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OPPORTUNITIES IN MEXICO:  
OCEAN AND MARINE  
SHIPBOARD TECHNOLOGY



Department of Foreign Affairs  
and International Trade

Ministère des Affaires étrangères  
et du Commerce international

Latin America & Caribbean Bureau

M A R K E T P R O F I L E - M E X I C O

***Opportunities in Mexico: Ocean and Marine Shipboard Technology*** was developed jointly by the Department of Foreign Affairs and International Trade (DFAIT) and Prospectus Inc.

This market profile is designed to provide an overview of the market for ocean and marine technology in Mexico. Although efforts have been made to avoid errors and inaccuracies in this document, it is not intended to be used as the only source of market information on this sector. We encourage the reader to use this publication as one of several resources for commercial dealings with Mexico.

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© Minister of Supply and Services, December 1996

Catalogue No. E73-9/64-1996E  
ISBN 0-662-25208-X

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Published by Prospectus Inc.  
Printed in Canada.

Disponible en français.

# OPPORTUNITIES IN MEXICO:

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## OCEAN AND MARINE SHIPBOARD TECHNOLOGY

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# Mexico



## THE NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA)

The NAFTA expands Canada's free-trade area of 270 million people into a market of close to 361 million — a market larger than the population of the 15 countries of the European Union and one with a total North American output of more than \$7 trillion.

Mexico is Canada's most important trading partner in Latin America. Two-way merchandise trade with Mexico was just under \$6.5 billion in 1995 and is expected to exceed \$8 billion by the end of the decade.

Canadian direct investment in Mexico is growing rapidly, increasing from \$452 million in 1992 to over \$1.2 billion in 1994.

This guide has been prepared with the problems inherent to the new exporter in mind. However, it is not exhaustive. The differing circumstances, interests and needs of individual companies will influence their strategies for the Mexican market.

Further assistance can be obtained by addressing requests to the International Trade Centres (see Where To Get Help) or contact the InfoCentre at:

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\*FaxLink is a faxback system which provides summaries on a range of Mexican markets. It must be contacted through your fax machine. Dial from your fax phone and follow the voice prompt instructions.

## TABLE OF CONTENTS

MEXICO'S OCEANS	5
THE MEXICAN OCEAN AND MARINE SECTOR	6
Fisheries and Aquaculture	6
Marine Science	8
Ocean Environmental Protection and Remediation	8
Shipbuilding	9
Ocean Ports	10
Seafront Tourism	12
Exclusive Economic Zones	13
Offshore Oil and Gas	13
CUSTOMERS	15
Marine Science and Limnology Institute	15
The National Oil Company	17
Ocean Port Operators	19
Ship Operators	21
Fishing Operators	22
Mexican Navy	22
Environmental Regulatory Agencies	22
COMPETITORS	24
TRENDS AND OPPORTUNITIES	26
Port Technology	27
Shipboard Technology	27
Environmental Technology	28
Offshore Oil and Gas	29
Marine Science Technologies	30
Fisheries and Aquaculture	30
Marinas	31
THE REGULATORY ENVIRONMENT	33
United Nations Exclusive Economic Zone Agreement	34
MARKET ENTRY STRATEGIES	35
Government Procurement	35
The National Oil Company	35
National Autonomous University of Mexico	36
Ocean Port Tenders	36

<b>WHERE TO GET HELP</b>	<b>38</b>
<b>Canadian Government Departments and Services in Canada</b>	<b>38</b>
Department of Foreign Affairs and International Trade (DFAIT)	38
Industry Canada (IC)	42
Revenue Canada	41
Canadian International Development Agency (CIDA)	41
Atlantic Canada Opportunities Agency (ACOA)	41
The Federal Office of Regional Development (Quebec), (FORD Q)	42
Western Economic Diversification Canada (WD)	43
Export Development Corporation (EDC)	43
National Research Council (NRC)	44
Canadian Commercial Corporation (CCC)	45
<b>Key Contacts in Canada</b>	<b>45</b>
Business and Professional Associations	45
Mexican Government Offices in Canada	46
Mexican Banks with Offices in Canada	46
<b>Canadian Government Departments and Services in Mexico</b>	<b>47</b>
<b>Key Contacts in Mexico</b>	<b>47</b>
Government Departments	47
Research Institutes	48
Mexican Business and Professional Organizations	49
Major Mexican Companies	49

## MEXICO'S OCEANS

*Mexico is seeking to modernize the management of its enormous marine resources. Canadian companies are well qualified to fill the gap.*

Navigating the world's oceans and harvesting their vast resources has always been one of humanity's greatest challenges. There are enormous practical problems. The oceans are a vast environment, characterized by a rough surface, strong currents and highly variable weather. Undersea operations are hampered by high water pressure, extremely cold temperatures and poor visibility. Therefore, ocean and marine technology is a highly diverse discipline, devoted to solving the myriad of problems found in, on and beneath the oceans. Certain shore-based maritime activities, such as ports and aquaculture, are becoming more closely associated with ocean and marine technologies.

The search for more sophisticated solutions to this broad set of problems has become more pressing in recent decades. The globalization of commerce, growing sensitivity to environmental issues, and competition between nations for access to marine wildlife and undersea resources have all contributed to this trend.

Mexico has more than 11,000 kilometres of coastline and claims an exclusive economic zone of almost three million square kilometres. Its territory includes 1.5 million hectares of lagoons and estuaries, some of which harbour delicate ecosystems. There are officially 371 islands, reefs and keys, as well as 336,000 square kilometres of continental shelf.

Considering the expanse of its maritime resources, it is not surprising that Mexico has needs in virtually every aspect of ocean and marine technology. Canadian companies are expert in several areas of this industry. They are especially strong in low-volume, high-value, custom-engineered solutions, which can be adapted to Mexico's unique needs.

The ambitious economic reforms that have swept Mexico over the past decade have increased the demand for ocean and marine technologies. An enormous increase in foreign trade is pressuring the nation's marine transportation systems to modernize. The growth of intermodal transportation has placed emphasis on sophisticated systems for ship loading and unloading. Public alarm about the rapid deterioration of Mexico's environment has drawn attention to technologies for ocean environmental assessment, protection and remediation. And, as Mexico's land-based petroleum reserves have been depleted, offshore reserves are playing a more and more important role.

Mexico lacks the technologies needed to tackle many of these problems. Canada has a proven track record in many of Mexico's areas of greatest need. These include hydrographic services, oceanographic instrumentation, subsea robotics, remote sensing systems, navigation and communications systems, and "smart ship" technology. Geomatics and coastal zone management are other areas of strong expertise. Where appropriate matches of needs and capabilities can be found, there will be continuing opportunities in Mexico for Canadian suppliers of ocean and marine technology.

## THE MEXICAN OCEAN AND MARINE SECTOR

*Mexico's ocean and marine sector encompasses virtually every aspect of transportation, recreation and natural resource exploitation.*

Ocean and marine technology is a highly diverse field that is difficult to describe as a single industry. It includes traditional activities such as offshore oil and gas, fishing, shipbuilding and marine science. Growing environmental awareness has expanded the scope of this sector to include the control of ocean pollution and the management of coastal marine resources. Technological change has also created new opportunities in such areas as "smart ship" technology and multimodal port systems.

Mexico's capabilities in all of these areas are very limited. Large construction and engineering firms dominate the sector. They play an especially important role in infrastructure projects. But they lack expertise in specific technologies and must subcontract a large amount of work. The successful bidders on government-sponsored projects are frequently joint ventures between Mexican and foreign firms.

## FISHERIES AND AQUACULTURE

Mexico's marine resources include more than 800 species of fish. The northeastern coast is particularly rich in tuna, sardines, jewfish, *macarela*, *corvina*, *barrilete* and *bonito*. The Gulf of Mexico also has abundant species, the most exploited being sea bass, *lisa*, *mojarra*, *corvina*, *robalo*, *jurel*, *sierra* and jewfish as well as shellfish. Total production is approximately 1.3 million tonnes per year, 80 percent of which comes from the continental shelf. Seafood consumption is heaviest in Mexico's coastal cities and towns, where retail prices are considerably lower than in inland centers. Government-funded marketing programs have not been successful in substantially increasing inland consumption, and the industry depends on export markets for its viability. The United States and Japan are the principal markets.

Mexico has a significant aquaculture industry, which is based mainly on traditional methods, such as small-pond cultivation of freshwater species. Total aquaculture production is in the order of 200,000 tonnes per year, of which more than 40 percent is *tilapia*, a freshwater species. Changes to the fisheries law in 1992 encouraged a substantial increase in private investment in this sector. Among other measures, the law 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 fisheries sector.

Recent investments have created a small but growing industrial aquaculture sector based on ocean resources. Abalone, oysters, crab, squid and shrimp are growing in importance, notwithstanding the Gulf Coast cholera epidemic in 1991 to 1992 that severely cut oyster production. About one-quarter of all aquaculture production now consists of oysters and shrimp. The government hopes to develop more saltwater aquaculture projects, including inland saltwater ponds as well as offshore cage technologies, sometimes known as "mariculture". Technology for this approach has been tested in the Gulf of Mexico off Alabama, but so far not in Mexico.

With this objective, *Subsecretaría de Pesca*, Mexico's Fisheries Undersecretariat (now part of *Secretaría del Medio Ambiente, Recursos Naturales, y Pesca (Semarnap)*, Secretariat of Environment, Natural Resources and Fisheries) launched a major development program called the 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. Its activities include sponsoring private research projects designed to develop aquaculture technologies and management of coastal resources in the following seven states: Tamaulipas, Veracruz, Baja California Sur, Sinaloa, Nayarit, Oaxaca and Chiapas.

The ultimate objective of the Mexico Aquaculture Project is to demonstrate the viability of different types of aquaculture technologies. It also seeks to develop aquaculture parks with infrastructure to support environmentally-appropriate development. Re-population of natural species and species management are also important project components. Projects sponsored by the program are expected to become operational over the six-year period ending 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. Most of the new technology in this sector has been provided by firms from Florida, Texas and California.

## MARINE SCIENCE

In Mexico, marine science is primarily the responsibility of university research centres. The most important research centre is the *Instituto de Ciencias del Mar y Limnología (ICML)*, Institute of Marine Science and Limnology, at the *Universidad Nacional Autónoma de México (UNAM)*, National Autonomous University of Mexico. Others include facilities at the Mexican Society for the Study of Marine Mammals, and the Research Center of Quintana Roo.

These facilities are almost entirely government-financed and notoriously underfunded. There are only about 400 oceanographers in all of Mexico's universities, to cover 11,000 kilometres of coastline on two oceans. There are large technological gaps and much of the equipment in use needs upgrading.

The dependence on public financing, combined with the concentration of marine science at the universities, has led to an academic focus, with little pragmatic research. The *ICML's* activities are mostly educational. Scientists from this research centre predict that if the present situation continues, there will be even greater insufficiencies and technological needs. The little practical scientific research that has been done has focused primarily on environmental issues. This situation creates substantial opportunities for private consultants who can obtain funding for research work from private or international sources.

## OCEAN ENVIRONMENTAL PROTECTION AND REMEDIATION

Mexico's coastal environment is seriously contaminated. Pollution comes from the discharge of industrial and municipal waste and from agricultural run-off. Spills from offshore oil and gas operations and boats are also a serious problem. Stocks of marine animals are not efficiently managed. These problems have remained uncontrolled, partly because of a lack of appropriate technology and partly because of gaps in the regulatory system.

The *Secretaría de Marina Armada de México (SMAM)*, Mexican Navy, is responsible for protecting marine resources and monitoring environmental impacts, in addition to its mandate to defend against intruders and apprehend drug traffickers. The *SMAM* has an ecological protection plan that includes warning the national environmental authorities about potential problems. The program includes watch-dog functions such as environmental monitoring and surveillance, as well as remediation activities. The *SMAM* is also active in conducting awareness-raising conferences and coordinating the activities of various levels of government.

## POLLUTION PREVENTION, MONITORING AND CONTROL ACTIVITIES OF THE MEXICAN NAVY

	Units	1992	1993	1994
<b>Preventive Activities</b>				
Awareness-raising conferences	Sessions	428	602	364
Local and regional meetings of members	Sessions	51	129	58
Activities in coordination with federal, state and municipal governments	Sessions	342	306	224
Practices with marine environment protection equipment	Practices	106	155	67
<b>Monitoring Activities</b>				
Monitoring and inspection of marine environment	Operations	7,079	5,960	9,939
Reports on polluting sources	Numbers	52	52	16
<b>Control Activities</b>				
Solid residues collection	Tonnes	8,741	9,540.2	11,254
Liquid residues collection	Litres	3,964	2,660	7,712
Hydrocarbons collection	Operations	5	50	21
Hydrocarbons collection	Tonnes	10	5	270

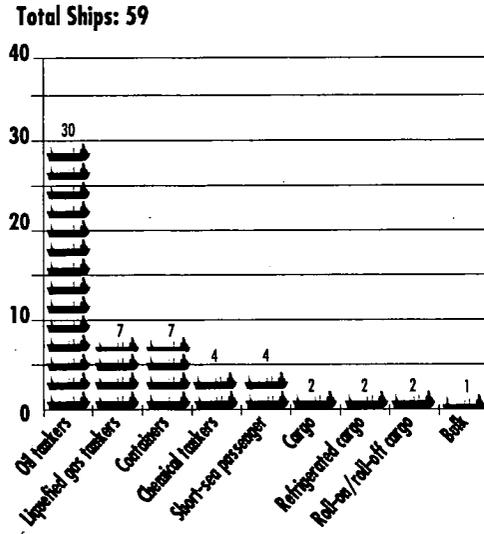
Source: *Secretaría de Marina Armada de México (SMAM)*, Mexican Navy.

