# Essential training for a better fisheries integrated management

**Izadian B.**

*in*

**Hamdy A. (ed.), Monti R. (ed.).**
**Food security under water scarcity in the Middle East: Problems and solutions**

**Bari : CIHEAM**
**Options Méditerranéennes : Série A. Séminaires Méditerranéens; n. 65**

**2005**
pages 419-424

# ESSENTIAL TRAINING FOR A BETTER FISHERIES INTEGRATED MANAGEMENT

**B. Izadian***
* Harbours Department - Fisheries of Iran, Tehran, Iran. E-mail: bizadian@yahoo.co.uk

**SUMMARY –** Operational planning and management system in a fishing harbour describes how different components of facilities, people, … and administrative structure work together to meet customer expectations. However, it is essential to invest on human capital for implementation of this practical system as many regional nations are experiencing problems with recruitment and retention of managers not received appropriate training in fisheries harbour management. Redesigning curricula and training programs may only be part of the solution to build human capital. Attracting people with intellect and abilities requires a work environment that provides appropriate freedoms, responsibilities, and rewards. This paper tries to identify essential training and the gaps between those supplying them and regions in demand.

**Keywords:** fisheries harbour management, training, complex problems, skills

## 1. INTRODUCTION

There are currently more than 25 fishing harbours operating at Iranian coastlines of Persian Gulf. With due attention to the role of these fishing harbours in sea-food supply to regional consumption and income sources for small fishermen who provide remarkable amount of catch; essential training are needed for those groups involved in the management of fishing harbours improving working conditions for the fishermen and satisfying objectives of sustainable development and responsible fisheries.

The low level of investment in human capital is illustrated herein by the observation that the majority of fishery managers regionally have received no formal training in fisheries management. Recognizing this limitation, many government agencies have continued to promote people with biological backgrounds to key management positions, and the industry typically recruits top managers from business programs. This method of creating managers is not appropriate to meet challenges in fisheries sector. Furthermore, few continuing education or academic programs exist that are designed to provide professional development training in fishery harbour management and decision-making processes for the working staff in a fishery harbour. The need to examine training capacity is particularly apparent as managers in developing nations are now suffering from regulatory overload duties and require relevant education to facilitate effective implementation of existing agreements, including those suitable to rationally develop and manage smaller scale fisheries.

Fishery managers face major difficulties in addressing the following categories of challenges or issues: sustainable fisheries; cooperative and shareholder-based management; ecosystem management; management under risk and uncertainty; property rights and allocation; infrastructure management; and litigation.

Like management in any complex system, the fisheries harbour management process requires team-based analysis and implementation. Thus, fisheries harbour management involves individuals with strengths in different disciplines and skills that must be mixed together to address complex problems.

Fisheries harbour managers need to be familiar with other areas of expertise; however, the level of familiarity will vary depending on their role in the process. Effective team-based analysis requires managers to take a comprehensive perspective, understand the management process, identify problems and challenges, and lead the group to solve problems at different scales.

Given an inclusive definition of a fisheries harbour managers, this paper highlights on creating a comprehensive generic list of key skills, knowledge, and learning opportunities that educators should consider when designing curricula for this positions especially in Middle East countries.

## 2. HARBOUR MANAGEMENT BODY

Fishery harbour managers must be effective leaders possessing significant moral character and intellectual ability. They must lead a policy process and lead teams of competent professionals capable of addressing management challenges. They should be passionate about improving management of fishery resources and increasing public and private benefits. They must have the necessary technical management skills, but must not lose touch with the physical and human components of fishery management namely: fish, water, fishers, and seafood processors.

The amount of responsibility and authority that the government and local resource users have differ and depend upon country and site-specific conditions. Harbour management should not be viewed as a single strategy to solve all problems of fisheries management. Instead, it should be seen as a set of alternative management strategies, appropriate for certain areas and situations.

However, a harbour management system may involve several discrete components both formal, that legitimately recognized and informal. These components may perform different management and service functions at different levels. In any case, after completion of a fishery harbour, a management system should establish to maintain and operate it properly over the period of its useful life. This management system should be assured of:

- Compliance with the laws, regulations and other legal rules governing the use of the facility (maintenance and operation, landing fees, bulk handling charges, etc).
- Compliance with environmental conservation and monitoring measures adopted by the planning authorities (waste recycling, spent-oil recovery, wet waste disposal, etc.).
- Sustainable fisheries according to regional, national and international laws.
- Adequate fund to function as intended.
- Transparency and assertiveness in decision-making and administration process.

Therefore, the management system will lead a group of professionals competent to achieve these practical objectives. They are capable of enhancing fisheries management and satisfying public/private rational demands.

