

Aquaculture planning

Policy formulation and implementation for sustainable development



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sustainable development

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by

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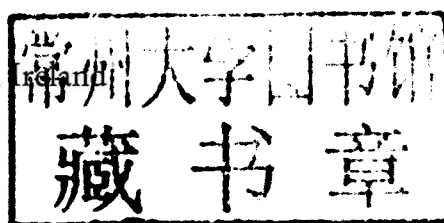
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Preparation of this document

A first draft of this document, initially prepared by Graham Haylor and Graeme Macfadyen (Poseidon Aquatic Resource Management Ltd.), served as a background paper for the Expert Consultation “Improving planning and policy development in aquaculture” held in Rome, Italy, on 26–29 February 2008. The Expert Consultation was convened to make recommendations on how to plan for aquaculture development and to produce an outline for FAO Technical Guidelines for Responsible Fisheries on improving the process of aquaculture policy formulation and policy implementation, to be published at a later date. The Expert Consultation recommended that, after being appropriately revised and elaborated based on the Expert Consultation outputs and participants’ comments, the background paper be published in the FAO Fisheries and Aquaculture Technical Paper series.

Abstract

With the dramatic recent growth of aquaculture, the planning of its development has become increasingly important. Proper planning will stimulate and guide the evolution of the sector by providing incentives and safeguards, attracting investment and boosting development. Moreover, it will help to ensure the long-term economic, environmental and social sustainability of the sector, and its ultimate contribution to economic growth and poverty alleviation.

This paper provides practical guidance to aquaculture policy-makers and implementers on policy formulation and processes. It starts by reviewing governance concepts and international policy agendas relevant to aquaculture development and proceeds by defining “policy”, “strategy” and “plan” while explaining common planning terminology.

The paper proposes practical steps for improving policy formulation processes. These include: recognizing a timely opportunity for change; ensuring coordination and communication among stakeholders; adopting a participatory approach; learning lessons from elsewhere; and accepting that conflicts may arise and lead to hard choices. It highlights means for implementing aquaculture policies, notes the benefits of an ecosystem approach and proposes a range of instruments which, if implemented at various levels, will help progress towards the development goals for the sector. However, the successful implementation of aquaculture policies depends on overcoming challenges related to weak human capacity, institutions and monitoring systems and to inadequate financial resources. Therefore, the paper also suggests the means to do so.

Central to successful planning in the aquaculture sector are coherence in the planning process and an emphasis on interdisciplinarity beyond sectoral remit through institutional collaboration, human capacity development and participation. It is also necessary to embed the chosen approaches and instruments in the principles of good governance. Together, these key elements will ensure the soundness and effectiveness of aquaculture development policies and the positive contribution of the sector.

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Abbreviations and acronyms

CCRF	Code of Conduct for Responsible Fisheries
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EAA	ecosystem approach to aquaculture
GIFT	genetically improved farmed tilapia
HACCP	Hazard Analysis and Critical Control Point (system)
M&E	monitoring and evaluation
MDG	Millennium Development Goal
NGO	non-governmental organization
SPS Agreement	Agreement on the Application of Sanitary and Phytosanitary Measures
SWOT	strengths, weaknesses, opportunities and threats

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1. Introduction

The planning of aquaculture has become increasingly important with the dramatic growth of the sector. Global aquaculture output has more than quadrupled since 1985, and more than doubled in the last decade, reaching 62.9 million tonnes in 2005 (FAO, 2007a). Recent studies on the future demand for, and supply of, fish and fishery products predict continued expansion of aquaculture, given the stagnation of global output from the commercial fisheries (Brugère and Ridler, 2004; Delgado *et al.*, 2003; Ye, 1999). This growth in aquaculture, its reliance on natural resources and the potential conflicts that may arise from it underscore why planning the sustainable development of the sector is more necessary than ever.

In general terms, the act of planning a sector's development provides the means to regulate, in the public interest, its development in order to achieve a set of determined goals and objectives. As such, planning reduces risk, informs decision-making, establishes trust and conveys information. To be applicable and effective in achieving the desired goals and objectives, planning relies on political support, participation and resource commitment. Thus, policy formulation (and its related implementation) is the outcome of a planning process. This applies to aquaculture development where planning is an important process that will stimulate and guide the evolution of the sector by providing incentives and safeguards, attracting investments and boosting development, while ensuring its long-term sustainability (economically, environmentally and socially) to ultimately contribute to economic growth and poverty alleviation. However, planning is not a magic formula for achieving development progress. Inadequately carried out, it will yield results that may not be any better than if no provisions for planning had been made.