## SHIPBUILDING

Shipbuilding includes maintaining and repairing ocean-going vessels, as well as installing advanced shipboard technology on existing ships. Mexican shipyards are almost entirely devoted to maintenance and repair, and construction of small boats.

In mid-1995, there were just under 2,000 commercial vessels registered in Mexico, according to the *Secretaría de Comunicaciones y Transportes (SCT)*, Secretariat of Communications and Transportation. Only about 200 of them exceeded 1,000 registered tonnes, and more than half of these were flatboats, fishing boats, dredging craft and tug boats.

## MEXICO'S MERCHANT FLEET, 1995



Source: United States Central Intelligence Agency (CIA) World Factbook, 1995.

According to the *Cámara Nacional de la Industria del Transporte Marítimo (Canaitram)*, National Chamber of the Maritime Transportation Industry, there are only about 75 cargo ships in the Mexican merchant fleet, with an average capacity of 15,000 tonnes. Data published by the United States Central Intelligence Agency (CIA) put the merchant fleet at 59 ships of 1,000 gross tonnes or more. Most of the domestic fleet consists of older ships using out-dated technologies.

The Mexican government has recognized the importance of ocean shipping in its efforts to develop the export sector. It is taking steps to promote the expansion of the domestic fleet. These efforts have included reforming the foreign investment laws to allow up to 100 percent foreign ownership in Mexican shipping firms.

In 1994, more than 90 percent of the total volume of Mexico's foreign trade was moved by ship, but accounted for only 30 percent of the monetary value of all trade. Mexican ocean traffic has grown by almost 10 percent annually for the past several years, but foreign fleets account for most of the volume. Domestic shipping capacity is oriented towards coastal shipping, where Mexican companies account for a little more than half of the market.

Mexico's passenger fleet is very small and is devoted to coastal transportation and tourist facilities. In 1995, there were 30 registered passenger ships, all of them under 1,000 tonnes. There were 28 ferry boats, of which 8 exceeded 1,000 tonnes.

## OCEAN PORTS

Poor port facilities have seriously hurt the shipping industry in Mexico. In 1993, Mexican commercial ports handled 29 million tonnes of cargo, which was less than one-third of the nation's total commercial ocean traffic. Mexico's petroleum exports are handled exclusively by *Petróleos Mexicanos Internacional (PMI)*, the national oil company's international subsidiary, using its own terminals and ships, and this traffic is not included in these statistics.

Veracruz, Mexico's principal port, serves an area of 40 million people. It handled only 7 million tonnes of cargo in 1995. The port of Houston, Texas handles more Mexican cargo than all of the other ports in Mexico combined. More than 10 percent of Mexico's imports are off-loaded in California ports and travel to Mexico by train or truck. Many Mexican exporters ship by land to the US for transshipment offshore because of delays, theft and other problems at the Mexican ports.

For all of these reasons, port modernization is an important part of the government's economic development plans. Beginning in 1993, it embarked on a port privatization program to accelerate the modernization process. This program is creating new demands for both port and shipboard technology.

Mexico has 73 national ports: 39 on the Pacific and 34 on the Atlantic, including the Gulf of Mexico and the Caribbean. They are grouped into two classes. *Puertos de altura* are deep ports designed for trans-ocean shipping. *Puertos de cabotaje* are those intended to support coastal shipping. According to the *Secretaría de Comunicaciones y Transportes (SCT)*, Secretariat of Communications and Transportation, there were 114 terminal facilities located at these ports as of mid-1995. They are divided into five service types: commercial, fishing, tourist and recreational, industrial, and specialized. The industrial ports are primarily devoted to petroleum exports.

### MEXICO'S NATIONAL PORT TERMINALS, 1995

	Pacific	Atlantic	Total
Commercial	15	9	24
Fishing	20	22	42
Petroleum	9	11	20
Specialized	5	2	7
Tourist and recreational	13	8	21
<b>Total</b>	<b>62</b>	<b>52</b>	<b>114</b>

Source: Dirección de Marina Mercante, Secretaría de Comunicaciones y Transportes (SCT), Secretariat of Communications and Transportation.

A new *Ley de Puertos*, port law, was enacted in July 1993. It provided for much greater participation by private companies in the nation's government-owned port operations. Concessions for the provision of specialized services began in 1993, and in February 1995, a more comprehensive program of privatization of the country's major commercial ports began. *Puertos Mexicanos*, the government agency that had previously managed the nation's 22 major ports, was dissolved and replaced by the *Coordinación General de Puertos y Marina Mercante (CGPyMM)*, General Coordinator for the Ports and the Merchant Navy, which coordinates the operations of local *Administraciones de Puertos Integrales (APIs)*, integrated port authorities.

The new agency is now granting concessions to operate and manage terminals at these ports. Provisions now exist for more than one terminal facility at each port, under separate concessions. The law allows 50-year concessions, but recent awards have been for 20 years for container terminals and 15 years for multiple-use terminals. The concessions are renewable and, in most cases, foreign participation is limited to 49 percent.

## MAJOR OCEAN PORTS



Source: Puertos Mexicanos, Secretaría de Comunicaciones y Transportes (SCT), Secretariat of Communications and Transportation.

## SEAFRONT TOURISM

Tourism is one of Mexico's most important industries, and ocean-based resorts are by far the most popular among both domestic and foreign tourists. Major seafont resorts are located at Cancún, Cabo San Lucas, Ixtapa, Acapulco and Veracruz, to name some of the most widely known. Preservation of the ocean-front environment, in spite of heavy tourist traffic, is essential to the long-term future of these communities.

Recently, there has been growing interest in ecological tourism, sometimes called "ecotourism", in less-developed parts of Mexico. For example, the state of Oaxaca has developed a string of ecological hotels, parks and other facilities along the southern Pacific coast. A study in 1992 by the Ecological Support Centre of the Coast of Oaxaca found that this area was relatively unspoiled and plans were developed to preserve it as a tourist attraction. The centre has been assisted by the University of California in its efforts to protect coastal marine life. Ecotourism is seen as a source of revenue to fund ecological preservation and support rural employment.

## EXCLUSIVE ECONOMIC ZONES

In 1982, the United Nations Convention on the Law of the Sea (UNCLOS III) extended the definition of the Exclusive Economic Zones (EEZs). Put simply, the Convention stated that countries are entitled to exploit economic resources within 200 miles of their shores. This does not affect the 12-mile territorial limit established in earlier United Nations deliberations. In return, countries are obliged to properly manage those resources and protect the coastal environment.

Many doubt the ability or willingness of developing countries such as Mexico to comply with UNCLOS III requirements. The Mexican government presently has much more important priorities. But international lending organizations are now demanding compliance with environmental and resource management standards as a condition of financing projects in these zones. For example, the Mexico Aquaculture Project, sponsored primarily by the World Bank, includes requirements for extensive studies of environmental impacts and provisions for their control. The EEZ requirements are, therefore, beginning to have some impact on the market for ocean and marine technologies.

Mexico claims EEZs totalling almost 3 million square kilometres, but currently lacks the capability to fully manage such a large area. In the future, there will be emerging demands for a wide range of navigation and geomatics systems, especially under-water surveying equipment.

## OFFSHORE OIL AND GAS

Under Mexican law, *Petróleos Mexicanos (Pemex)*, the national oil company, has exclusive authority over the exploration and production of petroleum resources. Even though the principal sources of oil in Mexico are in offshore locations, *Pemex* is not a leader in undersea drilling technology. The company will need to improve its capabilities in the near future, for several reasons.

The level of proven reserves has been decreasing, and even then many observers question the official reserve statistics. Foreign participation in the petroleum industry has been increasing, both in the form of financing and direct participation in downstream activities. Therefore, *Pemex* will have to do a better job of proving its reserves. Another consideration is that wells will have to become deeper as the shallower areas are depleted. In addition, the recently-privatized natural gas distribution system will bring natural gas to market that was previously burned off. To supply this market, *Pemex* will need technology that allows it to improve exploitation of natural gas from offshore sites.

Currently, the marine-based oil and gas industry produces about 80 percent of Mexico's crude oil and more than 36 percent of its natural gas. These proportions will increase as land reserves continue to decline. Most oil and gas fields are located in the Campeche Sound on the Gulf of Mexico. Some of the Campeche wells are extremely prolific by world standards, with some wells producing 7,000 barrels per day. The most important oil and gas fields are: *Ablatún, Balam, Caan, Cantarrel, Chac, Ixtoc, Ku* and *Taratunich*.

*Pemex Exploración y Producción*, *Pemex's* exploration and production subsidiary, is under pressure to increase output. Higher extraction levels are needed to finance Mexico's foreign debt and to respond to political opposition to the privatization of *Pemex's* petrochemical plants. To help meet 1996 production goals, *Pemex* has implemented a technological innovation program designed to increase production and efficiency. The company also wishes to establish better safety and environmental standards.

The lack of domestic capability in this sector creates excellent opportunities for foreign suppliers. Mexican companies like *Proveedora y Manufacturadora* and *Braulio Zavala Co.*, are active in this market, but they are not capable of delivering adequate integral maintenance. They are also short of capital, especially since the devaluation of the peso in December 1994.

## CUSTOMERS

*Customers for ocean and marine technologies range from government agencies and research centres to private companies engaged in fishing, marine transportation and recreation.*

Customers for ocean and marine technologies are found in both the private and public sectors. Government users include universities; *Petróleos Mexicanos (Pemex)*, the national oil company; the military; and the environmental authorities. Private companies engaged in fishing, marine transportation, shipbuilding and port operations are also part of this market.

## MARINE SCIENCE AND LIMNOLOGY INSTITUTE

University research institutes are the most important customers for equipment and services related to marine science. The principal organization involved is the *Instituto de Ciencias del Mar y Limnología (ICML)*, Institute of Marine Science and Limnology, at the *Universidad Nacional Autónoma de México (UNAM)*, National Autonomous University of Mexico. The institute operates six main research programs:

1. Marine and limnological/biological community dynamics;
2. Climatology and hydrology;
3. Oceanographical information systems;
4. Oceanic and littoral systems geology;
5. Pollution and environmental impact; and
6. Aquatic system chemistry.

In addition to its facilities on the main campus in Mexico City, *UNAM* has regional research stations specializing in each of Mexico's three marine areas. These stations are equipped with laboratories, libraries, photography facilities, aquariums and computers, as well as land vehicles and watercraft. Specific areas of interest include aquaculture, fisheries, reef ecology, mollusk ecology, zooplankton, climatology, ocean circulation, submerged vegetation and sedimentology.

## UNAM OCEANOGRAPHIC RESEARCH RESOURCES

Unit	Locations	Researchers	Technicians
Main Campus	Mexico City	39	33
Mazatlán Station	Pacific coast and Gulf of California	9	11
El Carmen Station	Gulf of Mexico and Gulf of Campeche	1	3
Puerto de Morelos Station	Caribbean Sea	7	8
<b>Total</b>		<b>56</b>	<b>55</b>

Source: Universidad Nacional Autónoma de México (UNAM), National Autonomous University of Mexico; Instituto de Ciencias del Mar y Limnología, Informe de Actividades (ICML), Institute of Marine Science and Limnology, 1991-1995.

Each research station focuses on specialized regional problems. For example, the Port Morelos Station participated in an ambitious project to conduct an inventory of the 350-kilometre Great Maya Reef in the state of Quintana Roo. Other participants included the *Secretaría de Desarrollo Social (Sedesol)*, Secretariat for Social Development; American and international organizations; and private sponsors, including local marinas and resorts. This is considered an important study because the reef goes as deep as 135 feet, which is not typical, and because it is the second-longest in the world after the Australian Great Barrier Reef. The ultimate objective is to preserve the reef, which has been damaged by fishing and tourist activities.

In addition to its own projects, the *ICML* provides technical assistance to other scientific research institutions, including the following:

- *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (Conabio)*, National Biodiversity Council
- Cuban Science Academy
- Italian Biological Interest, Molecular Chemistry Institute
- Center of Maritime Studies, University of Haifa, Israel
- University of West Indies, Jamaica
- *Secretaría del Medio Ambiente, Recursos Naturales y Pesca (Semarnap)*, Secretariat of Environment, Natural Resources and Fisheries
- European Union
- *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, National Institute of Statistics, Geography and Informatics
- several state governments
- several schools and faculties of the *UNAM*, other national universities and American universities

The *ICML* also undertakes contract work for the *Secretaría de Marina Armada de México (SMAM)*, Mexican Navy. It claims to be the only organization in the country capable of conducting independent marine science research. During 1995, more than 100 research projects were carried out by the *ICML*. Of these, 82 were financed with its own resources and 20 by other organizations. Marine research centres at other Mexican universities are dependent on government funding.

