

Chapter 10.

Fisheries management policy

The Mexican fisheries sector has witnessed a number of significant institutional changes since 1990 which have deeply influenced both the state of fish resources as well as stakeholders' incomes. This chapter reviews developments in Mexican fisheries management policy, focusing on institutional arrangements and fisheries policy formulation. The first part of the chapter reviews the evolution and present status of the institutional arrangements, while the second part provides an assessment of the key issues confronting the policy development process. A more detailed review of fisheries management arrangements in terms of the types of fisheries management instruments being used is provided in the following chapter.

Developments in institutional arrangements

The globalisation of world fisheries has been influenced by three distinct phases: the globalisation of fish production and the growth of distant-water fleets (1945 to mid-1970s); the globalisation of trade which was accompanied by extended fisheries jurisdictions (EFJ) and deregulation policies (1970s to 1990s); and the globalisation of regulatory control due to growing concerns over the sustainability of fish resources (1990s to date) (Thorpe and Bennett, 2001). The development of Mexico's fisheries has broadly followed these phases of international developments, with some variations. Mexico's fisheries development in Mexico may be divided in the following periods:

- before 1977, a period of fisheries development until the adoption of the Extended Fisheries Jurisdiction;
- 1977-1991, when government support boosted fish production and exports, ending just before the Fisheries Law of 1992 authorisation;
- 1992-2000, when private investment and environmental concerns shaped both institutions and management; and
- 2000 to date, which corresponds to the new administration.

This section summarises developments over these periods as background to the current institutional arrangements for the sector. Table 10.1 provides a summary of the key developments in the Mexican fishery sector. More in-depth reviews can be found in Ibarra *et al.* (2000a, b; 2005), Thorpe *et al.* (2000); Thorpe and Bennett (2001) and Hernández and Kempton (2003).

Table 10.1. Main events which have influenced contemporary fisheries developments in Mexico

Period	Institutional arrangements	Legal provisions	The fishing industry	International context	Other events
1970-1977	1972: Creation of the Under-Secretariat of Fisheries and PROPEMEX. The latter included Ocean Garden Products	1972: Federal Law for the Promotion of Fisheries	Increase in the number of vessels	1976: Adoption of extended fisheries jurisdiction	1976: peso crisis
1978-1991	1980: creation of BANPESCA ^b 1982: Upgrading to Secretariat level (SEPESCA)	1986: Federal Fisheries Law	1981-1982: transfer of the shrimp fleet from the private sector to co-operatives 1980-1986: 1st tuna embargo 1990 onwards: 2nd tuna embargo	1982: UNCLOS III	1982: peso crisis 1982-1983: strong ENSO 1986: Mexico joins GATT
1992-2000	1992: shut down of PROPEMEX and BANPESCA. Ocean Garden Products bought by BANCOMEEXT. Creation of CONABIO, PROFEPA and INE 1995: creation of SEMARNAP, and SEPESCA is downgraded to an Under-Secretariat	1992: Fisheries Law and creation of standards (NOMs)	1991-1992: privatization of the shrimp fleet 1993: installation of TEDs by the shrimp fleet	1992: Conference of Rio, Agenda 21 and UN Conference on Responsible Fisheries 1993: La Jolla Agreement 1995: Adoption of the Code of Conduct for Responsible Fishing 1995: UN Fish Stock Agreement ^a	1992: land tenure reform 1994-1995: peso crisis 1994: NAFTA implementation 1997-1998: strong ENSO
2000 to date	2001: CONAPESCA replaces the Under-Secretariat, becomes part of SAGARPA and its offices moved to Mazatlan	2004: Discussion of the Law of Sustainable Aquaculture and Fisheries begins in Congress 2006 Adoption of new Fisheries Law	2006: Sale of Ocean Garden	2000: Mexico joins Agreement on the International Dolphin Conservation Programme 2002: Earth summit 2002: Mexico joins ICCAT	2004: Free Trade Agreement with Japan

a. Mexico has not signed the UN Fish Stocks Agreement.

b. Between the 1960s and 1980, this was called BANFOCO.

Before 1977

A key historical feature of Mexican fisheries for many years was the exclusive access rights granted to fishers' co-operatives. These were granted by the government in 1938 for catching shrimp, abalone, lobster, oysters, cabrilla, Pismo clam and totoaba, which were highly valued fisheries. At the time, the Fisheries Department was part of the Forestry, Hunting and Fishing Division of the Secretariat of Agriculture and Development. While investment in fisheries was not a priority, an increasing interest in fish stock levels, and the possibilities of their increased utilisation, led to the creation of the National Institute for Fisheries Research (INP) in the early 1960s.

The fisheries sector did not grow in a substantial manner until the first National Fisheries Programme in 1970 strengthened co-operative rights to inshore fisheries and encouraged the expansion of fishing fleets. In 1972 the government enacted the Federal Law for the Promotion of Fisheries and started focusing on the export market. This concerned 500 shrimp trawlers through the BANFOCO programme. PROPEMEX, a state company, was created in that year with the aim of regulating domestic prices and developing export markets. It incorporated Ocean Garden Products, a monopsony based in La Jolla, California which had been created in 1957 for marketing shrimp exports in the US. The adoption of the Extended Fisheries Jurisdiction (EFJ) in 1976 affirmed this support for the sector and allowed a faster growth of the fisheries sector. A peso devaluation in the same period served to favour export-oriented activities, such as fishing.

1977-1991

The National Plan for Fishing Development that was developed during the late 1970s and early 1980s demonstrated a strong interest in securing benefits from fishing catches under the newly implemented EFJ. Catches reached a record high in 1981 of about 1.5 million tonnes, although later stabilised around this level. Important institutional changes followed. The Department of Fisheries was upgraded to a Secretariat level (SEPESCA) in 1982 in order to 'foster national productivity and exports'. A state-directed fisheries bank, BANPESCA, was also set up for supporting both co-operatives and the private sector. However, BANPESCA loans mostly favoured co-operatives, playing an important role in the transfer of the privately-owned shrimp fleet to co-operatives in 1981-1982 in what was known as *la cooperativización*. This was, in fact, a way to "formalise" the rights of co-operatives on shrimp fishing since there was an informal arrangement between co-operatives and private investors under which the latter operated their vessels disguised as co-operatives. This transfer to the cooperatives brought about more debts to co-operatives (and consequently to BANPESCA), diminishing returns, and a migration of investors from shrimp fisheries toward tuna fisheries, taking advantage of government subsidies (see below). Moreover, both PROPEMEX and BANPESCA were ill-managed and exports were not substantially increased.

Three events marked the development of the Mexican fisheries sector in the early-1980s: a strong El Niño-Southern Oscillation (ENSO), the tuna embargo, and another peso crisis. The incoming administration that took office in 1982 faced serious trouble. First, fisheries production fell about one-third by 1983 due to the impact of a strong ENSO, hitting mostly the Californian pilchard and Pacific anchovy fisheries.

Second, the 1980-1986 tuna embargo brought negative consequences to the whole industry as the government directed immense financial resources to rescue the tuna fleet. Indeed, heavy reliance on the US market and failure to develop alternative export markets created problems and, in order to protect tuna investors, PROPEMEX purchased all the tuna production from Mexican vessels and redirected it towards the domestic market. Massive inventories started to accumulate in PROPEMEX storehouses and prices fell. PROPEMEX ceased granting financial aid to vessel owners and consequently they were unable to meet their commitments, with the risk of leaving BANPESCA with an estimated USD 1 billion in non-performing loans. Thus, the government resumed its subsidy programme by 1985, supporting the entire tuna fleet, even when one-third of it remained inactive. The embargo was lifted in 1986 but another one started in 1990 under the Marine Mammal Protection Act principle: tuna products from all nations fishing in the eastern tropical Pacific whose dolphin mortality rates were 1.5 times the mortality register for the US fleet for the eastern spinner dolphin (*stenella longirostris*) and 2 times the mortality register for the US fleet for the spotted coastal dolphin (*stenella attenuate*). It is noteworthy that these two species are more abundant in Mexican waters than in US waters.

Third, the 1982 peso crisis provoked a debt crisis as oil export earnings collapsed. In spite of severe financial problems, the government carried on granting subsidies to the sector. It sustained the level of landings and maintained exports but contributed, at the same time, to increase the debt of both BANPESCA and PROPEMEX, which had as well to support the high costs of the shrimp fleets. In addition, several joint ventures on processing plants (e.g. the tuna plants, Pescado de Colima and Pescado de Chiapas) and large trawlers bought in Spain failed in achieving economic efficiency at a high financial cost.

Large debts borne by co-operatives were expected to be somewhat alleviated by the new Federal Fisheries Law in 1986. The Law aimed in practice to strengthen co-operative access rights through concessions and permits for both fishing and aquaculture, confirming the *la cooperativización* move. As with capture fisheries, only co-operatives were allowed to cultivate shrimp, however, pressure from the private sector in order to have a share from shrimp earnings was constant during the 1980s (Cruz-Torres, 2000). The administration responded to this pressure during its reforming process of the Mexican economy, which started in 1988. The previous administration's strategy had entailed a high cost and a priority was to restructure the sector and to curb fiscal deficits. This included privatisation to encourage inward investment in the fisheries sector. PROPEMEX and BANPESCA were both shut down, and the privatisation of canneries, processing factories and vessels began in 1988. Without BANPESCA, the government-owned foreign-trade bank (BANCOMEXT) was empowered to support export-oriented fisheries. Subsidies through the PRONASOL programme were made available for the development of domestic fisheries, pin-pointing poor fishing communities.

1992-2000

Given all the financial problems faced by both the government and co-operatives, the National Programme for the Development of Fisheries and its Resources (PNDPR) which was developed in 1992 stressed the need to improve the efficiency of both fleet performance and infrastructure development. To facilitate this process, a new Fisheries Law was passed in 1992, only six years after the enactment of the former law. One of its main features was the withdrawal of the co-operatives' historic preferential exclusivity to

exploit valuable fisheries. The co-operatives' access rights were replaced by the system of permits and concessions, which was already in force for other inshore fisheries. In addition, a system of standards was put in place under the name of Mexican official standards (NOMs). These define and regulate permits and concessions, gear specifications, closures, quota levels and other management instruments. A feature without precedent in Mexico was the fact of stakeholders (including NGOs and universities researchers) participation in the development process of each NOM.

The message of the PNDPR was well anticipated by the private sector. In 1991, 63 shrimp trawlers were bought and by 1992, when the new Fisheries Law was being enacted, private investors already had 450 vessels. By 1993-94, 90% of the offshore fleet in the North Pacific was already private, and the trend continued throughout the country. During this time, the shrimp fishery faced the threat of an embargo justified on the grounds of marine turtle by-catch. In contrast with the tuna embargoes, both the government and the industry took swift action: a total closure on turtle fishing was declared in 1990 and by 1993, the whole fleet of Mexican shrimp trawlers was equipped with turtle-excluder devices (TEDs), obtaining the US authorities certification.

Aquaculture was promoted as well, and private investors mainly took over shrimp farming. The central objective was to encourage export earnings through shrimp productivity. Within this context, Ocean Garden Products was initially deemed to be privatised, but it was brought under the administration of BANCOMEXT, remaining therefore under government control until it was sold in 2006.

Privatisation and deregulation processes in the new administration were accompanied by an increased focus on environmental concerns. This was not a Mexican initiative, but rather came about through the influence of international trends. Mexico played an active role in the 1992 UN Conference on Responsible Fisheries held in Cancun, where the Precautionary Approach of the Rio Declaration was adopted. This led to the endorsement of the UN Code of Conduct for Responsible Fisheries three years later.

Several environmental-related institutions were created in 1992, chiefly the Mexican biodiversity commission (CONABIO), the environmental enforcing agency (PROFEPA) and the Institute of Ecology (INE). Although concerns arose relating to North American Free Trade Agreement (NAFTA) and fisheries trade, Chomo and Ferrantino (2000) demonstrated that NAFTA did not significantly influence North American fisheries sustainability. However, in spite of all efforts concerning environmental issues and legal provisions set up by the administration, the second tuna embargo was not lifted. The Inter-American Tropical Tuna Commission (IATTC), under the context of the Panama Declaration, played a central role in achieving conciliation between importing countries, US authorities, the tuna industry and environmental organisations to revise US laws (Constance and Bonanno, 1999). However, other NGOs, such as the Earth Island Institute, opposed the Panama Declaration.