Different situations and attributes of fishing harbours need a sharing of responsibility between government and local resource users to manage the fishery harbour. For this reason, management system covers a number of arrangements ranging from government (Fisheries Administration) to user groups and private sector. It should be flexible enough to adopt alternative management strategies, appropriate for certain areas and situations.

There can be a variety of organisational forms for managing and governing the harbour which may range from local fisheries department, to cooperatives, non-governmental organisations (NGOs) etc. However, it is important to specify conditions and propositions for a successful management system and to understand most appropriate for maintaining it.

## 3. A SUCCESSFUL MANAGEMENT SYSTEM

Herein, some questions arisen and need to be answered:

- Why are some management systems successful, while others fail?
- Why some management systems endure for long periods of time?
- How can we improve the success rate of a management system?

The success of a management system may be related to specific contextual variables and attributes. This paper identifies *training* which leads to successful management from those with less influence at least in Gulf region. By identifying this attribute and then examining its relation with patterns of interactions and outcomes, it is possible to specify successful development and maintenance of a fisheries harbour management.

In its simplest form a typical port management body compose of five people:

- Harbour Master,
- Administrative Officer,
- Maintenance Officer,
- Fishery Statistic Officer, and
- Hygiene Controller.

For large fishing ports even the five persons mentioned above would not suffice and additional personnel would be taken on to monitor port security, fishing practices, auctioning and cleaning operations. School teachers are often employed as part-time officers (Sciortino 1999).

Ideally, harbour masters should be recruited from ex-captains of vessels, who are usually fully conversant with maritime regulations and navigational and operational needs of fishing vessels (Sciortino 1999). He should be knowledgeable in:

- National licensing arrangements.
- Maintenance of infrastructure components.
- Fishery statistics.
- Public hygiene and pollution prevention.

Generally speaking, the smaller the harbour, the more knowledgeable the harbour master has to be.

An administrative officer has the tasks of:

- Keeping a record of all licensed craft.
- Accounting for the cash receipts for harbour due and fish handling charges.
- Sale of potable water and fuel to vessels inside the port facility.
- Administrating the fines imposed by the harbour master.

Typical duties of a maintenance officer include:

- Keeping a hydro-graphic chart of the immediate seabed.
- Regular maintenance of the harbour beacons.

The fisheries statistics officer is usually a government employee (Fisheries Department) seconded to the port management body (Sciortino 1999). His duty is to compile statistics on the resources being harvested.

The hygiene officer may be somebody from Government (Health Ministry) seconded to the port management body (Sciortino 1999). The hygiene officer has to ensure that:

- Only potable standard water is used to wash fish.
- Contaminations (diesel, oil, petrol, etc) do not come into contact with the fish.

## 4. NECESSARY AREAS OF EXPERTISE

Therefore, knowledge and skill areas identified for fishery harbour managers may be summarised in:

- Scientific (fisheries, ecosystem, environmental);
- Social;
- Business (marketing, industry, …);
- Technical (infrastructures, monitoring, maintenance reporting);
- Financial (harbour dues, landing fees, …);
- Policy & Law (regional marine law and policy, institutional analysis, rule making);
- Management (critical thinking, systems analysis, problem solving, communications);
- Administrative (personnel, budgets, …).

By a genuine assumption that fisheries harbour management is a procedure and not a solid organization, it will be apparent that the management of a fishing harbour requires team-based analysis and implementation. Besides, it involves individuals with strengths in different disciplines and

skill to be mixed together to solve complex problems and all necessary skills and knowledge cannot exist in one manager. Therefore, we need some special and tailor-made training for them.

## 5. TRAINING CURRENTLY IN PRACTIC

There are many peoples involved in management of fishing harbours; knowledge and skills differ from one harbour to another and consequently training demands different approaches. Much of fisheries harbour management training in developed countries has taken place at academic institutions; however; it is not the same in developing countries.

The review of current programs indicated four categories of continuing education programs, categorised in:

- Academic (e.g. graduate certificate, diploma or masters degree);
- Government (e.g. national agencies based training centres or in house training);
- Industry (e.g. associations or trade groups for industry members);
- Non-profit organisations or foundations (e.g. professional societies, research institutes).

## 6.CONCLUSIONS & RECOMMENDATIONS

There is a need to define essential training and delivery method for harbour managers at all levels. Essential training needs communication, cooperation and coordination among all groups involved in fisheries harbour management. Developing a wide range of strategies for improving the training of fishery harbour managers in the Gulf region requires a clear and distinct response to following questions:

- Which strategies will receive general acceptance by regional governments?
- What are the barriers to making them work & what steps can we take to overcome them?
- What actions could undertake to achieve these strategies?

