

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

MÉXICO

REHABILITATION PROGRAM

(ME0135)

LOAN PROPOSAL

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MEXICO
REHABILITATION PROGRAM

Loan Proposal

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Datos Socioeconómicos Básicos de México

1. Datos Generales

Población Total (miles de habitantes, mitad 1984)	73.900,0
Extensión Territorial (miles de Km2.)	1.967,0
Habitantes por Km2 (1984)	37,6
Tasa de Crecimiento Demográfico (1970-83)	2,7
Producto Interno Bruto por Habitante, 1984 (US\$ 1982)	2.086,1
Mortalidad General por Mil Habitantes (1980-85)	7,1
Mortalidad Infantil por Mil Nacidos Vivos (1980-85)	53,0
Porcentaje de Alfabetismo (1983)	87,9
Nivel de Bajos Ingresos (marzo 1985), pesos	216.322,0
Tasa de Cambio (promedio anual 1984) pesos por dólar	169,6
Tipo de Cambio (diciembre 1984) pesos por dólar	192,6

Tenencia de la Tierra y Producción (1970)

	<u>Moderna</u>	<u>Tradicional</u>	<u>Subsistencia</u>	<u>Total</u>
Número de Explotaciones (miles)	200,1	1.140,0	1.479,0	2.815,9
Ejidales	120,3	676,2	1.062,3	1.858,9
Privado	81,2	463,8	412,1	947,1
Porcentaje del Total	7,4	40,1	52,5	100,0
Total de Tierra Dedicada al Cultivo (miles de hectáreas) a/	6.650,0	15.960,0	1.835,0	24.445,0

Población Económicamente Activa por Sectores

	<u>1983</u>
Agricultura	21,8
Minería y petróleo	1,1
Manufactura	9,6
Construcción	5,9
Servicios	43,0

<u>Tasa de Desocupación Abierta (por ciento)</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Urbana	4,5	4,2	4,1	6,9	6,5
Area Metropolitana de:					
Ciudad de México	4,3	3,9	4,0	6,0	5,9
Guadalajara	5,0	5,8	5,0	8,0	7,4
Monterrey	5,4	4,2	4,9	10,7	11,2

a/ Incluye algunas tierras de pastizales y bosques.

Producto Interno Bruto	Composición (%)					Tasa Real de Crecimiento Anual				
	1980	1981	1982	1983	1984 a/	1980	1981	1982	1983	1984
PIB (a precios de mercado) b/	100,0	100,0	100,0	100,0	100,0	8,3	8,1	-0,5	-5,3	3,1
<u>Por Destino</u>										
Inversión Bruta	28,0	29,5	21,0	17,1	17,4	22,0	13,9	-28,7	-24,9	5,4
Consumo	77,1	77,2	78,8	77,1	77,0	7,8	8,2	1,2	-6,8	3,2
Exportaciones	9,1	8,9	9,6	12,1	12,9	6,1	5,7	13,7	11,5	10,7
Importaciones	14,3	15,7	9,4	6,2	7,2	31,9	18,5	-37,1	-41,7	21,0
<u>Por Origen a/</u>										
Agricultario	9,0	8,8	8,8	9,6	9,5	7,1	6,4	-0,6	2,9	2,4
Minedo	3,3	3,5	3,9	3,9	3,8	22,3	16,6	9,2	-2,7	1,6
Manufactura	24,9	24,7	24,2	23,6	23,9	7,2	7,4	-2,9	-7,3	4,7
Electricidad	1,6	10,1	8,1	1,8	1,8	6,5	9,0	6,6	0,7	7,0
Construcción	5,5	5,7	5,5	4,9	4,7	12,3	11,5	-5,0	-18,0	3,7
Comercio	25,7	25,9	25,5	24,8	24,0	8,1	8,9	-1,9	-10,0	2,7
Comunicaciones y Transportes	7,5	7,7	7,5	7,9	7,6	14,1	11,0	-3,8	-4,8	5,7
Otros Servicios	19,5	20,2	19,8	24,8	24,7	6,0	6,2	3,9	0,8	2,9

Preliminar.

Elaborado con datos del "Sistema de Cuentas Nacionales de México". Secretaría de Programación y Presupuesto. Cifras originales a precios de 1970.

		(En Millones de US\$)				
3. Comercio Exterior		1980	1981	1982	1983	1984 a/
<u>Exportaciones de Bienes (FOB)</u>		15.308	19.420	21.006	22.312	24.054
<u>Sector Agrícola</u>		1.424	1.378	1.097	1.189	1.461
<u>Sector Manufacturero</u>		3.383	3.427	3.167	4.583	5.452
<u>Sector Petrolero</u>		10.374	14.507	16.602	16.017	16.601
Petróleo crudo		9.430	13.305	15.623	14.793	14.968
<u>Otros Sectores</u>		127	108	140	524	539
<u>Importaciones de Bienes (FOB)</u>		18.486	23.930	14.422	8.551	11.254
Bienes de consumo		2.426	2.809	1.519	614	848
Bienes intermedios		11.028	13.545	8.400	5.740	7.833
Bienes de capital		5.032	7.575	4.502	2.197	2.573
4. Balanza de Pagos						
<u>Cuenta Corriente</u>		-6.761	-12.544	-4.879	5.324	3.967
Exportaciones totales		25.021	30.810	28.919	28.944	32.728
Importaciones totales		31.782	43.354	33.798	23.621	28.760
<u>Movimiento de Capital</u>						
Oficial:						
- Largo plazo		4.100	8.657	8.862	5.091	2.461
- Corto plazo (neto)		68	9.267	-1.825	771	573
Privado (neto)		5.608	5.279	1.211	2.575	-4.761
Inversión directa (neta)		1.071	1.189	709	381	492
<u>Errores y Omisiones</u>		-2.935	-8.373	-8.419	-917	-150
<u>Cambios Reservas Internacionales</u>						
<u>Netas</u> (+ aumento)		1.151	1.012	-3.185	3.301	2.241

a/ Preliminar.

n.c. No calculable.

