

H10
9450.1
J65
1998
v.1

100 000 4656

JD1592

Policy Research in Fisheries: The Hirtshals Consultation

Mahfuzuddin Ahmed and Rowena Andrea V. Santos
International Center for Living Aquatic Resources Management (ICLARM)
MCPO Box 2631, 0718 Makati City, Philippines

1. BACKGROUND AND PERSPECTIVES

The world fisheries have undergone rapid changes during the last several decades. New technologies, creation of Exclusive Economic Zones (EEZs), the 1982 UN Convention on the Law of the Sea (UNCLOS) and other developments have brought about drastic changes in the management of fisheries and resulted in enhanced access and significant expansion of effort and production. Fisheries production grew to a record level of 112 million t in 1995 from only 20 million t in the early 1950s. On the other hand, a large portion of the production increases in the last one and a half decades came from aquaculture and culture-based fisheries and increased use of land-based inputs (Fig. 1). The average growth rate of production from aquaculture during 1985-1994 has been about 10% (Fig 2). For a number of countries, cultured fish and aquatic products represent a significant proportion of total national fisheries production (Fig. 3). Also, a larger share of the total world production in developing countries (Fig. 4).

Against the backdrop of a rapid growth and expansion of the fisheries sector, flaws in policy and the institutional environment with respect to property rights and resource access have resulted in unsustainable resource use practices and produced significant inequality in the distribution of benefits amongst various groups in the developing countries.

The overexploitation of resources is self evident not only in fisheries but also in land, surface and groundwater resources, which in turn have affected the sustainability of fisheries. This has been manifested in the severe conflicts among various users and stakeholders in the use of these resources. The negative impacts of ecosystems and habitat have become a potential threat to fisheries in many parts of the world, with implications for the future growth and sustainability of fisheries production.

Globalization and expansion of markets have also brought new perspectives to the fisheries sector. The growing international trade in fisheries commodities has linked distant production centers with diverse markets, and has affected supply and led to more diversified use of fish. Global sourcing by large commercial companies has implications for the price and supply of fish for the poor.

2. NEW REALITIES

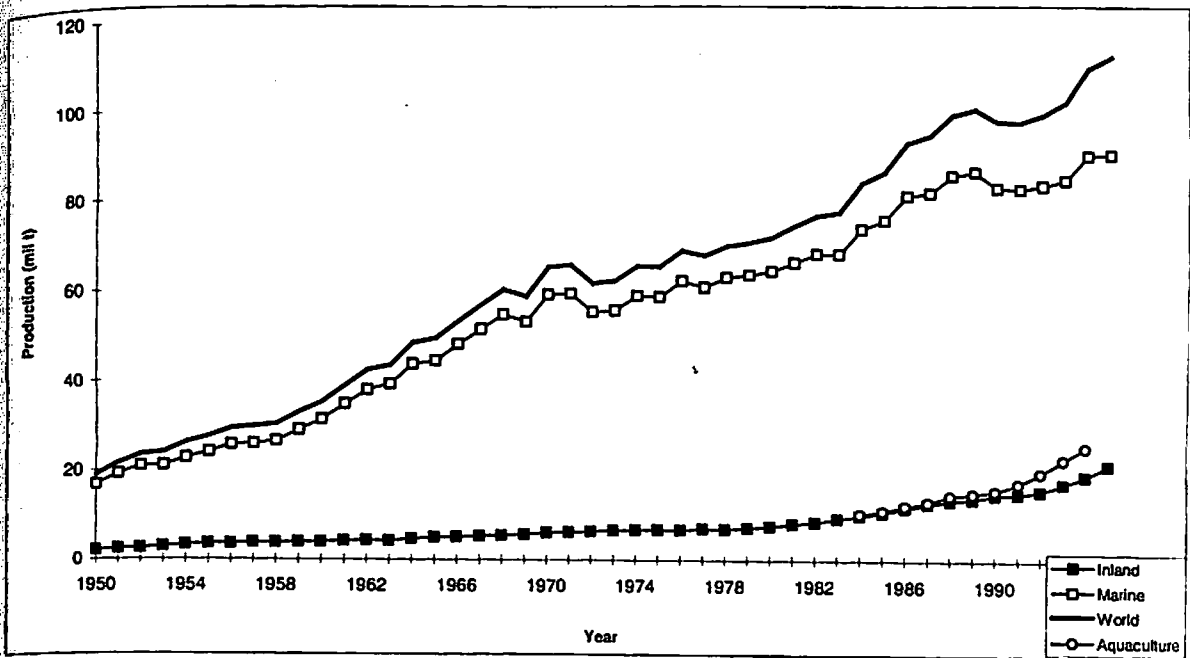
Fisheries issues are no longer a purely sectoral management concern or solely a consideration of the welfare of coastal people. Fisheries are affected by factors within the fisheries sector, such as overfishing and other opportunistic behaviour by fishers, and outside the sector, such as pollution, destruction of habitats and other environmental stress in spawning and feeding areas, as well as market and consumer behaviour.

