BOBP/REP/84

REPORT OF THE EXPERT CONSULTATION ON CLEANER FISHERY HARBOURS AND FISH QUALITY ASSURANCE

25-28 October, 1999
Chennai, India

BOBP For Fisheries Management
BAY OF BENGAL PROGRAMME

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Preface

This document is the report of an expert consultation on Cleaner Fishery Harbours and Fish Quality Assurance held in Chennai, India, from October 25 to 28, 1999. It was attended by some 30 participants, most of whom were representatives from member-countries fishery harbour managers and administrators, professionals in fish quality control, fish export, harbour design and construction Resource persons were drawn from the FAO and the Bay of Bengal Programme (BOBP).

The consultation's development objective was to ensure the quality of seafood through rehabilitation of existing fishery harbours and appropriate designs for new fishing harbours. The immediate objectives were to build awareness among key stakeholders about techniques to develop and maintain cleaner fishery harbours, expose them to state-of-the-art design principles and technologies, and facilitate the sharing ofexperience, expertise and learning among member-countries.

This report contains the text of the "Chennai Declaration" passed by the Consultation, which grew out ofdiscussions among member-delegates. It also contains the text of papers presented by the resource persons.

The consultation was part ofa series ofpilot activities implemented by the BOBP in co-operation with the International Maritime Organization (IMO) in India, Thailand, Maldives and Sri Lanka. Four publications resulted from these activities.

Cleaner Fishery Harbours in the Bay of Bengal	BOBP/WP/82
Dealing with Fishery Harbour Pollution The Phuket Experience	BOBP/WP/93
Guidelines for Cleaner Fishery Harbours	BOBP/MAG/17
Fishery Harbour Manual on the Prevention of Pollution	BOBP/MAG/22

The Bay of Bengal Programme is a multi-agency regional fisheries programme that covers seven countries around the Bay of Bengal Bangladesh, India, Indonesia, Malaysia, Maldives, Sri Lanka, Thailand. The Programme plays a catalytic and consultative role in developing coastal fisheries management in the Bay of Bengal, thereby helping improve the conditions of small-scale fisherfolk in the member-countries.

The BOBP is sponsored by the Governments of Denmark and Japan. The executing agency is the FAQ (Food and Agriculture Organization of the United Nations).

Foreword

The BOBP has published several reports on cleaner fishery harbours based on its pilot activities in India, Thailand, Maldives and Sri Lanka. These focused on awareness-building among stakeholders about overcoming pollution in fishery harbours and landing sites. The pilot activities resulted from the BOBP's co-operation with the International Maritime Organization or IMO.

The four-day Expert Consultation on Cleaner Fishery Harbours and Seafood Quality Assurance, held in Chennai last October, built on the foundation of these activities and carried the work further, It brought together key decision-makers and action-takers on fishing harbours from the BOBP's member-countries **Two** consultants presented five papers - three on fishing harbour infrastructure, two on post-harvest handling and quality assurance.

The papers discussed the design of fishing harbours and their infrastructure, fishery harbour management, seafood quality assurance and the handling and storing of fish. Some key points stressed were that the size ofharbour facilities should match known fish resources; environmental compatibility should be borne in mind when the facilities were upgraded; and clean water supply should be available at any fish-landing facility. The papers were well received and generated keen discussion.

It was suggested that member-countries should put into practice the lessons from the consultation, Each country should select one facility to upgrade to high standards; this could serve as a living laboratory for everyone concerned with harbour design, construction and management.

I would urge all harbour managers and decision-makers to go through the Chennai Declaration passed by the consultation. It stressed the need for awareness-building and for wide stakeholder participation in the siting, planning and management of harbours, for factoring resources availability in the design of harbours, for better market intelligence and resource information on a continuing basis to help harbour managers. It recommended mechanisms to promote inter-departmental co-operation and coordination, rigorous enforcement of rules and regulations, and training for harbour managers in seafood quality assurance. It urged governments to make more funds available to rehabilitate harbours. It recommended rational tariffs for harbour facilities, a balanced approach to the privatisation of harbours and the development of a model fishery harbour. It asked countries to seek the support of the FAO in developing such a model harbour or landing site.

