

Trends in national aquaculture legislation (part I)

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This two-part article highlights the most significant trends and initiatives in national aquaculture legislation over the last decade. In general, the developments can be divided into those dealing with planning aspects, the actual operation of the aquaculture farm after its establishment and the aquaculture product. Part I of this article deals with sustainable development, the drafting of comprehensive legal frameworks, integrated coastal management and the tendency to coordinate the various governmental authorizations. Part II, which will appear in the next issue of FAN, will address the growing environmental concerns, food safety and other health issues, the concept of sea ranching, law enforcement and the tendency of the sector toward self-regulation.

INTRODUCTION

Aquaculture, or the farming of aquatic organisms, as we know, is one of the fastest growing food production systems in the world. Aquaculture's potential and expected contribution to global foodfish supply over the next few decades has been duly recognized, and the sector is predicted to expand, intensify and develop at a considerable pace over the next few decades. The challenge is to make the future contribution of aquaculture sustainable through better managing the practices and processors, which is also a key to responsible and sustainable development of the sector. Regulation of the sector by state, civil society and/or private-sector mechanisms is vital for its responsible development, thus comprising a major component of a formula for better management. However, regulating the sector is not an easy task, as it is highly diverse and complex.

Is there a single model of an ideal aquaculture law? The answer is no! Characteristically, the sector involves many interests and institutions and is hence regulated under a wide range of legislation. One should pay attention to laws and regulations dealing with various issues, for example, food safety, fish health, environmental issues, access to water and access to (often state-owned) land: the farmer should obtain a secure right to the lands on which the farm is located, through a real property right or a lease or another similar legal instrument. Many of the issues and concerns involved are not unique to aquaculture and may be regulated within a more general legislative regime. The majority of the laws and regulations in place today

were not even developed with aquaculture in mind and are often applied to the sector in an inconsistent manner. Conflicts may arise within the range of legislation applicable to aquaculture or between the agencies and institutions involved.

LEGAL FRAMEWORKS

Uncertain and inappropriate legislative arrangements seriously hinder the sustainable development of the aquaculture sector. As a result, a growing attention is given to the role of law. The way, though, in which national legislation controls aquaculture still varies significantly from country to country. For example, many countries lack any specific rule for aquaculture in their legislation, but some of them have now included a statement about aquaculture in their national policy and development plans. Some countries have limited the role of aquaculture to a traditional "enabling clause" in their basic fisheries legislation. Criteria to set up and operate an aquaculture establishment do not exist, and decisions are entirely left to the discretion of the decision-maker. Also notorious are basic fisheries laws that provide for the adoption of a separate aquaculture regulation that, however, in many cases has not yet been developed.

Under the pressure of an expanding industry, there is a noticeable tendency to regulate and control the aquaculture sector more thoroughly. In fact, many of the recently adopted fisheries laws include sections or chapters that deal with certain aspects of aquaculture. In some cases, fisheries and aquaculture are even mentioned side by side, indicating that the legislator attaches a similar importance to both sectors. Apart from the tendency to regulate the sector in separate aquaculture texts, it should also be taken into account that many countries have simply limited themselves to adopting specific legislation dealing only with specific issues related to aquaculture. For example, countries that export aquaculture products have increasingly been forced to adopt food security laws to comply with the quality standards required by importing countries and to adopt better management practices with least environmental impacts.

Although the aquaculture texts and the more specific legislation may provide useful building blocks for modern aquaculture legislation,

they do not offer more than a first stage of the legislation that is currently necessary for the sustainable development of the sector. Increasingly, it is being recognized that issues such as registration and access, planning and management and the many environmental impacts of aquaculture should be dealt with in a more consistent manner in order to protect the industry, the environment, other resource users and the consumer. There appears to be a growing interest to invest in developing and setting up comprehensive regulatory frameworks related to aquaculture. The importance of this has been emphasized in the FAO Code of Conduct for Responsible Fisheries 1995. (www.fao.org/fi/agreem/codecond/codecon.asp).