Problems hampering optimal planning processes in aquaculture development usually relate to weak planning processes and inadequate human capacity, and to information and data gaps. This has led to the overall slow or uncoordinated growth of the aquaculture sector in some regions, to poor economic choices and decisions, and to conflicts with other sectors and within the aquaculture sector itself. Although efforts have been made both at national levels to support aquaculture planning, additional measures are necessary to help countries overcome the planning challenges they face.

As highlighted during the third session of the Sub-Committee on Aquaculture in New Delhi, India, September 2006, FAO Members, regardless of the state of advancement and development of aquaculture in their countries, realized the importance of planning for its sustainable development and its contribution to food security and economic growth. However, the working document presented during that session pointed out that the capacity to plan aquaculture development, i.e. to place aquaculture in the context of national development, through the formulation of coherent policy frameworks was often lacking in those countries that need it most (FAO, 2006). As a consequence, FAO Members of the Sub-Committee on Aquaculture recommended that an Expert Consultation on improving policy development/formulation and planning in aquaculture be organized during the intersession.

This Fisheries and Aquaculture Technical Paper was initially drafted as a background paper for the Expert Consultation held in Rome in February 2008 as a response to the Sub-Committee's request. It was later revised to incorporate comments and suggestions from the consulted experts, as well as the outcomes of the Expert Consultation. It refers indirectly to the outline for technical guidelines on improving planning and policy formulation and implementation for aquaculture development

that was produced by the experts invited to the Expert Consultation and builds on the outlined contents. It follows the logical structure of planning – while the first half is dedicated to aquaculture policy formulation, the second half deals specifically with policy implementation. Chapter 2 serves as a preamble on governance, while Chapter 3 defines what is now understood as “policy”, “strategy” and “plan” and sheds light on the logical steps of planning. Chapter 4 sets the broader context within which aquaculture policies have to be formulated and implemented, taking into account the major issues and commitments that are currently influencing – and will continue to influence in years to come – the development of aquaculture. Chapter 5 details the succession of steps needed to formulate aquaculture policies, emphasizing the need for participation and coordination in this process. Chapter 6 deals with the implementation of aquaculture policies, reviewing the instruments available to do so. Chapter 7 provides avenues for overcoming the challenges of policy implementation, namely human capacity development, institutional strengthening, resource mobilization and adequate monitoring and evaluation. Chapter 8 provides a set of conclusions. Finally, this document also includes two practical examples of aquaculture policy formulation processes undertaken at the national level (Appendix 1), along with some guidance on how to carry out an institutional assessment (Appendix 2).

This document is the first of a series of Fisheries and Aquaculture Technical Papers that will be dedicated to aquaculture planning and governance. A complementary document to the present Fisheries and Aquaculture Technical Paper will be published later. It will contain a number of national aquaculture policies, strategies and/or plans as illustrations of the concepts presented here. A Fisheries and Aquaculture Technical Paper addressing the topic of aquaculture governance will also be published as part of this series.

2. Aquaculture governance

This chapter focuses on the subject of governance because good governance is fundamental for successful aquaculture development policies to be formulated and implemented. While governance principles, which this chapter describes, set the context within which aquaculture development should take place, good governance results from the actual compliance with these principles, leading, as a result, to the sustainable, effective and equitable development of the sector.

WHAT IS GOVERNANCE?

Some definitions

The concept of governance is not new, but it has come to the fore in the last decade. It is a complex notion that is difficult to capture in a single and simple definition. Many attempts at defining governance have been made (Box 1), referring directly or indirectly to (McCawley, 2005):

- The process by which governments are chosen, monitored and changed.
- The systems of interactions between the administration, legislature and judiciary.
- The ability of governments to create and implement public policy.
- The mechanisms by which citizens and groups define their interests and interact with institutions of authority and with one another.