Together, these constitute a valuable package of recommendations. They deserve to be supported and implemented.

Kee-Chai CHONG
Programme Coordinator, BOBP

10 March 2000

CONTENTS

I. Consultation Summary

REGIONAL EXPERT CONSULTATION ON CLEANER FISHERIES HARBOURS URGES ACTION BY GOVERNMENTS

by J A Sciortino

(Reproducedfront Bay of Bengal News, *December 1999)*

An FAO ports consultant summarises the presentations, discussions and recommendations of a four—day regional consultation on cleaner fisheries harbours organised in Chennai by BOBP and FAO.

The BOBP has since 1985 been promoting cleaner fishery harbours in the region with support from the IMO. It has conducted pilot activities in India, Thailand, the Maldives and Sri Lanka, focusing on areness-building amongst stakeholders about overcoming pollution in fishery harbours and landing sites.

T lie key concerns in most fishing harbours and landing sites relate to supply of safe freshwater, sanitation, the collection and disposal of wastes, and the post-harvest handling of fish until it reaches local or export markets. The recent EU ban on fish and shrimp imports from at least three BOBP member countries, attributed specifically to lack of cleanliness and poor environmental conditions, has dealt a serious blow to trade in fish, and could affect the livelihood of millions of fisherfolk.

In the light of the above, the BOBP and the FAO organised a regional expert consultation on cleaner fisher, harhours and seafood quality assurance in Chennai, India, from 25 to 28 October 1999. The meeting brought together fisher) harbour managers and administrators, fish quality assurance professional/administrators and harbour design engineers from the seven member-countries of BOBP (Bangladesh, India, Indonesia, Malaysia, the Maldives, Sri Lanka and fhailand).

Dr Kee-Chai Chong, Programme Coordinator of BOBP, inaugurated the consultation. He stressed that fish and seafood must be handled with great care, as food, not like any other commodity or raw material over which sanitation in handling is overlooked and compromised. Consultants J. Sciortino and S Subasinghe highlighted appropriate technologies and approaches and strove to facilitate exchange of know-how and expertise,

The meeting hinged around five major contributions by the consultants three on fishing harbour infrastructure, two on post-harvest handling and quality assurance. The topics:

Needs assessment in fishing port design;

Infrastructural design specifications;

Fishery harbour management, the port management both', sanitation and waste management;

Seafood quality assurance in small-scale fisheries and the role of cleaner harbours;

Handling and storing fish onboard fishing craft and in fishery har bours,

Status and development of fishery harbours in India

Mr Rathin Roy of BOBP gave a good presentation on communication skills and the need for a more decisive stakeholder approach to sonic of the pioblems afflicting the industry.

The first two days of the meeting were devoted to technical presentations and discussions. The third day saw a practical exercise in rehabilitation of an existing facility, consisting of a visit to Chennai fishing harbour, followed by a"design clinic". The fourth day was used to draw up a set of conclusions to be condensed into the Chennai Declaration (see page 83), which the delegations hoped to present to policy-makers back home. A set of recommendations was also adopted.

Technical Contributions

The technical papers presented at the meeting drew wide acceptance. The contribution on Needs Assessment typically raised the need to take the Code of Conduct for Responsible Fisheries and the technical annexes more seriously. In particular:

- The need to match the size of harbour facilities to the known resources:
- The importance of ensuring environmental compatibility when fisheries facilities are being planned or upgraded:
- The importance of supply of clean water at any fish landing facility
- That sanitation without some type of water supply (clean fresh or sea water) is not possible.

The paper on Infrastructural Design Specifications highlighted the typical problems facing cash-strapped administrations who have to pay for much-needed maintenance. Those present agreed that unless life-cycle costing of infrastructure is taken into account at the construction and tendering stage, least-cost methods of procurement have the capacity to bring a fishing harbour to its knees. The typical items of infrastructure, which everybody agreed needed better specification. are:

- Water supply systems and plumbing in general;
- Auction hall floors and drainage.