Fish trade is no longer related to domestic supply of resources. Evidences suggest that trade is shifting fish resources away from the poor, and people highly dependent on fish in their diets are exposed to insecurity with regard to fish food supplies (Kent 1997). A significant drop in the contribution of fish in the total animal protein intake, including a decline in the amount of total intake has been noted in recent years in some of the low income food deficit countries e.g., Bangladesh. Many traditional fish eating people find it difficult to compete for fish with the user and consumers of products made out of fish (Ahmed 1997; Kent 1997). Similarly, lucrative markets for high value species have encouraged many distant-water fishing operations to move away from traditional fishing grounds, resulting in reduced landings of lower value fish in developing countries, especially in West Africa (FAO 1997; Ahmed 1997; Kent 1997).

Likewise, undue emphasis on foreign exchange earnings in developing countries has led to over-investment and misallocation of resources through subsidies. This has often caused environmental damages and inequity in the distribution of benefits as the poor seldom benefit from foreign exchange earnings.

The consequences and net effects of changes in the fisheries sector on the poor have not been adequately studied. These changes could threaten progress toward sustainable food security, especially for the poorer segments of population. However, if appropriate policies are adopted and actions taken it can lead to improved use of resources (Williams 1996; Ahmed 1997). As the world moves into the twenty-first century, the role of fisheries is being redefined and policies for its development and management will

¹ Much of the discussion in this paper is based on Ahmed, M., C. Delgado and S. Sverdrup-Jense 1997. A brief for fisheries policy research in developing countries. ICLARM 16 p. ICLARM Cont. No. 1464.



Note: Production for aquaculture includes aquatic plants. The following organisms included in the FSTAT 1996 were excluded from the production data presented in this figure: corals, pearls, mother-of-pearl, sponges, bluewhales, finwhales, spermwhales, pilotwhales, crocodiles, alligators, eared seals and haired seals.
Source: FSTAT 1996

Figure 1. Fish production from inland and marine waters and aquaculture, 1950 - 1995.