BOX 1

Some definitions of governance

“Governance can be seen as the exercise of economic, political and administrative authority to manage a country’s affairs at all levels. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences.” (UNDP, 1997, pp. 2–3)

Governance is “the traditions and institutions by which authority in a country is exercised for the common good. This includes (i) the process by which those in authority are selected, monitored and replaced, (ii) the capacity of the government to effectively manage its resources and implement sound policies, and (iii) the respect of citizens and the state for the institutions that govern economic and social interactions among them.” (Kaufmann, Kray and Zoido-Lobaton, 1999, p. 1)

“Governance may be defined as the sum of the many ways individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and a co-operative action may be taken. It includes formal institutions and regimes empowered to enforce compliance as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interests.” (European Commission, 1995, p. 2)

“Governance denotes the use of political authority and exercise of control in a society in relation to the management of its resources for social and economic development. This broad definition encompasses the role of public authorities in establishing the environment in which economic operators function and in determining the distribution of benefits as well as the relationship between the ruler and the ruled.” (OECD, 2003)

Underlying governance is the notion of power, how it is exercised by the individuals or groups concerned, and how it shapes their relationships, decisions and actions. Thus, governance can be referred to as the processes whereby “elements in a society wield power, authority and influence and enact policies and decisions concerning public life and economic and social development” (Governance Working Group of the International Institute of Administrative Sciences, 1996) and “make important decisions, determine whom they involve in the process and how they render account” (Graham, Amos and Plumptre, 2003). The visible signs, or manifestations, of governance are thus agreements, procedures, conventions or policies that define who obtains power, how decisions are made, and how accountability is rendered. By relating to the way higher-level decisions and policies are made and how power and responsibility are shared, governance therefore holds a meaning broader than that of “government” and different from that of “management” (Béné and Neiland, 2006). However, it links the two by facilitating the development and articulation of appropriate management systems.

Characteristics of good governance

The set of characteristics underlying good governance are: participation, consensus orientation, strategic vision, responsiveness, effectiveness and efficiency, accountability, transparency, equity and the rule of law (UNDP, 1997; ESCAP, 2009; see Box 2).

Overarching these characteristics are the three founding principles of good governance (Schaffer, 2008):

- the promotion of inclusiveness;
- the promotion of lawfulness;
- the promotion of accountability.

BOX 2

Characteristics of good governance

Participation – All men and women should have a voice in decision-making, either directly or through legitimate intermediate institutions that represent their intention. Such broad participation is built on freedom of association and speech, as well as capacities to participate constructively.

Consensus orientation – Good governance mediates differing interests to reach a broad consensus on what is in the best interest of the group and, where possible, on policies and procedures.

Responsiveness – Institutions and processes try to serve all stakeholders.

Effectiveness and efficiency – Processes and institutions produce results that meet needs while making the best use of resources.

Accountability – Decision-makers in government, the private sector and civil-society organizations are accountable to the public, as well as to institutional stakeholders. This accountability differs depending on the organizations and whether the decision is internal or external.

Transparency – Transparency is built on the free flow of information. Processes, institutions and information are directly accessible to those concerned with them, and enough information is provided to understand and monitor them.

Equity – All men and women have opportunities to improve or maintain their well-being.

Rule of law – Legal frameworks should be fair and enforced impartially, particularly the laws on human rights.

Sources: UNDP, 1997; ESCAP, 2009.

Inclusiveness requires that governing structures, either formal or informal, be representative of, or give voice to, a wide range of diverse interests, including those of the poor. Inclusiveness relates closely to issues of empowerment (conscientization and social mobilization), participatory democracy, civil-society organization (including the role of non-governmental organizations [NGOs] and the media), and decentralization. **Lawfulness** requires that governing structures abide by the rule of law and serve as guarantors of lawful civil conduct. Lawfulness relates closely to issues of justice, conflict resolution, criminality, peace and security, social violence (including domestic violence), human rights, etc. **Accountability** requires that governing structures remain answerable for their actions and open to sanction (including dismissal) if they violate the principles of inclusiveness and lawfulness. Accountability relates closely to issues of corruption, transparency and access to information.

APPLICATION TO CAPTURE FISHERIES AND AQUACULTURE

Governance in capture fisheries is relatively more advanced than in aquaculture because of the long history and international context of fishing and fisheries management. This experience can provide useful insights for the development of good aquaculture governance. In the context of capture fisheries, fisheries governance is the sum of the legal, social, economic and political arrangements used to manage fisheries. It includes legally binding rules, such as national legislation or international treaties, and it relies on customary social arrangements as well as on respective national frameworks provided for all economic activities. Focus on governance in fisheries has increased in recent decades because of the growing realization that fish stocks in different parts of the world were being increasingly harvested beyond their optimal level and the fishery sector was in economic and social difficulty (FAO, 2001). The UN Law of the Sea Convention (1982), complemented by other related international agreements, establishes the global framework for the governance of marine fisheries. The Code of Conduct for Responsible Fisheries (CCRF), adopted by FAO Members in 1995 and elaborated on since then, is considered to be the foundation upon which to promote sustainable fisheries and aquaculture development for the future at national levels.

