I. Basic Facts

A. Time Zones

GMT: -6 hours

B. Currency

Mexican peso. US$ = 2,800 pesos.
(June 1990; for current UN exchange rate, consult UN Finance Section.)

C. Visa Information/ Vaccination Requirements

Visa Information: An entry card, tarjeta de turista, is mandatory. This card is obtained from the Mexican consulate.

Vaccination Requirements: No mandatory vaccinations, apart from yellow fever if one is coming from an infected area, but vaccination against typhoid, typhus, tetanus, and poliomyelitis is recommended, as are gamma-globulin shots. Malaria risk exists in rural areas below 1000 m: all year in Chiapas, Guerrero, Michoacán, Nayarit, Oaxaca and parts of Campeche, Quintana Roo, Tabasco and Veracruz States; from June through October in Morelos, Puebla (part) States and Alamos Mun (Sonora State); from May through October in Sinaloa and parts of Chihuahua, Durango, Jalisco States; from May through December in part of Yucatan State.

D. Calendar and Holidays

New Year's Day	1 January
Constitution Day	5 March
Birth of Benito Juárez	21 March
Easter	varies from year to year
Labour Day	1 May
Anniversary of the Battle of Puebla	5 May
President's Annual Message	1 September
Independence Day	16 September
Discovery of America	12 October
All Souls Day	2 November*
Anniversary of the Revolution	20 November
Our Lady of Guadelupe	12 December*
Christmas	24/25 December

*not official holidays, but widely celebrated.

E. History

Of the many Indian nations in the vast territory of Mexico, the two most important before the Spanish Conquest were the Aztecs of what is now Mexico City and the Mayas of Yucatán. The Aztecs had obtained absolute control over the whole Valley of Mexico and loose control of some other regions, whereas the Mayan empire was already in decline when the Spanish arrived. After conquering the Aztecs, the Spanish ruled Mexico for 300 years, founded most of the still important cities, tapped great wealth in mining, stock raising and sugar-growing, and firmly imposed their way of life and beliefs.

The nineteenth century ushered in over 100 years of civil war, beginning in 1810 with civil strife that resulted in Mexico's proclamation of independence from Spain in 1821. In 1848, as a result of the war between the United States and Mexico, the United States acquired half of Mexico's territory: all the land from Texas to California and from the Rio Grande to Oregon. A period of reform began in 1857, under the pure-blooded Zapotec Indian, Benito Juárez. His liberal programme of popular education, freedom of the press and speech, civil marriage, and the separation of church and state led to another civil war - a war which he eventually won, but which in the meantime had wrecked the national economy. Foreign troops invaded the country and did not withdraw until 1867.

The period of 1876 to 1910 was one of peace. Outside capital was used to construct railways and open mines, to drill for petroleum, to establish plantations, to create an efficient banking system and to install public utilities. But the economic prosperity was at the expense of the Mexican peasantry, many of whom lost their land.

An uprising in 1910 led to a new programme of reform. Another civil war followed. A semblance of order was established in 1916, a new constitution being promulgated in 1917. It was not until the Presidency of Lázaro Cárdenas (1934-40) that the radical promises of the new constitution began to materialize, carrying out the division of the great estates into communal lands, irrigation, the raising of wages, the spread of education, the

beginnings of industrialization, and the nationalization of the oil wells and railways. Later presidents nationalized electric power, the main airlines and some industries, but at the same time encouraged both Mexican and foreign (mainly American) entrepreneurs to develop the private sector. All presidents have pursued an independent and non-aligned foreign policy.

F. Government

Under the 1917 Constitution, Mexico is a federal republic of 31 States and a Federal District containing the capital, Mexico City. The President, who appoints the Ministers, is elected for six years and can never be re-elected. Congress consists of the Senado (Senate), elected every six years, and the Cámara de Diputados (Chamber of Deputies), elected every three years. There is universal suffrage, and one Diputado for every 60,000 inhabitants.

States enjoy local autonomy and can levy their own taxes. Each State has its Governor, legislature and judicature. The President appoints the Chief of the Federal District.

G. Language

Spanish; several indigenous Indian languages are also spoken.

H. Climate and Geography

Area:	1,958,201 km^2
Geographical Overview:	Mexico is the third largest country in Latin America and the most populous (over 81 million people) Spanish-speaking country in the world. Its geography ranges from swamp to desert, from tropical lowland jungle to high alpine vegetation above the tree line, from thin arid soils to others so rich that they grow three crops a year. Over half the country is at an altitude of over 1,000 metres and much at over 2,000 metres; over half is arid and another 30% semi-arid. Only about 30 million hectares (16% of the total land area) can be cultivated, and of these 33% are irrigable.

Mexico has an area equal to about a quarter of the United States, with which it has a frontier of 2,400 km. The southern frontier of 885 km is with Guatemala and Belize. It has a coastline of 2,780 km on the Gulf of Mexico and the Caribbean, and of 7,360 km on the Pacific and the Gulf of California.

The structure of the landmass is extremely complicated, but may be simplified as a plateau flanked by ranges of mountains roughly paralleling the coasts. The northern part of the plateau is low, arid and thinly populated; it takes up 40% of the total area of Mexico but holds only 19% of its people. From the Bolsón de Mayrán as far south as the Balsas Valley, the level rises considerably; this southern section of the central plateau is crossed by a volcanic range of mountains in which the intermont basins are high and separated. The basin of Guadalajara is at 1,500 metres, the basin of Mexico at 2,300 metres, and the basin of Toluca, west of Mexico City, is at 2,600 metres. Above the lakes and valley bottoms of this contorted middle-land rise the magnificent volcano cones of Orizaba (5,700 metres), Popocatépetl (5,452 metres), Ixtaccíhuatl (5,286 metres), Nevado de Toluca (4,583 metres), Matlalcueyetl or La Malinche (4,461 metres), and Cofre de Perote (4,282 metres). This mountainous southern end of the plateau, the heart of Mexico, has ample rainfall. Though only 14% of the area of Mexico, it holds nearly half of the country's people. Its centre, in a small high intermont basin measuring only 50 km^2, is Mexico City, with approximately 20 million inhabitants.

There are two high ranges of mountains which rise east and west of the plateau. South of the seven intermont basins in the south-central region the mountains are still rugged but a little lower (between 1,800 and 2,400 metres), with much less rainfall. After some 560 km it falls away into the low-lying Isthmus of Tehuantepec. Population is sparse in these southern mountains and is settled on the few flat places where commercial crops can be grown - subsistence crops are sown on extremely steep slopes. The Pacific coast here is forbidding and its few ports of little use, though there is massive development of tourism. Very different are the Gulf Coast and Yucatán; half this area is classed as flat, and much of it gets enough rain the year

round, leading to its becoming one of the important agricultural and cattle raising areas in the country. The Gulf coast also provides most of Mexico's oil and sulphur.

Climate: Climate and vegetation depend upon altitude. The tierra caliente takes in the coastlands and plateau lands below 750 metres. The tierra templada, or temperate zone is at 750 to 2,000 metres. The tierra fría, or cold zone, is from 2,000 metres upwards. Above the tree line at 4,000 metres are high moorlands (páramos).