Another peso crisis in late 1994 arrived with the new administration. Although exports were facilitated by the peso devaluation, environmental concerns remained a significant influence on policy. This was demonstrated in both fisheries policy and institutional arrangements. The policy principles underlying the “sustainability discourse” were adopted and featured prominently in the 1995-2000 Fisheries and Aquaculture Programme. This programme emphasised the need to “halt the tendency towards environmental deterioration”, to “reverse the process of over-exploitation of resources”, and to “promote responsible fishing practices in conformity with resource availability”.

To facilitate this, the former Secretariat of Fisheries, SEPESCA (along with other departments), was merged into the new Secretariat of the Environment, Natural Resources and Fisheries (SEMARNAP) but was downgraded to the level of an Under-Secretariat. The loss in federal hierarchy confirmed the trend in broadening of regulatory control flowing from growing concerns over the sustainability of fish resources (Thorpe and Bennett 2001). NGOs had a more prominent role in government programmes and, as a result, conservation issues were given a higher profile, leading to the increased implementation of marine reserves and the promotion of eco-tourism as alternative income options for local fishing communities. Less emphasis was placed on the development and implementation of fisheries management instruments, although the use of the NOMs was continued and extended.

Current institutional framework

Comisión Nacional de Acuacultura y Pesca (CONAPESCA)

Current fisheries-related institutions and policy have a more production and export orientation and are less environmentally directed than was the case under the previous administration. Although the Secretariat of the Environment (SEMARNAP) remained, it was renamed as SEMARNAT. The reason was that the Fisheries Under-Secretariat was moved into the Secretariat of Agriculture (SAGARPA), becoming the Commission of Aquaculture and Fisheries (Comisión Nacional de Acuacultura y Pesca or CONAPESCA). Some commentators noted that this movement in the federal hierarchy caused a loss of presence for the fisheries sector within SAGARPA and within the Federal government more generally (Hernández and Kempton 2003). Indeed, the fisheries industry accounted for a little less than 7% of the primary sector GDP (covering agriculture, forestry and fisheries) during 1993-1996 (INEGI, 1997). Thus, objectives to boost the GDP share of the fisheries sector have most probably influenced the decision of changing fisheries-related agencies into SAGARPA, leaving environmental issues apart. PROFEPA was exempted from enforcing fisheries regulations, thus creating a void in fisheries management enforcement. It remained that way until 2004 when CONAPESCA created an enforcement department.

The Federal Fisheries Law (decreed in June of 1992, amended in January 2001) has as its objective “to warrant the conservation, preservation and rational use of fisheries resources and establish the basis for their adequate development and management”. The Aquaculture and Fisheries Programme (*Programa de Acuacultura y Pesca*) for the period 2001-2006, under the Programme on Agriculture, Livestock, Rural Development, Fisheries and Food 2001-2006 of SAGARPA, endorses the following strategic guidelines: “to establish management schemes for aquaculture and fishing resources based upon technical and scientific knowledge as well as to promote the participation of the academia, the producers and the government in both the definition and assessment of opportunities for the development of fishing and aquaculture” (SAGARPA, 2006, p.6). These guidelines are translated into the following objectives for the sector:

- to use fisheries and aquaculture resources in a sustainable way;
- to promote the increase of the economic and social rent from fisheries and aquaculture;
- to grant and encourage legal certainty to fishing and aquaculture activities; and

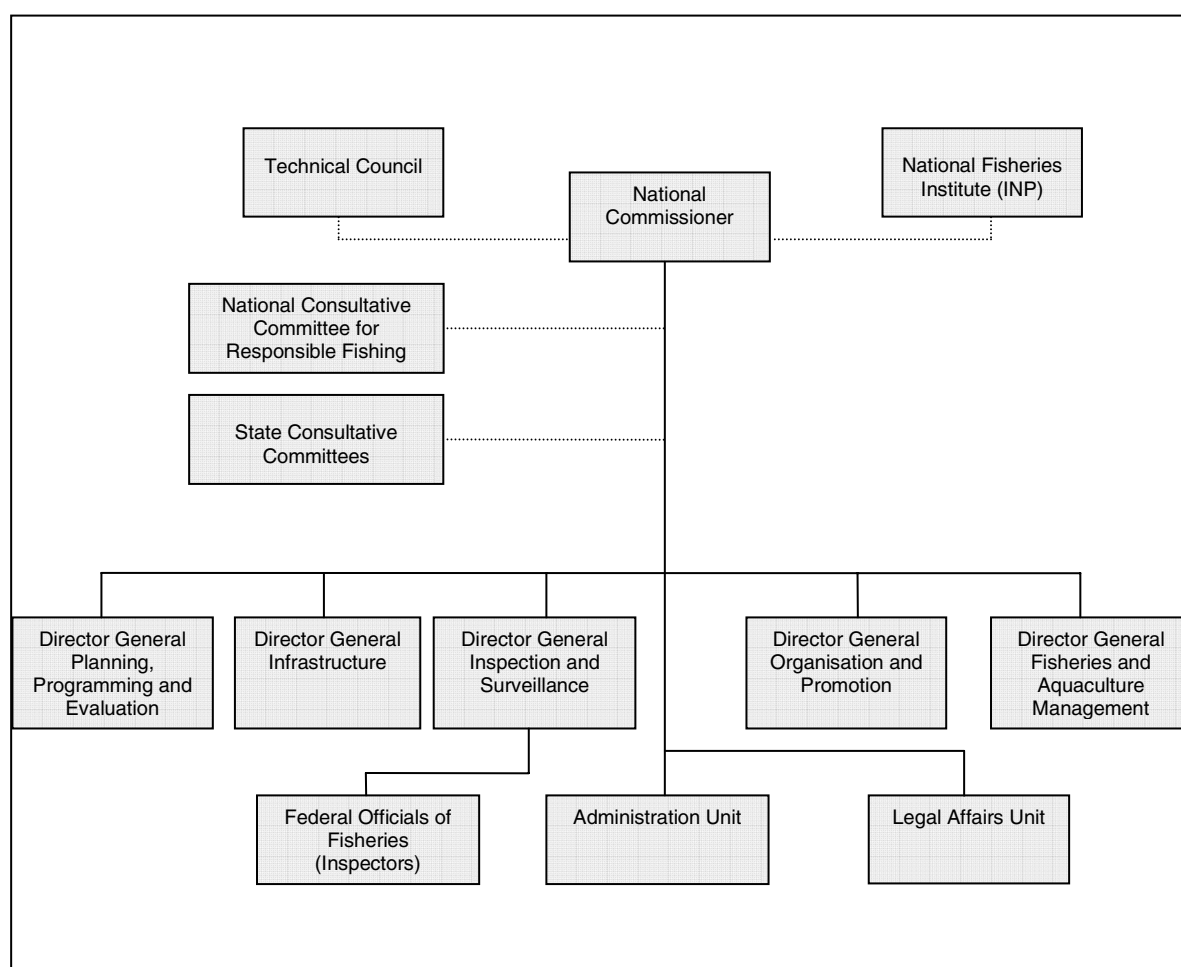
- to promote support programmes and services to fishing and aquaculture activities.

In addition, the *Programa de Acuacultura y Pesca* provides the following objectives for the Instituto Nacional de Pesca (INP):

- involve stakeholders in fisheries research; and
- optimise the commercial use of fisheries products.

CONAPESCA operates together with the National Consultative Committee on Responsible Fishing and other State Consultative Committees (wherever they are in place) which define more specific policy and planning measures for several of the fisheries of both the Pacific Ocean and the Atlantic Ocean coasts (Chart 10.1). The management measures are developed to comply with Mexico's natural protected areas regulations which are devised and enforced by the SEMARNAT and more specifically by the CONANP (or Comisión Nacional de Areas Naturales Protegidas) for areas under federal jurisdiction or by the Secretariats of the Environment at the state level for those protected areas within a state jurisdiction.

Chart 10.1. Organisation chart of CONAPESCA



Source: CONAPESCA.

With the transfer of fisheries management to the Secretariat of Agriculture, the now Secretariat of Environment and Natural Resources (Secretaría del Medio Ambiente y Recursos Naturales, SEMARNAT) retained the functions of sanctioning the National Fisheries Chart 2000 (CNP) to ensure compatibility with resource conservation and sustainability strategies and determine such measures like closed seasons. SEMARNAT also is in charge of managing Protected Natural Areas (Áreas Naturales Protegidas, ANPs). Fishing takes place in some marine ANPs (such as in the upper Gulf of California) and in those areas SEMARNAT and CONAPESCA each has responsibilities and must coordinate their actions, with the latter responsible for regulating fishing in the ANPs.

CONAPESCA undertakes fisheries surveillance but has limited enforcement powers. It must refer legal actions to the National Prosecutor for further action which reduces the ability of CONAPESCA to respond to fisheries violations in a timely manner. PROFEPA has enforcement powers in relation to tortoises, endemic species and endangered species.

The state governments and local municipalities play a limited role in fisheries. The major role that State governments have is in the provision of funding for regional fishing support programmes where they are responsible for allocating a portion of Federal funds. Up until recently, the role of a State fisheries officer was to provide a liaison between the State governor and the fishing industry. Now the States have expanding fisheries offices with increasing responsibility for allocating funding. This reflects the conflicting objectives that sometimes underlie the provision of funding under the fisheries support programmes, as they attempt to meet both fisheries development and rural development objectives.

Major stakeholders are organized into various industry and social organizations. Most of the large scale commercial fishers are grouped under the National Fisheries and Aquaculture Industry Chamber (Cámara Nacional de la Industria Pesquera y Acuícola, CANAINPESCA). Some farmers form independent associations. Artisanal fishers are usually organized in fishing cooperatives, grouped under the National Confederation of Fishing Cooperatives (Confederación Nacional de Cooperativas Pesqueras, CNCP). However, there are many cooperatives not affiliated to that organization. Many fishers belong to “Social Solidarity Societies” (SSS) and many “free fishers” do not belong to any group so the representativeness of the CNCP is not as complete as that of CANAINPESCA. The political organization and power of the commercial fishers tends to be significantly greater than that of the cooperatives, with more coordinated policy positions supported by access to scientific expertise. However, the cooperatives retain an element of regional influence, particularly in the poorer coastal states where artisanal fishing plays a stronger social role in the rural economy.

New fisheries law

A new “General Law for Sustainable Fisheries and Aquaculture” was unanimously passed by both Chambers of the Mexican Congress in 2006 although it is not yet in force. It builds on the existing objectives under the PADF, expanding them to more explicit objectives covering a wide range of fisheries and aquaculture management issues. The objectives in the new General Law are to:

- Establish and define principles to promote and regulate all of the management and sustainable use of fisheries and aquaculture resources, by taking into account social, technological, biological and environmental aspects.

- Promote the improvement of national fishers' and fish farmers' well-being through programmes on the fisheries and aquaculture sector.
- Fix the basis for the regulation, conservation, protection, restocking and the sustainable use of fisheries and aquaculture resources, as well as protecting and rehabilitating the related ecosystems.
- Fix basic norms for planning and regulating the sustainable use of fisheries and aquaculture resources in selected, controlled, natural or artificial environments so that the partial or complete biological cycles take place in maritime, inland or brackish water in both public or private lands.
- Provide the right of access and use of fisheries and aquaculture resources preferably for indigenous communities and villages mentioned in this law.
- Establish basis and coordination mechanisms between Federal authorities, entities and municipalities.
- Determine and establish basis for the creation, operation and functioning of participation structures for fisheries and aquaculture producers;
- Support and facilitate scientific and technological research in fisheries and aquaculture.
- Establish concession rules and licences for the fisheries and aquaculture activities.
- Establish basis for the development and implementation of hygiene measures for fisheries and aquaculture resources.
- Establish basis for the certification of the hygiene, safety and quality of fisheries and aquaculture products, from capture to processing; as well as all related activities and establishments in which the production and the conservation take place.
- Establish the National System of Fisheries and Aquaculture Information and the National Registry of Fisheries and Aquaculture.
- Establish basis for the inspection and enforcement in Fisheries and Aquaculture activities, such as coordination mechanisms with competent authorities.
- Determine offences and related penalties for failures to recognize or violations of this law, its regulations and the Official Mexican Norms.
- Propose mechanisms that guarantee the orientation of fisheries and aquaculture towards nutritional goods.

Research

In 1962, Mexico established the National Fisheries Institute (INP), the main functions of which include undertaking activities related to the examination of and research into the country's marine resources in order to propose and formula the appropriate strategies and measures for their exploitation and use.