### 6.1. Probable strategies

Addressing first question is the core of this paper which is “Fisheries Harbour Management is an especial expertise that stands-alone and needs to be regarded independently”. To this end, creating “an established association” to promote training human resources for fishing harbour management in developing countries is suggested. Following strategies prospectively will receive acceptance by regional governments, if this association devotes to a sincere follow-up:

- Develop training opportunities (e.g. through fellowships, academic programs, …).
- Build training capacity using existing potential (e.g. using in-house expertise and participation of industry and government as instructors in academia).
- Reward well performing staff (with performance based increases in wages and salaries).
- Allocating some industry fund for training.
- Encourage professional development (training new areas advancing existing knowledge, seconding staff into different agencies).
- Develop policy simulation and management experiments using laboratories and internet to link management and academic organisations internationally.
- Broaden and lengthen the fishery management career path:
  - select from a broader range of disciplines.
  - recommending to governments to provide long-run management career paths including supportive working environments & educational opportunities.

- Conduct a gap analysis of curriculum needs existing and potential programs for educating all “classes” of fishery harbour managers in the Gulf.
- Needs assessment should include an evaluation of current employee recruitment patterns to provide a better picture of how manager positions are filled.
- Complete the development of a regional fishery management education & training website.
- Comprehensive database with links to all educational programs including industry and stakeholder training.

- Design industry scholarships for fishery managers.
- Organize a network of training providers and users.
- Develop a library of successful fishery harbour management case studies:
  - perform a survey to determine existing cases already used in courses.
  - perform a literature search for existing published case studies.
  - establish a process, standards, and templates for case studies.
  - include a learning and evaluation component.
  - FAO could act as possible coordinator to conduct preparation & developing cases.

### 6.2. Barriers and how to overcome them

A number of practical barriers that would hinder development and implementation of strategies may be: institutional inertia within (e.g. work overload), lack of understanding of importance by stakeholders, financial support, leadership, lack of time, practicality, accessibility, difficulty in determining appropriate service providers for training, cultural issues & diversity, institutional framework and terms of reference.

It is possible to overcome these barriers. However, it would require a committed effort by regional and international organisations to address these challenges. The actions summarised below are considered first steps in achieving success and overcoming barriers.

### 6.3. Actions to be undertaken

- Establish an international steering committee to develop and carry on the initiative.
- Develop case study concept.
- Complete the website to coordinate activities and act as clearinghouse for programs.
- Consult with executives from FAO to determine interest in supporting efforts.
- Pursue funding possibilities and ideas within individual countries.
- Pursue funding ideas through international fund providers: e.g. Asian Development Bank.
- Pursue partnerships of FAO, World Bank.

## 7. SUMMARY

Creating managers who are leaders, innovators, and creative decision makers is recognized as a critical step toward achieving effective fisheries harbour management. For the time being specialised short courses or workshops might be best to prepare managing staff including reality-based classroom experience and field practice. Classroom based training should include case studies, applied research projects, applied management courses and multidisciplinary studies of the connection between fisheries and other related issues. Field practice should include professional planning, operation, maintaining, interaction with fishing communities and involvement in fisheries management decision-making processes.

However, success will require a committed effort by regional countries and international organisations to address these challenges.

**Acknowledgment:** for this paper to come to reality, I should thank local fishery authorities in north coastlines of Persian Gulf, for their cooperation on conducting my workshops related to harbour maintenance management and all people who attended them. Special thanks also to Harbour Department of Fisheries of Iran (Shilat) and Mr. Sciortino on his sincere endeavours to convey practical knowledge of harbour management to fisheries sectors in developing countries.

## REFERENCES

Adelman, I.R., B.L. Griswold, J.L. Herring, B.W. Menzel, L.A. Nielsen, R.L. Noble, H.L. Schramm Jr., and J.D. Winter. 1990, “Criteria for Evaluating University Fisheries Programs”, A Report of Oregon State University Program Standards Committee. 15(2), 13-16

Lamond, David A. 1995, “Using Consulting Projects in Management Education”, Journal of Management Development 14 (8/9), 60-73

Mckendal, Marie 2000, “Teaching groups to become Teams”, Journal of Education for Business, 75(5), 277-282

Report of UNESCO/FAO workshop on university curricula in fishery science, Paris, May 1980 “Fishery Science Teaching at the University Level”

Sciortino Joseph A. 1999, “Fishery Harbour Management II” 55-62 BOBP/REP/84 Report of the Expert Consultation on Cleaner Fishery Harbours and Fish Quality Assurance, Chennai, India.

Sciortino Joseph A.2001, “Fishing Harbours Planning Construction and Rehabilitation”, Published by FAO as a distant learning course