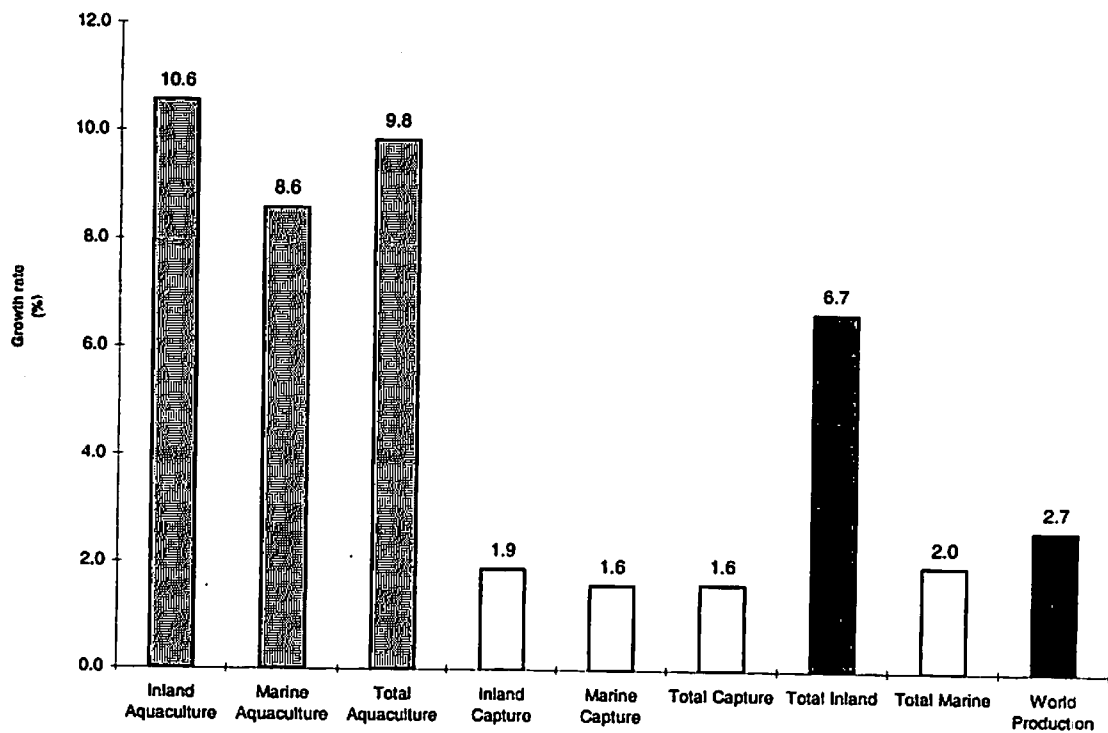


Figure 2. Average annual fishery production growth rates, 1985 - 1994.

growth; (2) alleviate poverty; (3) improve food security; and (4) protect the environment in developing countries?

The workshop was designed to solicit inputs from researchers, policymakers and policy analyst in developing countries, selected research partners, resource persons from developed and developing countries, donor representatives and international agencies, to identify priority areas for policy research.

The specific objectives were: (1) to identify priority areas where policy research can determine options for fisheries policies; and (2) to assess the need for capacity building for fisheries policy analysis in developing countries.

The Consultation resulted in a set of recommendations that include (1) policy research priorities and an agenda for international and national research initiatives; and (2) guidelines for improving the capacity of developing country institutions in fisheries policy research, including enlargement of the scope for collaborative research.

Other outcomes include: enhanced awareness among funding agencies of the research needs and capacities of the developing country institutions; improved cooperation and interchange between developed and developing country institutions, including international and regional agencies and research bodies; and recommendations on possible future regional or subregional consultations.

4. PRIORITY POLICY RESEARCH ISSUES

At the Hirtshals Consultation the discussion on the policy research priorities in developing countries centered around three major issues: (i) protecting the environment and sustaining resources; (ii) achieving growth and equity; and (iii) strengthening food security (Ahmed et al. 1997).

4.1 Protecting the environment and sustaining resources

Important research issues in this area are: (i) how to account for trade-offs while maintaining environmental and ecological integrity; and (ii) how to manage the biological basis of fishes and aquaculture.

4.2 Achieving growth and equity

Achieving growth will require research that will enable policy prescriptions to maintain a high level of exploitable fish stock as well as promote least-cost options for fish production and product development. In the context of a free trade regime and diversified

markets, an important research area would be to develop policies that will allow for a broader participation in the rapid growth of income from high production.

Resource access and competition for limited land, water and marine space are major issues for both growth and equity. In the context of privatization the economic, social and environmental costs of many of the existing policies need to be evaluated.

4.3 Strengthening food security

This will require a competitive and fair access to resources and means of production, and better terms of trade for the poorer and more vulnerable group of people, particularly those dependent on fish for their daily nutritional supply and subsistence. At the same time, the poor must be able to maintain a productive resource base. Policies are needed for the poor to avail of and afford sustainable technologies. Enhancing the livelihood base of small-scale producers is an important means of improving their food security.

5. RECOMMENDED TOPICS FOR FISHERIES POLICY RESEARCH IN DEVELOPING COUNTRIES

Ten interrelated research topics were identified during the Hirtshals Consultation (Ahmed et al. 1997). The following six topics are prioritized for immediate implementation.

5.1 How fisheries affect and depend on the environment and its ecological integrity.

To take into account nonmarket factors and promote appropriate incentives to avoid distortions in and degradation of the resource-base, research should focus on the economic valuation of fisheries resources and their supporting environment within an integrated framework of resource management. Conceptual and methodological work on improved natural resource valuation and natural resource accounting will be required.

5.2 How to ensure sustainable governance of fisheries.

To deal with access rights and user conflicts in multiple use situations in developing country fisheries, research should focus on participation, liabilities, accountability, and decentralization of political and financial power. Systematic documentation and comparative assessment of models and processes of property-based, rights-based and community-based fisheries access are needed, in addition to the development of a methodological and analytical framework. The legal