The National Fisheries Institute (INP) bears responsibility for, among others, assessment of the status of national fisheries as well as the evaluation of fishing gear and assessment of aquaculture projects (Alvaro-Torres *et al.* 2002). The organization is entitled by law to give the scientific and technical basis for decision making and gathering the required data. It has a decentralized network of 14 Regional Centers of

Fisheries Research (*Centros Regionales de Investigación Pesquera*, CRIPs). It has no direct vertical hierarchical link to the present CONAPESCA, as both are subordinated to SAGARPA. Due to retirements and difficulties in attracting new well-qualified recruits, among other reasons, this institution has also reduced in size with 250 researchers and technicians remaining out of the former 400. A recent review of INP by the FAO has highlighted this capacity issue and has recommended that the funding of INP be increased to allow it to undertake the mandate for scientific analysis with which it is charged (FAO 2005).

Universities and technical centres are additional sources of research into fisheries and aquaculture scientific issues.

There is very little work done in Mexico on economic and social aspects of fisheries management policy and the literature in this area is very small. The interest in such studies at the policy level appears slight, yet it is these types of studies which will provide essential information on the socio-economic impacts of fisheries policy changes. Such studies have the potential to improve the ability of fisheries managers to better design and target management measures in order to improve economic efficiency, cost-effectiveness and coherence with other policy areas. This is an area in which further work should be undertaken by the government, either on its own behalf or through the INP and university research networks.¹

Support programmes

The Mexican government provides financial support to the sector through a number of programmes overseen by CONAPESCA and SAGARPA. The *Programa de Alianza Contigo* is the major programme run by CONAPESCA and is part of a larger programme of the same title run by SAGARPA for the agricultural sector (see Part II). A major public works programme and diesel and gasoline fuel subsidy scheme are also run by CONAPESCA. Financial support is also given to the sector in the form of soft loans and loan guarantees provided through *Fideicomisos Instituidos en Relación con la Agricultura-Fondo para la Pesca* (FIRA-FOPESCA), BANCOMEXT and *Financiera Rural*. This section reviews the nature and extent of support provided to the sector, based on the OECD's definition of government financial transfers (GFTs) (Box 10.1).

Box 10.1. Defining government financial transfers

The standard framework used by the OECD for collating and presenting data on support programmes for the fisheries and aquaculture sector is the concept of government financial transfers (GFTs). GFTs are defined as the monetary value of government interventions associated with fisheries policies and covers transfers from central, regional and local governments (OECD, 2006). They include transfers which are directly provided from government budgets; which are a potential direct transfer of funds or liabilities (such as loan guarantees); and which consist of foregone government revenue (such as tax exemptions). Transfers which provide support to the sector but which are not made directly to the sector, such as payments for fisheries management, research and enforcement, fisheries specific infrastructure, and fisheries access agreements, are also included. The classification of financial support programmes within the GFT structure provides a useful organising framework that allows comparisons to be made over time and between countries.

Source: OECD (2006).

Overview of government financial transfers

Government financial transfers (GFTs) to the Mexican fisheries sector have fluctuated in recent years. Total transfers to the sector in 2004 amounted to MXN 1.7 billion, a decrease of MXN 410 million from 2003 (Table 10.2). Around 66% of the GFTs were directed to the marine capture fisheries sector in 2004 (83% in 2003), 16% to the aquaculture sector (10% in 2003) and 18% to the marketing and processing sector (7% in 2003).

Transfers to the marine capture fisheries sector represented 19% of the value of production in the sector in 2003. This is marginally below the OECD average of 21% in 2003, the last year for which comparable data are available (Figure 10.1). This has increased from 14% of the value of production in 1996. A notable difference between Mexico and the rest of the OECD is the relative shares of GFTs provided to direct payments, cost reducing transfers, management, research and enforcement services, and infrastructure (Figure 10.2). In Mexico, 72% of the GFTs in 2004 provided to the marine capture sector were given as direct payments and cost reducing transfers, primarily in the form of subsidised loans, grants and diesel subsidies. This compares to an average of 24% for the OECD as a whole.

Table 10.2. Government financial transfers to Mexico's fisheries sector

	2002 ^a MXN 000	2003 MXN 000	2004 MXN 000
Marine capture	1 218 765.0	1 907 625.8	1 285 147.8
Direct Payments	14 606.5	19 931.5	19 188.8
License payments	2 500.0	2 500.0	2 500.0
Liquid guarantees (PAASFIR-FINCAS)	12 106.5	17 431.5	16 688.8
Cost Reducing Transfers	1 110 759.5	1 631 653.4	906 600.2
Unspecified transfers ^b	535 236.6	786 237.1	436 856.2
Marine diesel programme	575 522.9	845 416.3	469 738.0
General Services	93 399.0	256 040.9	359 358.8
Research expenditure ^c	6 500.0	6 777.5	53 089.5
Management expenditure ^d	9 810.0	7 305.0	17 816.0
Enforcement expenditure ^e	-	45 921.7	54 677.4
Infrastructure ^f	77 089.0	196 036.7	233 775.9
Aquaculture	40 411.4	127 986.1	194 266.9
Direct Payments ^g	124.8	207.9	250.4
Cost Reducing Transfers	40 286.6	59 179.1	32 881.7
General Services ^h	-	68 599.1	161 134.8
Marketing and Processing		71 145.8	217 403.2
Direct Payments	-	-	-
Cost Reducing Transfers	-	-	-
General Services ^h	-	71 145.8	217 403.2
GRAND TOTAL	1 259 176.4	2 106 757.7	1 696 817.9

a. Data are for June to December.

b. Includes payments made under the *Programa de Alianza Contigo*.

c. Transfers to the *Instituto Nacional de la Pesca*. For 2004, they include investments for research through the *Programa de Alianza Contigo*.

d. Does not include salaries and wages. Includes investments for programmes of observers on board of the major fleet and expenditures of the regional management plans.

e. Refers to the costs of inspection and enforcement operations. Wages are not included.

f. Payments under the *Programa Normal de Inversion en Materia de Obra Publica*.

g. Payments for culture of species in federal jurisdiction waters, such as the commercial aquaculture or the restocking (investigation, experimentation or prospecting).

h. Aid granted by the Federal government for the development of projects within the framework of *Programa de Alianza Contigo*.

Source: CONAPESCA.

Figure 10.1. Comparison of GFTs as a proportion of production for marine harvest sector for OECD countries, 2003

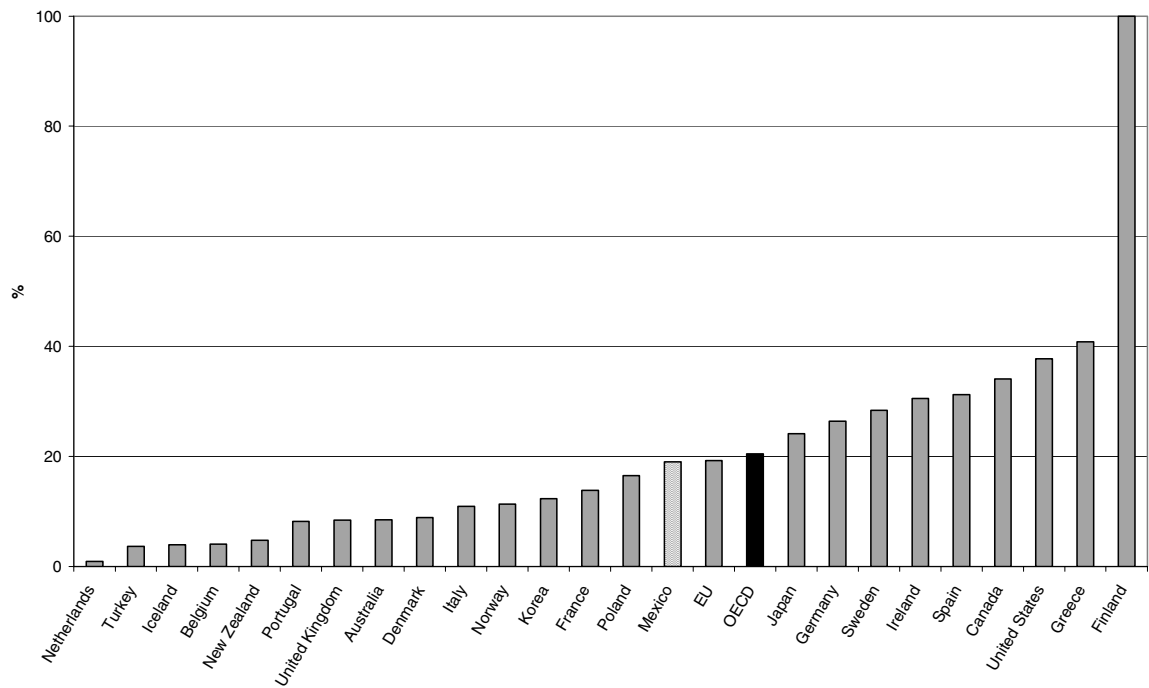
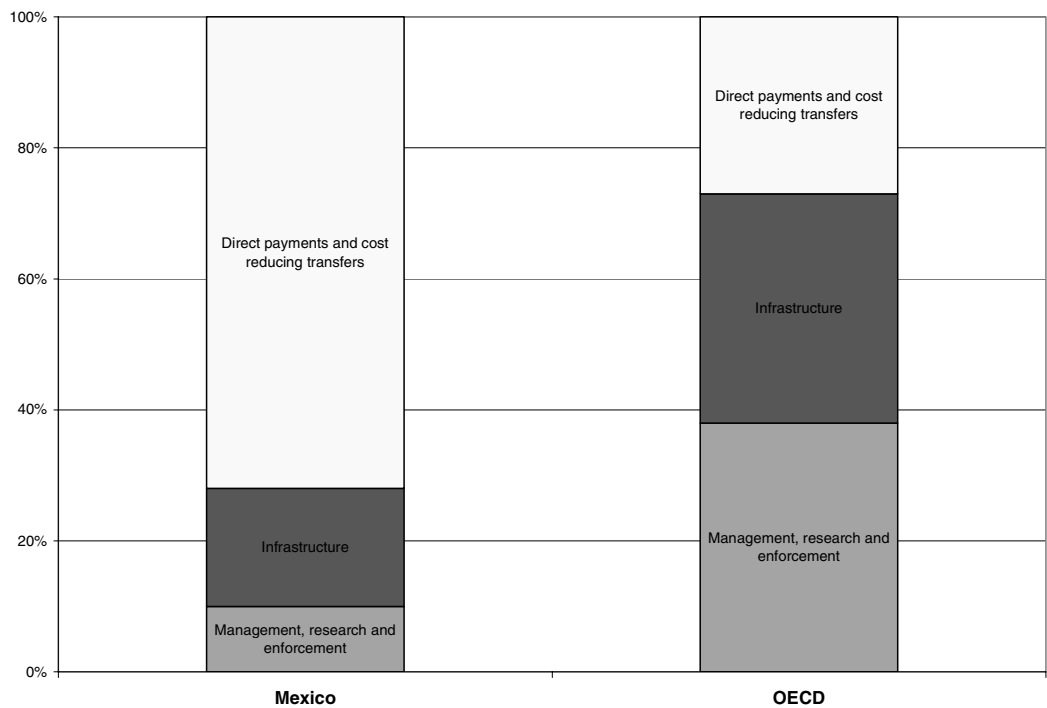


Figure 10.2. Shares of GFTs to marine capture fisheries for Mexico and total OECD, 2003



Some caveats are in order for the data in Table 10.2. First, the data are for the Federal government transfers only; state government transfers are not included. Secondly, the wages and salaries of operations for enforcement and management are not available. Third, the funds provided to the INP for research represent only a portion of the funding for INP, which also receives funding from SAGARPA. Finally, the cost to the government of the provision of soft loans under FIRA-FOPESCA, BANCOMEXT and *Financeria Rural* are not included in the table. For these reasons, the GFTs reported in the table are an under-estimate of the total support provided to the sector.

Programa de Alianza Contigo and Programa de Inversion en Materia de Obra Publica

The *Programa de Alianza Contigo* is a cluster of programmes that were formerly operating under the *Alianza para el Campo*, which was begun in 1996. It serves as an umbrella for a number of programmes including many that focus on increasing fisheries and aquaculture productivity and improving production facilities. The basic objective of the *Alianza Contigo* programme is to “promote and increase the integrated development of the fisheries and aquaculture sector through the rational and sustainable use of fisheries and aquaculture resources in order to increase the level of well-being of producers, their families and the fisheries and aquaculture communities.” The programme focuses on improving productive infrastructure, combating aquatic diseases, transferring relevant technology and promoting the integrated development of rural communities. Projects under *Alianza Contigo* are partly financed by the Federal government but the projects are approved at the State government level, even though the States do not always contribute to the funding. The beneficiary producer completes the remaining part of the expenses either by themselves or by a financial institution. The percentage of the Federal government’s financial participation depends on the operation rules indicated on the related programme.

