countries, India identified the Union Territory of Puducherry as its pilot site for ICM.

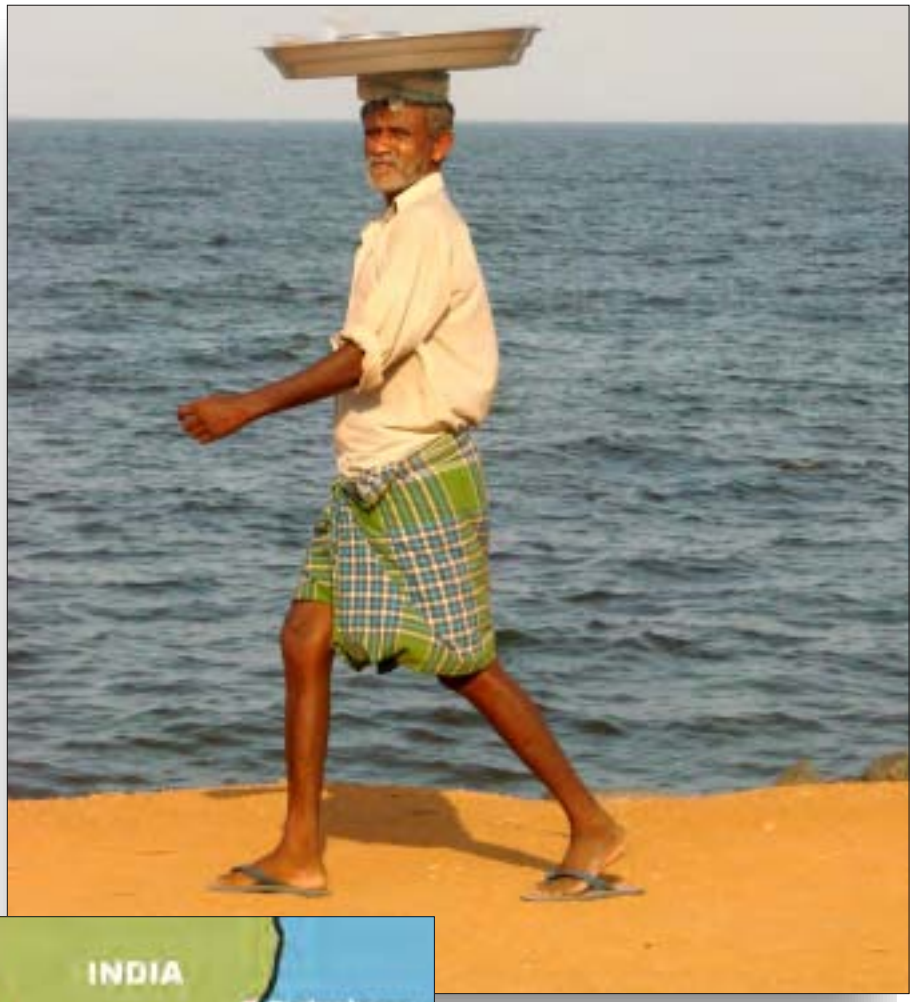
The BOBLME project's national unit has secured the active support and patronage of the Government of Puducherry, of national-level organizations and projects such as the Society of Integrated Coastal Management (SICOM) and the National Institute for Sustainable Coastal Zone Management (NISCZM), along with universities, scientists, experts and members of civil society, to establish an ICM framework in Puducherry.

A small working group (WG) has been formed to kick-start the establishment of a pilot ICM module in the Union Territory.

The first meeting of the WG, held in Puducherry on July 26 this year, explored the possibility of establishing a pilot site and assisting BOBLME in sketching out a plan.

The meeting reviewed the present status of management strategy being followed in the country in general and Puducherry in relation to ICM and integrated coastal area management (ICAM).

Factors that hinder or support the development of CB-ICM, and the changes required for putting an ICM regime in place on a co-management platform, were identified.



Vendor on the beach at Puducherry.

Also discussed was a broad strategy to resolve conflicts and achieve trade-offs, to integrate development activities, to achieve synergy and optimise resources.

Taking part in the discussions were senior government officers including the secretaries and directors of key departments, leading civil society organizations in the Union Territory and representatives from a cross-section of stakeholders. All extended their full support to carrying the process forward.

The follow-up plan includes a stakeholders' meeting, training of personnel and activities to raise awareness.

V. V. Sugunan, National Technical Adviser, India, the BOBLME Project.

'Nature has enough to meet everyone's need; but not enough to meet their greed' – Mahatma Gandhi

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Newsletter compiled and designed by Alasdair Forbes and Forbes Communications - forbescomm.wordpress.com.