The first essential step in the process of developing a legal framework is the development of an aquaculture policy and preferably, a management plan at the national level. Afterwards, the approach to be adopted will depend on existing laws, traditions and institutional structures. It should be kept in mind that the development of a regulatory framework not only includes the adoption of legislative aquaculture texts, but also the amendment and/or enactment of a number of other related laws, including land, water and environmental legislation. In some cases, it may even be sufficient to limit legislative activities to changes in the existing legislation without formulating a new aquaculture law. One of the difficulties is that legislation may quickly become outdated with the rapid evolution of the industry. New legislation, therefore, should be flexible in the first place.

The more comprehensive approach can be illustrated by the Aquaculture (Regulation) Act 1995 of the Indian State of Tamil Nadu. The Act sets out the conditions to improve the management of aquaculture facilities. It institutes an authorization system and prohibits the location of aquaculture establishments in certain areas, including wetlands, breeding grounds and mangrove areas. Diversion of drainage channels is not allowed and chemicals and drugs are to be used in a limited manner. Remarkable is the establishment of an Eco-restoration Fund, supported by deposits from the aquaculturists themselves, to remedy environmental damage caused by the farms.

Countries that have become significant farmed-shrimp producers have also recognized the need for a clear and comprehensive legal framework. The Philippines Fisheries Code of 1998 provides for the development, management and conservation of fisheries and aquatic resources and integrates all laws pertinent thereto. It addresses a range of interesting issues such as the use of public lands, leasing of fishponds, the establishment of an aquaculture Code of Practice, incentives and disincentives for sustainable aquaculture practices and the establishment of an Aquaculture Investment Fund.

The world's largest aquaculture producer, the People's Republic of China, has revised its basic law related to fisheries and aquaculture in 2000. Besides, the Chinese Government has issued many regulations and directives concerning a variety of aquaculture issues over the years. In particular, further reform and liberalization of the market will be important to further strengthen the development of Chinese aquaculture.

The process of drafting and discussing comprehensive legal frameworks is certainly not limited to less industrialized countries. Noteworthy are developments in the Australian states of Tasmania and New South Wales. In 2000, the Government of New Zealand published a Discussion Document, which recognizes that the law governing aquaculture - the Marine Farming Act 1971 - is actually out of date: a new legal system will have to provide more certainty to everyone involved in the industry. Likewise, in the United States of America, a Bill was introduced in 1995 to amend the National Aquaculture Act of 1980 and in Canada, a Legislative and Regulatory Review of the Aquaculture Sector was published in 2001.

INTEGRATED COASTAL MANAGEMENT

Aquaculture, like many other farming activities, is dependent upon the use of limited natural resources such as land and water. Due to a combination of economic development and population growth, these resources are becoming increasingly scarce. Aquaculture currently faces serious competition from other resource users. The need for a balanced resource use can be illustrated by the environmental and health problems in

the Asian shrimp industry, where there are tendencies to over-intensify shrimp farms or to concentrate too many farms in close proximity. As a result of this unregulated expansion, many farms have had to cease operation because of pollution and diseases.

Conflicts over the allocation and sharing of natural resources have already taken place and are likely to become more frequent in the future. For example, in India several large corporations entered the aquaculture sector in the late 1980s. In 1991, the Indian Government issued a Notification, which prohibits - among others - the setting up new or the expansion of existing industries within the coastal zones. Local fishers started protesting, but in 1996 the Indian Supreme Court issued a final judgement that confirmed the Notification, thereby banning all nontraditional aquaculture within 500 m of the high water mark or within 1000 m of lakes Chilka and Pulicat. The Indian Government then constituted an Aquaculture Authority in order to take steps and ensure the closure, demolition and removal of the existing nontraditional aquaculture activities by March 31, 1997. In practice, however, demolition has been limited and the situation remains highly uncertain.