In 2005, a total of MXN 836 million was provided to the fisheries and aquaculture sector under *Alianza Contigo* through a number of programmes (Table 10.3). These were related to: the development of production projects and action plans; infrastructure; aquaculture support through *Programa Nacional de Acuicultura Rural* (National Programme for Rural Aquaculture, PRONAR); and effort reduction (Figure 10.3).

Table 10.3. Expenditure under Alianza Contigo, 2005

Sector	Total expenditure ^a	Federal expenditure
	MXN 000	MXN 000
Agriculture	2 489 396	1 907 599
Livestock	1 455 535	1 072 701
Rural Development	3 155 790	2 545 174
Fisheries	908 904	836 803
Health and innocuity	1 214 145	772 837
Other programmes	138 410	98 900
Total	9 362 180	7 234 014

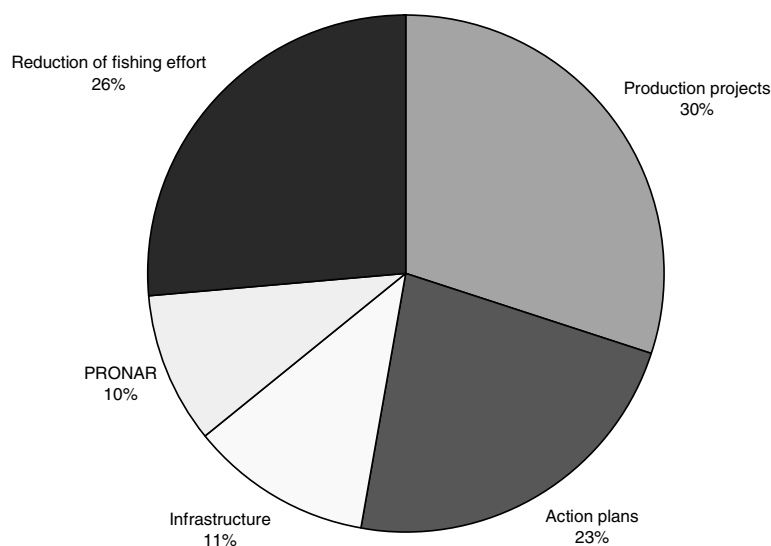
a. Includes expenditures at both State and Federal levels.

Source: SAGARPA.

The production projects and action plans focus on the research, technological development and fisheries modernisation. This includes projects for:

- research and provision of selective catch systems for shrimp and freshwater scale fish;
- social and economic studies;
- fishing effort assessment;
- onboard observers;
- management plans;
- gear replacement and modernisation; and
- provision of safety and communications equipment for commercial vessels.

Figure 10.3. Distribution of support to aquaculture and fisheries under Alianza Contigo, 2005



Source: SAGARPA.

The infrastructure expenditure under *Alianza Contigo* is coordinated with state governments and private sector participants. It is used in conjunction with Federal funds from the *Programa de Inversion en Materia de Obra Publica*. The objective of the *Programa Normal* is to increase the economic and social rent from the sector through investment of financial resources and subsidies. The programme takes place as part of the National Development Plan of SAGARPA and includes the *Programa de Rehabilitación de Sistemas Lagunares Costales* covering the rehabilitation of coastal lagoons. Together, these programmes provide for the construction, extension, maintenance and rehabilitation of a range of infrastructure and other facilities for the fisheries and aquaculture sector including:

- Dredging of coastal lagoons and creation of canals between lagoons and the mouth of estuaries.
- Construction of breakwaters at the entrance to coastal lagoons to improve access and reduce sedimentation and artificial banks for lagoons.
- Construction of borders and feeding canals for aquaculture ponds.
- Water pumping facilities.
- Construction of artificial reefs.
- Construction of infrastructure such as wharves and handling facilities (including cold storage networks and shrimp processing facilities) for rural communities.
- Construction and maintenance and operation of the *Centros Acuicolas* (Aquaculture Centres).
- construction, maintenance and operation of fishing ports.
- environmental, biological, technical, economic and social studies of coastal environment.

Over the period 2001-2006, 590 infrastructure-related projects have been undertaken under *Programa Normal* and *Alianza Contigo* (Table 10.4). Most of the projects related to the establishment of the Aquaculture Centres in 2001-03, followed by engineering studies and public construction works (dredging, etc). Over the period, 2001-2006, CONAPESCA estimates that the programme has resulted in 8.8 million cubic metres being dredged from lagoons, 174 km of canals being constructed, 4.3 km of breakwaters and 65 990 hectares of rehabilitated coastal areas. These works directly benefited an estimated 14 147 fishers and 56 092 people indirectly (fishers' families).

Over the period 2001-2006, a total of MXN 1.555 billion has been spent on infrastructure for the sector. This includes expenditures under *Alianza Contigo*, *Programa Normal*, and contributions from state governments and producers (Table 10.5).

Table 10.4. Infrastructure-related projects under *Alianza Contigo* and *Programa Normal*, 2001-2006

Type of project	<i>Programa Normal</i>	<i>Alianza Contigo</i>
Dredging	15	38
Breakwaters	4	4
Control structures for canals	1	
Wharves	20	67
Aquaculture Centres	67	
Supervision of works	104	
Cold storage networks		7
Centres for Acopio		16
Shrimp processing facilities		124
Electrical equipment		7
Artificial reefs		7
Various studies	71	38
Total	282	308

Source: CONAPESCA.

**Table 10.5. Total expenditure on infrastructure-related projects
2001-2006 (MXN million)**

Contributor	2001	2002	2003	2004	2005	2006
<i>Programa Normal</i> (Federal government)	30.76	76.69	191.74	154.91	161.16	194.99
<i>Alianza Contigo</i> (Federal government)			71.15	60.42	48.59	5.89
<i>Alianza Contigo</i> (State governments)				159.30	93.64	38.18
Producers			28.29	108.45	49.56	3.50
State governments (outside <i>Alianza</i>)				57.69	19.37	1.12
Total	30.76	76.69	291.18	540.78	372.32	243.68

Source: CONAPESCA.

Alianza Contigo also funds the *Programa Nacional de Acuacultura Rural* (National Programme for Rural Aquaculture, PRONAR), studies, organisations and development plans developed by the States, and the construction of common-use infrastructure (piers, cold-storage rooms). Priority is also given to sanitary and disease issues. Around MXN 81 million was spent under PRONAR in 2005.

Shrimp vessel decommissioning scheme

A recent policy development has been the introduction of a vessel retirement scheme, funded under *Alianza Contigo*. This was introduced into the shrimp fishery in both the Pacific and the Gulf of Mexico in response to a persistent excess of vessels, declining resources and poor profitability. The government initiated vessel retirement at the end of 2004 and the first vessels were retired in 2005. The scheme operated on a voluntary basis and no targeted decommissioning was undertaken. A fixed payment of MXN 100 000 was given for a vessel and its attached permit. The eligibility requirements for the scheme were that the vessel had to have a valid permit, a catch landing document for the immediate prior season (that is, it had to be an active vessel), and no outstanding fines. In 2005, 222 vessels were retired under the scheme, representing around 10% of the total shrimp fleet. This was a trial scheme and dependant on future funding to continue. There are plans to extend the decommissioning scheme within the shrimp fishery or to other fisheries.

Marine diesel subsidy programme

As part of the Sectoral Plan introduced by SAGARPA in 2000, a programme of subsidies for the use of diesel by fishing vessels (as well as other agricultural producers) was started. This was intended to assist in the achievement of the objective to improve the social and economic profitability of the fisheries sector. A programme was put in place by CONAPESCA in 2002 to replace the former mechanism known as “*Vale pesquero*” which was coordinated by *Petroleos Mexicanos* and the *Secretaria de Hacienda y Credito Publico*.

In order to improve the efficiency of the programme, a new operating scheme was implemented in July 2004 in which the beneficiary fishery producers are assigned a quota for diesel through the use of an electronic card. This latter is also used for establishing more reliable control mechanisms with respect to the diesel consumption. The enterprise INBURS, which is in co-charge of this functioning with CONAPESCA, is able to monitor each beneficiary by registering the consumption place, date and quantity. In this way, authorities can check the destination and the use of the assigned quota. This “intelligent card” system allowed an important data creation that is currently used by CONAPESCA to support several priority policies and programmes.

From the beginning of the “Vale Pesquero” in 2002, until the end in 2004 with the “Intelligent Card” system, the total support granted to fishery and aquaculture producers amounted to some MXN 1 780 million that relates a total consumption of 1 144 million litres of marine diesel (the average support is then being MXN 1.55 per litre). More than 3 200 producers benefited from this programme in Mexico.

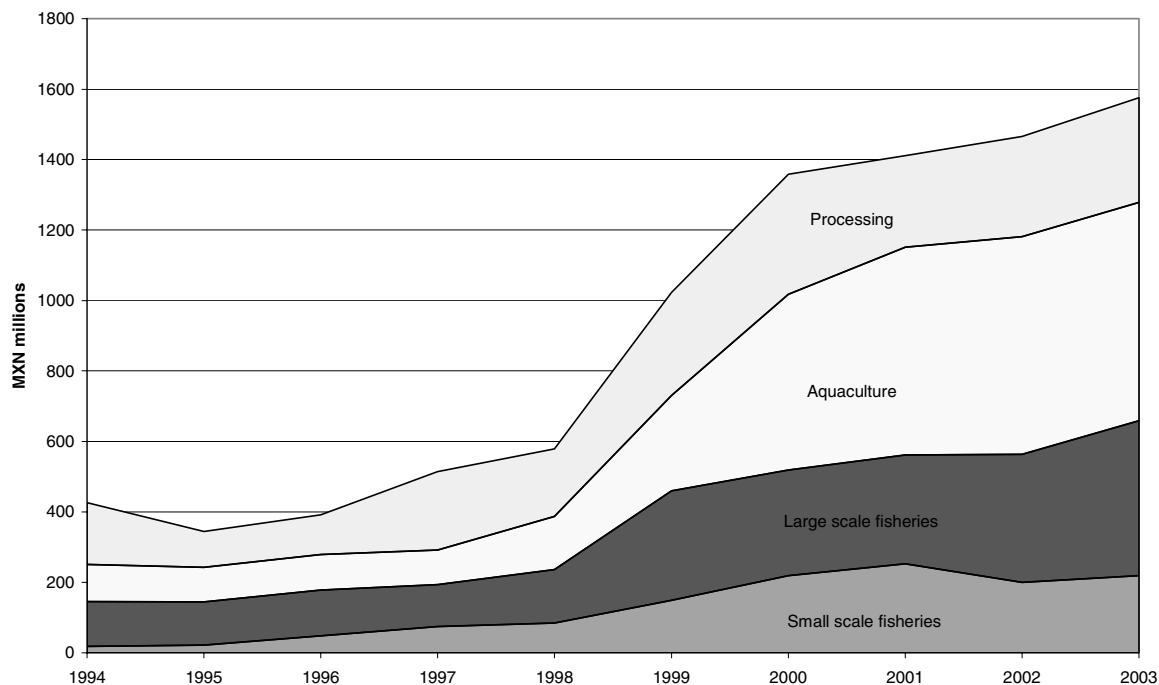
In addition to the marine diesel subsidy programme, a marine gasoline subsidy programme is also in place. Known as *Gasolina para pesca riveraña*, this programme is directed towards reducing fuel costs for inland fishers. No details on expenditure under the programme are available at the time of preparing this report and so are not included in the data on government financial transfers.

FIRA-FOPESCA and BANCOMEXT

The *Fideicomisos Instituidos en Relación con la Agricultura* (FIRA) programme was established about 50 years ago in order to provide credits and guarantees to the agricultural, forestry, fisheries and rural sectors. This second-tier, government-owned fund is managed by the Banco de Mexico, Mexico’s central bank. The fisheries sector is supported through the specific fund, FIRA-FOPESCA. This programme allocated MXN 1 575 million (USD 146 million) to the sector in 2003 (Figure 10.4). While the nominal growth rate in expenditure has been very high at an annual average rate of 16% between 1994 and 2003, expenditure has actually declined in real terms by an annual average of 1% over the period.