The climate of the inland highlands is mostly mild, but with sharp changes of temperature between day and night, sunshine and shade. Generally, winter is the dry season and summer the wet season. There are only two areas where rain falls the year round: south of Tampico along the lower slopes of the Sierra Madre Oriental and across the Isthmus of Tehuantepec into the state of Tabasco; and along the Pacific coast of the state of Chiapas. Both areas together cover only 12% of Mexico. These wetter parts get most of their rain between June and September. May is a hotter month than July. Apart from these favoured regions, the rest of the country suffers from a climate in which the rainy season hardly lives up to its name and the dry season almost always does.

I. Disaster Vulnerability

Mexico is prone to earthquakes, hurricanes, floods, and volcanic eruptions. The area with the greatest incidence of earthquakes extends from the state of Oaxaca, and includes portions of Veracruz, Guerrero, Michoacán, Colima, Jalisco, Mexico, Morelos, Puebla and the Federal District. Areas most vulnerable to hurricanes and floods include the Peninsula of Yucatan and coastal regions of the Gulf of Mexico and the Pacific Ocean. Between 1973 and 1978, there were 24 hurricanes. During the same period, there were 450 floods. The latest volcanic eruption occurred in 1982. In 1985, Mexico City was hit by a severe earthquake.

J. Economy

Overview: In 1981, Mexico ranked 10th among national economies. Measured in constant 1982 prices, Mexico's gross national product (GNP) doubled between 1960 and 1970, and doubled again over the next 11 years. The overall standard of living that the average Mexican enjoyed in the

60s and 70s rose more quickly than in the industrialized market economies of North America or of Western Europe. However, a severe economic crisis of 1982 grew to proportions threatening the country's economic stability, a hallmark of recent Mexican history, before receding by 1985. The country is still handicapped by huge debts and a rate of inflation of over 100%.

Equally remarkable during this same period was the growth in the population. According to census results, the population doubled between 1960 and 1970, doubling again by 1980. The total population was estimated at 81 million in 1988, of whom approximately 25% live in Mexico City.

Employment and productivity are very unevenly balanced in the Mexican economy. For example, agriculture contributed only 8.5% of the GDP in 1984, yet (according to the International Labour Organization) the sector gave employment to 33% of the working population in 1985. Manufacturing is very important, in terms of both production and employment (23.4% and 19%, respectively, in 1985). Commerce performs a larger role in Mexico, while the roles of agriculture, financial services and government activities are much smaller than is the case in the other economies of Latin America.

Balance of Payments: In 1983, exports amounted to US$ 21,012 million, while imports amounted to US$ 8,201, leaving a current surplus of US$ 5,208 million. However, a fall in petroleum prices, coupled with Mexico's failure to maintain the level of petroleum exports at 1.5m barrels per day, meant a trade surplus of only US$ 3,890 million in 1986. The budget deficit for that year was expected to reach 13% of the GDP. In 1987, Mexico expected to allocate 94.3% of the total value of its exports to the repayment and servicing of its foreign debt, which was expected to reach US$ 110,000 million in 1988.

Exports: Crude petroleum (66% of exports in 1983), frozen prawns, coffee, natural gas, cotton. Principal export markets: United States (nearly 65% of exports), Spain, Japan, France, Brazil, Canada.

Imports: Maize, sorghum, parts for assembling motor cars, motor pumps and turbo-pumps, iron tubes, sugar. Principal suppliers: United States (over 50%), Japan, Germany (Fed. Rep.), Canada, Brazil.

Source: Europa Publications. South America, Central America, and the Caribbean. 1988.

Crop Production: The principal crops of Mexico are sugar-cane, maize, wheat, sorghum, dry beans, tomatoes, oranges, and bananas.

Sources: Europa Yearbook 1988; Mexico: Recent Economic Developments and Prospects, World Bank, 1984

Planting and Harvesting Seasons

Commodity	Planting Season	Harvesting Season
Cacao:		
Tabasco	January-July, October-December	January-December
Chiapas	January-December	"
Coffee:		
Veracruz	June	December-March
Chiapas	June-September	"
Oaxaca	July-September	"
Corn:		
Chihuahua	May-July	October-December
Durango	March-July	August-January
San Luis Potosí	March-July	August-December
Tamaulipas	February-July	July-December
Zacatecas	March-May	September-December
Veracruz	January-June	April-December
Yucatán	March, July-September	December-February
Nayarit	January-February	June-July
	May-July	October-December
Sinaloa	May-July	May-June
	December-January	November-December
Chiapas	June-August	November-January
Guerrero	March-June	August-February
	August-September	"
Guanajuato	March-April, July	May-June
	November-December	November-January
Jalisco	February-May	May-July/ November-January
Mexico	March-June	October-December
Michoacán	March-June	September-January
Puebla	March-April	June
	November	October-December
Tlaxcala	March-May	August-December
Wheat	September-January	April-June

Commodity	Planting Season	Harvesting Season
Alfalfa:		
Chihuahua	January/March-November	January-December
Durango	March-May/August/ October-November	January-December
Baja California	January-December	"
Guanajuato	November-April/ July-August	January-December
Hidalgo	January-December	"
Mexico	"	"
Puebla	"	"
Cotton:		
Coahuila	February-April	August-October
Chihuahua	April-May	September-December
Durango	February-April	August-October
Nuevo León	"	July-September
Tamaulipas	"	July-September
Baja California	"	August-October
Sinaloa	"	July-September
Sonora	February-March	August-September
Henequen:		
Yucatan	May-July	January-December
Avocados:		
Nuevo Leon	February-March	July-October
San Luis Potosí	"	June-September
Campeche	"	"
Tabasco	"	"
Veracruz	"	June-November
Yucatán	"	July-September
Chiapas	"	March/July-September
Guerrero	"	December-August
Oaxaca	"	October-August
Guanajuato	"	June-September
Hidalgo	"	May-September
Jalisco	"	June-October
Mexico	"	May-August, October-December
Morelos	"	April-October
Puebla	"	"
Querétaro	"	May-September
Oranges	---	September-May
Sugarcane	---	November-August
Beans:		
Chihuahua	March-May	September-November
Durango	April-June	October-December
San Luis Potosí	March-July	August-December
Zacatecas	April-June	June-August
	December-February	October-December

Commodity	Planting Season	Harvesting Season
Beans:		
Tabasco	October-December	February-April
Veracruz	December-April	April-September
Nayarit	January-February	October-December
	June-October	
Sinaloa	May-July	March-April
	October-November	October-December
Chiapas	June-August	March-June
	November-February	October-December
Guerrero	April-July	August-November
Oaxaca	May-July	March-June
	November-February	September-November
Aguascalientes	May-July	October-December
Guanajuato	"	October-November
Hidalgo	April-June	May-July
	December-February	September-November
Jalisco	May-July	October-December
Mexico	"	"
Michaocán	May-June	May-June
	December-January	October-November
Puebla	April-May	September-October
Tomatoes:		
Tamaulipas	July-September	January-March
Sinaloa	May-November	November-May
Sonora	"	"
Guanajuato	September-March	March-September
Hadalgo	September-January	March-July

Source: Planting and Harvesting Seasons in Latin America, Foreign Agricultural Service, US Department of Agriculture, 1958.