Fuente: Banco de México, Informe Anual. Secretaría de Programación y Presupuesto, Boletín Mensual.

19-VIII-85

5. Finanzas Públicas	1980	1981	1982	1983	1984 a/
	(En porcentajes del PIB)				
<u>Gobierno Federal</u>					
Ingresos Corrientes	15,9	16,2	16,3	18,6	16,8
Gastos Corrientes	14,5	16,4	21,2	21,9	18,6
Ahorro en Cuenta Corriente	1,5	-0,2	-4,9	-3,3	-2,0
Ingresos de Capital	0,0	0,0	0,0	0,0	0,0
Gasto de Capital	4,3	6,1	4,9	3,4	2,6
Déficit Total	2,9	6,3	9,8	8,3	5,8
 <u>Sector Público Consolidado</u>					
Ingresos Totales Presupuestales	26,4	26,1	28,7	33,5	31,1
Egresos Totales Presupuestales	33,0	38,4	43,6	41,1	36,3
Déficit Presupuestal	6,5	12,3	15,0	7,6	5,3
Déficit del Sector no Controlado e Intermediación Financiera	2,0	2,4	2,9	1,3	2,1
Déficit Financiero del Sector Público	8,5	14,6	17,9	8,9	7,4

a/ Preliminar.

Fuente: Secretaría de Hacienda y Crédito Público y Secretaría de Programación y Presupuesto:
Información sobre Gasto Público 1969-78 y Boletín Mensual de Información Económica.

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6. <u>Sistema Bancario Nacional</u> (Saldos a fin de año) (Miles de Millones de Pesos)	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984 a/</u>
Crédito Interno Total <u>b/</u>	2.158,4	3.519,0	8.097,5	12.984,0	
Dinero (M1)	461,2	612,4	992,0	1.409,0	2.287,0
Dinero y Quasi-Dinero (M4) <u>c/</u>	1.311,7	1.964,9	3.332,0	5.268,0	
7. <u>Precios</u> (tasa de crecimiento)					
Deflactor del PIB	29,6	27,1	61,0	92,2	66,0
Al Consumidor (nacional)	26,2	28,7	58,9	101,9	65,5
Al por Mayor (Ciudad de México)	24,5	24,5	56,3	107,3	70,3
8. <u>Deuda Externa</u> (Bill US\$)					
<u>Total Desembolsado</u>	49.094,0	74.900,0	84.900,0	90.600,0	91.400,0
Pública	34.194,0	53.007,0	58.900,0	64.600,0	67.000,0
Privada	14.900,0	19.000,0	26.000,0	26.000,0	24.400,0
Deuda Total como porcentaje del PIB	18,1	22,1	33,1	45,3	38,2

a/ Preliminar.

b/ Incluye financiamiento total en moneda nacional y extranjera otorgado a los Sectores Público y Privado no bancario.

c/ Incluye Medio Circulante en moneda nacional y extranjera e instrumentos del ahorro líquido y a plazo.

Fuente: Banco de México. Informe Anual e Indicadores Económicos.

9.	<u>Servicio de la Deuda Externa</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
	Intereses Deuda Pública (mill. US\$)	3.958	5.476	8.400	8.107	9.695
	Otros Intereses (mill. US\$)	1.479	3.170	2.864	2.090	2.161
	Amortización Deuda Pública (mill. US\$)	5.165	6.297	16.024	13.915	2.404
	Servicio Deuda Pública como Porcentaje Exportaciones Totales	36,5	38,2	84,5	76,1	37,0
10.	<u>Préstamos del BID</u>	<u>Millones de US\$</u>		<u>Porcentaje del Total</u>		
	(Autorizados 1961-84)					
	<u>Por Fondos</u>					
	Total	27.772		100,0		
	Capital Ordinario	9.263		33,4		
	Capital Interregional	8.247		29,7		
	Fondo para Operaciones Especiales	8.984		32,3		
	Fondo en Administración	1.277		4,6		
	<u>Por Sector (porcentaje)</u>					
	Sectores Productivos					
	Agricultura y pesca	6.319		22,8		
	Industria y minería	4.333		15,6		
	Turismo	296		1,1		
	Infraestructura Física					
	Energía	7.380		26,6		
	Transporte y Comunicaciones	3.511		12,6		
	Infraestructura social					
	Salud pública y ambiental	2.472		8,9		
	Educación y Ciencia y Tecnología	1.288		4,6		
	Desarrollo Urbano	1.086		3,9		
	Otros					
	Financiamiento Exportaciones	583		2,1		
	Preinversión	335		1,2		
	Otros	169		0,6		

a/ Preliminar.

MEXICO

Rehabilitation Program

Basic Information on the Operation

A. Borrower: Nacional Financiera, S.N.C. (NAFIN).

B. Guarantor: The United Mexican States.

C. Purpose and Description:

The purpose of the Program is to help finance the most urgent needs in connection with the restoration of infrastructure and equipment connected with services provided by telephone exchanges, health institutions and education establishments affected by the earthquake that struck Mexico on September 19, 1985.

The Program would include: (i) Subprogram A, rehabilitation of telephone exchanges; (ii) Subprogram B, rehabilitation of health establishments, and (iii) Subprogram C, rehabilitation of education establishments.