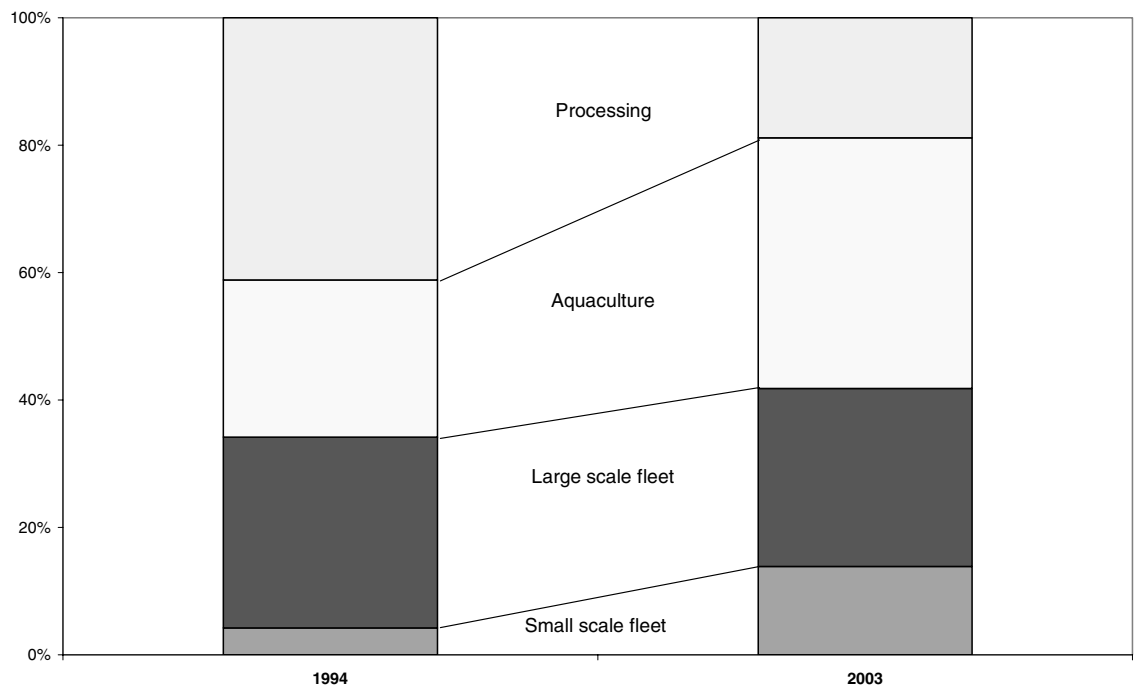
The shares of the activities financed under FIRA-FOPESCA have changed significantly between 1994 and 2003 (Figure 10.5). The shares devoted to aquaculture and the small scale fishing sector have increased to 39% and 14%, respectively, while the shares directed towards the processing sector and the large scale fleet have declined to 19% and 28%, respectively. Over the period 1994-2003, most of this financial aid was provided to the NW Pacific region, primarily the states of Sonora and Sinaloa, in order to support both the offshore shrimp fishery and shrimp aquaculture facilities (Figure 10.6). The share of expenditure directed towards shrimp aquaculture development and artisanal fishing in the poorer SW Pacific region (primarily Colima, Nayarit and Jalisco) has increased. The expansion in expenditure in the Pacific coast has occurred at the expense of the east coast and inland fisheries.

Figure 10.4. Expenditure under FIRA-FOPESCA, 1994-2003

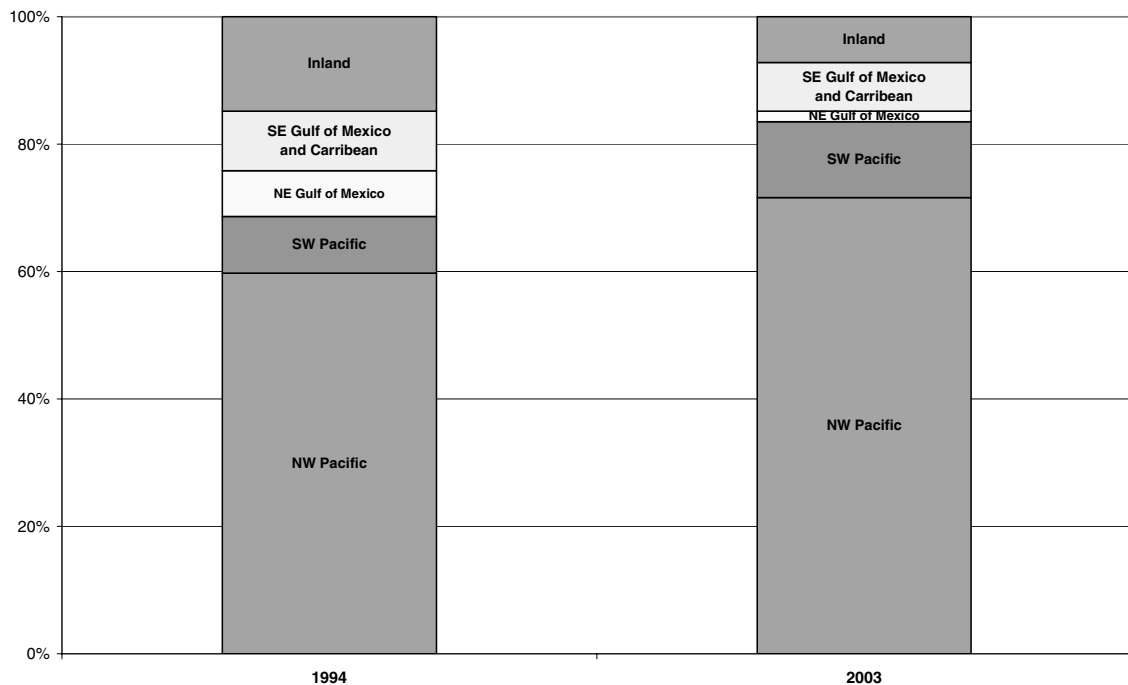


Source: CONAPESCA.

Figure 10.5. Shares of funding for different activities under FIRA-FOPESCA, 1994 and 2003



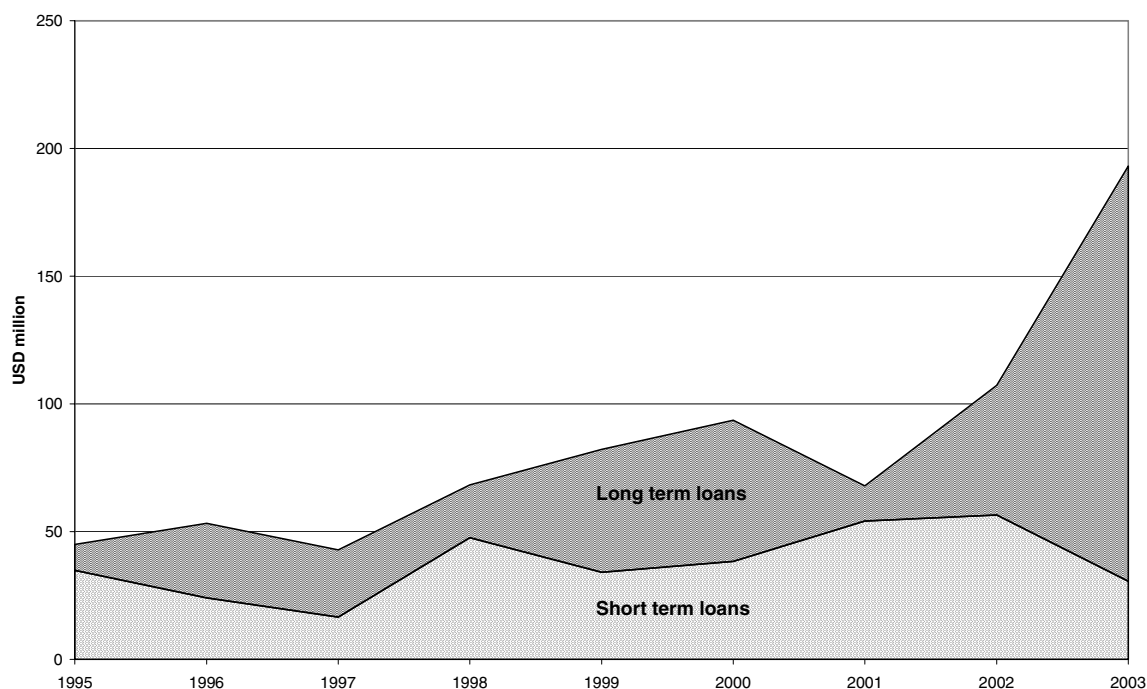
Source: CONAPESCA.

Figure 10.6. Destination of FIRA-FOPESCA funding, 1994 and 2003

Source: CONAPESCA.

BANCOMEXT is Mexico's foreign trade bank and seeks to encourage Mexican exports by providing assistance with financial requirements to exporting companies. This occurs through the provision of discounted, direct and government loans and pre and post-export guarantees. In 2003, BANCOMEXT granted a total of USD 193 million in loans to the fishery sector, consisting of USD 30.5 million in short-term loans and USD 162.5 million in long-term loans (CONAPESCA 2003). The amount of loans has increased significantly over the last decade from USD 44.9 million in 1995 to almost USD 200 million in 2003 (Figure 10.7). The dramatic increase in the long term loans reflects government efforts in promoting the industry as well as greater confidence on the part of private companies in the long term future of the industry.

Finance is also available to small-scale aquaculture operators and artisanal fishers through the government institution, *Financiera Rural*, which replaced the troubled agricultural development bank, Banco Nacional de Credito Rural (BANRURAL) in 2003. Unlike BANRURAL, Financiera Rural is not a bank but disperses funds through the branches of several affiliated banks. The primary objective of Financiera Rural is to make loans available to producers and rural financial intermediaries, to facilitate capacity building among producers, and to foster the development of rural financial intermediaries. The main mechanisms of support through this programme are subsidised interest rates, subsidised credit guarantees, and debt forgiveness and restructuring. The aquaculture sector is making some use of the facilities under *Financiera Rural*, but there is scope for increasing participation in the programme, particularly with respect to the development of financial intermediaries.

Figure 10.7. Loans to the fishery sector by BANCOMEXT

Source: CONAPESCA.

International engagement

Mexico is actively engaged internationally. It is a signatory to the key international agreements governing the sea and fisheries resources, with the exception of the UN Fish Stocks Agreement (Table 10.6). It is also an active member of the two major regional fisheries management organisations (RFMOs) affecting its fisheries policy: the Inter-American Tropical Tuna Commission (IATTC) and the International Convention for the Conservation of Atlantic Tunas (ICCAT) (Table 10.7). The regulations developed under these RFMOs are translated directly into Mexico's management measures for its tuna fisheries.

In 1992, Mexico and the FAO organized the International Conference for Responsible Fisheries in Cancun. At that Conference, the FAO began the process of formulating the Code of Conduct for Responsible Fisheries which was negotiated over the next four years and finally agreed in 1995. Since then, Mexico has been actively engaged in FAO activities to support the implementation of the Code of Conduct.

In 2005, a Free Trade Agreement with Japan was approved. This had an impact on the fisheries sector as it was possible to liberalise 207 tariff lines for fisheries products, representing 63% of fishing products tariff lines. This will make it easier for Mexican fisheries products to enter the Japanese market. Mexico is the main source for tuna imports into Japan.

Table 10.6. Membership of international fisheries-related organisation

International Bodies of which Mexico is a member	Date of entry into force
International Whaling Convention	1949
Inter-American Tropical Tuna Commission	1950
International Convention for the Conservation of Atlantic Tunas	1969 (Mexico joined in 2002)
Western Central Atlantic Fisheries Commission	1973
Agreement on the International Dolphin Conservation Programme	1999
Inter-American Convention for the Protection and Conservation of Sea Turtles	2001
Latin American Fisheries Development Organization (OLDPESCA)	1982
Information Services Center for Fishery Products Marketing in Latin America and the Caribbean (INFOPESCA)	1994

Source: Internet Guide to International Fisheries Law, www.intfish.net.

Mexico has been actively participating with Latin-American countries, Canada and the United States in progress towards establishing an Aquaculture Network in America (ANA). The purpose of the ANA is to establish a regional mechanism to support aquaculture sector development in North and South America, improving the sanitary and quality of aquaculture products, and strengthen capacity building and exchange of technology. The network has similar objectives as the NACA network established in Asia.