K. Population

State	Area (km^2)	Estimated Population 1982
Aguascalientes	5,471	556,000
Baja California (Norte)	69,921	1,321,000
Baja California (Sur)	73,475	249,000
Campeche	50,812	408,000
Chiapas	74,211	2,252,000
Chihuahua	244,938	2,035,000
Coahuila	149,982	1,696,000
Colima	5,191	368,000
Distrito Federal	1,479	10,061,000
Durango	123,181	1,228,000
Guanajuato	30,491	3,295,000
Guerrero	64,281	2,360,000
Hidalgo	20,813	1,622,000
Jalisco	80,836	4,581,000
Mexico	21,355	8,569,000
Michoacán	59,928	3,281,000
Morelos	4,950	1,021,000
Nayarit	26,979	781,000
Nuevo Léon	64,924	2,662,000
Oaxaca	93,952	2,672,000
Puebla	33,902	3,525,000
Querétaro	11,449	802,000
Quintana Roo	50,212	256,000
San Luis Potosí	63,068	1,793,000
Sinaloa	58,328	2,056,000
Sonora	182,052	1,614,000
Tabasco	25,267	1,266,000
Tamaulipas	79,384	2,056,000
Tlaxcla	4,016	589,000
Veracruz	71,699	5,707,000
Yucatán	38,402	1,111,000
Zacatecas	73,252	1,209,000
TOTAL	1,958,201	73,002,000

In 1980, Mexico ranked 76th in the world in nationwide density and 97th in the world in density in agricultural areas. Overall, the density of population was 30/km^2. Nearly 67% of the population lived in urban areas, defined as localities with populations over 2,500. As a result of the high birth rate, the median age is falling. The age profile showed 46% under age 15, 49% between 15 and 64, and 5% over 65. At the time of the 1970 census, the male/female ratio was very close to numerical equality. In 1987, the total population was 81,163,256.

L. Health

Demographic Indicators:

Births (per thousand) (1983)	34
Deaths (per thousand) (1983)	7
Infant mortality rate (per 1,000 live births) (1980)	50
Life expectancy at birth (1980)	
Females:	67 years
Males:	63 years
Access to clean water (1980):	
Urban:	64%
Rural:	43%

Health Care System:

Health care is the responsibility of the Ministry of Health, although other institutions are also responsible for the health sector, such as the Mexican Institute of Social Security and the Social Security Institute for Federal Workers.

In 1974, there were 37,571 physicians in the country, or 1 physician per 1,385 inhabitants, 1,879 dentists and 40,998 nursing personnel. In 1980, there were 5,945 hospitals. Some 1,500 medical units and 22 clinic hospitals were being constructed in rural areas. Damage caused by the severe earthquake in September 1985 resulted in the loss of 6,000 hospital beds in Mexico City. Of total expenditure by the central government in 1983, about 53,700 million pesos (1.2%) were for health, and a further 457,500 million pesos (10.1%) for social security and welfare.

Major Health Problems:

Diarrhea, pneumonia and heart disease are the major health problems, while malaria, poliomyelitis, tuberculosis, leprosy and onchoceriasis remain serious threats. Rabies is still endemic both in urban and rural areas. Amoebic dysentery is highly prevalent.

M. Housing

In urban areas, housing is made of brick. In the villages, houses are made of "adobe" (compressed mud) with roofs made of grass and wood.

N. Transportation

Roads:

Mountains, and tropical lowlands with thick forest and swift-flowing torrents, make overland travel in Mexico difficult. However,

Mexican roads now carry 97% of the country's public passenger traffic and 80% of its freight. Since the 1950s, the road network has expanded ten-fold, to reach 214,073 km in 1984, of which about 100,000 km was paved.

Railways: In 1986, there were 19,907 km of railways. The most recent line to be built was the Chihuahua-Pacífico, crossing the Sierra Madre Occidental, which was completed in 1962. The railways suffer from long-term lack of investment. Freight is the main source of custom and although passenger fares were very cheap (even cheaper, relatively, than bus fares), only 1% of the inter-urban passenger traffic in Mexico in 1982 was carried by the railways.

Airports: There are 50 airports, of which at least 28 have international facilities, and about 1,300 airstrips. Mexico City is the main centre for the airline routes serving the country. Guadalajara and Monterrey have major airports, while those serving the tourist resorts of Acapulco and Cancún are among the busiest passenger terminals. Internal flights serve most of the more important centres in the country.

Airlines: There are two important national airlines: Aeroméxico is the larger and the more important international carrier and is government-owned, whereas the smaller Compañia Mexicana de Aviación has mixed financing.

Ports: Mexico has never been a maritime power, and its ports are small, handle relatively little cargo, and suffer from a variety of inefficient operating practices. Eight ports (Tampico, Veracruz and Coatzacoalcos on the Gulf, and Guaymas, Mazatlán, Manzanillo, Lázaro Cárdenas and Salina Cruz on the Pacific) handled about 85% of all cargo movements. Foreign ships carry about 85% of all cargo, which is mainly crude petroleum, leaving the ports. The Government planned to develop the main ports between 1984 and 1988 in an attempt to assist export growth.

O. Communications

The most common forms of communication are the telephone, telex and radio. In 1984, there were 823 commercial radio stations and 45 cultural stations as well as 118 commercial

television stations and eight cultural stations. Introduced in 1950, television reaches 70% of the population. Telephone communication abroad is adequate.

Further Reading

Ackstein, Susan. The Poverty of Revolution: The State and the Urban Poor in Mexico. Princeton NJ, 1977.

Banco Nacional de Comercio Exterior. Mexico: Facts, Figures & Trends. Mexico City. Annual.

Brading, D. (ed.) Caudillo and Peasant in the Mexican Revolution. Cambridge University Press, 1980.

Carlos, Manuel L. Politics and Development in Rural Mexico. New York, 1974.

Dominguez, Jore I. (ed.) Mexico's Political Economy: Challenges at Home and Abroad. Sage Publications, USA, 1982.

Europa Yearbook. The Americas and the Carribean. UK, 1988.

Hewlett, Sylvia Ann and Weinert, Richard S. (eds.) Brazil and Mexico: Patterns in Late Development. Institute for the Study of Human Issues, USA, 1982.

Krieger, Ronald A. Mexico: An Economic Survey. New York, 1971.

Kurian, George T. Encyclopedia of the Third World. Volume II. London, 1982.

Levy, Daniel and Szekeky, Gabriel. Mexico: Paradoxes of Stability and Change. Westville Press, Boulder, Colorado, 1982.

Looney, Robert E. Mexico's Economy: A Policy Analysis with Forecasts to 1990. Boulder, Colorado, 1978.

Millor, Manuel R. Mexico's Oil: Catalyst for a New Relationship with the U.S. Boulder, Colorado, 1982.