The paper on Fishery Harbour Management laid bare current shortcomings in harbour management. Harbour management bodies, where they exist, must be manned by the right people who understand the fishermen's needs. Feedback from stakeholders, enforcement of regulations, waste management. good housekeeping and sanitation all depend on good management practices.

The paper on Fish Quality Assurance highlighted the plight of countries affected by the EU ban and the role that cleaner harbours can play in ensuring that fish landed in these countries does not get contaminated.

Fishing harbours, though not strictly classed as processing facilities, have a lot in common with food processing plants in that they produce food for consumers when fish is auctioned off for the local markets. The HACCP concept used in food processing plants can be emulated at the harbour facility to provide a management tool with which to combat contamination.

The paper on Post-Harvest Handling presented the delegates with an excellent little video clip produced in the South Pacific region, dealing particularly with the low-volume, high-value end of the artisanal sector.

The Indian paper on the current status of fishing ports in India presented an overview of the Indian fishing effort. However, as some delegates pointed out, there does not seem to be a connection between the proven resources and the entry of new vessels into the fishing effort (the construction of the new

finger piers at Chennai appears to have strengthened the local fleet considerably, concentrating too much fishing effort in one area). This matter was discussed in great detail during the follow-up sessions on the third day.

BOBP and the Future

With the approach of the new millennium, BOBP enters a new and challenging era, partly because existing funding arrangements have ended, partly because of the growing need for more work in this field as soon as fish-importing countries start implementing the risk assessment approach to fisheries.

During the course of these discussions, the author said that the vast amount of information and goodwill BOBP has created cannot be let to gather dust on a shelf when so much still needs to be done, and when local consumer demand for good-quality fish is rising *fast*. The proposed Global Environment Facility (GEF) project that will succeed BOBP, and the prospect of turning BOBP into an Inter-Government Organization (IGO), was also discussed.

In conclusion, the author, together with the coordinating team, suggested that the Member-Countries themselves show the way forward by putting into practice the lessons learned at this meeting.

It was proposed that each country choose one facility to upgrade to the required standards and then use it as a living laboratory for Department of Fisheries staff, management bodies, consultants and designers.

The Consultation passed the Chennai Declaration (see page 83).

Consultation participants on a field trip to the Chennai fishing harbour.

2. CONSULTATION PROSPECTUS

Background and Justification

The **European Union (EU)** has **recently imposed restrictions and bans on import of fish and shrimp from at least three BOBP Member-Countries. IJACCP regulations imposed by the authorities in the** USA **and** the **ISO 9000 regulations imposed by the European Union to assure** the **quality of seafood imports are either in force or are expected to be in force by the end of the year.** T he recent FU ban on fish and shrimp imports from some BOBP Member-Countries, specifically citing the lack of cleanliness **and** poor environmental conditions in fishery harbours, is a serious blow to trade, and could affect earnings valued at several million dollars.

Seafood exports constitute a significant proportion offoreign exchange earnings. Seafood in warm and humid climates is very sensitive to the way it is handled and is prone to pathogen contamination and deterioration from poor water quality. . lack of cold chain and storage facilities, lack ofpersonal hygiene on the part of handlers, and unsanitar work areas.

F ishery harhours and landing sites in sonic BOBP Member—Countries have been found to be unhygienic and wanting in many aspects of design and prov ision otfacilities. Many harhours need to be rehabilitated and new harbour designs need to he reviewed to meet the requirements of quality systems such as the HACCP and ISO 9000 1 he growing concern globall\ of seafood-related health hazards has resulted in stringent quality standards for water used in the processing of fish: hygiene in work areas, cooling and storing systems. fishing vessels and harbours: and of the fish and fish products. Inability to meet these standards would mean loss of trade and earnings, and direct negative impact on several thousands of fishers and fish workers.