A major feature of Mexico's international fisheries policy concerns has been the use by some countries of trade measures to promote conservation measures. This has been particularly evident in relation to the tuna-dolphin disputes and the use of turtle excluder devices in shrimp fisheries. Mexico, along with other countries, has promoted the development of cooperative multilateral instruments in order to enhance the conservation of fisheries and marine resources, seeking to ensure that fish caught in a sustainable manner can receive the benefit of access to the international markets. For example, Mexico has played a leading role in the development of the InterAmerican Convention for the Conservation of Marine Turtles.

Mexico is also a founding member of the Agreement on the International Dolphin Conservation Programme (IADCP), an organisation set up in the wake of the tuna-dolphin disputes between Mexico and the United States. The IADCP, and its predecessor the La Jolla Agreement, has been very successful in reducing the mortality of dolphins in tuna fishery operations.² During 2003, 94% of all sets made on tuna associated with dolphins were accomplished with no mortality or serious injury to the dolphins. Furthermore, the total mortality of dolphins in the fishery has been reduced from about 132 000 in 1986 to less than 1 500 in 2004 — about 0.015% of the estimated population. The Tuna Tracking System established under the AIDCP tracks the tuna caught in each set from the time it is captured until it is unloaded. Tuna caught in sets in which dolphins are not killed or seriously injured is defined as “dolphin-safe.”

Table 10.7. Mexico's engagement with key international governance arrangements

Treaty	Signature	Ratification
International Convention for the Regulation of Whaling <i>Refers to the proper conservation of 'whale stocks'</i>	8 June 1937	1 July 1937
Convention on the Law of the Sea <i>The Convention establishes a legal order for the seas and oceans that defines use of the seas, utilization of resources, conservation of living resources and the study, protection and preservation of the marine environment</i>	10 December 1982	18 March 1983
Agreement Instituting the Latin American Organization for Fisheries Development <i>To provide adequately for the food needs of Latin America and the Caribbean using the potential of fishery resources for the benefit of people in the region</i>	14 June 1983	2 November 1984
La Jolla Agreements <i>To reduce dolphin mortality in the Eastern Pacific Ocean and seek ecologically sound means of capturing large yellowfin tunas not in association with dolphins</i>	April 1992	n/a
Panama Declaration on the Reduction of Dolphin Mortality in the Eastern Pacific Ocean <i>Reaffirming the La Jolla Agreements</i>	4 October 1995	n/a
Code of Conduct for Responsible Fisheries <i>The Code sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources with due respect for the ecosystem and biodiversity.</i>	31 October 1995	n/a
Agreement on the International Dolphin Conservation Programme <i>To ensure the long-term sustainability of tuna stocks in the eastern Pacific Ocean as well as living marine resources related to tuna fisheries, to seek ecologically sound means of capturing large yellowfin tunas not in association with dolphin, progressively reduce incidental dolphin mortality, and to avoid, reduce and minimise incidental catch and the discard of juvenile tuna and non-target species.</i>	15 May 1998	n/a
Rome Consensus on World Fisheries <i>Action is required to eliminate overfishing, rebuild and enhance fish stocks, minimise wasteful fisheries practices, develop sustainable aquaculture, rehabilitate fish habitats and develop fisheries for new and alternate species based on principles of scientific sustainability and responsible management.</i>	15 March 1999	n/a
Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (Fish Stocks Agreement) <i>The aim of this Agreement is to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the UN Law of the Sea Convention</i>	-	-
Convention for the Strengthening of the Inter-American Tropical Tuna Commission <i>To ensure the long-term conservation and sustainable use of the fish stocks covered by the Convention</i>	14 November 2003	14 January 2005

Source: Internet Guide to International Fisheries Law, www.intfish.net.

Key institutional issues

Mexican fisheries development has witnessed a number of institutional changes in few years which have deeply influenced both stakeholders' incomes and the condition of fish resources. In this section the consequences of institutional reforms are assessed. The analysis is focused on: the stability of the institutional structure, decentralisation of management; dealing with conflicts among stakeholders; improvements to coordination; and improvements to support programmes for the sector.

Institutional stability and long-term vision

A defining feature of Mexico's fisheries policies over the last couple of decades is the lack of stability in the institutional framework for the sector. It is clear that successive administrations have not been able to settle on an appropriate place for fisheries policy development and management functions within the Federal bureaucracy. The consecutive shifting of responsibility for fisheries has led to significant shifts in both policy directions and regulatory oversight.³ These changes in policy direction experienced since 1990 have not been conducive to maximising the potential for the fisheries sector to generate long-term net economic benefits for the country. The need for a stable policy framework is particularly acute for the fisheries sector where management policies should be geared to enable long term, sustainable utilisation of available resources. Multiple changes in policy direction over the last 15 years has led to incoherent policies and compromised the resource and economic sustainability of the sector over the longer term. Under the Mexican political system, such shifts are, to some extent, unavoidable where new plans are put in place with each change in administration. However, they should reflect minor course corrections rather than wholesale shifts in policy priorities.

One of the main causes of such policy shifts is the lack of a clear vision for the long-term future of the fisheries and aquaculture sector that is shared by government and stakeholders alike. Multiple sets of objectives for the fisheries sector are contained in the former Fisheries Law, the SAGARPA Programme for Fisheries and Aquaculture and CONAPESCA's objectives and strategic guidelines. While these objectives are a step in the right direction, they do not constitute a coherent and directed vision for the future of the sector and do not provide the basis for sound long-term planning and development. This increases the incentive for successive administrations to put their own stamp on the sector, reduces the stability of the regulatory framework, and increases the uncertainty faced by industry participants and other stakeholders. Importantly, it leaves the sector vulnerable to policy shifts that are motivated by short-term political priorities, further eroding stability and stakeholders' perceptions of the legitimacy of policy changes.

It is necessary, therefore, for the Mexican government to develop a higher-level, long-term vision for the future of the fisheries and aquaculture sector in order to provide an opportunity for ensuring that the vision and strategies can transcend political administrations and reduce long-term uncertainty in the sector. Recommendations for further adjustments in Mexico's fisheries policies need to be framed by a vision of Mexico's fisheries sector in the future. The objectives articulated in the new Fisheries Law provide a sound basis for the future as they include an array of resource sustainability, economic and social concerns, building on the advances made in recent years. However, an over-arching vision for the sector is still required.

From the various policy statements and objectives produced in recent years, coupled with the objectives under the FAO Code of Conduct for Responsible Fisheries and the OECD's guiding principles, it is clear that the articulation of such a vision can be readily developed and would centre around the following goals:

- contribute to overall economic growth;
- ensure sustainable resource use;
- increase the economic resource rent from fisheries and aquaculture;
- ensure resilient fishing communities, without dependency on government subsidies;
- reflect the societal benefits and costs of impacts on the environment in the decisions of its agents; and
- be responsive to market signals in both input and output markets.

This vision is of a fishery sector where, amongst other things, regulations are based on sound scientific and economic advice; effort is effectively controlled (and preferably “self-regulated” through the use of market mechanisms); fisheries are not the only recourse for unskilled or displaced labour in the absence of a social safety net; fishers are not dependent on government subsidies to maintain profitability; biological diversity is respected; illegal fishing is an exception and not commonplace; and stakeholder consultation and empowerment is a central feature of the institutional framework. The fisheries policy regime that will bring about this vision is one that recognises the potential for private markets to work, while finding the correct policy levers that will align private and societal benefits and costs. Fisheries policies that attempt to increase producer income or to improve sectoral growth by using subsidies, failing to reduce effort or inadequately enforcing regulations could have the opposite result. Such policies may penalise long-term development and delay the eventual achievement of this vision for Mexico's fisheries by failing to exploit or even undermining its own comparative advantage.

It is important to recognise that some of the necessary policy changes do not come within the remit of fisheries policy. Some general lessons from OECD work point to contributions that may be made by non-fisheries policies. Macroeconomic policy is critical: the negative effects of the currency crisis in the middle 1990s show the vulnerability of the poor. The need to improve education and reduce poverty extends throughout the economy, and requires nation-wide action. Improvements in institutions and governance that could offset the negative effects of the six-year political cycle by providing for greater continuity in the public service are best addressed directly, rather than by re-designing programme implementation to generate transparency and support.

Decentralisation of decision-making

A significant feature of the institutional arrangements for the sector under the current administration has been an increased emphasis on decentralisation of fisheries administration and management. There has been an increased focus on the development and implementation of mechanisms for consultation and stakeholder involvement. Consultative mechanisms are in place for improving dialogue between Federal, state and municipal governments in setting NOMs, allocating funds under the various support

programmes, and implementing management arrangements. Stakeholders also have a number of forums in which they have limited potential to influence policy development.

However, the decentralisation of decision making power and management responsibility has occurred at a very cautious rate and lacks a cohesive long-term plan. A regionalisation process for fisheries based on biophysical and social characteristics has the potential to improve transparency, increase accountability, increase stakeholder involvement and empowerment, enhance enforcement efforts, and better target financing and priorities for research and support. At the same time, regionalisation needs to be carefully designed and well-resourced within an overall institutional framework that works to support a well-articulated vision for the industry and to avoid political interference in management. This will require a robust and resilient institutional structure at Federal, regional and state levels.

An allied concern expressed by industry and others in the course of preparing this report is the incorporation of CONAPESCA into first SEMARNAP and now SAGARPA at the level of an Under-Secretariat. This largely reflects a concern about a perceived lack of influence on fisheries matters within the Federal Government as a result of having to compete to be heard within a large department covering many (mostly agricultural) sectors. These concerns were exacerbated by the transfer of CONAPESCA from Mexico City to Mazatlan in 2001. There are, of course, costs and benefits associated with this institutional arrangement and it is incumbent on the government to determine which arrangement best meets their objectives. However, the location of CONAPESCA in Mazatlan suits the objective of bringing decision making closer to the stakeholder communities. Its location within the major fishing region of Mexico is appropriate, although care needs to be taken to ensure that its decision making processes and consultation is seen as inclusive across the other fishing regions, most notably on the eastern coast of Mexico. Further efforts are required to develop a truly decentralised and regionalised system of decision making.

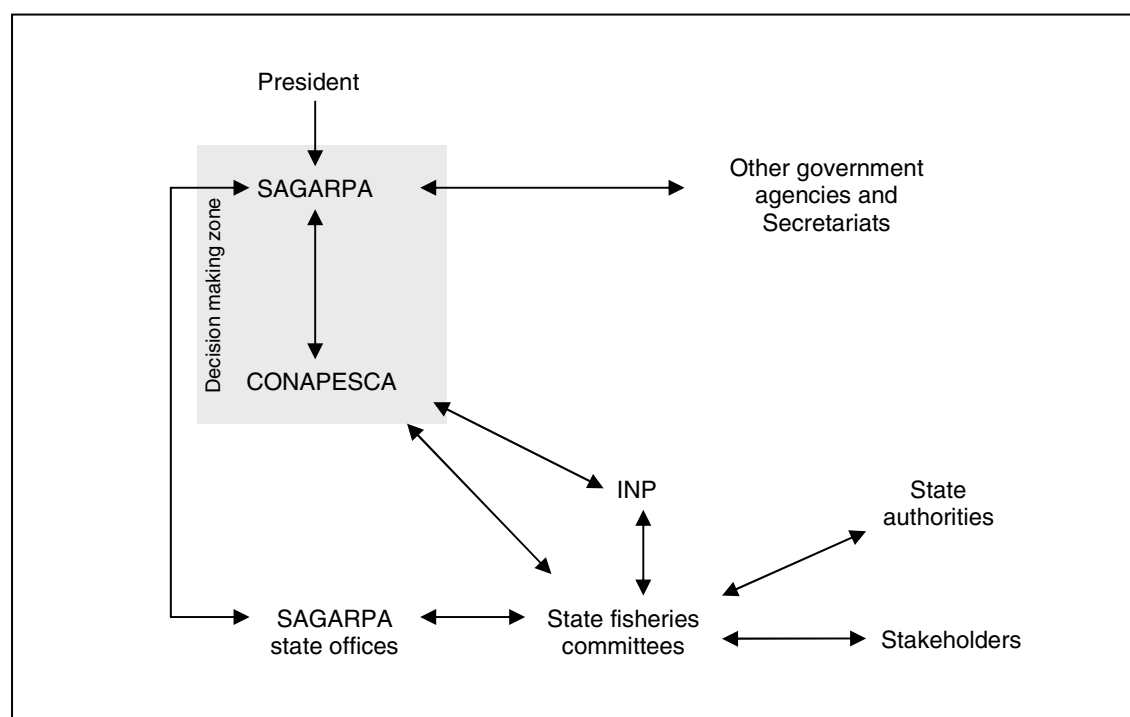
Three features of the current, partial, decentralisation are worth noting. First, the relocation of CONAPESCA from Mexico City to Mazatlan merely changed the place where centralised decision making was being undertaken. As can be seen in Figure 10.8, the decision making power still resides centrally with SAGARPA and CONAPESCA. The state offices for CONAPESCA are small in number, are co-located in SAGARPA state offices, and have low staffing and limited responsibility. Moreover, the fisheries officers in the state officers report to the local SAGARPA Under-Delegate rather than to CONAPESCA, a situation which compromises the lines of authority within SAGARPA and hampers effective monitoring and enforcement of fisheries regulations.