Robbins, Naomi. Mexico. World Bibliographical Series, Oxford, 1984.

Schlagheck, James L. The Political, Economic, & Labor Climate in Mexico. Philadelphia, Pennsylvania, 1980.

World Bank. Mexico: Recent Economic Developments and Prospects. 1984.

II. Infrastructural Resources of Mexico as Concern Refugees

A. Health System

Structure:

The aim of the Mexican health system is to organize a single national heath system providing health care to all members of the population, especially marginal urban and urban sectors. The Secretary of Health (Secretaría de Salud - SS) is the entity entrusted with the administration of the entire health system. The national sector is composed of local and federal entities of public administration, social and private sectors which provide health services, and mechanisms of coordination between corresponding activities. Within the public sector two basic sub-sectors have been organized: institutions of social well-being and national health institutions. The former include the National System of Integral Development of the Family (el Sistema Nacional de Desarrollo Integral de la Familia - DIF), the National Geriatric Institute, and Juvenile Integration Centres, the supervision, programming, and coordination of which are the responsibility of DIF. The second sub-sector comprises the National Pediatric Institute, and the Institutes of Oncology, Radiology, Respiratory Diseases, Neurology, Nutrition, and Psychiatry.

The social security institutes offer coverage to 32.8 million workers and their families, or 35.5% of the total population. The Institute of Social Security for Federal Workers (ISSSTE) covers 6 million, or 7.7% of the population. The effective coverage of other institutions, particularly the state company, Petróleos Mexicanos (PEMEX), is about 1.3 million people, or 1.7% of the population. The Secretary of Health (SS) offers services to 13 million persons not covered by the social security institutions, and the IMSS-COPLAMAR (Mexican Institute of Social Security) covers an additional 11 million. Finally, it is estimated that 5% of the population receives health care services from private institutions.

The public sector has more than 10,000 centres offering medical services, including 6,000 primary health care posts, 747 general hospitals, and 87 specialised hospitals.

There are 65,212 doctors and 83,332 nurses. In addition to public establishments, it is estimated that there are 1,000 private hospitals.

Source: Evaluación de la estrategia de salud para todos en el año 2000. WHO/PAHO. Washington DC., 1986.

Medical Supplies: Importation of medical supplies is through the "Secretaria de Salubridad y Asistencia", (address: Lioja No 8 esq. Paseo de la Reforma, telex 72543). Private channels are also authorized. The Ministry of Health has a list of medicaments for common use in the country. Available at Dirección General de Control de Alimentos, Bebidas y Medicamentos, (Liverpool No. 80 esq. Havre Col. Roma, Mexico 7 D.F.) Private companies are authorized to distribute medicaments throughout the country. Directions should be written in Spanish.

Cold Chain: Cold storage facilities are available at the international airport and in the capital city. Dry ice is readily available. There are refrigerators in the countryside. The in-country shipment of refrigerated biological products is through the Ministry of Health, the Social Security Institute (IMSS), and the Social Services for State Employees (ISSSTE).

Major health Problems: Enteric and respiratory diseases are the primary cause of death. Poliomyelitis, typhoid fever, malaria, onchocerciasis, brucellosis, and Chagas diseases affect different parts of the country.

B. Transportation Resources

Note: Details on the logistical aspects of refugee emergencies can be found in the UNHCR Handbook for Emergencies, chapter 5.

Road Network: The length of the national paved and unpaved road network exceeded that of the railway network by the mid-1950s. Reaching 214,073 km in 1984, of which about 100,000 km was paved, Mexican roads carry 97% of the country's public passenger traffic and 80% of its freight. Within the triangle formed by Guadalajara, Monterrey and the Gulf of Mexico coast, centring on Mexico City, there is an adequate integrated paved highway system, including toll-motorways which were built mainly in the 1960s. In the outlying parts of the country, arterial highways have been built

to provide previously isolated regions with access to the national markets. Increased attention has been given to secondary and tertiary roads.

Railway Network: Railways have suffered from a long-term lack of investment. However, substantial investments in containerization facilities for the Tehuantepec line, linking the Pacific and Atlantic coasts, made in the 1970s, yielded only a samll return in increased traffic. The railway network reached its maximum extent of 23,500 km in 1935, and has since declined to about 20,250 km. Railway travel in Mexico is generally very slow and is utilized mainly by the poorer sections of the community. Only about 1% of passenger traffic is carried by trains. Although freight makes up the main source of railway custom, less than 20% of overall freight traffic is moved by rail.

Port Facilities:

Acapulco: Located on the Pacific coast. Time zone: GMT -6h. Approach: natural bay with safe draught of 31.09 m. Weather: in the rainy season from June to September easterly and south-easterly winds prevail. Pilotage: two pilots in permanent service. Storage: three roofed warehouses with a total of 13,1850 m^2. Storage yard of 3,731 m^2. Cranes: Servicios Portuarios have three cranes of 20-tonne capacity, and three of 15-tonne capacity. Container facilities: container storage area available. Towage not available. Airport: international airport, approximately 28 km from port.

Alvarado: Located south-east of Veracruz in the Bay of Campeche. Time zone: GMT - 6 h. Approach: access channel 3.5 m depth. Natural channel, 3.96 m depth. Pilotage: compulsory. Weather: strong winds during winter. Accommodation: one marginal quay, maximum mooring length, 100 m, with 3 to 5 m depth alongside at lowest water. Harbour used by fishing vessels only.

Campeche: Located on the east coast of the Bay of Campeche. Time zone: GMT -6 h. Approach: safe anchorage for vessels in Punta Maxtum. Pilotage compulsory. Weather: from June to September, strong squalls. North-easterly and and south-easterly winds. Largest vessel: 4000 dead weight tonnage, 5.18 md. Accommodation: quays 5.6 km south of Campeche at Lerma, an open port, where there is a T-shaped quay. Muelle Fiscal (Pemex)

52,111 m long, 5.18 m maximum depth. Five lighters for loading and discharging cargo. Railway connections to San Bartolo. Muelle Unidad Pesquera, 4.27 m depth, used only by fishing vessels. Towage: two tugs available from Pemex. Airport: approximately 11 km away.

Cayo Arcas

Located approximately 5 km off the Cayo Arcas Islands in the Bay of Campeche. Time zone: GMT -6h. Pilotage: compulsory. Pilot boards about 3 miles south of the distribution platform. Accommodation: four mooring positions and one rigid fixed tower mooring for loading crude oil. Berths 1 and 2 are 22 m and 21 m maximum depth, respectively, and can accommodate tankers up to 250,000 dead weight tonnage, maximum length overall 338 m. Mooring no. 3 incorporates an oil storage vessel up to 350,000 dead weight tonnage in a depth of 21.3 m. Mooring no. 4, 22 m maximum depth is used for ship-to-ship lighterages. Anchorage can be obtained 10 miles east-south-east of Cayo Arcas in depths of 45 to 50 m. Berthing during daylight hours only, unberthing at any time. Towage: two tugs of 8,500 horsepower are available for berthing and unberthing.