D. Executing Agencies

The executing agencies for the subprograms would be:

- (i) Subprogram A: Teléfonos de México, S.A.C.V. (TELMEX).
- (ii) Subprogram B: Ministry of Health.
- (iii) Subprogram C: Ministry of Public Education.

E. Cost and Financing

The total cost of the Program is estimated at US\$125 million equivalent. To help finance this, a loan is proposed of US\$100 million equivalent in foreign exchange, chargeable to the Bank's interregional capital.

F. Terms and Conditions of the Loans

- (a) Amortization term: 20 years
- (b) Grace period: 3 years
- (c) Interest rate: variable
- (d) Loan commission: 1.25%
- (e) Inspection and supervision: 1%

G. Approval is therefore recommended of the loan described in this proposal. For that purpose the following documents are submitted to the Board of Executive Directors for consideration:

Appendix I: Proposed Resolution

Appendix II: Recommendations

Appendix III: The Project (Annex A to the Loan Contract).

I. INTRODUCTION

A. Background

- 1.01 On September 19, 1985 an earthquake struck Mexico City, causing loss of life, damage to physical structures and services plant and loss of material assets on a scale that seriously affected Mexico's economic and social development process.
- 1.02 The Bank immediately dispatched a Special Mission to Mexico City in order to define its role in the rehabilitation and reconstruction process by gathering the information required to determine the related financing needs. The first members of the Mission arrived in Mexico City on September 29, and the Mission's work continued until October 25, 1985.
- 1.03 With the assistance of the Field Office and in close coordination with the Ministry of Finance and Public Credit, the Mission held technical meetings with officials of the Ministries of Health and Education, Teléfonos de México and other entities in order to ascertain the extent of the damage caused by the catastrophe and the further damage that could result from the emergency situation.
- 1.04 They also obtained information about the measures the government has taken to deal with the emergency and the plans it is working out for repair of the damage, including the creation of a National Reconstruction Commission. It obtained information also about the assistance received from the international community through direct action by friendly countries and by organizations that furnish aid in emergencies of this kind.

B. The Application

- 1.05 Immediately after the tragedy happened the government announced to the international financial community that it was restructuring its economic and social development programs. This also made it necessary to adjust the Bank's program of operations in Mexico in order to include emergency operations and to reformulate and introduce flexibility into ongoing loans in accordance with the strategy explained below.

C. The Bank's Strategy

- 1.06 The Bank's action strategy, based on the information furnished by the authorities and that gathered by the Special Mission, consists in collaborating with Mexico in the implementation of: (i) a Rehabilitation Program, presented in this document, which would finance activities relating to health, telephone service and education establishments; (ii) a Reconstruction Program, which would be presented separately as soon as the government confirms to

the Bank the items that are to be financed after it has completed its inventory of damage to buildings and equipment, particularly of hospital and telephone services; (iii) relaxing of the conditions of the hotel credit program with FONATUR (Loans 129/IC-ME and 450/OC-ME) to extend eligibility to hotel repair, and (iv) relaxing of the conditions of other ongoing loans as provided for in the Bank's operating rules.

- 1.07 Thus, the purposes and nature of the measures proposed in the above-mentioned programs fall within the Bank's policy for natural disaster cases (OP-714). The support measures are designed to contribute to the replacement of essential services and to supplement the country's own efforts in repairing the damage it has suffered.

(i) The Rehabilitation Operation

- 1.08 The Rehabilitation Operation therefore includes works in which restoration of the damaged infrastructure: (i) is feasible, (ii) can be executed very quickly, and (iii) allows service to be resumed in a short time. In other words, the object of the proposed subprograms is to restore the essential level of services as quickly as possible, through works that can be executed quickly in each sector.

- 1.09 This would be accomplished mainly through the rehabilitation of infrastructure works and the reinstallation of basic plant. Account will be taken in these operations of the modernization and decentralization concepts included in the government's plans and the Bank's standards for such cases, designed to reduce the risk of destruction in areas where natural disasters are frequent.

(ii) The Reconstruction Program

- 1.10 The purpose of the Reconstruction Program, which would be presented separately, is to finance, from IDB resources, health-sector and telephone infrastructure works and plant whose replacement would begin with the Rehabilitation Operation.
- 1.11 In the case of the telephone service, the program would include redesign of the network and relocation of the equipment to avoid vulnerable "nerve centers" and give priority to safety. In the health sector, attention would be given to rebuilding units damaged by the earthquake and constructing emergency units and other hospitals, to supplement the services provided by damaged establishments in localities with a high population density, away from the area of urban congestion. The deadlines for construction and acquisition of works under this Program would be less urgent than those for the emergency works required under the Rehabilitation Program.

(iii) Ongoing Loans

- 1.12 Policy OP-714, referred to above, indicates that the resources for financial assistance in cases of natural disasters will basically be those that the Bank can apply most flexibly for the benefit of the receiving country. Bearing this in mind, consideration is being given in current loans to measures such as (extension of construction start and disbursement deadlines, more flexible project eligibility and selection criteria, and increases in revolving funds).

