

programs to modernize the fish processing sector. In particular, there is considerable interest in developing products for mass consumption such as fish paste and frozen fish fillets. This will require the modernization of fish processing plants. In 1995, about one-third of the landed catch was frozen, almost 20 percent was canned, and most of the rest was cut up.

### DEVELOPMENT PLANS

During its first year in office, the government of President Ernesto Zedillo issued its six-year program for the development of the fishery. It called for the expansion of fishing infrastructure and production capacity to be balanced by the development of more modern models of fishery management in order to prevent over-exploitation. The government's other priorities include modernizing the fishing fleet, rehabilitating coastal ecosystems, and developing aquaculture.

### THE ROLE OF FOREIGN TRADE

Mexico is a net exporter of fish and seafood products, but it relies on imports for some products, most of which fall into the luxury categories. By weight, imports account for only about 1.3 percent of domestic sales, but there are important markets for certain niche products.

Imports were sharply curtailed as a result of the December 1994 devaluation of the peso, which roughly doubled the cost of imports. Total fish and seafood imports fell by 61 percent from US \$101.6 million in 1994, to \$40.1 million in 1995. The US claims about half the import market.

Canada's share of the import market rose from 9 percent in 1994, to 11 percent in 1995, although sales fell from US \$9.1 million to US \$4.4 million as a result of the devaluation crisis. This

market share is considerably higher than for most other food products. Smoked, dried and salted fish of all types made up close to half of Canada's 1995 exports, and this category was the only one to increase during 1995. Dried cod is the most important single product, with 1994 sales of US \$1.5 million. Cod and hake are the most popular species sold in the chilled category, with US \$1.2 million in 1994 sales. Canadian exports of fresh lobsters, which amounted to about US \$342,000 in 1994, dropped sharply to only US \$52,000 in 1995, reflecting the luxury status of that product.

### AQUACULTURE

Mexico has a significant aquaculture industry which is based mainly on traditional methods, such as small-pond cultivation of fresh water species. Total aquaculture production was about 158,000 tonnes in 1995, of which almost half was *mojarra*. But the government believes that greater use of non-traditional methods could greatly expand production. Changes to the *Ley de Pesca y su Reglamento*, Fishery Law and its Regulation, in 1992 encouraged a substantial increase in private investment in this sector. Among other measures, it allows for 50-year operating licences for private facilities. Private capital, including foreign investment, is now seen as essential to develop the potential of the entire fishery sector.

The government maintains almost 40 aquaculture centres throughout the country and it has been operating a largescale training program for several years. The objective is to expand capacity for a broader range of species, especially higher-value products.

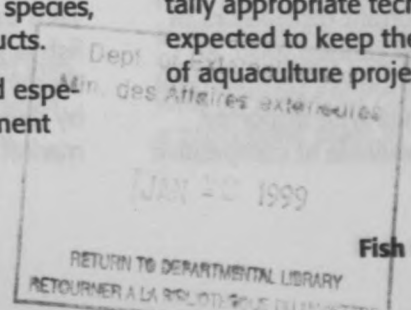
Shrimp farming is considered especially promising. The government

has been promoting a method which consists of capturing live larvae and hatching and raising the shrimp in captivity. Foreign investment has played a large role in the expansion of this subsector.

The government hopes to develop more saltwater aquaculture projects, including inland salt-water ponds as well as offshore cage technologies, sometimes known as "mariculture." Technology for this approach has been tested in the Gulf of Mexico off the coast of Alabama state, but not, so far, in Mexico.

Mexico's Fisheries Secretariat is now part of the *Secretaría del Medio Ambiente, Recursos Naturales y Pesca (Semarnap)*, Secretariat of Environment, Natural Resources and Fisheries. With the mariculture objective in mind, the Fisheries Secretariat launched a major development program called the *Desarrollo de la Acuicultura en México (DAM)*, Mexico Aquaculture Project, in 1994. It is supported by US \$300 million in World Bank funding, US \$150 million from the Government of Mexico, and another US \$50 million from private companies. Activities include sponsoring private research projects designed to develop aquaculture technologies and management of coastal resources in seven states.

The ultimate objective of the *Desarrollo de la Acuicultura en México* is to demonstrate the viability of different types of aquaculture technologies. Projects sponsored by the program are expected to become operational over the six-year period that ends in 2000. Environmental and social impact studies for the project were completed in 1995. Increased pressure for environmentally appropriate technologies is expected to keep the foreign content of aquaculture projects high.



6157549