*UNAM* owns Mexico's only two oceanographic vessels: *Puma* and *Justo Sierra*. The boats are operated by the *ICML* out of Mazatlán, Sinaloa and Tuxpan, Veracruz respectively. They are used mostly to sound the coastal zones and monitor pollution levels for planning purposes. Both are Norwegian-made and have been operating since the early 1980s. Accredited scientists from other countries can submit proposals to *UNAM* to conduct research on these vessels. During 1995, about 30 requests for *tiempo buque*, on-board time, were approved.

## THE NATIONAL OIL COMPANY

*Petróleos Mexicanos (Pemex)*, the national oil company, is the only producer of oil and gas in Mexico. Under Article 27 of the Mexican constitution, it has exclusive authority for all exploration and production of petroleum products. *Pemex* is the largest company in Mexico and the world's fourth or sixth largest oil company, depending on how firm size is defined.

*Pemex* has been severely criticized in the past for inefficiency, corruption and environmental degradation, which by one estimate cost Mexico 1 percent of its gross domestic product (GDP). In 1992, the Mexican government decided to restructure *Pemex* by creating four semi-autonomous subsidiaries. One of them, *Pemex Exploración y Producción*, is responsible for exploration and production.

Since then, *Pemex* has launched a massive modernization program, much of it based on imported technology. Production and exports were boosted in early 1995, as part of the effort to stabilize the economy following the devaluation of the peso in December 1994. Further expansion will be needed to keep pace with Mexico's rapidly growing population.

The 1995 *Pemex* budget provides for a 15 percent increase in exploration and production expenses. This is expected to add 50,000 barrels per day of *Istmo*-type crude production. In order to maintain current export levels while simultaneously matching domestic demand growth, *Pemex* will have to increase output to 2.95 million barrels per day by 1997. This compares with actual production of 2.69 million barrels in 1994. Since 1991, annual capital expenditures have hovered

around US \$3 billion, which has been barely adequate to maintain reserves and slightly increase production. Industry analysts estimate that *Pemex* will need to invest at least an additional US \$20 billion by the year 2000.

In 1995, the marine region production accounted for almost three-quarters of total oil production. Almost 40 percent of production comes from the Cantarell project in the Bay of Campeche. Other offshore wells are located in the Ciudad del Carmen and Dos Bocas areas. The marine region also accounted for 43 percent of gas liquids reserves and about 16 percent of its natural gas reserves.

Mexico produces three grades of crude oil: *Istmo*, *Maya* and *Olmeca*. Domestic consumption is mostly *Istmo* grade. *Pemex* is reportedly developing a new grade of oil to compete with Arabian light crude. The new grade, called *Pijije*, is being extracted at Dos Bocas, where the extra-light *Olmeca* grade is also extracted.

### OUTPUT FROM SELECTED MARINE OILFIELDS '000 OF BARRELS PER DAY

	1993	1994
Cantarrel	1,045	961
Ablatún	300	308
Ku	197	183
Caan	74	134
Pol	165	125
Chuc	86	100
Chac		59
Taratunich	13	41
Ek	19	23
Bacab	18	7
Batab	9	4
Others	23	58
<b>Total</b>	<b>1,950</b>	<b>2,002</b>

Source: *Petróleos Mexicanos (Pemex)*, national oil company, Statistical Yearbook, 1995.

*Pemex* is a major customer for marine drilling and platform maintenance technology. No drilling has taken place in the Gulf of Campeche since 1990. In 1994, 29 development wells and 10 exploratory wells were completed. Development activity was equally split between Dos Bocas and Ciudad del Carmen, but most exploration was in Dos Bocas. There were six rigs engaged in drilling exploratory wells and nine drilling development wells during the year.

*Pemex* can be a very demanding client. It expects suppliers to be familiar with its technological needs and to maintain substantial inventories of spare parts. It looks for an established track record, combined with the ability to provide local service. Many foreign suppliers find that local partners are a good way to establish the necessary contacts.

## OCEAN PORT OPERATORS

The privatization of Mexico's major ports began in early 1995. The first ports to be put up for tender included Veracruz, Altamira, Manzanillo and Lázaro Cárdenas, which together handle 60 percent of Mexico's ocean cargo. Other ports scheduled for privatization include Topolobampo, Ensenada, Salina Cruz, Coatzacoalcos, Guaymas and Campeche, as well as the tourist ports of Acapulco, Puerto Vallarta and Mazatlán. The ports on the Gulf of Mexico account for two-thirds of container-shipment traffic in Mexico.

Under the privatization program, tenders are called by the local *Administraciones de Puertos Integrales (APIs)*, integrated port authorities, but awards are subject to federal government approval. Existing concessions for specialized services will be integrated into a single *API* contract, but the successful bidder can subcontract individual services. The winning companies 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.

*Icave*, a Mexico-Philippines partnership consisting of *ICA* and International Container Terminal Services, won the concession to operate the container terminal at the port of Veracruz. This is the largest and busiest port in Mexico. Under the terms of the concession, *Icave* agreed to pay the government US \$88.5 million over 20 years. It has also invested heavily in improvements. According to one shipper, handling time for a container has already been cut from 3 to 4 days to 12 to 18 hours. Another reports that the installation of weigh scales has dramatically reduced theft.

*Icave* had invested US \$16.7 million in the port by September 1995 and plans to invest an additional US \$41.7 million in modernization projects. The company expects to expand container capacity from 265,000 containers in 1994 to 700,000 or more by 2008.

These investments will be recovered from port user-fees, which have already more than doubled. In November 1995, the government had to intervene to settle a dispute with the *Asociación Mexicana de Agentes Naveiros (Amanac)*, an association of consolidators. According to media reports, the company will keep its fees of about US \$90 to land a loaded container, but it will abandon its plan to index fees to the Mexican rate of inflation, which was running at around 2 percent per month in early 1996.

*Grupo Tribasa*, Mexico's largest construction company, was the successful bidder for the Altamira multiple-use concession. The company paid about US \$43 million for the concession, plus another US \$8.5 million for the terminal's five cranes. The American company, Fairway Terminals, withdrew its bid and will work with *Grupo Tribasa* to develop the port.

*Corporación Integral de Comercio Exterior (CICE)* was unsuccessful in its bid for the Altamira multiple-use terminal. Nonetheless, this company is expected to be a strong contender for future privatizations. *TMM* has also announced interest in bidding on another two or three ports.

The development of multimodal shipping will be further facilitated by the privatization of *Ferrocarriles Nacionales de México (FNM)*, the national railway. Plans are for 50-year concessions starting August 1996. The air transport system will also be privatized.

## PRIVATIZED OCEAN TERMINALS

Operator	Port	Terminal
Rehabilitación de Maquinarias (Remaconst)	Altamira	Multiple-use terminal ALT-1
TMM & Stevedoring Services of America	Manzanillo	Container terminal
International Container Terminal Services & ICA	Veracruz	Container terminal
Operadora de la Cuenca del Pacífico	Manzanillo	Multiple-use terminal MAN-1
ISPAT Mexicana	Lázaro Cárdenas	Multiple-use terminal LAC-1
Siderúrgica Lázaro Cárdenas Las Truchas (Sicartsa)	Lázaro Cárdenas	Multiple-use terminal LAC-2
Grupo Tribasa	Altamira II	Multiple-use terminal ALT-2

Canadian companies may find opportunities either as consortium participants or as suppliers of port technology to the successful bidders. *Coordinación General de Puertos y Marina Mercante (CGPyMM)*, General Coordinator for the Ports and the Merchant Navy, is looking for concessionaires with substantial financial backing, as well as expertise in port operations. So far, the successful bidders have included a mix of companies with experience in construction, and ship and port operation.

In addition, there is strong demand for dredging services. Mexican ports tend to be shallow and because of a high proportion of rubble and rocks, there is a lot of wear and tear on equipment. Filters, propellers and drills are the most common requirements. *Grupo Tribasa* recently released a three-year inventory needs analysis for its dredging boats and dry docks. Other major customers in this subsector include *Dragados Mexicanos*, *ICA*, and Stevedoring Services of America.

## SHIP OPERATORS

The largest problem facing the Mexican marine transportation sector is its lack of ships. According to the *Cámara Nacional de la Industria del Transporte Marítimo (Canaitram)*, National Chamber of the Maritime Transportation Industry, the Mexican merchant fleet carries only about 3 million tonnes annually. This is less than 3 percent of total volume. Many existing ships are old and in poor condition. Communications and navigation systems are also in need of modernization. *Transportación Marítima Mexicana (TMM)* is the largest Mexican company in the shipping business. In 1995, it ranked thirty-sixth on the *Expansion 500* listing of Mexico's largest companies, with revenues in 1994 of about \$3.4 billion Mexican pesos. American competitors say that although many of *TMMs* ships are old, the company has up-to-date computer technology and is a strong competitor on some routes.

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. In February 1996, the company announced that it is testing five intermodal rail cars on routes from the port of Manzanillo to Mexico City and Guadalajara.

Other important foreign carriers include Sea-Land Service Inc., Maersk, Lykes Bros. Steamship Co. and Mitsui O.S.K. Line. In 1995, Mitsui entered into a joint venture with *TMM* to operate more than 60 new double-stack rail cars from port operations on both coasts. According to a *TMM* executive, most of the cars will be used to service the port of Manzanillo, but they will also support shipping via Veracruz. *TMM* has recently sold some of its ships to German and American companies, apparently to raise funds for an expansion of its rail operations.

## 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. The fishing fleet is poorly equipped, especially in the area of electronics. There is also a demand for capture and harvesting equipment, as well as specialized aquaculture technology. Most fishing operations are small businesses but large firms dominate the formal industry. In 1995, members of the *Cámara Nacional de la Industria Pesquera (Canainpes)*, National Chamber for the Fishing Industry, obtained 572 new fishing permits, 73 percent of them in Sonora and Sinaloa. About 95 percent of the permits were for shrimp, and the rest for tuna, sardines and anchovies.

## MEXICAN NAVY

The *Secretaría de Marina Armada de México (SMAM)*, Mexican Navy, purchases weapons, rescue equipment and navigation technology, in addition to ships. *SMAM* also requires equipment for its environmental monitoring activities. This is not a large market, but there may be niche opportunities for specialized Canadian firms. The Mexican military is reportedly eager to purchase equipment during 1996 to 1997 so as to avoid paying for shipping once the ocean ports and the railway are privatized.

## ENVIRONMENTAL REGULATORY AGENCIES

Marine environmental issues are the responsibility of several government departments as well as the *Secretaría de Marina Armada de México (SMAM)*, Mexican Navy. The principal markets are for marine environmental auditing and assessment technologies.

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 del Medio Ambiente, Recursos Naturales y Pesca (Semarnap)*, Secretariat of Environment, Natural Resources and Fisheries. It has overall responsibility for the environment and the fisheries, including regulation and enforcement. Fisheries regulation is overseen by the *Subsecretaría de Pesca*, Undersecretariat of Fisheries.

Previously, environmental issues were handled by the *Secretaría de Desarrollo Social (Sedesol)*, Secretariat for Social Development, and there was a separate fisheries secretariat. *Sedesol* continues to have overall responsibility for urban planning, which includes some involvement in wastewater and solid waste issues. At the same time, the *Comisión Nacional de Agua (CNA)*, National Water Commission, and the *Instituto Mexicano de Tecnología del Agua (IMTA)*, Mexican Institute of Water Technology, were transferred to *Semarnap* from the *Secretaría de Agricultura y Recursos Hidráulicos (SARH)*, the former ministry of agriculture.

With an annual budget of only about \$4 billion Mexican pesos (roughly US \$500 million), *Semarnap* has insufficient resources to make major improvements. Industry observers believe that the agencies that administer environmental policies and programs will have considerable autonomy and that they will attempt to use private-sector participation to bolster their programs. The four principal agencies involved are:

- the *Instituto Nacional de Ecología (INE)*, National Institute for Ecology;
- the *Procuraduría Federal para la Protección del Ambiente (Profepa)*, Federal Attorney's Office for Environmental Protection;
- the *Instituto Mexicano de Tecnología del Agua (IMTA)*, Mexican Institute of Water Technology; and
- the *Comisión Nacional de Agua (CNA)*, National Water Commission.

These agencies have autonomous decision-making authority, but are dependent on *Semarnap* for funding. *Profepa* is probably the most important potential customer in this group, because it is responsible for enforcement and has a continuing need to conduct audits and assessments. The *CNA* is responsible for wastewater disposal. The *INE* is responsible for developing new standards, while the *IMTA*'s mandate is to develop and transfer new water technologies.