(iv) Basic Execution Criteria

- 1.13 In view of the urgency of the required works and investments, the measures proposed in this Rehabilitation Operation include relaxation of the goods acquisition and works contracting procedures. To that end, it is recommended that international public bidding be waived and replaced by price competitions, invitations to tender with shorter deadlines and, where necessary, direct contracting in conformity with the rules and exceptions provided for in Policy OP-714. This action is in line with the procurement and works execution procedure laid down for cases of emergency by the Law on Purchase, Rental and Provision of Services Related to Movable Goods (Ley de Adquisiciones, Arrendamientos y Prestación de Servicios Relacionados con Bienes Muebles) and the Law on Public Works (Ley de Obras Públicas).
- 1.14 The plans and designs of the installations and services destroyed would be utilized to the maximum possible extent for execution of a large part of the works included in the program. The construction standards will be adjusted to conform strictly to the earthquake protection coefficients laid down by the government. Where new sites have to be used, they will be duly identified and legalized and their utilization subjected to the criterion adopted by the government of prohibiting construction in high-risk localities, together with decentralization of the urban center in order to reduce crowding together of services.
- 1.15 In view of the magnitude of the damage suffered, each program aims not to meet all the needs identified but only those that are most urgent and most feasible in accordance with the priorities agreed upon with the Mexican authorities. As explained in the next chapter, the damage to public property is estimated at over US\$3,500 million, for which initial financing from external entities will be available of some US\$1,700 million. For the moment, the balance would have to be met out of local resources.
- 1.16 The expected impact of the activities provided for under this IDB strategy, selected in agreement with the government, would be substantial. Thus, the Rehabilitation Program will restore an estimated 100% of local and 60% of long-distance telephone traffic, 80% of hospital beds and nearly 90% of education establishments damaged.

II. THE EARTHQUAKE

A. Intensity

- 2.01 At 7.19 a.m. on Thursday, September 19, 1985 an earthquake occurred of a magnitude evaluated at various places in south-central Mexico at between 7.8 and 8.1 degrees on the Richter scale. ^{1/} This was the most intensive earthquake ever recorded in urban areas of Mexico. The epicenter was located on the Pacific marine platform off the coast of the states of Guerrero and Michoacán, opposite the mouth of the Río Balsas which separates the two states, about 30 km from the coast and 200 km from Mexico City. (See map at Annex 4).
- 2.02 The cause of the earthquake was the mechanical wave generated by the intensive movement and friction that took place between the Cocos and the so-called North American geological plates, which form the earth's crust in that region. Owing to internal impulses, the Cocos plate penetrates the North American plate at the rate of about 7.5 cm/year as a relative horizontal movement. The North American plate includes the continental shelf of the region and extends toward the northern hemisphere. The tremors result from the violent rupture of the crust between the two plates and propagate their vibratory effects with an intensity which varies according to the topography and geology of the surrounding rocks.
- 2.03 The major tremors are almost always followed by a series of sequential earthquakes known as aftershocks, usually of a lower magnitude than the original movement. This phenomenon lasts for anything from several days to several years, depending on the intensity of the first shock. Very exceptionally, two earthquakes of comparable magnitude have occurred within a few days of each other. The recent earthquake in Mexico was followed by many aftershocks. One very intense aftershock, measuring 6.5, which lasted for nearly two minutes, was recorded in the Mexico City area on the next day, September 20, adding to the damage caused by the first tremor.
- 2.04 The physical damage wreaked by the earthquake has not yet been fully quantified. The damage suffered, in terms both of human lives and of physical destruction, is enormous. The following account only gives an indication of its magnitude.

^{1/} The Richter scale defines the magnitude of a seismic movement as a function of the energy it releases.

- 2.05 The earthquake affected a number of municipalities in the states of Michoacán, Guerrero, Colima, Jalisco and México, with widespread destruction of dwellings, roads, municipal facilities and industrial establishments. The city of Lázaro Cárdenas was the place most badly hit on the coast: in addition to the destruction of buildings and urban services, the industrial installations of Petróleos Mexicanos (PEMEX) and Fertilizantes de México (FERTIMEX) in the port area were damaged.
- 2.06 The greatest damage was concentrated in an area of the Federal District, in a part of the center of Mexico City that lies on a base of compressible soft clay up to 30 m thick which was once the bed of an old lake. This mantle of soft rocks amplifies the vibrations transmitted by the underlying firm rock and imparts to the surface oscillatory movements that are considerably more intensive than those of the hard base. On the outskirts of one city, where the depth of the soft strata is small or zero, the damage to buildings was lighter.
- 2.07 The preliminary reconnaissance carried out by the agencies of the Urban Planning Directorate (Dirección Urbanismo) found that 2,832 buildings had been damaged; 880 are regarded as totally destroyed and cannot be occupied, 370 can be used after major repairs, and 1,582 are in need of repair in varying degrees. Approximately 28,000 dwelling units were destroyed or damaged.
- 2.08 The 2,832 buildings damaged include 123 public office buildings, 1,294 public and private schools (most of them primary schools), 49 hospitals and health centers, 107 theaters and cinemas, 1,133 private buildings, 11 sports centers, 112 public markets and 3 roadworks buildings. A total of 538 small- and medium-sized industrial establishments were destroyed, most of them footwear and readymade clothing factories.
- 2.09 The public buildings totally destroyed include the headquarters offices of the National Finance Corporation (Nacional Financiera), the Ministry of Commerce and Industrial Development, the Attorney General, the National Fishing and Ports Bank (Banco Nacional Pesquero y Portuario - BANPESCA), and the facilities of Teléfonos de México that accommodate its national and international long-distance installations. The three bays of the Ministry of Communications and Public Works Complex, inaugurated in 1954, were very badly hit and suffered structural damage; they will have to be totally demolished very soon. The building housing the offices of the Tourism Development Fund (FONATUR), the Industrial Development Fund (FOGAIN) and the Preinvestment Development Fund (FONEP) were totally destroyed. The records and computer tapes of their operations were recovered from the rubble.
- 2.10 In the hospital sector there was considerable loss of life and physical damage. Of the 17,000 beds available in Mexico City's public health service, approximately 5,100 were rendered unusable due to the complete collapse of hospitals or partial destruction of buildings and the additional damage to treatment, diagnostic and laboratory equipment and

facilities. About 2,100 beds belonged to public services for the "uncovered" population (not associated with the social security systems). According to the first reconnaissance, more than 100 health professionals (doctors, nurses and medical students) died in the rubble of the destroyed hospitals. Some 28% of the hospital facilities of the Social Security Institutions were damaged and put out of action.