Second, earlier attempts to delegate decision power to coastal states through committees ran into difficulties for structural and political reasons. In responding to the guidelines of the FAO's Code of Conduct for Responsible Fisheries which encouraged meetings between government and stakeholders, SEMARNAP started to organise joint meetings with fishers, enforcers from PROFEPA, and scientists from INP during the 1990s. The purpose of the meetings was to move forward the process of setting up management measures in the form of NOMs for several fisheries. Initially, however, fishers were not motivated in participating because the committees' recommendations were often not taken into account by decision-makers at SAGARPA's and CONAPESCA's head offices (Hernández and Kempton, 2003). The fact that many of these meetings took place in Mexico City limited the effectiveness and perceived legitimacy of the eventual accords between authorities and fishers' representatives.

Decision making was still centralised, even when CONAPESCA's offices were located in Mazatlan. These meetings became increasingly politicised and dominated by powerful fishing industry lobbies, as has been the case in many other Latin American countries (Thorpe and Bennett, 2001). This has improved in recent years and increased consultation is now taking place. The key lesson from the experience is that it is necessary to ensure that the influence of short-term political pressure is minimised within the institutional structure for fisheries management decision making.

Third, the states are not necessarily the most appropriate geographic unit for decentralised decision making and management. Their boundaries reflect factors other than ecosystem considerations and neglect the fact that fish resources and inland waters are often shared across state borders. A biophysical basis for determining boundaries for fisheries management based on marine biodiversity patterns would be more appropriate. Otherwise, there is the potential for coastal states to compete against each other in a local race-for-fish, with the consequent risk of over-fishing and over-capitalisation.

Figure 10.8. Current institutional structure and decision making zone



One of the major aims of decentralisation is to provide local fishers with a more active role in fisheries management and increase incentives for resource stewardship (Young, 2001). As small-scale fishers have little political power, one development option is to strengthen fishers organisations, introducing a more efficient trading system to reduce the power of intermediaries (Hernández and Kempton, 2003), or in certain cases, by providing contingency funds for small-scale fishers (Lobato, 1996). Empowering fishers and encouraging local decision-making through some degree of co-management can also alleviate conflicts among stakeholders in Mexico. This has already started to take place in some local fisheries. Castilla and Defeo (2001) have demonstrated that an effective institutional arrangement for Latin American shellfish fisheries is a combination of co-management, self-government and property rights. They argue that one important

feature of co-management is communal ownership which encourages co-operation among fishers. For example, enforcement costs are a major obstacle in achieving sustainable management measures but might be eased by stakeholders under a co-management regime. Such a system has been observed only in a few cases, such as abalone and lobster fisheries: fishers share costs not only for stock assessments but for surveying and enforcing illegal fishing. As Hernández and Kempton (2003) stated, if fishers were more knowledgeable and more empowered, they would be more likely to act responsibly to the new regulations.

Decentralisation always bears the risk of empowering local interest groups who seek to collude with local authorities to improve short term profits at the expense of long term resource sustainability and rent (Breton *et al.* 1998). Moreover, it has been argued that decision-making power must remain centralised, as it would be difficult to set up a unique national fisheries policy if decisions were to be made in coastal states. However, a well-designed institutional structure based on an agreed vision and strategy for the sector, with well-defined parameters of responsibility, accountability, transparency and inclusion can address such concerns. Effective decentralisation should only devolve fisheries management decisions to coastal regions within a coherent long-term sustainable fisheries policy set up and audited by the federal government. Fisheries management programmes should take into account local particularities of both fish resources and stakeholders organisation (Rivera-Arriaga and Villalobos, 2001).

Some of the ingredients to further decentralisation are already in place in Mexico. First, the country can be naturally divided into the four coastal regions (Regions IIV) and the inland waters, each with distinctive regional ecological characteristics and policy issues. Second, regional consultative mechanisms are in place for some fisheries, and functioning with varying degrees of effectiveness. Third, the INP currently has a regional network through the CRIPs which will assist in the provision of scientific advice at local levels. Fourth, regional fisheries offices exist, although these are mostly in name only as they consist of a single fisheries officer located in the SAGARPA regional offices and reporting through the SAGARPA hierarchy rather than directly to CONAPESCA officials.

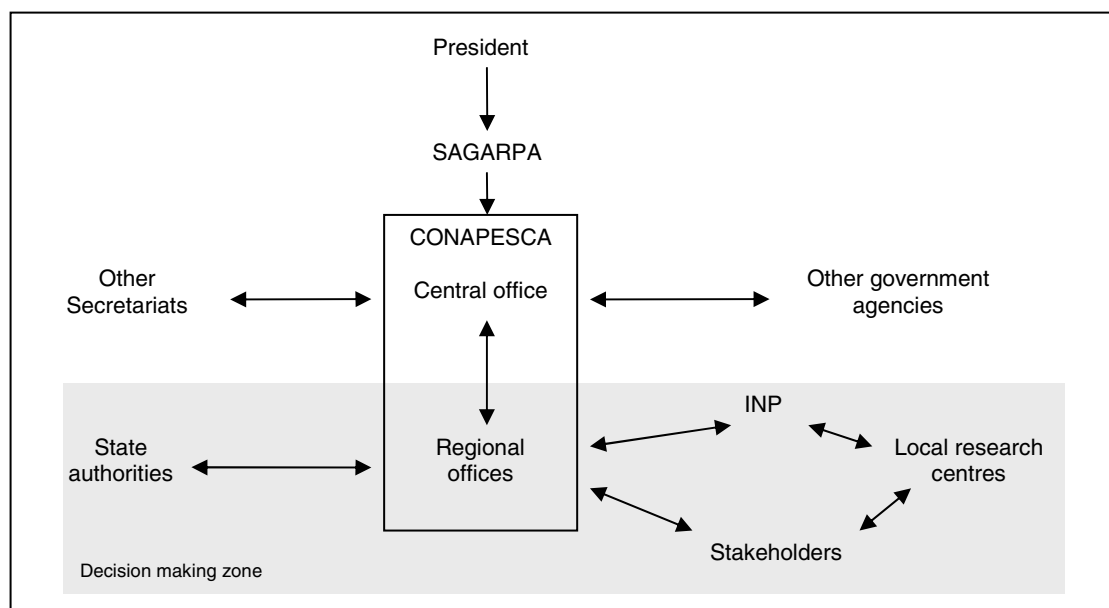
This basis could be further developed to provide an appropriate level of regional management that is representative, transparent, responsible and responsive, allowing for fishers to be empowered within the decision making system. Concerns over corruption or biased decision making can be addressed by ensuring a wide stakeholder involvement (including environmental NGOs and community groups as well as fishers' representatives), transparency of analysis and advice, and accountability mechanisms for advice given and decisions taken. The major risk to be wary of is the creation of an unwieldy hierarchical structure that is essentially maintains a top-down, command and control structure. This will very quickly lose legitimacy amongst fishers and other stakeholders. The benefits of decentralised decision making lie in improved stakeholder input to scientific analysis and regulatory design, increased acceptance of regulations, and potentially lower enforcement costs. The major cost involves an up-front investment in institutional capacity building.

Potential alternative institutional structure

A possible alternative institutional structure that is more conducive to decentralised decision making is depicted in Figure 10.9. The main feature of this structure is that it locates the decision making zone at the regional level, while maintaining central policy

making, auditing and enforcement responsibilities at the central level. Several points on the possible structure should be noted.

Figure 10.9. Possible alternative framework for a decentralised institutional structure



First, long-term planning and management responsibilities for the fisheries sector may be best served by making CONAPESCA a more functionally independent body within SAGARPA, with an independent budget line, devolved decision making powers on fisheries issues, and a direct line of reporting to the Secretary for Agriculture. Under such an arrangement, CONAPESCA would have responsibility for long-term sustainable fisheries policy formulation, co-ordinating policies among other ministries (*e.g.* environment, agriculture, economy, and navy), other government agencies and its regional offices, central administrative functions (vessel registries, etc), enforcement standards and mechanisms (*e.g.* VMS), international engagement, and auditing fisheries management outcomes. It would also be responsible for fisheries that cross the different regions, such as the tuna fisheries.

Second, decentralised decision-making could be organised by ecological regions rather than by political boundaries. The regional division of Mexico into the four regions based on CONABIO's marine areas, plus inland waters, as used in this report and elsewhere, would be an appropriate level of decentralisation for regional level policy implementation and management.

Third, decision-making processes with respect to fisheries management instruments, enforcement mechanisms could take place in regional offices. These processes should be accompanied with the participation of stakeholders, the INP and local research agencies (*e.g.* universities). The latter two should advise fishers in order to give them recommendations on sustainable management. Participation of these actors will facilitate feedback on fisheries policies based on practical experiences. A wide range of stakeholders should be part of the process, including NGOs and community groups. Transparency, accountability, responsibility and responsiveness should be the key features of the charter for these groups.

Fourth, INP should continue to be a key element of the structure, acting as a provider of scientific advice on stock assessments and management options, and as an auditor of fisheries management outcomes.

Clearly, further work is required to more fully elaborate any plan for a more decentralised institutional structure. However, there are likely to be significant benefits from doing so, especially as the government has already (cautiously) embarked upon this path. It is important that any such process be nested within a longer-term vision and strategy for the whole sector, as discussed in the previous section. It should also be noted that such institutional changes do not come free of charge. It is clear that some investment in institutional capacity building is required. This will involve short-term costs, but can be expected to generate long-term benefits.

Coordination among agencies and stakeholders

Whether or not a more decentralised institutional structure is pursued, there is a need to improve coordination amongst agencies with responsibilities for various aspects of Mexico's fisheries and aquaculture sector. Frequent changes in policy direction and institutional framework have led to overlapping duties and weak coordination between and within institutions and levels of government. This can be seen in several areas. First, there are overlapping responsibilities at the Federal level. For example, eight agencies at different levels of the federal administration, comprised in four different ministries, along with offices of each coastal state, are involved in coastal management, including fisheries. While SEMARNAT is charged with setting up co-ordinated coastal management programmes (*Planes de Ordenamiento Costero*), their practical implementation remains a major challenge (Rivera-Arriaga and Villalobos, 2001).

Second, there is a need to improve agency coordination for the approval and supervision of aquaculture projects. At present, there are too many overlapping and contradictory regulations emanating from different government agencies, increasing the costs and uncertainty associated with environmental compliance in aquaculture operations and delaying development. Part of the problem is that a coherent, transparent, risk-based set of environmental parameters for aquaculture operations is lacking at the moment due to the multiple pieces of (sometimes contradictory) legislation governing the industry. These include regulations overseen by CONAPESCA, SEMANART, PROFEPA, the Water Commission, and soil conservation authorities. Rationalising and harmonising these regulations is essential and a "one-stop shop" would be a useful innovation to streamline the approvals and oversight process.

Third, there have been gaps in agency coordination, resulting in some management functions falling by the wayside. This has occurred, for example, in the case of enforcement functions. In 2000, PROFEPA was discharged from enforcing fisheries regulations, in order to concentrate its efforts on other environmental issues. Nevertheless, marine reserves enforcement remained as a competence of PROFEPA. Fisheries were left without any enforcement authority until 2004 when CONAPESCA created a department to undertake the enforcement function. Supervision of fishers' transgressions in surrounding areas of marine reserves remains unclear.

There also appears to be scope for improving co-ordination between different stakeholders in the whole fisheries sector, including government, industry, universities and NGOs. This would be a central feature of, and indeed essential to, a more decentralised institutional structure and requires commitment from both government and

other stakeholders to actively engage in a mutually reinforcing and constructive dialogue. Stakeholders will quickly lose faith in such mechanisms if there is a perceived lack of responsiveness, empowerment and legitimacy on the part of government.