1 he Bay of Bengal Programme of FAO (BOBP) with support from the International Maritime Organization (I MO) has been involved in promoting cleaner fishery harbours in the region, and has implemented pilot activ ities in India, Thailand. the Maldives and Sri Lanka. The focus of the activities w as on ass areness building amongst the stakeholders of fishery harbours **on the need for, the benefits of** and **methods of avoiding and overcoming pollution.** An important output of the effort isa manual of **guidelines for fisher) harbour managers and administrators to help them cope with pollution and thus increase the quality of fish.**

The key concerns in fishery harbours seem to be ensuring safe and clean fresh water, collecting and safely disposing of solid and liquid waste, particularly bilge waste, rapid handling and transfer of fish from boats to harbours and on to markets, and adequate sanitation facilities. An important learning from BOBP's efforts has been that **cleaner fishery harbours are difficult to achieve without the participation and active involvement of all** stakeholders.

Fishery harbours, particularly in warm and **humid climates, need special design approaches and construction materials, to cope with fish wastes and to facilitate cleaning and maintenance of hygienic conditions. Engineers who** may not have the necessary knowledge and experience to take such factors into consideration often design **fishery harbours, The FAO has considerable experience in** the design of fishery harbours and in retrofitting fishery harbours to rehabilitate them to meet present standards.

The Member-Countries of BOBP have expressed keen interest in approaches and efforts to rehabilitate existing fishier) harhours aiid design new ones, with a view to ensuring cleaner fishery harbours and assuring the quality of seafood. The Member-Countries are particularly interested in building awareness amongst key stakeholders about the need for cleaner fishery harbours. about their benefits. and about state-of-the-art approaches to rehabilitate existing fishery harbours and design new ideas keeping in mind appropriate aiid low-cost technology options The Member-Countries have strongly endorsed the need for a techiiical consultation svhicli will build ass areness. expose the participants to state-of-the-art appropriate technologies and approaches aiid facilitate exchange of know-how and expertise.

Objectives

The overall development objective of the regional consultation is to assure the quality of seafood thiough rehabilitation of existing fishery harbours and appropriate design of ness' fishing harbours.

The immediateobjectiv es of the regional consultation are to

1. Build awareness amongst key stakeholders about the riced for and the benefits from developing and maintaining cleaner fishery harbours; arid about approaches arid techniques to bring about cleaner fishery harbours.
2. Build awareness amongst key stakeholders about participative approaches to cleaner fishery liar hours arid their management.
3. Fxpose key stakeholders to state-of-the-art design principles and technologies to enable arid facilitate loss-cost and participative rehabilitation ofexisting fishery harbours and development of ness fishery harbours.
4. F acilitate sharing of experience. expertise and learning amongst Member-Countries in their efforts towards cleaner fisher) harbours and assuring quality seafood.

Venue

The regional consultation w ill he held in Chennai. India.

Duration and Dates

The Consultation will he a four-day meeting. including a field visit to a fishery harbour. The dates of the Consultation are 25-28 October 1999.

Participants

Each Member-Country ssrll he represented by a team of two participants drawn from fishery harbour managers /adm inistrators fish quality control professionals fish export professionals 'administrators arid harbour design construction engineers Resource persons ss ith expertise arid experience in state-of the-art, loss-cost approaches and technologies to rehabilitate existing fishery harhours and design new fishery harhours in hot. humid tropical conditions will be invited to make presentations and lead discussions ss ith keynote papers. (The number of participants w ill be kept below 30 to enable good discussion.)

Organisation

BOBP-FAO and the Ministry **of Agriculture,** Government of India, in a cost-sharing mode, will jointly organise the regional consultation.