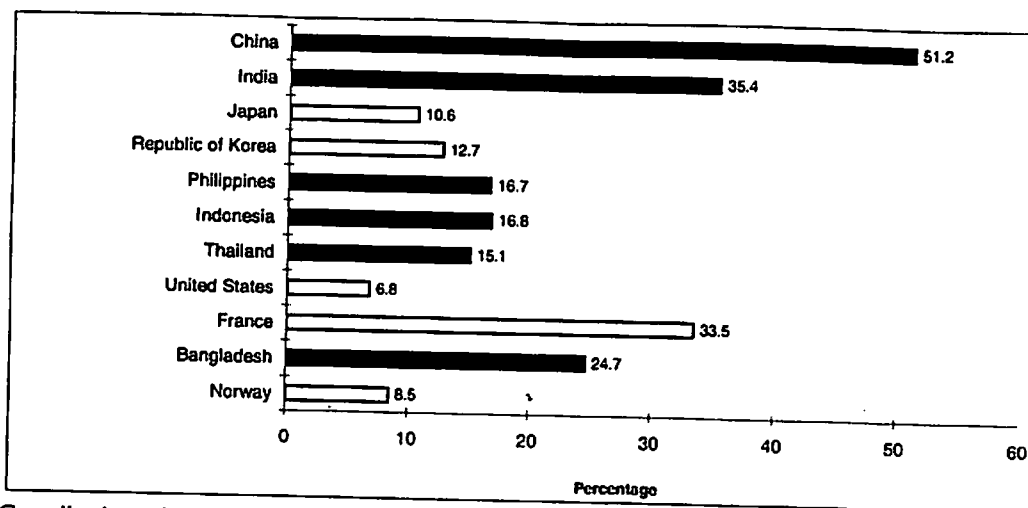
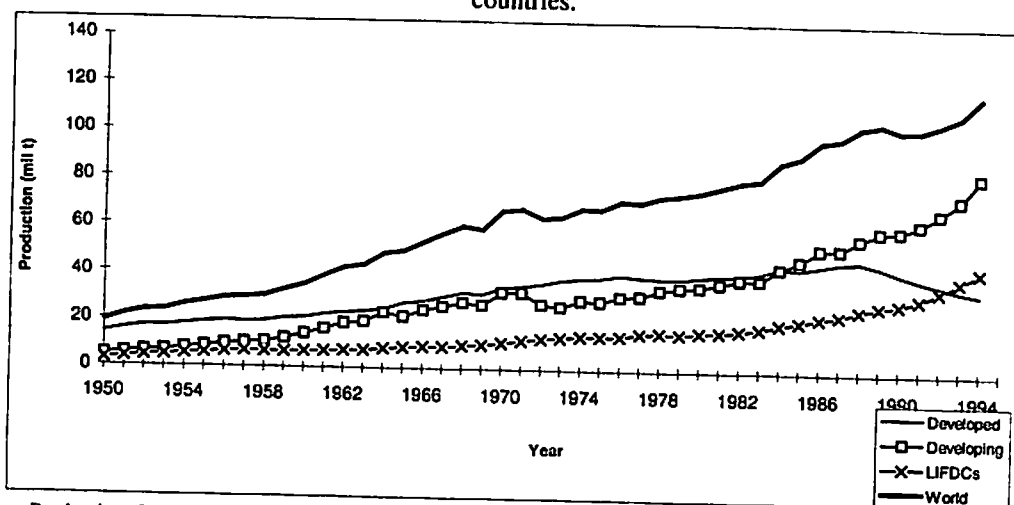


Figure 3. Contribution of cultured finfish and shellfish to national fishery production in major aquaculture producing countries.



Note: Production for aquaculture includes aquatic plants. The following organisms included in the FSTAT 1996 were excluded from the production data presented in this figure: corals, pearls, mother-of-pearl, sponges, bluewhales, finwhales, spermwhales, pilotwhales, crocodiles, alligators, eared seals and haired seals.
Source: FSTAT 1996

Figure 4. Trends in fishery production for different country categories, 1950 - 1994.

require much greater attention than in the past (Ahmed and Santos 1997)

3. THE HIRTSHALS CONSULTATION

Policy measures at the national level are needed to improve the future contribution of fisheries to the food security of low-income people in the developing world. Williams (1997) notes that while the world seeks new technologies for augmenting fish production and better ways of managing natural stocks, it is important to examine the policies which governments in developing countries should adopt to increase and sustain the supply of fish for human consumption and raise nutritional and economic benefits from the fisheries sector. It was on the basis of this rationale that an international consultation was organized jointly by

ICLARM, IFPRI and IFM in June 1997 at Hirtshals, Denmark.²

The principal theme of this Consultation was: what can fisheries policy research do to: (1) improve sector

² With funding assistance from the Danish International Development Assistance (DANIDA), the International Center for Living Aquatic Resources Management (ICLARM) and the International Food Policy Research Institute (IFPRI), in association with the Institute for Fisheries Management and Coastal Community Development (IFM), jointly organized the International Consultation on Fisheries Policy Research in Developing Countries: Issues, Priorities and Needs, 2 - 5 June 1997, North Sea Centre, Hirtshals, Denmark. Staff from the Research Department of Human Nutrition, Royal Veterinary and Agricultural University (RVAU), Denmark and the Department of Fisheries of the Food and Agriculture Organization (FAO) of the United Nations also collaborated in the organization of this Consultation.

and institutional perspectives will also require substantial review and analysis.