## COMPETITORS

*Mexico's ocean and marine sector is poorly developed and most competition comes from American and European suppliers*

Most of Mexico's ocean and marine technology is imported with the US being 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. The *Procuraduría Federal para la Protección del Ambiente (Profepa)*, Federal Attorney's 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; *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (Conabio)*, the 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. Many American companies have experience in dealing with Mexican government entities, and have become entrenched in several subsectors. On the other hand, they have suffered from a number of fishing disputes between Mexico and the United States.

European competitors enjoy a reputation for expertise in several areas. But they have not been very aggressive in setting up joint projects, and they suffer the disadvantages of distance and unfamiliarity with Mexican institutions. Nonetheless, several Scandinavian suppliers have made inroads in niche markets, along with a few competitors from other countries.

Canada has the advantage of a general reputation for technical excellence and willingness to adapt to Mexican ways of doing things. Nonetheless, individual companies are not well-known and, in the view of many Mexican observers, they have not pursued consistent promotion campaigns. Some of the industry experts interviewed for this study had heard of firms from Canada, but they could not recall their names.

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.

## APPROVED PROVIDERS OF EQUIPMENT FOR OCEANOGRAPHIC RESEARCH — NATIONAL AUTONOMOUS UNIVERSITY OF MEXICO

Company	Country
A/S Vest Service	Norway
Blohm+Voss	Germany
Caird & Rayner Clark	United Kingdom
C. Plath, Gertigstr	Germany
Coastal Environmental Systems	United States
Dynacon, Inc.	United States
EPC Labs Inc.	United States
Evac Oy	Finland
General Oceanics Inc.	United States
G.J. Wortelboer, Jr.	Holland
Honor Marine Communications Inc.	United States
Industrial Marine Paint & Supply Co.	United States
Morgan Crane Co. Inc.	United States
Novenco	Norway
Oceanographic Instrument Systems	United States
Officine Mario Dorin.	Italy
Ore International Inc.	United States
RaPP Hydema	Norway
Read Matre Instruments	Norway
Separation and Recovery Systems Inc.	United States
Servoteknikk	Norway
Sippican Inc	United States
Sperre Industri	Norway
Texas Marine Supply	United States
Trans Marine Propulsion Systems Inc.	United States
Ulstein Propeller	Norway
Vertek Industrial Supply Inc.	United States

**Note:** Includes procurements for UNAM's two oceanographic research vessels.

**Source:** Secretaría de Operaciones Oceanográficas; Instituto de Ciencias del Mar y Limnología (ICML), Institute of Marine Science and Limnology.

## TRENDS AND OPPORTUNITIES

*Government policies of privatization, deregulation and trade liberalization are driving a modernization process that has persisted in spite of Mexico's economic difficulties.*

Beginning in the mid-1980s, Mexico embarked on a series of sweeping economic reforms. After decades of protectionism, trade was liberalized, government enterprises were privatized and the regulatory environment was relaxed. A period of economic growth and industrial restructuring followed. The progress of economic development was substantially set back, however, by a sudden devaluation of the peso in December 1994, shortly after the government of President Ernesto Zedillo came to power.

The devaluation cut the value of the peso in half, sharply increasing the price of imports and stemming the tide of imports that had built up over the previous few years. Government budgets for research and infrastructure development were curtailed, and many private companies, even some of the giant *grupos*, or conglomerates, courted bankruptcy.

The devaluation also accelerated the pace of economic and industrial restructuring. Established lines of supply were broken up as buyers scrambled to find new, more cost-effective ways of doing things. Shipping-related markets surged along with the volume of exports. New bottlenecks appeared but were mostly remedied by a new round of privatization. A scarcity of capital has forced established Mexican firms to look abroad for joint-venture partners.

Beginning in 1996, the Mexican economy began to rebound and economic growth resumed. As the effect of the devaluation has worked its way through the cost structures of domestic industries, the competitiveness of imported goods and services has improved. Much of the new development has been located in coastal zones. The fisheries, oil and gas extraction, ocean ports, seafront tourism and industrial development in coastal areas are all expanding once again.

Industry participants in each of the major submarkets were interviewed and asked for their opinions about specific products and services that will be in demand over the next few years. The following sections briefly summarize the consensus view.



## PORT TECHNOLOGY

Although several ocean port concessions have already been awarded, as of mid-1996, several were still in the planning stages. They include Puerto Vallarta, Tuxpan, Topolobampo, Mazatlán and Guaymas. The privatization program will create a continuing demand for all types of port equipment. The government-owned assets at the ports have been sold along with the concessions. Some observers believe that *Grupo Tribasa* has managed to obtain the best stock of government equipment, but even in that case, a wide range of loading, transporting and handling equipment is needed. Many observers believe that the port modernization program will not compete effectively with American ports until land transportation links are improved. Tug boats will also be privatized during 1996.

As the ports pass from government administration to the private sector, consulting services will be needed. Specialized computer software for port maintenance and administration is reportedly in particular demand. Training services are also required, especially for maintenance workers, because there is no tradition of preventive maintenance. Suppliers of consulting services have traditionally been European and American firms, although an unidentified Halifax firm was repeatedly referred to by industry observers.



## SHIPBOARD TECHNOLOGY

An expansion of ocean traffic for both freight and passengers would create new demands for shipboard technology. Mexico's ships are generally old and in poor condition even by traditional standards and, with few exceptions, they lack the modern shipboard systems needed to compete in today's market. As a result, domestic ships carry less than 5 percent of export cargo and only a little more than half of coastal traffic.

This implies huge potential for expansion and modernization. But to a large extent, the future of this sector depends upon the outcome of the government's port privatization plan. A large proportion of Mexico's foreign trade is shipped by land to ocean ports in Texas or California. Before the devaluation of the peso in December 1994, some 2,000 cruise ships, carrying more than two million passengers docked in Mexico annually, but the large majority were foreign-owned. Industry observers believe that improved port operation would result in the refurbishment of some Mexican ships that are presently idle or underutilized.

Observers hold mixed views about whether privatization will bring this about. In the past, serious delays, theft and other problems at Mexican ports have resulted from difficulties with organized labour, especially in the ports of Manzanillo and Altamira. The unions are strong supporters of the ruling *Partido Revolucionario Institucional (PRI)*, Institutional Revolutionary Party, and union intransigence was blamed for several delays in the privatization process. One industry expert describes the unions as "Mafia-like". It is not yet clear whether the port operators will be able to deal with the unions on a purely commercial basis. In some cases, such as Veracruz, subcontracting by the principal concession holders has broken the unions into smaller entities and fostered competition between contractors.

If the ports operate efficiently, there are strong incentives for expanding the Mexican fleet. Mexico City is 200 miles from Veracruz by road, but 700 miles from Laredo, Texas, where border crossing is sometimes time consuming. Moreover, trucking companies are plagued by problems of theft and hijacking. All-water service would offer considerable cost savings over the multimodal rail and ship services currently offered via Los Angeles and Long Beach. Improved facilities and streamlined clearance procedures at passenger terminals would also increase cruise ship and yacht traffic.

## ENVIRONMENTAL TECHNOLOGY

Mexico's efforts to clean up its ocean environment are still in an early stage of development. Demand is, therefore, concentrated mainly in assessment technologies. Considerable assessment work is in progress in coastal areas, including several studies that are part of the Mexico Aquaculture Project. The development of new environmental standards also involves the purchase of some consulting services.

As environmental regulations become more actively enforced, *Procuraduría Federal para la Protección del Ambiente (Profepa)*, Federal Attorney's Office for Environmental Protection, will require more monitoring and testing equipment. The market for pollution control and remediation technologies will expand as this sector matures. In the short run, the principal demands are for equipment used in emergency clean-ups.

In spite of the relatively slow development of the environmental sector, international pressure has driven a number of interesting developments. For example, work began in early 1996 on the South Bay Ocean Outfall project. This is a 6,000-metre undersea tunnel designed to stop sewage discharge from Tijuana from reaching the South Bay beaches of San Diego.

In another development, environmental activists have raised strenuous protests over a solar salt extraction plant to be built on the San Ignacio Lagoon on the coast of Baja California Norte. The proposed plant would be built by *Exportadora de Sal (ESA)*, a joint venture between the Mitsubishi Corporation and the Mexican government. According to many environmentalists, it will interfere with one of the last pristine breeding areas of the gray whale. *ESA* has pledged to protect the whale habitat, but its environmental impact assessment was rejected by the *Instituto Nacional de Ecología (INE)*, National Institute for Ecology. The government has appealed this decision.

## OFFSHORE OIL AND GAS

In its 1996 operations program, *Petróleos Mexicanos (Pemex)*, the national oil company, sets out ambitious production goals for its exploration and production subsidiary. They include production objectives of 2.85 million barrels per day of crude oil and 4.3 billion cubic feet per day of natural gas. These goals imply an increase in crude oil extraction of up to 230,000 barrels per day over 1995. Natural gas production extraction would rise by 539 million cubic feet per day. Data for the first quarter indicate that while the goals were not yet reached, production was up substantially over the previous year. *Pemex* officials expect them to be met before the end of 1996.

Plans call for a total of 101 development wells and 19 exploratory wells during 1996. This compares with a total of 92 wells completed during 1995, including four horizontal wells and nine exploratory wells in the marine region.

New strategies for 1996 to 2000 will focus exploration efforts in the Gulf of Mexico, particularly off the coasts of Tabasco and Campeche. Technological innovation and subcontracted services are seen as keys to meeting the higher production goals. Company officials say that optimizing the selection mechanism for subcontractors is an important part of their plan. Procurement will be decentralized to the regional offices beginning in 1997, which implies opportunities for new suppliers. *Pemex* has also begun to apply multidisciplinary approaches to technological problems. This includes the use of advanced geological models for the study of oilfield dynamics.

The increased emphasis on exploration and extraction in the marine region will drive growing markets for related technologies. They include equipment and services for exploration, drilling, extraction and maintenance. According to company officials, the products most in demand include measurement while drilling (MWD) drift equipment, drift control equipment, electric centrifugal pumps and top trays.

For platform along with well repair and maintenance, the equipment and services in demand include:

- re-designed conventional valves;
- integral maintenance for wells and platforms;
- pneumatic pumps and parts;
- drill bits and parts;
- cold tubing;
- water insulators;
- flux-control equipment;
- drilling sludge pumps and parts; and
- electric generation equipment and parts.

## **MARINE SCIENCE TECHNOLOGIES**

Virtually all marine science equipment used in Mexico is imported, as are many specialized services. Updating equipment and conducting evaluations are considered expensive given the devalued peso. Nonetheless, there is continuing demand for essential technologies. According to observers, there is particular demand for equipment and software used for tri-dimensional seismic recording, geo-chemistry and numeric simulation. Although Canada has strong expertise in this field, most of this technology is currently purchased from American suppliers.

## **FISHERIES AND AQUACULTURE**

During its first year in office, the new government of President Ernesto Zedillo issued its six-year program for the development of the fisheries. It calls for expansion of fishing infrastructure and production capacity, to be balanced by the development of more modern models of fisheries management to prevent over-exploitation. The government's other priorities include modernizing the fishing fleet, rehabilitating coastal ecosystems and developing aquaculture. As is the case with most of the government's 1995 to 2000 plans, there is little concrete action included.

The *Cámara Nacional de la Industria Pesquera (Canainpes)*, National Chamber for the Fishing Industry, is more concerned with short-run threats to the industry. *Canainpes* members tend to be the bigger operators and a very large proportion of them are engaged in shrimp fishing, which is subject to many new regulations and health standards.

The *Canainpes* action plan for 1995 to 1996 stresses the need to negotiate implementation of fisheries management regulations with the government. It is also concerned about the embargo of Mexican tuna and a threatened boycott of shrimp from the Gulf of Mexico. It has recognized the need to reduce dolphin mortality in the tuna fishery and to protect the habitat of the marine turtle.

*Canainpes* officials are also concerned about fee increases and operational problems associated with the *Administraciones de Puertos Integrales (APIs)*, integrated port administrations. Planned increases in the price of diesel fuel by *Petróleos Mexicanos (Pemex)*, the national oil company, are also seen as a serious threat.

The modernization of Mexico's fisheries will require considerable inputs of foreign equipment and services. Government plans to promote the growth of aquaculture and mariculture will also create ongoing demand for specialized equipment and services. Observers point to several specific needs:

- technology for tracking and recording fish populations;
- development of fisheries regulation and management models;
- maintenance services for existing fishing infrastructure;
- technologies for coastal lagoon ecosystem rehabilitation; and
- systems for aquaculture and mariculture.

## MARINAS

A recent trend is leading to the development of marinas along both of Mexico's coasts. Boating in Mexico has always been limited to a small segment of the population. At the end of 1995, the nation still had only about 25 marinas in operation. But several new facilities are under construction and many more are planned. A number of developments are driving this trend. Regulations were changed to allow foreign-registered vessels to remain in Mexico for up to five years, instead of six months. In 1993, the import tax on boats was cut from 100 percent to 20 percent. And in 1995, the cheap peso began to attract more tourists.