2.11 The collapse of the building of Teléfonos de México (TELMEX) that houses its long-distance telephone communications facilities and equipment left the country totally cut off from the outside world for the first few days following the catastrophe. Fifteen days later, in spite of the enormous efforts made to restore internal and external communications, the services were still operating on an extremely limited basis:

- (1) the international long-distance service at 7% of normal service capacity;
- (2) the domestic long-distance service at 20% of capacity;
- (3) the urban automatic service at 70% of capacity.

2.12 The losses in telephone facilities include:

- (1) 50 microwave units, representing 100% of the telephone company's facilities;
- (2) 800 multiplex supersets, with a capacity of 45,000 channels, representing 100% of the total;
- (3) 6 of 9 automatic long-distance exchanges, which handled 80% of the circuits;
- (4) 2 urban intercommunication exchanges and 3 local exchanges;
- (5) 19 buildings damaged, of which 6 suffered structural destruction and one collapsed completely. In these places damage also occurred to ancillary equipment, such as power plants, direct current facilities, air-conditioning plant and structural frames for receiving and transmitting equipment.

2.13 Of the 15 potable water systems that supply the metropolitan area of Mexico City, 7 were damaged, leaving about 5 million people temporarily without water service and exposing the majority of the services in operation to the risk of pollution. The bulk potable water delivery facilities of Cutzamala, financed by Loan 63/IC-ME, were not affected and served to maintain the water supply to the city. The areas whose water was totally cut off were supplied from tanker trucks and temporary extension.

- 2.14 In the tourism sector, 82 hotels, with a total of 1,500 rooms, were affected by the earthquake; of these, 39 were seriously damaged or totally destroyed. Others which did not suffer damage were unable to continue in operation because of collapsing buildings and the removal of debris in the immediate vicinity.
- 2.15 The preliminary study conducted by the Urban Development Directorate indicates that the greatest concentration of damage is among building of 6 to 15 floors. The number of buildings of five floors or less that collapsed is relatively low, considering that the great majority of structures in the city are in that height range. Also, very few buildings of more than 15 floors collapsed or suffered serious damage. A significant number of cases of damage to buildings of less than five floors were due to the collapsing of, or falls of debris from, neighboring buildings of 6 to 15 floors.
- 2.16 The concentration of damage in buildings of intermediate height is explained by the fact that in the area of soft rock the tremor had very long dominant periods and had very much less effect on low, relatively rigid structures with the short natural vibration periods that are generally characteristic of low-rise buildings. On the other hand, very high and very flexible buildings were similarly affected less because their natural periods exceeded the dominant periods of the base rock. The Latin America Tower, which is one of the highest buildings in the city and is located in the very center of the area that was most badly hit, suffered no damage at all.
- 2.17 Some 1,450 buildings several centuries old located in the Historic Center came through the earthquake without serious damage. Neither the Palace of Government nor the Cathedral nor the surrounding buildings suffered significant damage.
- 2.18 In the area where buildings collapsed, thousands of bodies lay buried under the debris for several days. It has been estimated that deaths due to the earthquake could exceed 10,000 and that about 200,000 persons were injured. In spite of the magnitude of the damage and of the losses of life and property, it must be stressed that the city was not destroyed. In an urban center of 18 million people, the effects of an earthquake of this magnitude could have been greater. If the earthquake had occurred two or three hours later, when the city center would have been at its busiest, the number of victims would have been substantially higher. Outside the south central area the damage was minimal. Once the first feelings of panic and anguish had been overcome, the life and activity of the city began to return to normal. The traditional tourism centers on the coasts and in the interior were not affected. The most heavily damaged blocks in the city were cordoned off and the rescue and debris removal efforts were concentrated there. In the area surrounding Mexico City 120 hotels and boarding houses authorized by the Federal District are still operating and attention is being given there to the priority needs of more than 30,000 persons, using resources contributed by volunteers, various private entities and official agencies.

B. International Aid and Solidarity

- 2.19 The announcement of the catastrophe by the International press immediately mobilized foreign public and private aid. The seismographs were still recording minor aftershocks of the main earthquake when aircraft from all corners of the world began to land at Mexico City's International Airport with their cargoes of aid and succor.
- 2.20 Between September 20 and 30, 177 special flights arrived, carrying approximately 1,100 tons of materials, medical supplies, aid of various kinds and, in particular, various cooperation groups specializing in rescue, debris removal, medical assistance and the organization of emergency services. The assistance received included 335 tons of medical supplies, 250 tons of clothing and blankets, 154 tons of food, 150 tons of rescue equipment, 73 tons of tools, 69 tons of machinery and vehicles, and 48 tons of medical instruments. The 177 cargoes were consigned to the Government of the Republic (59), the Mexican Red Cross (76), foreign embassies (29) and private individuals (13). To this assistance must be added that carried and shipped by scheduled international flights.
- 2.21 The international rescue assistance, consisting of teams specializing in tasks of this kind, technical instruments and animals trained to detect signs of life, make a decisive contribution to the saving of the lives of people trapped in the debris. Hundreds of survivors imprisoned under tons of debris were rescued with the assistance of these groups, who added their valiant efforts to those accomplished by the local organizations and by the immense mass of volunteers who worked tirelessly until every possibility of rescue had been exhausted.