In order to balance the wide diversity of interests involved, there is a tendency to base future developments on integrated coastal management plans. Increasingly, it is being recognized that choices need to be made in advance between the different resource uses and their combined impacts on the environment. Long-term planning also provides for predictability that is required for long-term investment and reduces the possibility of conflicts among actual and potential users. However, integrated coastal area management is not a particular aquaculture issue and is often regulated in basic environmental laws. Nevertheless, the idea of integrating the aquaculture sector into coastal area management legislation gradually wins thought. For example, the Philippine Fisheries Code 1998 specifically declares that it will be State policy to manage the fishery and aquatic resources in a manner consistent with the concept of integrated coastal area management. Likewise, the Coastal Zone Management Act 1998 of Belize includes aquaculture proposals to be dealt with in Coastal Zone Management Plans.

One of the main tools to integrate aquaculture into coastal areas is the mechanism of zoning, whereby land and water areas are set aside for (certain types of) aquaculture. Over the years, the concept of zoning has found its way into aquaculture legislation. In Chile, for example, the law provides for appropriate areas to be defined in the coastal area for the exercise of aquaculture. Any activities outside these areas are strictly forbidden. In a similar way, the Tasmanian Marine Farming Planning Act 1995 provides for the designation of areas, in which marine farming may occur, in so-called Marine Farming Development Plans. The Plans are developed following a process of public consultation that takes account of the physical suitability of potential aquaculture sites, the current legal situation and the desire to minimize impacts on other users of the coastal zone.

COORDINATED AUTHORIZATION

A major tendency in aquaculture legislation is the requirement of government authorization in order to exercise legal and administrative control over aquaculture establishments. This is particularly the case when access to public land and water is involved. Authorizations can take the form of a license, permit, concession or lease and are commonly subject to certain conditions being met. They constitute a good basis for governments to regulate the limited natural resources available and allow governments to integrate the siting of aquaculture farms within their integrated coastal management plans. Authorization is particularly used to control the environmental impacts of aquaculture operations, often through the requirement of an environmental impact assessment. In order to stimulate the long-term economic development of the aquaculture sector, the licenses should constitute clear rights to establish and operate the aquaculture farm as long as the farmer complies with the conditions of the licenses, as well as other applicable laws.

Authorization procedures may be required during different stages of the aquaculture process. A license is commonly obligatory before setting up an aquaculture establishment, but in many cases additional licensing requirements may be imposed to regulate the actual operation of an aquaculture farm. In Malaysia, for example, the farmer is required to apply for

a license to operate the system following its construction. In the ideal situation, activities that have profound environmental impacts, such as water use, wastewater discharge, use of chemicals or disease control, should be continuously monitored and evaluated after the legal commencement of an aquaculture farm. Again, the additional licensing requirements are likely to be found in other, generic environmental, land or water laws.

The authorization process can be a rather complicated affair for the farmer, since the approval and operation of an aquaculture project is affected by a variety of laws, agencies and governmental institutions. Not only the regular fishery and/or aquaculture authorities are involved, but also institutions such as land planning authorities, water institutes, health agencies and environmental protection authorities. Usually a number of documents need to be issued before establishing and/or operating an aquaculture farm, such as land concessions, water licenses, effluent discharge permits and other types of environmental licenses. It is currently the challenge in aquaculture law to remove and/or avoid the existing legal and bureaucratic obstacles and to increase the cost effectiveness of aquaculture operations. Unification of licensing requirements or the streamlining of approval procedures by creating a single or lead government aquaculture agency that controls the application process can do this.

This article will be continued in FAN-31. A comprehensive list of references and reading material will also be made available in Part II of the article. FAO continues to assist countries to develop and adopt appropriate legal frameworks and legislature through its technical assistance programme. For further information and advice on national aquaculture law, regulation and legislature, please contact Ms Annick VanHoutte, Legal Officer at FAO Legal Department - [\(annick.vanhoutte@fao.org\)](mailto:(annick.vanhoutte@fao.org)).