Ciudad del Carmen

Situated on the Isla del Carmen at the entrance to Laguna de Terminos in the Bay of Campeche. Time zone: GMT -6 h. Approach: entrance marked by Xicalango lighthouse, white light visible 19.2 km and 24 km. From October to March, there is an easterly current of 0.5 to 1 knot, near the shore. Pilotage is compulsory. Weather: northerly winds. Accommodation: one wharf, 5.49 m deep, belonging to the Quinta Zona Naval Militar. Several quays along the town with depths of 3.35 m, used by fishing boats. Puerto de Abrigo Pesquero has been recently dredged to accommodate fishing vessels. No rail connections. Towage not available. Airport: 2,500 m landing strip.

Coatzacoalcos

Located on the west bank of Coatzacoalcos River (Gulf of Mexico) about 1.6 km inside breakwaters, in the Gulf of Mexico, below Veracruz. Principal oil port of Mexico. Time zone: GMT -6 h. Approach: Coatzacoalcos River forms a natural harbour further protected by breakwaters extended from each side. Navigation channel 100 m wide and dredged to depth of 12 m. Two SPM's located approximately 6 miles north-east of the river mouth. Pilotage: compulsory within the port limits. Weather: strong north winds can occur between November and February. Largest vessel 200-300 maximum length overall. Eight berths

	ranging in length from 94.3 m to 250 m in length, and from 8.54 m to 9.75 m in depth. Rail tracks on the quays and open storage areas. Road and rail connections to the rest of the country. Storage: five warehouses totalling 15,500 m^2, open storage areas totalling 67,000 m^2, including 56,000 m^2 for containers. Three transtainers, two of 35-tonne and one of 48-tonne capacity. 21 mobile cranes of 10-tonne to 20-tonne capacity. Towage compulsory for vessels over 2,500 tonnes, or over 152 m in length, or vessels carrying explosives. Four tugs available. Airport: 16 km from port.
Ostion	Located 20 km west of Coatzacoalcos. Time zone: GMT -6 h. New industrial port area under construction. There will be an outer harbour to handle vessels of up to 150,000 dead weight tonnage and an inner harbour for vessels of up to 100,000 dead weight tonnage. The new port complex will cover some 24,500 acres. An entrance channel approximately 7 km long will be dredged.
Cozumel	Located on north-west side of Cozumel Island in the Caribbean. Time zone: GMT -6 h. Accommodation: one quay 30 m long at head and 40 m long on north and south sides. Depth at head 3.50 m, at sides 2.89 m. Surface area 1,200 m^2.
Dos Bocas	Located on the south coast of the Bay of Campeche, 19 miles north-east of Paraiso and about 200 miles east of Coatzacoalcos. Time zone: GMT -6 h. Pilotage is compulsory. Accommodation: harbour serves as a base for supply vessels operating in the Bay of Campeche at the offshore drill platforms. The harbour entrance is 150 m wide. There are 2,000 m of berthing with a maximum depth of 5.2 m. Storage: three warehouses, 700 m^2. Cranes: mobile cranes of 10-tonne capacity. Airport: Villahermosa, 128 km.
Ensenada	Located on the west side of the Peninsula of Lower California, situated in the north-east part of the Bahia de Todos Santos. Time zone: GMT -7 h. Pilotage is compulsory. Weather: north-westerly and south-westerly winds. The bay is nearly always calm as it is protected by the breakwater from winds from the 4th quadrant and swells from the high sea. Accommodation: port protected by a breakwater, approximately 1,800 m long. Wharfs are between 155 and 350 m in length, and 4.5 to 9.45 m in depth. No railway connections but good road communications.

Storage: four warehouses of 15,024 m^2 capacity. Open storage areas totalling 60,000 m^2. Cranes: one 50-tonne floating crane operated by a private concern. Container facilities: a paved area of 30,000 m^2 is available for container storage. Equipment includes a 36-tonne mobile crane. Towage is compulsory for ships over 2,500 ton, turning, mooring and unmooring within the port. Airport: small airfield at el Ciprés to the south of Ensenada, Tijuana International Airport 120 km.

Frontera

Situated on the east bank of the River Grijalva, 8 km from its mouth in the Bay of Campeche. Time zone: GMT -6 h. Approach: the entrance is through the delta, approximately 3.2 km to the north-east of Punta Buey. From October to March, there is an easterly current of 0.5 to 1 knot near the shore. Depth of channel is 4.57 m; depth in river varies from 3.66 m to 4.88 m with high tide. Pilotage is compulsory. Weather: Northerly winds. Accommodation: wharf 300 m long with 5.49 m depth alongside. No rail connections. There are many tight bends so only small vessels, barges and tugs use the facilities. Storage: one warehouse 100 m by 15 m. Towage not available.

Guaymas

Located on Cabo Haro, east coast of the Gulf of California. Time zone: GMT -7 h. Approach: port situated to the north and north-west of Guaymas Bay in Sonora State. Inner bay channel 2,500 m with a depth of 10 m. Pilotage is compulsory. Weather: winds westerly in spring; southerly in summer (south-easterly in June and July); North-westerly in August, September, October and in winter. Accommodation: five deep water berths ranging in length from 48 to 864 m and from 3 to 11.89 m in depth. There are also approximately 30 wharves with lengths ranging from 2.45 m to 95 m and depths ranging from 3 m to 5 m. Ferry service to Santa Rosalia. Storage: One warehouse of 4,800 m^2, one shed of 6,766 m^2, and open storage of 101,728 m^2. Silos of 60,000-tonne capacity. Airport: San German, 10 km.

La Paz

Situated near the southern tip of the Lower California peninsula. Time zone: GMT -7 h. Approach: ships of over 99.97 m cannot enter entrance channel; depth in entrance channel 12.8 to 18.3 m. Pilotage is compulsory. Ships anchor near Punta Prieta. Weather: North-westerlies from October to June; south-westerlies in summer. Cyclones from

September to November. Ships anchored in bay in winter exposed to strong northerly and north-easterly winds. Tides considerably affected by winds and tide tables do not take into account tidal currents which are about 2 knots within the port and reach a maximum of 6 knots near the main wharf. Ships with draughts less than 3.66 m can anchor at the end of the wharf but not at the extreme north. Accommodation: the wharf is T-shaped with a mooring length of 65.73 m at the head, and 21.77 m at the ends. Small boats can moor at the inner part of the T which are two sections of 27.73 m length each. Draught of wharf varies between 3 and 5 m in the inner and outer parts respectively. Punta Prieta is another T-shaped wharf, length 40 m at head with 8.23 m draft at low tide, used only by ships requiring bunkers. No railways on the wharves. Road along the peninsula. Towage not available. International airport near the port.