C. Action by the Government of Mexico 1/

- 2.22 From the moment the earthquake struck, the Government's actions were directed at organizing assistance and rescue efforts, maintaining order and containing the widespread anxiety and the panic than ensued. "The tragedy is great, but the capital city has not been laid flat," the President of the Republic informed the people. "Once we have completed the sad task of burying the dead," he stated later, "let us make an immediate start on the task of reconstruction, responsibly and seriously, in a spirit of order, efficiency and integrity."
- 2.23 With the object of maximizing its participation in and control over the handling and administration of the donations and assistance received in kind, the Government set up a Committee to Oversee Donations in Kind and in Services (Comité Supervisor de Donativos en Especies y Servicios), chaired by the Secretary of the Office of the Comptroller General of the Republic and composed of representatives of various private

1/ A list of the special institutional coordination measures taken by the Mexican Government to deal with the emergency is given in Annex 2.

organizations, such as the Mexican Red Cross, the Council of Businessmen (Consejo de Hombres de Negocios), the National Autonomous University of Mexico, the Association of Public Accountants of Mexico and other entities.

- 2.24 To handle and administer donations in the form of money, the Government set up the National Reconstruction Fund (Fondo Nacional de Reconstrucción), which operates within Nacional Financiera. Management of the Fund was entrusted to a Technical Committee, assisted by a Consultative Commission composed of representatives of various sectors of Mexican economic, political and social life.
- 2.25 The Ministry of Health immediately took a number of measures to prevent the development of epidemics and to provide the best possible medical care to the sick, the injured and other victims.
- 2.26 Assistance centers were set up in various places in the city which provided victims with food, clothing and first-aid supplies.
- 2.27 On October 4, 1985 the Government set up the National Reconstruction Commission (Comisión Nacional de Reconstrucción) to coordinate the activities for the rebuilding the areas affected and restoring the services destroyed. The Commission advises on and participates in the actions being taken by the public, private and social sectors at the national level to deal with and resolve the problems caused by the emergency. Its chairman is the President of the Republic and its members are those Federal Government officials whose participation the President considers desirable in light of the matters to be dealt with: one representative each of the Labor Council, the National Small Farmers Confederation (Confederación Nacional Campesina) and the Business Organizations; the Rector of the National Autonomous University of Mexico; a representative of the Mexican Federation of Associations of Engineers, and a representative of the National Association of Accountants of Mexico. The Commission's activities will be coordinated through five committees:
- Mexico City Metropolitan Area Reconstruction Committee
 - Decentralization Committee
 - Financial Affairs Committee
 - International Aid Coordination Committee
 - Civil Defense Committee.
- 2.28 Unofficial calculations estimate the damage done by the earthquake to Mexico's economy at US\$34,200 million. The public investment required to cover the cost of reconstructing damaged buildings and plant and rehabilitating affected services is provisionally estimated at US\$3,500 million. To help finance this investment, the Mexican authorities expect to receive aid totaling approximately US\$1,700 million from the following sources:

	<u>US\$</u>
IDB	300 million
IBRD	300 million <u>1/</u>
IMF	300 million
Aids Funds of USA, UK, West Germany, France, Japan Canada and other countries	300 million
Import-Export banks and other sources	<u>500 million</u>
Total	<u>1,700 million</u>

This would leave public capital expenditure remaining to be financed of the equivalent of at least US\$1,800 million.

- 2.29 With respect to possible assistance by the multilateral financial institutions, the Government's coordinating agencies indicated that World Bank resources would be used to rebuild and rehabilitate housing, social security hospitals, large hotels, industrial plant and electricity and drinking water services.

D. Measures to Reduce and Guard Against the Effects of Natural Disasters

- 2.30 Mexico is one of the countries of the hemisphere that has devoted the greatest attention to environmental problems. The agency responsible for implementing the Government's environment policy is the Ministry of Urban Development and Ecology (Secretaría de Desarrollo Urbano y Ecología -- SEDUE). This agency was conceived and set up with the object of grouping together within a single official body all the regulatory powers and activities relating to environmental and natural resource management.

- 2.31 In the appraisal of the Program presented in the following chapter, account was taken of the natural disaster risks and the repercussions that the rehabilitation work could have on the environment, so as to:

- (1) minimize and guard against damage and physical losses in the earthquake-prone areas;
- (2) adopt appropriate environmental protection measures, ensuring that the environmental protection decisions and standards are respected;

1/ Does not include balances of existing loans that would be redirected.

- (3) adopt advanced engineering designs and standards, for application to the works and installations to be financed and executed under the program.

2.32 In this connection it was noted that:

- (1) Through painstaking appraisal work, the Government is requiring strict applications of SEDUE construction standards in the Federal District for the area most badly hit by the earthquake. These standards will serve as the basis for those that will begin to be applied in other regions of the country with similar risks, with respect both to construction and to urban decentralization. At that time new buildings higher than three floors were already prohibited in the part of the city center of greatest risk.
- (2) In the work of rehabilitating the buildings and plant covered by each subprogram, account will be taken of such aspects as trash disposal, movement of vehicles, transportation of patients and students, and so on, in order to avoid, to the maximum possible extent, adverse effects on the surrounding population center.

III. THE REHABILITATION PROGRAM

A. Characteristics of the Program

- 3.01 The purpose of the proposed program is to finance the most pressing needs in terms of replacement of infrastructure and equipment required for the proper functioning of telephone exchanges, health establishments and education establishments affected by the earthquake.
- 3.02 The program would include: (i) a subprogram to rehabilitate telephone exchanges; (ii) a subprogram for the rehabilitation of health establishments, and (iii) a subprogram for the rehabilitation of education establishments, as described in the following paragraphs.
- 3.03 The analysis of each subprogram will set out: (i) its objectives and description; (ii) a report of the damage to the infrastructure and equipment in each sector, according to the information processed to date; (iii) a description of the cost and of the items that the Bank would finance, and (iv) the aspects relating to the execution of each subprogram.