Mexico's oldest marina, the Acapulco Yacht Club, became so overcrowded that it had to put in 100 new slips. Memberships are reportedly selling well at US \$25,000 each. A competing facility, the 300-slip *Marina Acapulco* was under construction in early 1996.

Some marina developments were originally planned as the focal point of major tourist developments. For example, *Grupo Situr* built the 555-slip *Marina Vallarta* in 1987 as part of an integrated resort. But when the marina turned out to be a viable profit centre in its own right, *Grupo Situr* began building others. The company now has marinas operating in Puerto Vallarta, Ixtapa, San Diego and San Carlos. Two new ones are under construction: *Marina Mazatlán* and *Marina Vallarta Norte*. According to a recent report in *Business Mexico*, *Grupo Situr* is planning additional facilities along the Pacific coast at Puerto Peñasco and San Felipe. The objective is to allow cruisers to hop from resort to resort along the entire Pacific coast.

Similar, but smaller, developments are cropping up along the Caribbean coast. *Marinas Turísticas de México (MTM)* plans a chain of small marinas running south from Cancún to the Belize border. The first of 21 planned marinas opened in December 1994, and three more were to begin operations in early 1996.

So far, there has been only limited foreign participation in Mexican marina projects. The American-owned *Marina Hacienda del Mar* in Cancún is a notable exception. But changes to the foreign investment law now allow 100 percent foreign ownership of non-residential property in the border and coastal areas. This, combined with scarce capital and high interest rates in Mexico, may encourage the creation of international joint ventures.

## THE REGULATORY ENVIRONMENT

*Several Mexican laws regulate activities in the marine environment. The nation is also a signatory to a number of international agreements and United Nations conventions.*

Mexico's ocean resources are governed by a large number of laws, regulations, decrees and inter-governmental agreements. Many of them have not been rigorously enforced and others are in a state of flux as the government proceeds with its deregulation plans.

The legal framework for government regulation of ocean environmental issues is set out in Articles 27 and 42 of the *Constitución Política de los Estados Unidos Mexicanos*, the Mexican constitution, and the *Ley Federal del Mar*, Federal Law of the Sea. More specific regulation is provided under the *Ley General del Equilibrio Ecológico y la Protección del Ambiente*, General Law of Ecological Equilibrium and Environmental Protection.

Enforcement efforts were increased with Mexico's accession to the North American Free Trade Agreement (NAFTA), and its environmental side agreement. But the financial crisis precipitated by the devaluation of the peso in December 1994 put several planned improvements on hold. Renewed efforts to improve enforcement are expected as the economy recovers.

Several other laws have some application to the marine environment:

- *Ley General de Salud*, General Law of Health;
- *Ley de Aguas Nacionales*, Law of the National Waters;
- *Reglamento para el Transporte de Residuos Peligrosos*, regulations for the transportation of dangerous residues;
- *Reglamento para el Uso y Aprovechamiento del Mar Territorial, Vías Navegables, Playas, Zona Federal Marítimo-Terrestre y Terrenos Ganados del Mar*, regulations for use and exploitation of the coastal waters, navigable routes, beaches and federal coastal zones;
- *Reglamento para la Prevención y control de la contaminación de aguas*, regulations for the prevention and control of water pollution;
- *Reglamento para prevenir la contaminación del mar por vertimiento de desechos y otras materias*, regulations preventing pollution in coastal waters due to spillage of residues and other materials; and
- various official standards setting limits of permissible emissions and transportation risks of toxic waste.

A series of *Normas Oficiales Mexicanas (NOMs)*, official standards, regulates the fishing industry. These are issued under the authority of the *Ley de Pesca y su Reglamento*, Fishery Law. There are separate *NOMs* covering the harvesting of tuna, sardines, shellfish, abalone, lobster, sea urchin and octopus. Several additional standards are concerned with sanitary standards for fish products, and others govern specific fishing zones.

Additional regulations govern the operation of ports and navigable waters.

There are also a number of inter-governmental agreements in force within Mexico. One between the *Secretaría de Desarrollo Urbano y Ecología (Sedue)*, the Secretariat of Urban Development and Ecology and *Petróleos Mexicanos (Pemex)*, the national oil company, governs pollution control in the petroleum industry. A second agreement between *Sedue* and the *Secretaría de Marina Armada de México (SMAM)*, the Mexican Navy, provides for measures to prevent and control the contamination of the marine environment and conduct remediation operations.

Mexico is a signatory to more than a dozen international treaties and agreements affecting the oceans. Most observers do not consider these to have a significant market impact, because they tend to specify principles rather than actions.

## UNITED NATIONS EXCLUSIVE ECONOMIC ZONE AGREEMENT

Since 1978, limits to territorial claims over the ocean have been recognized by all United Nations member countries. The final stage of this process took place on 10 December 1982, with the formal signing of the United Nations Convention on the Law of the Sea (UNCLOS III). Part V of this agreement defines an Exclusive Economic Zone (EEZ) as extending up to 200 nautical miles from the base lines of a coastal state's territorial sea.

In Mexico's case, this increased its ocean resources to about 3 million square kilometres, including all of the continental shelf. Since Mexico claims Guadalupe Island and the Revillagigedo Archipelago, its EEZ reaches more than 400 nautical miles from the mainland in some places.

Article 56 of UNCLOS III recognizes "sovereign rights" over the EEZ "for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the sea-bed ...and with regard to other activities for the economic exploitation and exploration of the zone".

The rights to an EEZ are balanced by a number of duties set out in the agreement. For example, the coastal state must take steps to preserve living species and manage harvesting for "maximum sustainable yield" based on scientific evidence. The agreement assigns "jurisdiction" over the protection and preservation of the marine environment, to the coastal state. The state must also maintain charts and geographic data adequate to identify the limits of its EEZ.

These requirements, however, are not accompanied by any specific standards. Article 61 simply requires coastal states to cooperate with "competent international organizations" and "take into account" generally accepted international standards.

## MARKET ENTRY STRATEGIES

*Partnering with local firms is usually the most effective way for Canadian companies to overcome cultural barriers and quickly establish name recognition.*

Although Canada enjoys a general reputation for technical excellence, individual companies are not well-known. This can make new products and services difficult to sell. Canadian companies that have succeeded in Mexico frequently say that partnering is usually the most effective way of achieving market exposure. Partnerships with Mexican companies or research institutions are also a powerful way of overcoming cultural and language barriers.

Another problem faced by Canadian firms in the ocean and marine technology field is their lack of familiarity with Mexican government agencies. Regulatory and procurement procedures are gradually being streamlined, but they can seem complex and arcane when compared with those in Canada. *Petróleos Mexicanos (Pemex)*, the national oil company, is notoriously difficult to sell to. Introducing new products or services requires well-developed contacts. Most government procurements are accomplished through complex bidding procedures, typically requiring personal attendance at formal bid opening ceremonies. Although the major autonomous universities such as *Universidad Nacional Autónoma de México (UNAM)*, National Autonomous University of Mexico, have control over their own spending, university bureaucracies can also be difficult sales prospects. Again, partnering with a local company is an effective solution.

Typically, the Canadian partner supplies the technology, management know-how and capital. The Mexican partner provides market knowledge and access, as well as the labour for local value-added. This type of partnership is particularly attractive to local companies because capital is both scarce and expensive in Mexico. Many companies locate prospective partners by attending industry trade shows. The Canadian Embassy in Mexico City and the consulates in Monterrey and Guadalajara can also assist with referrals and introductions.

## GOVERNMENT PROCUREMENT

### THE NATIONAL OIL COMPANY

*Pemex Exploración y Producción*, the exploration and production subsidiary of *Petróleos Mexicanos (Pemex)*, the national oil company, maintains its marine region headquarters at Ciudad del Carmen, which is located on Campeche Sound. Marine region officials have expressed interest in learning more about the international marine technology market. Interest is being fuelled by the planned decentralization of *Pemex* purchasing procedures. Unofficially, it is estimated that

regional buyers will be allowed to buy directly from suppliers beginning in 1997. Currently, a large proportion of purchases are made by the *Pemex* purchasing office in Houston, Texas following a complex hierarchy of acquisition recommendations.

Canadian suppliers must confront a lack of name recognition, combined with an American market share in the order of 90 percent. Early contact is recommended, so that buyers will be familiar with Canadian technologies before key decisions are made.

## **NATIONAL AUTONOMOUS UNIVERSITY OF MEXICO**

In Mexico, "autonomous" institutions are the most prestigious and well-equipped of the public universities. They receive funding from government, but control their own spending. They also raise money by selling technical services to private companies. *Universidad Nacional Autónoma de México (UNAM)*, National Autonomous University of Mexico, officials have elected to spend a large proportion of their funds on scientific disciplines.

This institution prefers to deal directly with foreign companies rather than local agents and distributors. Most of its suppliers are located in the United States, and US sales are facilitated by a university purchasing office in Houston, Texas. On the other hand, budgets are very tight because of the devaluation, and Canadian suppliers could succeed with more cost-effective solutions.

*UNAM* purchases mainly through public tenders. Specifications are published in the *Diario Oficial*. Compared with some other public institutions, *UNAM's* public bidding process is generally considered to be fair and transparent.

## **OCEAN PORT TENDERS**

The *Coordinación General de Puertos y Marina Mercante (CGPyMM)*, General Coordinator for the Ports and the Merchant Navy, is the government agency responsible for ocean port privatizations. Separate public companies called *Administraciones de Puertos Integrales (APIs)*, integrated port authorities, have already been created for each port. Each *API* will concession the operation of individual terminals, with more than one terminal in some ports. It is now granting 20-year concessions to operate and manage the terminals. These are comprehensive concessions for the expansion, modernization and operation of all terminal facilities. In most cases, foreign participation is limited to 49 percent.

Each *API* is run by a management board, made up of representatives from the federal, state and municipal governments. Although the boards are technically autonomous, they must operate under the provisions of the *Ley de Puertos*, Port Law, which governs the bidding process.

The new *API* contracts are the most recent development in a broader privatization scheme that began in 1993. During the first phase, concessions were issued by the government for specialized facilities and services. For example, security, weighing, storage, refrigeration and maintenance concessions were granted. There were 62 concessions in 1993, and another 23 in 1994. The associated investment was more than \$1.2 billion Mexican pesos in 1994 alone.

The next step was the creation of the *APIs*, which received tenders for concessions beginning in March 1995. These were for the ports at Manzanillo, Lázaro Cárdenas, Altamira and Veracruz. Separate concessions were granted for container and general-use terminals at Manzanillo and Veracruz. Additional general-use terminals were concessioned for Lázaro Cárdenas and Altamira in 1996. The next phase will be *API* concessions for Acapulco, Puerto Vallarta, Mazatlán and Ensenada.

## WHERE TO GET HELP

### CANADIAN GOVERNMENT DEPARTMENTS AND SERVICES IN CANADA

#### DEPARTMENT OF FOREIGN AFFAIRS AND INTERNATIONAL TRADE (DFAIT)

DFAIT is the Canadian federal government department most directly responsible for trade development. The InfoCentre should be the first contact point for advice on how to start exporting. It provides information on export-related programs and services, acts as an entry point to DFAIT's trade information network, and can provide copies of specialized export publications and market information to interested companies.

##### InfoCentre

Tel.: 1-800-267-8376 or (613) 944-4000

Fax: (613) 996-9709

FaxLink:\* (613) 944-4500

InfoCentre Bulletin Board (IBB):

Tel.: 1-800-628-1581 or (613) 944-1581

Internet: <http://www.dfait-maeci.gc.ca>

\*FaxLink is a faxback system which provides summaries on a range of Mexican markets. It must be contacted through your fax machine. Dial from your fax phone and follow the voice prompt instructions.

The Mexico Division, Latin America and Caribbean Bureau promotes trade with Mexico. There are several trade commissioners at the Embassy of Canada in Mexico City, as well as in the satellite offices in Monterrey and Guadalajara. Trade commissioners can provide a range of services including introducing Canadian companies to potential customers in Mexico, advising on marketing channels, assisting those wishing to participate in trade fairs, helping to identify suitable Mexican firms to act as agents, and compiling strategic business intelligence on potential foreign customers.