Lazaro Cardenas

Situated on the Pacific coast midway between Manzanillo and Acapulco. Time zone: GMT: -6 h. Approach: no hazards at entrance, channel 1,350 m long, 150 m wide and 14 m depth, can take vessels up to 13.7 md at lowest water. Pilotage is compulsory. Weather: occasional squalls in rainy season, July to October. Accommodation: 3 berths 600 m total length, 10.7 m to 13.7 m depth. Two general cargo berths, 404 m total length, depth alongside 10 m at lowest water. Conasupa berth, 250 m long, 13.7 m depth for grain imports; silo capacity: 80,000 tonnes. The port is connected to the National railway system. The port experienced considerable damage to some facilities from the earthquake of September 1985. Repair work is continuing. Storage: two warehouses, 3,900 m^2 and 3,390 m^2. Transit shed of 7,000 m^2 at general cargo terminal. Cranes: one 25-tonne capacity gantry crane with bucket for grain and one 25-tonne capacity multi-purpose crane. Container facilities: container berth, 284 m long, 36 m wide apron and 13.7 m depth, with back-up yard of 10 ha. Equipment includes one 40-tonne capacity container crane and there are 200 points for refrigerated containers. Towage is compulsory. Airport: local small airfield one kilometre from port. International airport at Zihuatanejo, 130 km away.

Manzanillo

Principal Pacific coast port of Mexico. Time zone: GMT -7 h. Pilotage is compulsory. Weather: winds north-westerly from November to

February, north-easterly from March to May, southerly and easterly from July to October. Accommodation: natural harbour protected by a breakwater 700 m long from south to north. The main anchorage area is situated 600 m from the end of the breakwater and has a sandy bottom which is good holding ground, in depths of 11-12 m. The port of San Pedrito is to the east of Manzanillo and is situated within the bay of San Pedrito; it is an enclosed port whose entrance is protected by two breakwaters which have 150 m between their heads and form an access channel with a depth of 13 m. The turning basin of the inner port is about 600 m long and 400 m wide. Wharves range in length from 117 to 600 m and from 6 to 12.8 m in depth. Railway tracks on three of the six wharves. Good road and rail communications with the rest of the country. Storage: four warehouses of approximately 5,000 m^2 each. Two additional warehouses of 5,000 m^2 are planned. Cranes: one mobile crane of 60 tons. Container facilities: paved area of 7 ha available for containers. Vessels use own gear. Equipment for stacking includes a mobile crane. Forklifts up to 33-tonne capacity are available and 48 points for refrigerated containers. International airport, 50 km from port on the Zihuatlan highway.

Mazatlan

Situated on the Pacific coast, near the south-easterly end of the Gulf of California. Time zone: GMT -7 h. Approach: port protected by two breakwaters. Channel 100 m wide, 10.5 m depth. Pilotage is compulsory. Weather: winds north-westerly in winter, southerly and south-easterly in summer. Currents in port increased by heavy rains in summer. Twelve wharves ranging from 22 to 351 m in length and from 3 to 10 m in depth. Good road and rail connections. Storage: four warehouses, totalling 12,600 m^2. Open storage of 280,250 m^2 and one refrigerated warehouse of 3,500-tonne capacity. Container and roll-on/roll-off facilities: forklift trucks and other equipment available for handling containers. Two berths available for roll on/roll off ferries. Towage is compulsory for vessels over 2,500 tonnes. There is an airport 23 km to the south.

Progreso

Situated in the Gulf of Mexico. Time zone: GMT -6 h. Pilotage is compulsory. Accommodation: open bay with anchorage. The T-shaped fiscal wharf extends towards the sea, the head is 60 m long with a depth of 5.49 m. Storage: warehouse of 3,580 m^2; refrigeration

plant of 70 m^2; two ice manufacturing plants, producing 150 tonnes daily. Towage available. Airport: Mérida, 37 km.

Puerto Madero — Located on the Pacific coast, near the border with Guatemala. Time zone: GMT -6 h. Pilotage: compulsory. Approach: access channel 1,625 m long, 80 m wide and 8.5 m depth. Accommodation: harbour protected by two breakwaters 1,400 m long. Storage: warehouse of 2,980 m^2, open area of 14,000 m^2. Towage is compulsory.

Salina Cruz — Situated on the Pacific coast in the gulf of Tehuantepec. Approach: entry channel 5 km long. Channel through outer harbour 140 m wide. Pilotage is compulsory for foreign vessels and Mexican vessels exceeding 400 gross registered tonnage. Weather: from June to October strong winds blow, causing very heavy swells. Accommodation: outer harbour, protected by two breakwaters. East 1,020 m and west 330 m long; depths by the breakwater approximately 9.14 m. Wharves vary in length from 200 to 550 m with depths of 7.31 to 10.06 m. Two rail tracks serve Wharf No. 1. Daily railway service with Coatzacoalcos. Storage: warehouses of 25,108 m^2 and open storage area of 32,776 m^2. Cranes: two 12-tonne capacity, 25 hoists of 3.5-tonne capacity, and one heavy lift crane, 300-tonne capacity. Container facilities: outer harbour, length of berth 200 m, depth alongside 9.75 m, maximum depth 9.1 m. Container handling equipment includes one portal crane, one mobile crane and various platforms and trastainers. Towage compulsory for vessels over 2,500 gross registered tonnage. Airport: small airfield available. Larger airport at Ixtepec, 40 km.

San Carlos — Situated in the northern part of Magdalena Bay on the west coast of the Lower California Peninsula. Time zone: GMT -7 h. Pilotage is compulsory. Weather: winds north-westerly in winter. Accommodation: wharf, 101 m long, 14.34 m wide with two mooring breakwaters, west and east, 197 and 87 m long respectively; two iron bollards in depths of 12 to 14 m. No rail connections but there is a road, 57 km long to Villa Constitución. Storage: warehouse in four sections, capacity 33,000 tons, fully mechanised to handle cereals in bulk. Open storage areas of 42,900 m^2. Grain export facility comprising a 14,000 ton capacity storage warehouse, connected to a

shiploader with a rate of up to 260 tons per hour. No towage is available locally, although a tug is available from the navy. Airport: small landing strip, 300 m long to the north-east of the port installations is used by small aircraft in cases of emergency only. It is preferable to use the landing facilities at Villa Constitución.

San Juan de la Costa — Situated on the east coast of the Lower California Peninsula, approximately 42 km north of La Paz. Time zone: -7 h. Pilotage is compulsory. Accommodation: pier 185 m long with a depth alongside of 10 m.

Santa Rosalia — Situated on the east coast of the Lower California Peninsula. Time zone: GMT: -7 h. Pilotage is compulsory. Accommodation: depth of 22 m close to the shore in a good sheltered anchorage. Harbour formed by two moles. The principal mole extends out 800 m nearly at right angles to the shore at the north-western side of the port and then turns sharply to the south-eastward, parallel to the shoreline; the southern mole projects out 250 m in a north-easterly direction from the shore abreast the end of the principal mole, leaving an entrance about 128 m wide. No mooring facilities in good condition. No rail connections; roads usable only in dry season; rainy season from July to September. Towage not available. Two small airstrips available.