The cost and financing of the program as a whole are presented in paragraphs 3.83 et seq.

B. The Telephone Exchange Rehabilitation Subprogram

1. Purpose

- 3.04 The objective of this subprogram is to restore as soon as possible the essential level of local, interurban and international telephone services existing before the earthquake, through the financing of equipment in certain telephone exchanges as detailed below.

2. Damage

- 3.05 The exchanges that sustained the most damage, causing 70% of the drop in urban traffic and 100% of that in long-distance traffic, are those of San Juan, Victoria, Ixtapalapa and Hidalgo, all of them located in the most densely built-up area of the Federal District.
- 3.06 The damage sustained by these exchanges means that a large quantity of equipment will have to be replaced. This includes 11 switching centers, 50 sets of radio transmission equipment and 800 multiplex supergroups, which make it possible to convert voice signals to radio in long-distance services. ^{1/}

^{1/} See paragraph 2.12 for greater details of the damage suffered.

- 3.07 The need for immediate restoration of service requires that the switching equipment be replaced in the same locations as that which was destroyed, with provision for its subsequent transfer to such locations as the design of the final system may require, once the new lines have been completed. In this respect it should be noted that the location of the switching units in the telephone system is flexible, and they can perform various functions in the handling of the traffic. A switching center can be for urban, long-distance or mixed traffic, depending on where it is located.

3. Description

- 3.08 The rehabilitation subprogram includes financing intended for: (i) the procurement of part of the switching equipment to take the place of what was damaged, in order to restore the 30% of urban traffic that cannot now be handled, and (ii) 500 of the multiplex supergroups needed to restore 60% of the long-distance transmission capability that was lost. This equipment, together with more that would be procured with TELMEX's own resources, 1/ will help to complete the rehabilitation of the country's telephone system. The equipment to be financed by the Bank can be installed in any of the urban exchanges or long-distance transmission points. For the moment, they would be installed in the same places as before, for reasons of urgency.

The Reconstruction Program that would be submitted separately envisages the redesigning and relocation of the telephone system so as to avoid concentration of it in nodal points, together with transfer of the equipment to other locations, giving priority to security.

- 3.09 As to where this equipment could be obtained from, TELMEX's traditional suppliers are listed below by way of illustration. 2/

<u>Country</u>	<u>Makes</u>
Sweden	Ericsson
USA	ATT
Japan	NEC
Germany	Siemens and Standard Electric Lorentz
Italy	Teletra
France	CIT-ALCATEL
Netherlands	Philips and ITT
Belgium	Bell Telephone
Canada	Bell Telephone

1/ Air conditioning and continuous current equipment, generating sets, blocks of manual positions.

2/ This list is not limiting, exhaustive or intended to exclude other manufacturers in Bank member countries who are able to supply telephone equipment.

Equipment obtained from the main makers is interchangeable in the system, with varying degrees of flexibility, and requires a certain amount of adaptation, both by the supplier and by TELMEX. Where other equipment is concerned, it is necessary to stick to the same make (see paragraphs 3.12 and 3.13).

4. Cost

- 3.10 The cost of the rehabilitation subprogram, comprising the procurement, transportation and installation of the equipment referred to, is as follows:

<u>Equipment</u>	<u>Cost</u> (US\$ million)
1. 500 Multiplex Supergroups (long distance)	25.25
2. Switching Equipment (urban and/or long-distance)	15.80
3. Complementary equipment	<u>4.45</u>
Total	45.50 =====

Bases of calculation

- 3.11 The cost of the equipment was calculated by TELMEX on the basis of the c.i.f. prices known over the past five years, updated by an estimated 4% increase yearly. The amount is considered reasonable and sufficient for the purpose of the subprogram.

5. Execution

(a) Executing Agency

- 3.12 The executing agency for the subprogram would be Teléfonos de México, S.A. (TELMEX), a mixed corporation 51% of whose capital is held by the State.
- 3.13 TELMEX holds the concession for constructing, operating and running a public telephone service system. TELMEX operates the urban and suburban service in the Valley of Mexico, urban and suburban services in various cities and localities of the country and the national and international long-distance service.
- 3.14 TELMEX's total assets as of December 31, 1984 amounted to US\$3,583 million equivalent. Its capitalization structure is made up of 64.4% capital and 35.6% long-term liabilities. Some 84.9% of its long-term obligations consist of foreign-exchange debts.

- 3.15 In 1984 the international long-distance service generated 42.6% of its revenue and the national long-distance service 33.8%. The remaining 23.4% was derived from the local service and other revenues.
- 3.16 The tariffs for the national services are authorized by the Secretariat of Communications and Transport through the Tariffs Commission. The international long-distance tariffs are set by international agreements, are expressed in dollars and have not been changed since 1980.
- 3.17 Application of the current tariffs has enabled TELMEX to cover all of its operating costs, including depreciation on revalued assets, and to obtain net profits after meeting finance charges and making provision for taxes. It complies reasonably with the requirements of the Bank's policy on rates and tariffs. In this connection, the Bank's standard tariffs clause is incorporated in the Rural Telephony (TELMEX) loan document that is being distributed separately.
- 3.18 The size and capacity of TELMEX as of December 31, 1984 can be appreciated from the following data: 3.5 million lines; 7 million telephone sets; 6,000 long-distance circuits; 27 million circuits-km; 36,000 personnel; US\$3,100 million fixed assets; US\$880 million annual revenue.
- 3.19 Its administrative organization comprises four directorates general reporting to a Director General and the Board of Directors. The directorates are: the Directorate General, the Directorate of Expansion and Supply, the Directorate of Finance and Administration, the Directorate of Planning and the Directorate of Customer Service.