#### Latin America and Caribbean Bureau — Mexico Division (LMR)

Department of Foreign Affairs and International Trade  
Lester B. Pearson Building  
125 Sussex Drive  
Ottawa, ON K1A 0G2  
Tel.: (613) 996-5547  
Fax: (613) 996-6142

#### INTERNATIONAL TRADE CENTRES (ITCs)

International Trade Centres have been established across the country as a convenient point of contact to support the exporting efforts of Canadian firms. The centres operate under the guidance of DFAIT and all have resident trade commissioners. They help companies determine whether or not they are ready to export, assist firms with market research and planning, provide access to government programs designed to promote exports, and arrange for assistance from the trade commissioners in Ottawa and trade officers abroad. Contact the International Trade Centre nearest you:

##### Newfoundland

International Trade Centre  
P.O. Box 8950  
Atlantic Place  
215 Water Street  
Suite 504  
St. John's, NF A1B 3R9  
Tel.: (709) 772-5511  
Fax: (709) 772-2373

##### Prince Edward Island

International Trade Centre  
P.O. Box 1115  
Confederation Court Mall  
134 Kent Street  
Suite 400  
Charlottetown, PE C1A 7M8  
Tel.: (902) 566-7443  
Fax: (902) 566-7450

##### Nova Scotia

International Trade Centre  
P.O. Box 940, Station M  
1801 Hollis Street  
Fifth Floor  
Halifax, NS B3J 2V9  
Tel.: (902) 426-7540  
Fax: (902) 426-2624

##### New Brunswick

International Trade Centre  
P.O. Box 1210  
1045 Main Street  
Unit 103  
Moncton, NB E1C 1H1  
Tel.: (506) 851-6452  
Fax: (506) 851-6429

Quebec International Trade Centre  
5 Place Ville-Marie  
Suite 800  
Montreal, PQ H3B 2G2  
Tel.: (514) 283-6328  
Fax: (514) 283-8794

Ontario International Trade Centre  
Dominion Public Building  
1 Front St. West  
Fourth Floor  
Toronto, ON M5J 1A4  
Tel.: (416) 973-5053  
Fax: (416) 973-8161

Manitoba International Trade Centre  
P.O. Box 981  
400 St. Mary Avenue  
Fourth Floor  
Winnipeg, MB R3C 4K5  
Tel.: (204) 983-5851  
Fax: (204) 983-3182

Saskatchewan International Trade Centre  
The S.J. Cohen Building  
119-4th Avenue South  
Suite 401  
Saskatoon, SK S7K 5X2  
Tel.: (306) 975-5315  
Fax: (306) 975-5334

International Trade Centre  
1919 Saskatchewan Drive  
Sixth Floor  
Regina, SK S4P 3V7  
Tel.: (306) 780-6124  
Fax: (306) 780-6679

Alberta International Trade Centre  
*\*Edmonton office is also responsible for Northwest Territories*  
Canada Place  
9700 Jasper Avenue  
Room 540  
Edmonton, AB T5J 4C3  
Tel.: (403) 495-2944  
Fax: (403) 495-4507

International Trade Centre  
510-5th Street S.W.  
Suite 1100  
Calgary, AB T2P 3S2  
Tel.: (403) 292-6660  
Fax: (403) 292-4578

British Columbia International Trade Centre  
*\*Vancouver office is also responsible for the Yukon*  
P.O. Box 11610  
300 West Georgia Street  
Suite 2000  
Vancouver, BC V6B 6E1  
Tel.: (604) 666-0434  
Fax: (604) 666-0954

## WORLD INFORMATION NETWORK FOR EXPORTS (WIN EXPORTS)

WIN Exports is a computer-based information system designed by DFAIT to help Canada's trade development officers abroad match foreign needs to Canadian capabilities. It provides users with information on the capabilities, experience and interests of more than 24,000 Canadian exporters. For general information, call (613) 944-4WIN(4946); to register on WIN Exports, call (613) 996-2057, or fax 1-800-667-3802 or (613) 944-1078.

## PROGRAM FOR EXPORT MARKET DEVELOPMENT (PEMD)

PEMD is DFAIT's primary export promotion program. It supports a variety of activities to help Canadian companies expand into export markets.

PEMD shares up to 50 percent of eligible expenses. Program financial assistance is a repayable contribution, not a grant, and must be approved in advance. Funded activities include:

- Market Development Strategies, which consist of a package of support for visits, trade fairs, and market support initiatives, under one umbrella of the company's marketing plan.
- New to Exporting Companies, which provides a vehicle for these companies to seek out individual export opportunities, either through a market identification visit or participation in an international trade fair.
- Capital Projects Bidding for specific projects outside Canada involving international competition/formal bidding procedures.
- Trade Association Activities undertaken by non-sales national trade or industry associations on behalf of their member companies.

For general information, call the InfoCentre at 1-800-267-8376. For applications for assistance through this program, call the International Trade Centre nearest you. In Quebec, PEMD is administered by the 13 regional offices of the Federal Office of Regional Development (FORD Q), listed separately below.

## INTERNATIONAL FINANCING

DFAIT helps Canadian exporters interested in pursuing multilateral business opportunities financed by international financing institutions (IFIs). Canadian exporters and trade associations can access market data, obtain a better understanding of the competition, and determine if an IFI-funded market opportunity is practical and worth pursuing. DFAIT can provide information and advice on the availability of Canadian government-funded assistance programs and can assist companies in developing effective export marketing. For further information, contact:

### International Financing Division

Department of Foreign Affairs and International Trade  
Lester B. Pearson Building  
125 Sussex Drive  
Ottawa, ON K1A 0G2  
Tel.: (613) 944-0910  
Fax: (613) 943-1100

## TECHNOLOGY INFLOW PROGRAM (TIP)

Managed by DFAIT and delivered domestically by the Industrial Research Assistance Program, National Research Council, TIP is designed to help Canadian companies locate, acquire and adopt foreign technologies by promoting international collaboration. Industry Canada (IC) also helps in program promotion. TIP officers respond to requests to identify technology sources and opportunities for cooperation between Canadian and foreign firms. The Program also helps Canadian firms make exploratory visits abroad to identify and gain first-hand knowledge of relevant foreign technologies, as well as how to negotiate to acquire them. For information, call (613) 993-5326.

## INDUSTRY CANADA (IC)

IC was created with a broad mandate to make Canada more competitive by fostering the growth of Canadian businesses, by promoting a fair and efficient marketplace for business and consumers, and by encouraging commercial ventures in scientific research and technology. In the area of small business, it has been given specific responsibility to:

- develop, implement and promote national policies to foster the international competitiveness of industry; the enhancement of industrial, scientific and technological development; and the improvement in both the productivity and efficiency of industry;
- promote the mobility of goods, services, and factors of production within Canada;

- develop and implement national policies to foster entrepreneurship and the start-up, growth and expansion of small businesses;
- develop and implement national policies and programs respecting industrial benefits from procurement of goods and services by the Government of Canada; and
- promote and provide support services for the marketing of Canadian goods, services and technology.

The regional offices of IC work directly with Canadian companies to promote industrial, scientific and technological development. They help clients recognize opportunities in a competitive international marketplace by providing services in the areas of business intelligence and information as well as trade and market development. IC also promotes and manages a portfolio of programs and services.

The following are areas in which IC regional offices have special competence:

- access to trade and technology intelligence and expertise;
- entry points to national and international networks;
- industry-sector knowledge base;
- co-location with International Trade Centres connected to DFAIT and Canadian posts abroad;
- client focus on emerging and threshold firms; and
- business intelligence.

### Transportation Industries Branch

Industry Canada  
International Trade Centre  
1801 Hollis Street  
Halifax, NS B3J 2V9  
Tel.: (902) 426-9905  
Fax: (902) 426-2624

### Business Service Centre

Industry Canada  
235 Queen Street  
First Floor, East Tower  
Ottawa, ON K1A 0H5  
Tel.: (613) 941-0222  
Fax: (613) 957-7942

### NAFTA Information Desk

Industry Canada  
235 Queen Street  
Fifth Floor, East Tower  
Ottawa, ON K1A 0H5  
Fax: (613) 952-0540

## STRATEGIS

Canada's largest business web site, Strategis, gives business direct access to the latest information on specific industries, export opportunities, company capabilities, international intelligence and business contacts via the Internet. It also includes information on new technologies and processes, management experts, market services, government programs, micro-economic research and much more. In addition to these information resources, Strategis provides businesses with easy access to Industry Canada experts. Canadian companies will be able to browse the site to find out about market opportunities in Canada and abroad, new state-of-the-art technologies, key alliances, training resources and government programs. The International Business Information Network, one section of the site, contains first-hand information on products in demand, market conditions, competitors and business opportunities abroad.

### Strategis

Industry Canada  
235 Queen Street  
Ottawa, ON K1A 0H5  
Tel.: (613) 954-5031  
Fax: (613) 954-1894  
Internet : <http://www.hotline.service@strategis.ic.gc.ca/>

## REVENUE CANADA

Revenue Canada, Trade Administration Branch provides service and information on NAFTA regulations in English, French and Spanish. Revenue Canada publications and customs notices are also available by calling or faxing the NAFTA Information Desk.

NAFTA Information Desk  
Revenue Canada, Trade Administration Branch  
555 Mackenzie Avenue  
First Floor  
Ottawa, ON K1A 0L5  
Tel.: 1-800-661-6121, or (613) 941-0965  
Fax: (613) 952-0022

## CANADIAN INTERNATIONAL DEVELOPMENT AGENCY (CIDA)

An important possible source of financing for Canadian ventures in Mexico is the special fund available through CIDA under the Industrial Cooperation Program (INC). This program provides financial contributions to stimulate Canadian private-sector involvement in developing countries by supporting long-term business relationships such as joint ventures and licensing arrangements. INC supports the development of linkages with the private sector in Mexico by encouraging Canadian enterprises to share their skills and experiences with partners in Mexico

and other countries. A series of INC mechanisms help enterprises to establish mutually beneficial collaborative arrangements for the transfer of technology and the creation of employment in Mexico.

There are five INC mechanisms that help eligible Canadian firms to conduct studies and that provide professional guidance and advice to potential clients. Where a project involves environmental improvement, technology transfer, developmental assistance to women, job training or job creation, early contact with CIDA's Industrial Cooperation Division is suggested. An important CIDA criterion is that the project creates jobs in Mexico without threatening jobs in Canada. In fact, most CIDA-assisted projects have produced net increases in Canadian jobs. For more information, contact:

**Industrial Cooperation Division**  
Canadian International Development Agency  
200 Promenade du Portage  
Hull, PQ K1A 0G4  
Tel.: (819) 997-7905  
Fax: (819) 953-5024

## ATLANTIC CANADA OPPORTUNITIES AGENCY (ACOA)

Atlantic Canadian companies seeking to develop exports to Mexico may be eligible for assistance from the ACOA. The Agency works in partnership with entrepreneurs from the Atlantic region to promote self-sustaining economic activity in Atlantic Canada.

ACOA provides support to businesses as they look to expand existing markets through the development of marketing plans. Efforts include monitoring trade opportunities arising from global economic change, communications efforts to promote the region, trade missions and associated activities, as well as better coordination with federal and provincial bodies that influence trade and investment opportunities. For more information, contact:

**Atlantic Canada Opportunities Agency**  
Blue Cross Centre  
644 Main Street  
P.O. Box 6051  
Moncton, NB E1C 9J8  
Tel.: 1-800-561-7862  
Fax: (506) 851-7403

## THE FEDERAL OFFICE OF REGIONAL DEVELOPMENT (QUEBEC), (FORD Q)

FORD Q is a federal regional economic development organization. Through its commitment to provide services tailored to its clients, FORD Q supports the development of the economic potential of all regions of Quebec and the creation of viable jobs by promoting a business climate in which small- and medium-sized enterprises (SMEs) can grow and prosper. FORD Q uses the relevant and sought-after expertise of the federal government to work with the entrepreneurial spirit of Quebecers in every region and improve their competitive position. It also seeks, through strategic activities and partnerships in the community, to improve the business climate, an essential factor in the growth of SMEs.

FORD Q provides one-stop access to federal services and programs aimed at SMEs, particularly with regard to innovation, research and development (R&D), design, market development and entrepreneurship. Through its 13 Small Business Access Centres, FORD Q provides access to Team Canada export services and programs in the areas of awareness, export preparation, information, networking, advice and counselling, funding and access to funding.

In terms of access to funding, PEMD, with the exception of the component on preparing projects for submission, is delivered through the Small Business Access Centres. IDEA-SME, a FORD Q program, can also support firms during the export process. In addition, through alliances with banks, Small Business Access Centre advisors can facilitate access to funding for foreign marketing strategy projects.