A priority area for improved coordination is scientific research and policy analysis. In spite of INP's acknowledged expertise on fisheries research, a strong co-operation link with both fishers and academic institutions is still missing (FAO, 2005). A contributing factor is that fisheries research is financed almost entirely by federal funds: Secretariat of the Treasury regulations do not allow INP to receive neither non-governmental nor private funding. As a result, it is unable to supplement its sources of revenue or establish stronger formal links with fishers and universities. Given the lack of trained staff to replace the qualified personnel leaving the INP (through retirement for the most part), it is important for the INP to be able to establish such links to expand its operating options. Involving industry and local universities in fisheries research would help to develop a common strategy and common set of priorities on fisheries research.

In addition, there is a lack of research on alternative instruments for fisheries management and the socio-economic impacts of current management arrangements and future management options. Multidisciplinary research in the sector is largely lacking and will tend to restrict the management options being considered by authorities. If the government wishes to pursue its decentralised management strategy, it will need to consider that a larger role for social scientists in both fisheries research and decision-making.

Conflicts among stakeholders

The current institutional arrangements do not adequately deal with conflicts between stakeholders in the sector. This is most apparent in the conflicts between small-scale and large-scale fleets in particular fisheries, between wild capture and aquaculture operations, and between fishers and other users. Social problems derived from conflicting access claims are quite frequent in both developed and developing countries, with the lack of clearly defined and enforceable access rights being one of the central causes (Panayotou, 1982; Willman and Garcia 1985; Stonich and Bailey, 2000; Thorpe *et al.* 2000).

Shrimp fisheries in Mexico are a clear example of such problems. Changes in the 1992 Fisheries Law led to a number of conflicts between co-operatives and private investors in important fishing states like Sinaloa and Sonora, as co-operatives remained in the inshore fishery catching smaller shrimp, directed mainly to the domestic market, while the private-owned vessels caught shrimp for export (Vasquez-Leon and McGuire, 1993). In fact, the coexistence of offshore and inshore fleets in the shrimp fishery is a real challenge for fisheries managers. Economic and social interests seem to be in conflict as private investors seek profit maximisation, while unemployment is a major concern among inshore fishers. In fact, certain features of shrimp fisheries, including both social and biological aspects, impede to establish and achieve long-term management objectives, having serious consequences for the fishery as a whole. One of these features is that the shrimp fishery is sequential, which means that early stages of life-cycle are exploited by inshore fleets in either coastal lagoons or near shore, while juveniles and adult shrimp are caught by the offshore fleet. Maximum yield per recruit is obtained offshore, which implies that the higher the inshore catch, the lower the offshore catch. However, co-operatives have steadily been fishing further offshore, invading the large-scale fleet areas. Not surprisingly, hostility between both fleets frequently arises and, as Cruz-Torres (2000) puts it, a "pink-gold rush" starts, with the predictable outcome of

over-capitalisation of both fleets. In the case of the shrimp fishery, however, the small-scale fleet has been the one with the most capacity to expand and has done so quite rapidly. Conciliation between objectives of the two fleets is very difficult to achieve and fisheries management measures are thus limited to allocating catch levels between fleets using fishery closures (Fernandez-Mendez *et al.*, 2000). However, such a management measure neglects resource rent distribution and does not prevent over-exploitation of fish stocks.

Potential conflicts are present as well when activities from different users overlap in the same area. This has been the case of shrimp aquaculture (Cruz-Torres, 2000; Stonich and Bailey, 2000). Private shrimp culture has been actively encouraged since the 1992 Fishery Law reform, giving yields of 61 704 tonnes with a value of about 2 600 million pesos in 2003. However, it is well documented that mangrove deforestation, reduction of wild shrimp and water quality degradation have boosted conflicts among different stakeholders, not only in Mexico, but elsewhere (Stonich and Bailey, 2000).

Marine reserves and eco-tourism have been another source of concern. Marine reserves are of special interest for biodiversity conservation and for limiting fishing, urban development, and water pollution (Bostford *et al.*, 1997) and have been promoted as management instruments in Mexico since the mid-1990s. Problems arise, however, when displaced fishers have no alternatives or these are poorly implemented (see Chapter 13). A similar outcome happens when eco-tourism is not compatible with coastal fisheries. For example, Young (1999) cites the case of grey whale watching off Baja California peninsula, where the absence of effective community-based institutions allows tourism companies to impose their priorities and interests over those of local residents, such as lobster fishers.

Better targeting of support programmes

Government financial transfers to the marine capture industry account for the bulk of the transfers to the fisheries and aquaculture sector, accounting for two-thirds of total transfers to the fisheries and aquaculture sector. The value of transfers to the marine capture sector as a proportion of the value of landings increased from 14% in 1996 to 19% in 2004 and is marginally below the OECD average. Most of the transfers in this sector (72%) are directed towards direct payments and cost-reducing transfers, primarily payments for diesel subsidies, direct grants and a decommissioning scheme for the shrimp fleet. There is a major concern that some of the transfers, particularly those provided for diesel subsidies, engine purchase and vessel modernisation, will adversely affect the long term sustainability and profitability of the sector in the absence of effective constraints on effort and capacity.

In addition, while decommissioning schemes are generally regarded as central to capacity reduction efforts, it is essential to ensure that they are carefully designed so as to avoid providing perverse incentives to fishers which hamper further capacity reduction efforts. In particular, it is essential that there is no expansion in fishing effort following the removal of vessels through the decommissioning scheme. This would negate the effects of the scheme on the sustainability of the resource base and dissipate any resource rent that might be generated. There is a significant risk of such a situation occurring in the case of Mexico's shrimp fisheries where the management regime is based on limited entry and season and area closures, but with few controls on other effort parameters. Extension of the decommissioning scheme either within the shrimp fishery or to other fisheries should be accompanied by other management changes to ensure that effort does

not expand or leak back into the fishery. Efficient design and targeting of such schemes is essential if they are to be effective.

While a first priority is to remove GFTs other than those that are essential for managing fisheries, this may not always be politically feasible. In this case, the better targeting of financial support should be a priority. The majority of Mexico's financial transfers that are directed towards direct payments and cost-reducing transfers should be reduced. Authorities should also re-examine the regional and fleet destinations for expenditures. In particular, it is not clear why commercial fisheries require financial support, particularly if they are generating resource rents and making profits. The use of diesel subsidies is a clear example of government policy providing perverse incentives to the sector. Given that Mexico's major fisheries are regulated by limited entry with few constraints on expansion of other inputs, such subsidies will encourage fishers to increase effort. This is occurring at a time when most fisheries are under pressure to constrain or reduce effort. If particular fleets are not generating rents or profits, then the problem is the more fundamental one of inadequate management, and the provision of subsidies will merely delay and exacerbate the underlying problem.

Spending on the aquaculture sector has increased significantly in recent years through the *Alianza Contigo* programme and, reflecting increasing government focus on the development potential of the sector. The increase in expenditure is evident in the establishment of the network of aquaculture centres and improving understanding of aquatic health management. However, it would be appropriate for the government to institute some degree of cost recovery for government transfers to the aquaculture sector, particularly those related to the establishment, maintenance and operation of infrastructure facilities.

The ability and willingness of the sector to gain access to financial markets has increased and companies are beginning to make increased use of the loans and guarantees provided by BANCOMEXT to facilitate export-led developments, and the soft loans and credit guarantees available through FIRA-FOPESCA. However, equity may be an issue as the programmes tend to target larger commercial operators in the fisheries and aquaculture sectors and poorer applicants often cannot provide the required matching funds to take advantage of the programmes. These types of programmes will only partially address this deficiency and further attention needs to be paid to the use of more innovative financial mechanisms for the sector, as well as to broader financial sector policies.

Finally, it is important to note that fisheries policy changes do not come free of charge. It is clear that some investment in institutional capacity building is required. This will involve short-term costs, but can be expected to generate long-term benefits. Reforms that are directed towards more profitable commercial fisheries should be accompanied by cost recovery to ease the financial burden on the government.

NOTES

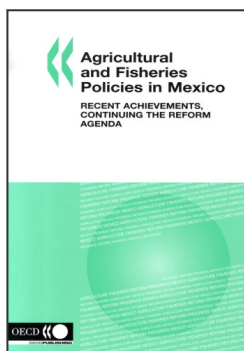
1. CONAPESCA has recently begun some research into socio-economic issues.
2. In the eastern tropical areas of the Pacific Ocean, schools of yellowfin tuna often swim beneath schools of dolphins. When tuna is harvested with purse seine nets, dolphins are intentionally encircled in the nets but, with the procedures established under the AIDCP, the dolphins are successfully released in more than 95% of the sets.
3. The changes are from a separate Secretariat (SEPESCA) to an Under-Secretariat in the Environment Secretariat, and now to an independent body under SAGARPA (with a level of Under-Secretariat but without its own legal entity).

Table of contents

Glossary	9
Executive summary	11
PART I. OVERVIEW OF THE MEXICAN ECONOMY	17
<i>Chapter 1. An overview of economic performance and the structural environment in Mexico</i>	19
Introduction	19
The economy has become more open in the 1980s and 1990s.....	20
Macroeconomic performance.....	20
Structural environment.....	28
Conclusion.....	36
Bibliography	37
PART II. AGRICULTURE.....	39
Introduction.....	41
<i>Chapter 2. Background on agriculture and the rural economy</i>	43
Introduction	43
Overall sector performance	44
Land tenure.....	48
Agricultural activities	49
Rural population.....	53
Infrastructure, inputs and resources.....	61
<i>Chapter 3. Main developments in agricultural policies 1990-2006</i>	69
Introduction — the policy framework.....	69
International trade policy	71
Domestic market intervention	73
Income support — PROCAMPO.....	76
Input support measures	77
Water and other natural resources	79
Policies to improve productivity	81
Other policy measures.....	85
Total expenditures on agricultural policies	85
<i>Chapter 4. Agricultural policy transfers and welfare effects</i>	87
Introduction	87
Monetary transfers due to agricultural policies.....	87
Welfare effects of agricultural policies	103
Conclusion.....	109

Chapter 5. Agricultural policies and commodity markets	115
Introduction	115
Brief overview of commodity production and consumption	115
Analysis	118
Conclusion	135
Chapter 6. Agricultural policy and rural poverty	139
Introduction	139
Land: The <i>ejido</i> reform and agrarian institutions	140
Agricultural support and rural development	144
Conclusion	157
Chapter 7. Inputs, natural resources and institutions	161
Introduction	161
Infrastructure	161
Finance	163
Technology	165
Natural resources	166
Institutional structures of policy design and implementation	170
Conclusion	172
Chapter 8. Conclusions and recommendations	175
Directions of agricultural policy	175
Achievements of the reforms	179
Priorities for the agricultural sector	181
Actions for further reform	182
Annex II.A. Exchange rate table	189
Annex II.B. Detailed programme information	191
Bibliography	199
PART III. FISHERIES	203
Introduction	205
Chapter 9. Background on the fisheries and aquaculture sector	207
Production trends	209
Markets and trade	213
Fleet structure	214
Employment	217
Regional characteristics	218
Chapter 10. Fisheries management policy	221
Developments in institutional arrangements	221
Current institutional framework	226
Support programmes	230
International engagement	240
Key institutional issues	243

Chapter 11. Review of fisheries management performance since 1990	255
Management instruments	256
Status of major stocks	257
Profitability and rent generation.....	267
Key fisheries management issues.....	268
Conclusion.....	274
Chapter 12. Aquaculture sector policy	275
Institutional arrangements	276
Environmental aspects of aquaculture policy.....	282
Stability of the policy regime	283
Key policy issues.....	284
Conclusion.....	293
Chapter 13. Fisheries policy and rural development.....	295
Impact of fisheries management policies	297
Aquaculture policy and rural development	300
Impact of fisheries support programmes	301
Conclusion.....	306
Chapter 14. Conclusions and recommendations	309
Conclusions	309
Achievements of fisheries policy changes	311
Recommendations	316
Bibliography	325



From:

Agricultural and Fisheries Policies in Mexico

Recent Achievements, Continuing the Reform Agenda

Access the complete publication at:

<https://doi.org/10.1787/9789264030251-en>

Please cite this chapter as:

OECD (2008), "Fisheries management policy", in *Agricultural and Fisheries Policies in Mexico: Recent Achievements, Continuing the Reform Agenda*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264030251-12-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.