Programme Highlights

The following issues will be addressed through presentations by experts. conitact sessions with experts. field visits, small-group discussions and a "design clinic" which will take a case study of the Chennai Fishing Harbour and come up with concrete recommendations for its rehabilitation:

- Seafood quality assurance and the critical role of cleaner fishery harbours and landing sites.
- Strategies and approaches to cleaner fishery harbours arid seafood quality assurance in situations where unorganized poor, small-scale and artisanal fisheries dominate the industry.
- Participative. self-financing, stakeholder approaches to developing arid managing cleaner fishery harbours.
- Awareness-building as a tool for participative, stakeholder managenient of cleaner fishery harbours.
- Appropriate, low-cost, safe collection and disposal of liquid and solid waste in fishery harbours including appropriate sanitation measures for people working in harbours.
- Appropriate, efficient and low-cost methods and technologies for on-board fish quality assurance in small to medium fishing crafts.

  Appropriate, efficient, rapid and low-cost fish handling storage and transportation systems for fishery harbours.
- Appropriate, low-cost approaches and technologies for provision of clean freshwater for fishery harbours.
- Strategies and design principles for rehabilitation of existing and development of new fishery harbours for seafood quality assurance.

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3. CONSULTATION PROGRAMME

Monday, 25 **October 1999**

Registration of Participants		0900 hrs
Welcome Address	**Dr Kee-Chai Chong. BOBP**	0930 hrs
Chairperson's Address	Dr Y S Yadava, GOl	0945 hrs
Inaugural Address	**Dr.** Kee Chal Chong, BOBP	1000 hrs

Session I

Presentation :Mr. Joseph Alan Sciortino Consultant — 1030 hrs
Needs Assessment in Fishing Ports Design

Discussion in Small Groups — 1130 hrs

Presentations of Group Discussion — 1330 hrs

Session II

Presentation Mr. S. Subasinghe, INFOFISH — 1430 hrs
Fish Quallity Assurance in Small—Scale Fisherk's & the Role of Cleaner Fishery Harhours.
Discussion

Session **III**

Presentation : Mr. Joseph Alan Sciortino Consultant — 1600 hrs
Infrastructural Design Specifications: Design Principles for the Development and Upgrading ofFisheries Ports.
Discussion

End of Session — 1715 hrs

Tuesday, 26 October 1999

Session IV

Presentation : Mr. S. Subasinghe, INFOFISH — 0900 hrs
Fishery Harbour Management l: Handling and Storing Fish on-Board Fishing Crafts and in Fishery Ports: Approaches and Methodsfor Fish Quality Assurance
Discussion

Session V

Presentation Mr. Joseph Alan Sciortino, Consultant — 1100 hrs
Fishery Harbour Management 11: The Port Management Body & Waste Collection and Disposal
Discussion

Session VI

Presentation : Mr. Rathin Roy, BOBP — 1330 his
Fishery Harbour Management ill: Awareness-Building as a Toolfor Participative Management – Learning from the BOBP Experience
Discussion

Session VII

Panel Discussion : — **1530 hrs**
Fishery Harbour Management IV: Participatory, Self-financing Stakeholder Approaches
Moderator: Mr. Rathin Roy, BOBP

End of Session — 1730 hrs

Wednesday 27, **October 1999**

Session VIII

Field Visit to Chennai Fishery Flaibour	0800 hrs

Session IX 1330 hrs

Design Clinic
Approaches to Cleaner Fishery Harbours
Case Study of S hennai Fishery Harbour
Discussions in Small Groups
Facilitators : Mr. Joseph Alan Sciortino
Mr. S. Subasinghe & Mr. Rathin Roy

Session X	1530 hrs
Presentation of Recommendations by Groups	1630 hrs
End of Session	1730 hrs

** **Exhibition of Appropriate Technologies for Cleaner Fishery Harbours will run parallel to the discussions relating to the Design Clinic.**

Thursday, 28 October 1999

Session XI

Discussion on future directions leading up to *The Chennai De claration* Moderator : Dr. Kee-Chai Chong, BOBP	0930 hrs
Concluding Remarks Dr. Y.S. Yadava. GUI Vote of Thanks Mr. SR. Madhu, BOBP Official End of Consultation	1230 hrs

4. LIST OF PARTICIPANTS

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