Small Business Access Centre  
Abitibi/Témiscamingue  
906 5th Avenue  
Val d'Or, PQ J9P 1B9  
Tel.: (819) 825-5260  
Fax: (819) 825-3245

Small Business Access Centre  
Bas Saint-Laurent/Gaspésie/Îles-de-la-Madeleine  
212 Belzile Street  
Suite 200  
Rimouski, PQ G5L 3C3  
Tel.: (418) 722-3282  
Fax: (418) 722-3285

Small Business Access Centre  
Bois-Francis  
Place du Centre  
150 Marchand Street  
Suite 502  
Drummondville, PQ J2C 4N1  
Tel.: (819) 478-4664  
Fax: (819) 478-4666

Small Business Access Centre  
Côte-Nord  
701 Laure Boulevard  
Suite 202B  
P.O. Box 698  
Sept-Îles, PQ G4R 4K9  
Tel.: (418) 968-3426  
Fax: (418) 968-0806

Small Business Access Centre  
Estric  
1335 King Street West  
Suite 303  
Sherbrooke, PQ J1J 2B8  
Tel.: (819) 564-5904  
Fax: (819) 564-5912

Small Business Access Centre  
Île de Montréal  
800 Place Victoria Tower  
Suite 3800  
P.O. Box 247  
Montreal, PQ H4Z 1E8  
Tel.: (514) 283-2500  
Fax: (514) 496-8310

Small Business Access Centre  
Laval/Laurentides/Lanaudière  
Tour du Triomphe II  
2540 Daniel-Johnson Boulevard  
Suite 204  
Laval, PQ H7T 2S3  
Tel.: (514) 973-6844  
Fax: (514) 973-6851

Small Business Access Centre  
Mauricie  
Immeuble Bourg du Fleuve  
25 des Forges Street  
Suite 413  
Trois-Rivières, PQ G9A 2G4  
Tel.: (819) 371-5182  
Fax: (819) 371-5186

Small Business Access Centre  
Montérégie  
Complexe Saint-Charles  
1111 Saint-Charles Street West  
Suite 411  
Longueuil, PQ J4K 5G4  
Tel.: (514) 928-4088  
Fax: (514) 928-4097

Small Business Access Centre  
Nord-du-Québec  
800 Place Victoria Tower  
Suite 3800  
P.O. Box 247  
Montreal, PQ H4Z 1E8  
Tel.: (514) 283-5174  
Fax: (514) 283-3637

Small Business Access Centre  
Outaouais  
259 Saint-Joseph Boulevard  
Suite 202  
Hull PQ J8Y 6T1  
Tel.: (819) 994-7442  
Fax: (819) 994-7846

Small Business Access Centre  
Quebec City/Chaudière/Appalaches  
905 Dufferin Avenue  
Second Floor  
Quebec City, PQ G1R 5M6  
Tel.: (418) 648-4826  
Fax: (418) 648-7291

Small Business Access Centre  
Saguenay/Lac-Saint-Jean  
170 Saint-Joseph Street South  
Suite 203  
Alma, PQ G8B 3E8  
Tel.: (418) 668-3084  
Fax: (418) 668-7584

## WESTERN ECONOMIC DIVERSIFICATION CANADA (WD)

WD is responsible for federal economic development activities in Western Canada. The Department works in partnership with the western provinces, business, industry associations and communities to stimulate the western Canadian economy.

WD's "New Directions" program will work to enhance the export position of western companies by boosting their competitiveness in domestic and global markets.

The Department no longer provides repayable loans to individual companies, but seeks new innovative partnerships within both the public and private sectors. These partnerships will address the needs of small- and medium-sized enterprises for information, business services and capital, particularly for high growth industries critical to Western Canada's economic diversification.

One of WD's new products focussed on export development is the International Trade Personnel Program. This federal-provincial initiative links export-focussed western firms with recent post-secondary graduates. The program accomplishes two important socio-economic goals: it gives companies the extra person-power they need to penetrate new markets, and it gives recent graduates valuable work experience. Under the new program, the length of export-development projects may vary from one to three years. Approved projects will be eligible for assistance ranging from C \$7,500 for one year, to a maximum of C \$37,500 per graduate over the three-year period. For more information, contact:

Western Economic Diversification Canada  
The Cargill Building  
240 Graham Avenue  
Suite 712  
P.O. Box 777  
Winnipeg, MB R3C 2L4  
Tel.: (204) 983-4472  
Fax: (204) 983-4694

## EXPORT DEVELOPMENT CORPORATION (EDC)

EDC helps Canadian exporters compete in world markets by providing a wide range of financial and risk management services, including export credit insurance, financing to foreign buyers of Canadian goods and services, and guarantees.

EDC's products fall into four main categories:

- export credit insurance, covering short- and medium-term credits;
- performance-related guarantees and insurance, providing cover for exporters and financial institutions against calls on various performance bonds and obligations normally issued either by banks or surety companies;
- foreign investment insurance, providing political risk protection for Canadian investments abroad; and
- export financing, providing medium- and long-term export financing to foreign buyers of Canadian goods and services.

EDC has established relationships with leading commercial and public sector institutions in Mexico and Latin America. For more information on the range of services available, please refer to the customer teams below.

Base and Semi-Manufactured Goods Team:  
Tel.: (613) 598-2823  
Fax: (613) 598-2525

Consumer Goods Team:  
Tel.: (613) 597-8501  
Fax: (613) 598-2525

Emerging Exporters Team:  
Tel.: 1-800-850-9626  
Fax: (613) 598-6871

Financial Institutions Team:  
Tel.: (613) 598-6639  
Fax: (613) 598-3065

Forestry Team:  
Tel.: (613) 598-2936  
Fax: (613) 598-2525

Engineering and Professional Team:  
Tel.: (613) 598-3162  
Fax: (613) 598-3167

**Industrial Equipment Team:**

Tel.: (613) 598-3163

Fax: (613) 597-8503

**Information Technologies Team:**

Tel.: (613) 598-6891

Fax: (613) 598-6858

**Transportation Team:**

Tel.: (613) 598-3164

Fax: (613) 598-2504

For information on the full range of EDC services, contact any of the following EDC offices:

**Ottawa** Export Development Corporation  
151 O'Connor Street  
Ottawa, ON K1A 1K3  
Tel.: (613) 598-2500  
Fax: (613) 598-6858

**Vancouver** Export Development Corporation  
One Bentall Centre  
505 Burrard Street  
Suite 1030  
Vancouver, BC V7X 1M5  
Tel.: (604) 666-6234  
Fax: (604) 666-7550

**Calgary** Export Development Corporation  
510-5th Street S.W.  
Suite 1030  
Calgary, AB T2P 3S2  
Tel.: (403) 292-6898  
Fax: (403) 292-6902

**Winnipeg** Export Development Corporation  
330 Portage Avenue  
Eighth Floor  
Winnipeg, MB R3C 0C4  
Tel.: (204) 983-5114  
Fax: (204) 983-2187

**Toronto** Export Development Corporation  
National Bank Building  
150 York Street  
Suite 810  
P.O. Box 810  
Toronto, ON M5H 3S5  
Tel.: (416) 973-6211  
Fax: (416) 862-1267

**London**

Export Development Corporation  
Talbot Centre  
148 Fullarton Street  
Suite 1512  
London, ON N6A 5P3  
Tel.: (519) 645-5828  
Fax: (519) 645-5580

**Montreal**

Export Development Corporation  
Tour de la Bourse  
800 Victoria Square  
Suite 4520  
P.O. Box 124  
Montreal, PQ H4Z 1C3  
Tel.: (514) 283-3013  
Fax: (514) 878-9891

**Halifax**

Export Development Corporation  
Purdy's Wharf, Tower 2  
1969 Upper Water Street  
Suite 1410  
Halifax, NS B3J 3R7  
Tel.: (902) 429-0426  
Fax: (902) 423-0881

**NATIONAL RESEARCH COUNCIL (NRC)**

Canadian companies hoping to succeed in the Mexican marketplace may require additional technology to improve their competitiveness. The NRC works with Canadian firms of all sizes to develop and apply technology for economic benefit. The Council manages the Industrial Research Assistance Program (IRAP), a national network for the diffusion and transfer of technology.

The IRAP network, working primarily with small- and medium-sized Canadian firms, supports the process of developing, accessing, acquiring, implementing and using technology throughout Canadian industry. IRAP has a 50-year history of providing technical advice and assistance to Canadian firms and has acquired a reputation as one of the most flexible and effective federal programs. IRAP takes advantage of the advice of industrial technology advisors who are situated in more than 165 different locations within approximately 90 communities across Canada, including numerous provincial technology centres, the NRC's own laboratories and research institutes, federal government departments, and technology transfer offices in Canadian universities. For further information, contact:

**Industrial Research Assistance Program**

National Research Council  
Montreal Road  
Building M-55  
Ottawa, ON K1A 0R6  
Tel.: (613) 993-1790  
Fax: (613) 952-1079

## **CANADIAN COMMERCIAL CORPORATION (CCC)**

CCC, a Crown corporation, provides Canadian exporters with valuable assistance when they are selling to any foreign government, or to an international organization. In such sales, CCC acts as a prime contractor and guarantor for the sale of Canadian goods and services to the foreign customer.

CCC certifies the Canadian exporter's financial and technical capabilities, and guarantees to the foreign buyer that the terms and conditions of the contract will be met. CCC's participation in a sale provides Canadian suppliers with the tangible backing of their own government, enhancing their credibility and competitiveness in the eyes of foreign customers. This can often lead to the negotiation of more advantageous contract and payment terms.

The Progress Payment Program, developed by CCC in cooperation with Canada's financial institutions, makes pre-shipment export financing more accessible to small- and medium-sized exporters. The program allows an exporter to draw on a special line of credit, established by his or her principal banker for a particular export sale. In most instances, the borrowing costs will approximate those associated with a typical demand line of credit. The program is available for transactions with foreign government and private sector buyers.

For more information about CCC and its programs, contact:

Canadian Commercial Corporation  
50 O'Connor Street  
Eleventh Floor  
Ottawa, ON K1A 0S6  
Tel.: (613) 996-0034  
Fax: (613) 995-2121

## **KEY CONTACTS IN CANADA**

### **BUSINESS AND PROFESSIONAL ASSOCIATIONS**

**Shipbuilders Association of Canada**  
222 Queen Street  
Suite 1502  
Ottawa, ON K1P 5V9  
Tel.: (613) 232-7127  
Fax: (613) 238-5519

**Canadian Advanced Technology Association  
(CATA)**  
388 Albert Street  
Second Floor  
Ottawa, ON K1R 5B2  
Tel.: (613) 236-6550  
Fax: (613) 236-8189

**Canadian Council for the Americas (CCA)**  
The Council is a non-profit organization formed in 1987 to promote business interests in Latin American as well as Caribbean countries. The CCA promotes events and programs targetted at expanding business and building networking contacts between Canada and the countries of the region.

**Canadian Council for the Americas**  
Executive Offices  
360 Bay Street  
Suite 300  
Toronto, ON M5H 2V6  
Tel.: (416) 367-4313  
Fax: (416) 367-5460

**Alliance of Manufacturers and Exporters Canada**  
99 Bank Street  
Suite 250  
Ottawa, ON K1P 6B9  
Tel.: (613) 238-8888  
Fax: (613) 563-9218

**Alliance of Manufacturers and Exporters Canada**  
75 International Boulevard  
Fourth Floor  
Etobicoke, ON M9W 6L9  
Tel.: (416) 798-8000  
Fax: (416) 798-8050

**The Canadian Chamber of Commerce**  
55 Metcalfe Street  
Suite 1160  
Ottawa, ON K1P 6N4  
Tel.: (613) 238-4000  
Fax: (613) 238-7643

**Forum for International Trade Training Inc.**  
155 Queen Street  
Suite 608  
Ottawa, ON K1P 6L1  
Tel.: (613) 230-3553  
Fax: (613) 230-6808

**Language Information Centre**  
240 Sparks Street RPO  
Box 55011  
Ottawa, ON K1P 1A1  
Tel.: (613) 523-3510

**Open Bidding Service**  
P.O. Box 22011  
Ottawa, ON K1V 0W2  
Tel.: 1-800-361-4637 or (613) 737-3374  
Fax: (613) 737-3643

**Canadian Standards Association**  
178 Rexdale Blvd.  
Etobicoke, ON M9W 1R3  
Tel.: (416) 747-4000  
Fax: (416) 747-4149

**Standards Council of Canada**  
45 O'Connor Street  
Suite 1200  
Ottawa, ON K1P 6N7  
Tel.: (613) 238-3222  
Fax: (613) 995-4564

## **MEXICAN GOVERNMENT OFFICES IN CANADA**

The Embassy of Mexico and Mexican consulates can provide assistance and guidance to Canadian companies in need of information about doing business in Mexico. For more information, contact:

**Embassy of Mexico**  
45 O'Connor Street  
Suite 1500  
Ottawa, ON K1P 1A4  
Tel.: (613) 233-8988  
Fax: (613) 235-9123

**Mexican Consulate in Ottawa**  
45 O'Connor Street  
Suite 1500  
Ottawa, ON K1P 1A4  
Tel.: (613) 233-6665  
Fax: (613) 235-9123

## **OTHER MEXICAN CONSULATES GENERAL IN CANADA**

**Consulate General of Mexico**  
2000 Mansfield Street  
Suite 1015  
Montreal, PQ H3A 2Z7  
Tel.: (514) 288-2502/4916  
Fax: (514) 288-8287

**Consulate General of Mexico**  
199 Bay Street  
Suite 4440  
P.O. Box 266, Station Commerce Court West  
Toronto, ON M5L 1E9  
Tel.: (416) 368-2875/8141/1847  
Fax: (416) 368-8342

**Consulate General of Mexico**  
810-1130 West Pender Street  
Vancouver, BC V6E 4A4  
Tel.: (604) 684-3547/1859  
Fax: (604) 684-2485

## **MEXICAN FOREIGN TRADE COMMISSIONS**

*Banco Nacional de Comercio Exterior (Bancomext)* is the Mexican Foreign Trade Commission and has offices in Canada. It offers credits, export guarantees and counselling services to Mexican companies seeking to do business in Canada.