Tampico — Situated in the Gulf of Mexico, on the Panuco River, 13 km from entrance. Time zone: -6 h. Approach: vessels anchor 2 km south-east off sea buoy. Entrance between two stone breakwaters about 1,400 m long; the entrance channel is 110 m wide with a depth of 10 m. Pilotage is compulsory. Weather: strong northerly winds from November to March. The level of water is influenced by tides and the flood of the river; in the rainy season from June to September the current reaches 5 to 7 knots. Largest vessel: maximum depth 9.14 m, maximum length overall 177 m. Accommodation: three turning basins, depths ranging from 7 to 9 m, subject to variation owing to the silt brought down by the river during the year, especially during the rainy season. However, dredging operations are carried out by the federal government. Wharves range in length from 20 m to 1260 m, and in depth from 1.83 to 9.45 m. Good road and railway connections to the rest of the country. Storage: seven warehouses of 30,226 m^2 total and two open

storage areas of 51,840 m^2. Rail connections on the open storage areas for loading and unloading. No refrigerated space. Cranes: Five cranes, two of 75-tonne, two of 50-tonne, and a mobile crane 250-tonne capacity. Towage compulsory for vessels over 4,000 gross registered tonnage. Tugs available from Premex, but only during their idle time. International airport 10 km from port.

Altamira — Located about 25 km north of the mouth of the Panuco River. Time zone: GMT -6 h. Approach: channel to port 1.5 km long and 350 m wide, depth for vessels of up to 60,000 dead weight tonnage. Accommodation: new industrial port area under construction. Grain silos will have a capacity of 90,000 tonnes. Containers handled and roll-on/ roll-off ramp at the multi-purpose terminal.

Topolobampo — Situated in Topolobampo Bay on the east coast of the Gulf of California. Time zone: GMT -7 h. Approach: shoals form a bar outside the bay; least dredged depth across bar is 6.7 m. The entrance channel, which is marked by beacons, has irregular depths varying up to 31 m. Good anchorage can be obtained within the bar in depths ranging from 12.8 m to 14.6 m. Pilotage is compulsory. Accommodation: deepwater quay 100 m long with a depth alongside of 9 m. Vessels in excess of 100 m length overall can be accommodated. There are various smaller wharves used by coastal and fishing vessels. Ferry service to La Paz. The port also handles trade for the landlocked state of Chihuahua. Storage: warehouse of 1,850 m^2.

Tuxpan — Situated in the Gulf of Mexico, on the Tuxpan River, about 11 km above bar. Time zone: GMT -6 h. Approach: vessels anchor about 1.6 to 3.2 km off bar. Depth on bar 4.57 to 4.88 m. Depth in Pantepec river 6.4 m. Currents are strong and unpredictable. When a storm is due, a flag is hoisted on a mast near the lighthouse. Pilotage is compulsory. Wharves are 17, 70, and 160 m in length, all with depths of 4.88 m LW. Lighters are available for loading and unloading. Storage: Five warehouses, totalling 40,460 m^2. Container facilities available. Towage available. Local airport.

Veracruz — Situated in the Bay of Campeche. Time zone: GMT -6 h. Approach: the port is protected by breakwaters to the south-east, north-east, north-west and west as well as an inner wall.

The entrance to the port is surrounded by reefs, islands and shallow waters; the entrance channel is between the south-east and north-east breakwaters with a depth of 12 m. Pilotage is compulsory. Weather: winds northerly from September to May, easterly from April to August, cyclones in the Gulf from June to October. Piers from 89 to 380 m in length, with depths from 7.5 to 10 m. All piers except two are served by rail tracks. Good road and rail connections. Storage: there are 22 warehouses and 1 shed. No refrigerated storage. Cranes: 2 cranes of 80-ton capacity, 2 of 40-ton capacity, and several small cranes. A transtainer and portainer are available for container handling. Towage compulsory for ships over 2,500 gross registered tonnage for berthing, unberthing or shifting. Airport: Heriberto Jara, 15 km.

Yukalpeten — Situated on the north-east coast in the Gulf of Mexico. Time zone: GMT -6 h. Accommodation: access channel quay has a total length of 1,180 m with a depth alongside of 3 m at lowest water. This area has been dredged. There are two breakwaters, the east one being 700 m long and the west one being 120 m. The port is mainly used by fishing vessels and yachts. Storage: cold storage facilities for 1,600 m^2 as well as two freezing plants. Airport: Mérida, 35 km.

Airport Facilities:

Acapulco — Gral. Juan N. Alvarez International airport. Runway lengths 5,578' and 10,827', both made of concrete. Precision, category I. Aircraft capacity: DC-10.

Cancun — International airport. Runway length 11,483', made of asphalt. Instrument. Aircraft capacity: B727-200.

Campeche — No information

Chetumal — Runway length: 7,244', made of asphalt, and 6,375', PCN 32. Instrument. Aircraft capacity: B727-200.

Chihuahua — Gral. Roberto Fierro Villalobos International airport. Runway lengths: 3,609' and 8,531', both made of asphalt. Instrument. Aircraft capacity: B727-200.

Ciudad Acuña — International airport. Runway lengths: 5,578' of asphalt and 3,970'(gravel). Non-instrument.

Ciudad Juarez	Abraham González International airport. Runway lengths: 8,856' and 5,740', both of asphalt/concrete. Instrument. Aircraft capacity: DC9-30.
Cozumel	International airport. Runway length: 8,202' (landing length 7,611') and 8,859'(landing length 8,202'), both of asphalt. Precision, category I. Aircraft capacity: DC10-30.
Guadalajara	Don Miguel Hidalgo International airport. Runway lengths: 5,807', of asphalt, and 13,124', of concrete. Precision, category I. Aircraft capacity: B747-200B.
Guaymas	Gral. José María Yañez International airport. Runway: 7,710', paved. Instrument. Aircraft capacity: DC9-30.
Hermosillo	Gral. I. Pesqueira Garcia International airport. Runway lengths: 7,546' and 3,609', both made of asphalt. Instrument. Aircraft capacity: B727-200.
La Paz	Gral. Manuel Marquez de León International airport. Runway length: 8,202', made of concrete. Instrument. Aircraft capacity: DC8-30.
Loreto	International airport. Runway length: 7,218', made of asphalt. Instrument. Aircraft capacity: DC9-30.
Manzanillo	Playa de Oro International airport. Runway length: 7,218', made of asphalt/concrete. Instrument. Aircraft capacity: B727-200.
Matamoros	International airport. Runway length: 7,546', made of asphalt. Instrument. Aircraft capacity: DC9-30.
Mazatlan	Gral. Rafael Bueina International airport. Runway length 8,859', made of concrete. Instrument. Aircraft capacity: B727-200.
Merida	Lic. Manuel Crescencio Rejón International airport located at Merida. Runway length: 8,859' (landing length runway 10: 7,874'), and 7,546', both of concrete. Precision, category I. Aircraft capacity: B727-200.
Mexicali	Gral. Rodolfo Sánchez Taboada International airport. Runway length 8,530', made of concrete. Instrument. Aircraft capacity: B727-200.