Good governance in capture fisheries involves “control over our fishing fleets and enforcing limits on catches and numbers of fishers so our fish stocks can recover. It requires eliminating billions of dollars of subsidies each year that contribute to overcapacity and the depletion of fish stocks, even on the high seas. Good governance means equitable access to the fish resources – protection of our inshore and coastal fisheries on which the poor and the small-scale fishers depend, while clearly defining the important role of the industrial fisheries. Good governance will recognize the important links between aquaculture development and the responsible management of our water basins, the wetlands, and the coastal zones. Good governance involves transparent and participatory decision-making that is accountable to stakeholders now and in future generations”.¹

In the context of aquaculture, examples of good governance are fewer because aquaculture activities usually occur within national jurisdictions and the sector has traditionally been considered jointly with capture fisheries in policies and international agreements (e.g. Article 9 under the CCRF). However, growing external pressures on the industry are prompting it to improve its governance and there is evidence of good practices in some parts of the world – which translate directly into high production outputs. Achieving good governance in aquaculture is as important an objective as aquaculture development (increases in outputs) *per se* as it will ensure the achievements of sustainable aquaculture development ecologically, economically and institutionally.

¹ Address by Warren Evans, Director of Environment, The World Bank. NEPAD Fish for All Summit, Abuja, Nigeria, 25 August 2005.

Good governance in aquaculture will benefit the sector in the short and long terms as it is becoming increasingly recognized that problems and failures in aquaculture development are no longer solely related to technological issues.

In this spirit, efforts are becoming visible at national levels to consider the development of the sector in a holistic manner through ecosystem approaches, to formulate national policies and implementation strategies focused on the sustainable development of the sector, to establish or revise legal frameworks and regulations, to recognize the importance of stakeholders outside aquaculture in policy and participatory decision-making, to establish producers' organizations and responsive institutions to deal with aquaculture, and to promote internationally-endorsed codes of conduct in farming practices.

IMPROVING GOVERNANCE IN AQUACULTURE

Issues

In most of the world, albeit to varying degrees, aquaculture is driven by the commercial sector, whose motivation is profit. For these farmers, an enabling environment that reduces risks and lowers transaction costs for all business activities by creating a climate conducive to private investment is critical if they are to invest and expand. However, the creation of such an enabling environment is dependent on improving political stability and legislative transparency and on addressing poverty and property rights issues. This is fraught with two main difficulties. First, governance is difficult to improve and a sensitive subject because its assessment, which tends to be carried out by outsiders and goes beyond sectoral remit, can raise fundamental questions related to the functioning of societies in general and to the behaviour of their citizens and leaders. If "bad" governance is associated with political underdevelopment, should an assessment of a country's political institutions be a terrain for development agencies, especially those dealing with aquaculture, to venture on? Whose role should it be to promote corrective measures, and how far beyond aquaculture should they extend? Second, there are some inherent difficulties in "measuring" progress towards good governance in aquaculture, which calls for a value judgement over the criteria of good governance. Such value judgements may differ among agencies and among governments. For example, views of liberals and statisticians differ over the nature of "good" governance although, in practice, the liberal view of governance based on responsiveness, accountability, democracy and participation has appeared to be the conventionally-endorsed approach (Béné and Neiland, 2006).

Choosing indicators to evaluate or monitor governance can be controversial, especially where they include corruption and transparency. Although such debates may seem beyond the remit of aquaculture development, improving aquaculture governance will sooner or later, directly or indirectly, encroach on these issues.

Another type of difficulty relates to the nature of the measures needed to improve or achieve good governance in aquaculture. Such measures call for, among others, an identification of the constraints to achieving good governance and decisions related to a realistic time span to do so, bearing in mind that achieving good governance also depends on many allied improvements, as in education for example. Furthermore, some prioritizing may be necessary depending on the objectives of development decided, e.g. poverty alleviation or economic growth and profits, as each objective will not require the same kind of governance-related interventions. Finally, good aquaculture governance is ultimately dependent on good governance at national/global levels, begging the "chicken and egg" question of which should come first.

Planning

In these circumstances, adequate planning and policy-making are the key means by which governance can be improved. Good planning for aquaculture development,

encompassing the formulation of policies and decisions over their means of implementation, contributes to the good governance of the sector and, thus, to its sustainable development. The process of planning will also ensure the delivery of quality outcomes for aquaculture stakeholders and citizens (including consumers) at large, and the realization of public-sector efficiency.