## **MEXICAN BANKS WITH OFFICES IN CANADA**

*Banco Nacional de México (Banamex)*, *Banca Serfin* and *Banca Confia* are private-sector banks which offer specialized services through their international trade information centres. The centres participate in a computerized communications network with access to numerous economic, governmental and financial databases throughout the world. These banks are located throughout Mexico and maintain offices in Toronto.

*Banco Nacional de México (Banamex)*  
1 First Canadian Place  
Suite 3430  
P.O. Box 299  
Toronto, ON M5X 1C9  
Tel.: (416) 368-1399  
Fax: (416) 367-2543

*Banca Serfin*  
BCE Place  
Canada Trust Tower  
161 Bay Street  
Suite 4360  
P.O. Box 606  
Toronto, ON M5J 2S1  
Tel.: (416) 360-8900  
Fax: (416) 360-1760

*Banca Confia*  
150 York Street  
Suite 408  
Toronto, ON M5H 3A9  
Tel.: (416) 955-9233  
Fax: (416) 955-9227

## CANADIAN GOVERNMENT DEPARTMENTS AND SERVICES IN MEXICO

### TRADE AND ECONOMIC DIVISION

#### THE EMBASSY OF CANADA IN MEXICO

The Trade and Economic Division of the Canadian Embassy in Mexico can provide vital assistance to Canadians venturing into the Mexican market. The trade commissioners are well-informed about the market and will respond in whatever measures possible to support a Canadian firm's presence in Mexico.

#### Trade and Economic Division

The Embassy of Canada in Mexico  
Schiller No. 529  
Col. Polanco  
11560 México, D.F.  
México  
Tel.: (52-5) 724-7900  
Fax: (52-5) 724-7982

#### Canadian Consulate

Edificio Kalos, Piso C-1  
Local 108-A  
Zaragoza y Constitución  
64000 Monterrey, Nuevo León  
México  
Tel.: (52-8) 344-3200  
Fax: (52-8) 344-3048

#### Canadian Consulate

Hotel Fiesta Americana  
Local 30-A  
Aurelio Aceves No. 225  
Col. Vallarta Poniente  
44110 Guadalajara, Jalisco  
México  
Tel.: (52-3) 616-6215  
Fax: (52-3) 615-8665

## KEY CONTACTS IN MEXICO

### GOVERNMENT DEPARTMENTS

#### Secretariat of Communications and Transportation

*Secretaría de Comunicaciones y Transportes (SCT)*  
Avenida Universidad Esq. Xola, Edificio C  
Col. Navarte, Delegación Benito Juárez  
03020 México, D.F.  
México  
Tel.: (52-5) 530-3060  
Fax: (52-5) 684-0721

#### Secretariat of the Navy

*Secretaría de Marina Armada de México (SMAM)*  
Tramo H. Escuela Naval Militar 861  
Eje 2 Oriente No. 861  
Col. Cipreses  
04830 México, D.F.  
México  
Tel.: (52-5) 684-8188  
Fax: (52-5) 684-8188 ext. 4328

#### General Coordinator for the Ports and the Merchant Navy

*Coordinación General de Puertos y Marina Mercante (CGPyMM)*  
Municipio Libre No. 377, Piso 12, Ala B  
Col. Santa Cruz Atoyác  
03310 México, D.F.  
México  
Tel.: (52-5) 688-4873/4295/4303

#### Secretariat for Social Development

*Secretaría de Desarrollo Social (Sedesol)*  
Avenida Constituyentes, No. 947  
Col. Belén de las Flores  
01110 México, D.F.  
México  
Tel.: (52-5) 538-0904  
Fax: (52-5) 271-8862

#### Secretariat of Environment, Natural Resources and Fisheries

*Secretaría del Medio Ambiente, Recursos Naturales, y Pesca (Semarnap)*  
Periférico Sur No. 4209, Piso 5  
Col. Jardines en la Montaña  
14210 México, D.F.  
México  
Tel.: (52-5) 628-0600  
Fax: (52-5) 628-0643

#### National Water Commission

*Comisión Nacional de Agua (CNA)*  
Insurgentes Sur No. 2140, Piso 2  
Col. Ermita San Angel  
01070 México, D.F.  
México  
Tel.: (52-5) 661-3806/4555/5304  
Fax: (52-5) 661-0840/3929

**Mexican National Railway**  
*Ferrocarriles Nacionales de México (FNM)*  
Avenida Jesús García Corona No. 140  
Pent House, Ala A  
Col. Buenavista, Delegación Cuauhtémoc  
06358 México, D.F.  
México  
Tel.: (52-5) 547-3556/7920/1724  
Fax: (52-5) 547-0959

**National Oil Company**  
*Petróleos Mexicanos (Pemex)*  
Marina Nacional No. 329, Torre Ejecutiva, Piso 44  
Col. Anáhuac, Delegación Miguel Hidalgo  
11311 México, D.F.  
México  
Tel.: (52-5) 250-1055/3457/8736  
Fax: (52-5) 625-4385

*Petróleos Mexicanos Internacional (PMI)*  
Marina Nacional No. 319  
Col. Huasteca, Delegación Miguel Hidalgo  
11311 México, D.F.  
México  
Tel.: (52-5) 227-0000  
Fax: (52-5) 227-0004

**Pemex Exploration and Production — Marine Region Southeast**  
*Pemex Exploración y Producción — Región Marina Sureste*  
Edificio Administrativo Calle 33 No. 90  
24150 Ciudad del Carmen, Campeche  
México  
Tel.: (52-93) 82-3479

**Pemex Exploration and Production — Marine Region Northeast**  
*Pemex Exploración y Producción — Región Marina Noreste*  
Calle 31 Edificio Administrativo No. 2  
Col. Pemex II  
24160 Ciudad del Carmen, Campeche  
México  
Tel.: (52-93) 82-2431/4210

**Pemex Well Service Management Office**  
*Pemex Exploración y Producción, Subgerencia de Servicio a Pozos*  
Calle 33, No. 90, Edificio PEMEX I  
Col. Burócratas  
Ciudad del Carmen, Campeche  
México  
Tel.: (52-93) 85-1200 ext 23380  
Fax: (52-93) 82-3389

**Mexican Port Authority**  
*Puertos Mexicanos*  
Municipio Libre No. 377  
Piso 6 Ala A  
Col. Santa Cruz Atoyac  
03310 México, D.F.  
México  
Tel.: (52-5) 688-3895/7970/2266

**Secretary of Commerce and Industrial Development Bureau of Standards**  
*Secretaría de Comercio y Fomento Industrial (Secofi)*  
Dirección General de Normas  
Av. Puente de Tecamachalco No. 6  
Col. Lomas de Tecamachalco  
53950 Tecamachalco, Estado de México  
México  
Tel.: (52-5) 729-9300  
Fax: (52-5) 729-9484

**Federal Attorney Office for Environmental Protection**  
*Procuraduría Federal para la Protección del Ambiente (Profepa)*  
Periférico Sur No. 5000, P.B.  
Col. Insurgentes Cuicuilco  
04530 México D.F.  
México  
Tel.: (52-5) 528-5540/5546  
Fax: (52-5) 666-9462

**National Institute of Statistics, Geography and Informatics**  
*Instituto Nacional de Estadística, Geográfica e Informática (INEGI)*  
Coordinación de Comunicación Social  
Avenida Héroe de Nacozari No. 2301 sur  
Edificio Sede, Puerta 7, 1er Piso  
Col. Fraccionamiento Jardines del Parque  
20270 Aguascalientes, Aguascalientes  
México  
Tel.: (52-49) 18-6947  
Fax: (52-49) 18-6945

## RESEARCH INSTITUTES

**National Autonomous University of Mexico Institute of Marine Science and Limnology**  
*Universidad Nacional Autónoma de México (UNAM)*  
*Instituto de Ciencias del Mar y Limnología*  
Ciudad Universitaria,  
Circuito exterior c/ Facultad de Veterinaria y el Instituto de Biología  
Delegación Coyoacán  
México, D.F.  
México  
Tel.: (52-5) 622-5770/71, 622-5805  
Fax: (52-5) 616-2745

**National Ecology Institute**  
**Environmental Information and Assessment Office**  
*Instituto Nacional de Ecología (INE)*  
Dirección General de Gestión e Información Ambiental  
Av. Revolución No. 1425  
Col. Tlacópac San Angel  
01040 México, D.F.  
México  
Tel.: (52-5) 624-3464  
Fax: (52-5) 624-3584

**Mexican Institute for Water Technology**  
*Instituto Mexicano de Tecnología del Agua (IMTA)*  
Paseo de Cuauhnáhuac No. 8532  
Col. Progreso  
62550 Jiutepec, Morelos  
México  
Tel.: (52-72) 19-3881  
Fax: (52-72) 19-4337

**National Fishery Institute**  
*Instituto Nacional de la Pesca (INP)*  
Pitágoras No. 1320  
Col. Narvarte  
México D.F.  
México  
Tel.: (52-5) 688-9001 ext. 112 and 113  
Fax: (52-5) 601-2330

## **MEXICAN BUSINESS AND PROFESSIONAL ORGANIZATIONS**

**National Fishing Industry Chamber**  
*Cámara Nacional de la Industria Pesquera (Canainpes)*  
Delegación Tamaulipas  
Calle Doctor Alarcón No. 202 Norte  
Col. Centro  
89000 Tampico, Tamaulipas  
México  
Tel.: (52-12) 121-731

**National Chamber of the Maritime Transportation Industry**  
*Cámara Nacional de la Industria del Transporte Marítimo (Canaitram)*  
Insurgentes Sur No. 1673, 1er Piso  
Col. Guadalupe Inn  
01020 México, D.F.  
México  
Tel.: (52-5) 661-0527/5903/4776  
Fax: (52-5) 661-7049

**National Biodiversity Council**  
*Comisión Nacional Para el Conocimiento y Uso de la Biodiversidad (Conabio)*  
Fernandez Leál No. 43  
Barrio de la Concepción, Coyoacán  
04020 México, D.F.  
México  
Tel./Fax: (52-5) 554-4332/7472/1915

**National Association of Importers and Exporters of the Mexican Republic**  
*Asociación Nacional de Importadores y Exportadores de la República Mexicana (ANIERM)*  
Monterrey No. 130  
Col. Roma  
06700 México, D.F.  
México  
Tel.: (52-5) 564-8618/9218  
Fax: (52-5) 584-5317

**The Canadian Chamber of Commerce in Mexico**  
*Cámara de Comercio de Canadá en México*  
c/o Bombardier  
Paseo de la Reforma No. 369, Mezzanine  
Col. Juárez  
06500 México, D.F.  
México  
Tel.: (52-5) 729-9903, 207-2400  
Fax: (52-5) 208-1592

**National Chamber of Commerce of Mexico City**  
*Cámara Nacional de Comercio de la Ciudad de México (Canaco)*  
Paseo de la Reforma No. 42  
Col. Juárez  
06030 México, D.F.  
México  
Tel.: (52-5) 592-2677/2665  
Fax: (52-5) 705-7412, 592-3571

## **MAJOR MEXICAN COMPANIES**

*Titurados Basálticos y Derivados (Grupo Tribasa)*  
Bosques de Cidros No. 173  
Col. Bosques de las Lomas  
05120 México, D.F.  
México  
Tel.: (52-5) 299-7485/7486  
Fax: (52-5) 229-7430

*Ingenieros Cíviles Asociados, S.A. de C.V. (ICA)*  
Minería No. 145  
Col. Escandón  
11800 México, D.F.  
México  
Tel.: (52-5) 272-9991  
Fax: (52-5) 272-9991 ext.3868

*Transportación Marítima Mexicana (TMM)*  
Avenida de la Cuspide 4755  
Col. Parque de Pedregal, Delegación Tlalpan  
14010 México, D.F.  
México  
Tel.: (52-5) 629-8866  
Fax: (52-5) 629-8899

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We are interested in your views on this publication. Please take a few minutes to respond to the questions below.

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- very useful
- useful
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2. Please provide your assessment of each of the following aspects of this publication.

a) Quality of text discussion (mark one only):

- excellent
- good
- fair
- poor

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- excellent
- good
- fair
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yes  no

11. a) Does your company currently export?

Yes, go to 11 b)  
 No, go to 11 c)

b) If yes, to which foreign markets?

U.S.A.  Europe  Japan  
 Mexico  Latin America  
 Other (please specify) \_\_\_\_\_

c) If not, are you planning to export within the next 12 months?

Yes, where?  
 U.S.A.  Europe  Japan  
 Mexico  Latin America  
 Other (please specify) \_\_\_\_\_

12. What is the approximate size of your company?

under \$1 million  
 \$1 to 5 million  
 \$5 and \$10 million  
 over \$10 million

To discuss this evaluation may we contact you? If so,

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Tel.: \_\_\_\_\_ Fax.: \_\_\_\_\_

**Please return the completed survey by fax to (613) 996-6142 or to the address below:**

Latin America and Caribbean Branch  
Department of Foreign Affairs and International Trade  
Lester B. Pearson Bldg., 125 Sussex Drive  
Ottawa, Ontario K1A 0G2



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