5.3 How to improve policy awareness of the importance of fisheries development and factor fish into the global food model.

Recent developments in the world food model (produced by IFPRI) have led to an increased appreciation of the key role of meat and milk in food security worldwide, while fish has been omitted despite its overwhelming importance. To integrate aquatic resources into a world food supply and demand model, it is necessary to identify parameters for and make projections of fish supply, demand, consumption and prices in the future.

5.4 How do employment and labor flows in fisheries affect income and food security.

Research should focus on factors affecting labor flows in and out of fisheries, analysis of gender in fisheries and aquaculture, the role of income effects in food security, and the impact of structural adjustments within the sector, particularly on the optimal capital-intensity of operations.

5.5 How does international trade in fish affect domestic consumption of fish and overall food security of the poor.

To analyze production and substitution possibilities and assess the costs and benefits of trade versus domestic use, research must focus on trade and market liberalization policies affecting production and distribution, including those of the World Trade Organization (WTO). The current hypothesis is that further growth of world trade in fish will occur under market liberalization and high-value species will be exported from developing countries to the developed, while the share of lower-value species in food supply in the developing countries will continue to increase.

5.6 How to integrate aquaculture into the overall management of natural resources from the point-of-view of competition in resource use and protection of the aquatic environment.

To benefit small-scale producers in integrated aquaculture-agriculture systems, research should focus on policies affecting the domestic price of fish, fish exports, subsidies on the use of inputs (land and water), and environmental regulation. The study of land and water use policies, the analysis of full costs and returns of intersectoral resource allocation, and the optimizing of integrated aquaculture-agriculture production is required to guide policies for technology and

management options. Farm level research will determine how policies can support an integrated aquaculture-agriculture system (IAAS), taking into account gender, seasonality and other factors affecting labor.

6. IMPLEMENTATION STRATEGY

Implementation has four essential elements:

1. Partnerships among developing and developed country institution, regional and international organizations; research institutions, national government departments and NGOs.
2. Capacity building through networking, research collaboration and training will be an essential means of promoting policy research and building national research capacity.
3. Integrating fisheries issues into other sectoral policy issues will involve linking the developments in the biophysical sphere affecting fisheries and aquaculture with other factors such as upstream land use effects and modification of hydrological functions.
4. Linking research with impact assessment is essential to ensure that the research and recommendations will lead to changes and improvements in government policies. It will (i) help decisionmakers in the government; (ii) build national capacity in policy research; and (iii) improve the research work of ICLARM and other international institutes.

7. CONCLUSION

The problem of overfishing resulting from the high demand for fish calls for solutions to be sought through integrated research combining biophysical, economic, social and institutional analysis of fisheries. Therefore, investment in policy research is no less important than investment in research on the biophysical aspects of fisheries (Williams 1997).

8. REFERENCES

- Ahmed, M. 1997. Policy issues deriving from the scope, determinants of growth, and changing structure of supply of fish and fishery products in developing countries. Paper presented at the International Consultation on Fisheries Policy Research in Developing Countries: Issues, Priorities and Needs, 2-5 June 1997, Hirtshals, Denmark.
- Ahmed, M. and R. A. V. Santos 1997. International consultation on fisheries policy research in developing countries. Supplement, Naga, July-December 1997.

Ahmed, M., C. Delgado and S. Sverdrup-Jensen. 1997.
A brief for fisheries policy research in
developing countries. ICLARM 16 p.

FAO. 1996. Fisheries Statistics database. FAO, Rome,
Italy.

FAO. 1997. State of the world fisheries 1996. FAO,
Rome Italy.

Kent, G. 1997. Fisheries, food security and the poor.
Food Policy, 22 (5): 393-404.

Williams, M. J. 1996. The transition in the contribution
of living aquatic resources to food security.
Discussion Paper 13, IFPRI, Washington D.C.
USA, 144p.

Williams, M.J. 1997. Messages, p. 2. In M. Ahmed and
R.A.V. Santos (eds). International
Consultation on Fisheries Policy Research in
Developing Countries. Supplement, NAGA,
July - December 1997.