Mexico City	Lic. Benito Juárez International airport. Runway length 12,619', made of asphalt. Runway 5L landing length: 11,897; runway 23R: 10,958'; runway 5L takeoff length: 10,958. Runway 5R 12,796', made of asphalt. Landing length: 11,303'. Instrument and precision, category I. Aircraft capacity: B707-320C; B747; DC10-30.
Monterrey	Del Norte International airport. Runway length: 6,598', made of asphalt. Landing length runway 02: 6,362'. Takeoff length runway 20: 6,362'. Also, 5,049', made of asphalt. Landing length runway 11: 4,715'; runway 29: 4,715'. Takeoff length runway 11; 4,715', runway 29: 4,787'. Instrument. Aircraft capacity: DC9-30.
Monterrey	Gral. Mariano Escobedo International airport. Runway lengths: 9,843', made of concrete, and 5,906', made of asphalt. Precision, category I. Aircraft capacity: DC10-30.
Nogales	International airport. Runway length: 5,904', made of asphalt. Non-instrument.
Nuevo Laredo	Quetzalcoatl International airport. Runway length: 6,562', made of asphalt. Instrument. Aircraft capacity: B727-200.
Piedras Negras	International airport. Runway lengths: 5,576', made of asphalt, and 4,920', made of gravel (not in use). Instrument. Aircraft capacity: B727-200.
Puerto Vallarta	Lic. Gustavo Díaz Ordaz International airport. Runway length: 10,171', made of asphalt/concrete. Instrument. Aircraft capacity: DC10-30.
Reynosa	Gral. Lucio Blanco International airport. Runway length: 6,234', made of asphalt. Instrument. Aircraft capacity: DC9-30.
San José del Cabo	International airport. Runway length: 7,218', made of asphalt. Instrument. Aircraft capacity: B727-200.
Tampico	Gral. Francisco Javier Mina International airport. Runway length: 3,937', made of asphalt; 8,367', made of concrete; and 4,365', made of asphalt. Instrument. Aircraft capacity: B727-200.
Tapachula	International airport. Runway length: 6,562', made of asphalt. Instrument. Aircraft capacity: B727-200.

Tijuana	Gral. Abelardo L. Rodriguez International airport located at Tijuana. Runway length: 8,202', made of concrete. CAUTION: 1,837' obstruction R.131/4,85 DME from TIJVOR. Instrument. Aircraft capacity: DC10-30.
Torreon	International airport. Runway length: 5,707' and 7,380', both of asphalt. Aircraft with AUW greater than 88,000 lbs must make all 180° turns at the turning pads on Runway 12 and 30. Instrument. Aircraft capacity: DC9-30.
Tuxtla Guttierez	No information.
Veracruz	Gral. Heriberto Jara International airport. Runway length: 4,997' and 7,874', of asphalt. Instrument. Aircraft capacity: B727-200.
Zihuatanejo	International airport. Runway length: 8,202', made of asphalt. Instrument. Aircraft capacity: B727-200.

Source: Jeppesen Airport Directory. 1988.

C. Water Resources

Overview: The climate of Mexico is, in general terms, arid or semi-arid, but all types of climates can be found in the country. Rainfall is abundant in some mountain areas, and especially in the vicinity of the border with Guatemala (5,000 mm per annum at the Tacaná volcano) and in the southern part of the Gulf of Mexico. In more than 60% of the country, the average annual rainfall is less than 700 mm; and only 3% of the country receives 2,000 mm and more. In the north-west, the average annual rainfall is less than 100 mm, and in some years no rain falls. The average for the entire country is 700 mm, with 80% of the rainfall occurring between May and September. Rainfall is minimal and irregular from February through April, when water requirements for agriculture are at their peak. As a result, irrigation is needed during these three months. Irrigation can be considered indispensable to the 21% of the territory which receives less than 300 mm rainfall, and necessary to the 40% of the territory which receives from 300 to 700 mm per annum. Complementary irrigation is also needed during short dry periods in areas of higher rainfall and even in areas where rainfall exceeds 2,000 mm.

National Water Authority: Several government services are involved in groundwater exploration and development. The Secretariat for Hydraulic Resources is in charge of water resources development; it includes executive committees for water resources planning and the execution of projects in various river basins. It also includes, for special studies, the Hydrological Commission for the Mexican Valley Basin, the Commission for the Lerma-Chapala-Santiago System. The National Autonomous University of Mexico (UNAM), through its institutes of geology, geophysics and engineering, undertakes hydrogeological surveys and provides basic training for groundwater specialists. The Secretariat for Foreign Affairs (SRE) is in charge of matters pertaining to international river basins through its Comisión Internacional de Limites y Aguas. The Secretariat of Health and Welfare (SSA) conducts programmes for the water supply of small communities.

Water supplies in UNHCR settlements: Currently, the major problem for refugees in the settlements is the water supply. There is insufficient water, particularly during the dry season; water quality is poor, the source of gastroenteritis and other water related diseases; and the walking distance to water points is long. Measures have been taken, therefore, to improve the collection of water and its protection from contamination. Another need has been that of long-range planning in the promotion of self-sufficiency. The high salinity of water in areas such as Campeche and Quintana Roo, for example, has implications with regard to the type of soil which it may be used to irrigate, salinity control techniques, and crop selection according to salt tolerance. In another instance, measures would need to be taken where water quality is strictly dependent on the balance between fresh and brackish water bodies.

Further Reading on Water Resources:

Arenal, Rodolfo, C. del. Water Resources of Mexico. Water Resources Bulletin. Vol. 5, 6, No. 1, 1969.

Cairncross, S. and Feachem R. Small Water Supplies. Ross Bulletin No. 10, 1978.

Food and Agriculture Organization. Self-Help Wells. FAO Irrigation and Drainage Paper No. 3 (by R.G. Koegel). Rome, FAO, 1977.

Howard J. Safe Drinking Water. Oxfam Technical Guide. Oxford, Oxfam, 1979.

Pacey, A. Hand-pump Maintenance in the Context of Community Well Projects. Oxford, Oxfam/Intermediate Technology Publications Ltd., 1980.

UNHCR. Technical Support Services. Water Assessment Mission to Mexico. 7-22 July 1987. Geneva 1987.

UNHCR. Technical Support Services Refugee Settlements in Central America and Mexico. 2-25 April 1986 Geneva 1986..

San Carlos	1 warehouse in four sections, with a capacity of 33,000 tons, fully mechanized to handle cereals in bulk. Open storage area totals 42,900 m^2.
Tampico	7 warehouses of 30,226 m^2 total; two open storage areas of 51,840 m^2.
Topolobampo	1 warehouse of 1,850 m^2.
Tuxpan	5 warehouses, totalling 40,460 m^2.
Veracruz	22 warehouses and 1 shed.

Settlement Storage:

Chiapas:
UNHCR rents storage space in San Cristobal de las Casas in Comitan from ANDSA (Almaneces Nacionales de Deposito). Premises formerly used by COMAR (Comisión Mexicana de Ayuda de Refugiados) also serve as storage area.

Campeche:
Storage is available for 950 mt (WFP commodities).

Quintana Roo (ANDSA):
Storage is available for 900 m^2.