

and replaced by the *Coordinación General de Puertos y Marina Mercante (CGPyMM)*, General Coordinator for the Ports and the Merchant Navy. This agency set up local port authorities known as *Administraciones de Puertos Integrales (APIs)*, integrated port authorities, for each port. The APIs are in the process of awarding concessions for the operation of individual terminals. The winning bidders have included the Mexican conglomerates *Triturados Basálticos y Derivados (Grupo Tribasa)*, *Ingenieros Civiles y Asociados (ICA)* and *Transportación Marítima Mexicana (TMM)*, as well as a number of foreign companies. Several more terminals are expected to be concessioned during 1996.

### SHIP OPERATORS

According to the *Cámara Nacional de la Industria del Transporte Marítimo (Canaitram)*, the National Chamber of the Maritime Transportation Industry, the Mexican merchant fleet carries only about 3 million tonnes annually. This is only about 3 percent of total volume. *Transportación Marítima Mexicana (TMM)* is the largest Mexican company in the shipping business. Some foreign shipping companies operate Mexican subsidiaries, or joint ventures with Mexican firms. For example, *APL de México* is a subsidiary of American President Lines. Other important foreign carriers include Sea-Land Service Inc., Maersk, Lykes Bros. Steamship Co. and Mitsui O.S.K. Line.

### FISHING OPERATORS

The Mexican fishing fleet is urgently in need of modernization. Fishing boats tend to be relatively small. Only 58 of the 1,370 fishing boats registered in 1995 exceeded 1,000 registered tonnes. With the help of World Bank financing, many small operators are expected to enter the aquaculture industry within the next few years.

### MEXICAN NAVY

The *Secretaría de Marina Armada de México (SMAM)*, Mexican Navy, purchases weapons, rescue equipment and navigation technology, in addition to ships. The navy also requires equipment for its environmental monitoring activities. This is not a large market, but there may be niche opportunities for specialized Canadian firms.

### REGULATORY AGENCIES

The administration of President Ernesto Zedillo reorganized the government's environmental activities shortly after coming to office in December 1994. It created a new secretariat called *Secretaría de Medio Ambiente, Recursos Naturales y Pesca (Semarnap)*, Secretariat of Environment, Natural Resources and Fisheries. It has overall responsibility for the environment and fisheries, including regulation and enforcement. Fisheries regulation is overseen by the *Subsecretaría de Pesca*, Sub-secretary of Fisheries.

### COMPETITORS

Most of Mexico's ocean and marine technology is imported. The US is the most important supplier. Other major competitors are Germany, Italy, the United Kingdom and Norway.

Foreign companies engaged in offshore oil drilling and maintenance include National, B&J, Varco, Steward-Stevenson, and Noble. General Oceanics is an important supplier of marine science technologies. *Procuraduría Federal para la Protección del Ambiente (Profepa)*, Federal Attorney Office for Environmental Protection, has imported Japanese, American, German and Spanish technologies for dealing with environmental accidents such as spills.

Domestic technologies have been developed through cooperative efforts between *Petróleos Mexicanos (Pemex)*, the national oil company, the *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (Conabio)*, National Biodiversity Council, the *Instituto Nacional de la Pesca (INP)*, National Fisheries Institute and the *Cámara Nacional de la Industria Pesquera (Canainpes)*, National Chamber of the Fishing Industry.

Companies from the US have the advantage of a well-established track record. Especially in such areas as offshore drilling, their technologies are considered state-of-the-art. There is also a long history of joint research projects between Mexican and American institutions. European competitors enjoy a reputation for expertise in several areas. But they have not been very aggressive in setting up joint projects. Nonetheless, several Scandinavian suppliers have made inroads in niche markets, along with a few competitors from other countries.

Canada has the advantage of a good general reputation for technical excellence and willingness to adapt to Mexican ways of doing things. But, individual companies are not well-known and, in the view of many Mexican observers, they have not pursued consistent promotion campaigns.

Canadian companies also tend to lack experience in Mexican government procurement. Joint ventures with Mexican companies are usually considered the best vehicles to overcome this obstacle. Observers believe that there are opportunities for partnerships with local firms to adapt Canadian technologies to Mexican needs. Examples cited by experts interviewed for this study included artificial reef building and fish capture technologies.