(b) Executing Unit

- 3.20 The corporation has sufficient technical capacity and suitable personnel to execute the subprogram. The functions concerned would be performed by two TELMEX units: (a) the Directorate of Customer Service, which is responsible for the repair and partial or full returning to service of the exchanges that have suffered minor damage, and (b) the Directorate of Expansion, which is responsible for the assembly and installation of telephone equipment.

(c) Procurement procedure

- 3.21 Procurement would be effected in accordance with the procedure that would be included as an annex to the possible loan contract, pursuant to the Bank rules and also the Law on Procurement, Leasing and Provision of Services connected with Movable Property. For the execution of the subprogram, the TELMEX Directorate General has delegated to the corporation's Purchasing Committee authority to decide on procurement and contracts. This committee is made up of the Assistant Director of Supply and Stores, who is its chairman, a representative of the Secretariat of Communications and Transport, a representative of the Secretariat of Programming and Budget, the

Stores Manager, the Supply Planning Manager, the Long-Distance Manager, the Manager of Central Construction and the Manager of Coordination of Information for Official Bodies.

- 3.22 The equipment will be procured by means of competitive price quotes. Where it is necessary to maintain uniformity, the items will be purchased from the original suppliers. The evaluation of bids and contract award will pay special attention to the availability of the equipment and delivery times. Immediate delivery will be a deciding factor in determining contract awards. 1/
- 3.23 The public competitive bidding system will have to be used in the procurement of machinery, equipment and other goods connected with this subprogram and in the award of contracts for the execution of works, whenever the value of such purchases or contracts exceeds US\$200,000 equivalent.
- 3.24 Notwithstanding the foregoing, the executing agency may use the exceptional procurement system laid down by Article 37 of the Law on Procurement, Leasing and Provision of Services for cases of natural disasters. This procedure basically entails the obligation to call on the person(s) or corporation(s) who have the capacity for immediate response and the resources required. The chief of the agency or body concerned must notify the Office of the Comptroller within twenty working days of authorizing this procedure, and submit documentation justifying this action.
- 3.25 The procedure referred to above would be applied in a manner consistent with the requirements laid down in the Bank's policy OPS-714 on natural disasters. 2/

(d) Execution schedule

- 3.26 All the equipment procurement is to be completed within approximately 180 days from the date of the earthquake.

(e) Maintenance

- 3.27 The equipment to be financed with program resources forms an integral part of the telephone system being rehabilitated. No expansions of installations in place before the earthquake will therefore be involved. The Services and Maintenance Group of the Directorate of Expansion has the capacity to handle the maintenance required by the urban system with its normal personnel. The Bank is familiar with the technical rules and procedures applied by TELMEX and the standards followed are entirely satisfactory, as is the level of competence of the technical personnel.

1/ The monthly losses incurred by TELMEX on account of reduced revenue are estimated at US\$16 million for every 25% of the traffic not recovered.

2/ See Resolution.

(f) Outside audit

- 3.28 Throughout the execution of the subprogram, the financial statements pertaining to it, duly examined by a firm of independent public accountants acceptable to the Bank and appointed by the Mexican authorities, will be submitted annually to the Bank.

C. The Health Establishments Rehabilitation Subprogram

1. Purpose

- 3.29 The purpose of this subprogram is to rehabilitate the establishments under the responsibility of the Secretariat of Health that were affected by the earthquake, by restoring as quickly as possible an essential part of the health care facilities and services that were in place before the earthquake, through the replacement of infrastructure and equipment as detailed below.
- 3.30 This subprogram would make it possible: (a) to rehabilitate health establishments of the first, second and third levels, 1/ together with laboratories and public health institutes damaged by the earthquake; (b) to support the normalization of the ambulance, radio, and decentralized emergency and urgent ambulatory care services, and (c) to restore the teaching capacity in the health sciences area by means of a system of six first-level ambulatory care polyclinics that will integrate the provision of services with teaching and research. In principle, the Bank will not participate in the restoration of the health services of the Social Security system, which would be taken care of with funds from other sources. The units concerned are listed in paragraph 3.40.

2. Damage

- 3.31 Both of Mexico's two types of public health institutions suffered considerable damage: (a) those providing care to the general public, and (b) those of the Social Security system. The former include the Secretariat of Health (SSA) and the Social Solidarity by Community Cooperation programs for low-income people in disadvantaged areas (IMSS-COPLAMAR). The Social Security institutions include the Mexican Social Security Institute (IMSS) and the Social Security and Service Institute for State Employees (ISSSTE).
- 3.32 The health infrastructure losses affected mainly the hospitals, where because of the physical nature of the facilities and their equipment the cost of replacement will be higher. The earthquake also caused lesser damage to various ambulatory care units (no beds), that are classified as first level. The greatest damage was sustained in the second-level establishments, i.e. those providing services for the four basic specialties (pediatrics, gynecology-obstetrics, general surgery

1/ See definitions in paragraph 3.32.

and internal medicine), mental health, dentistry and intermediate support services for diagnosis and treatment, including external consultations with basic specialists, emergencies and hospitalization. The third level is made up of hospitals and centers for more specialized treatment (heart, cancer, brain, major surgery, etc.), which also suffered appreciable damage.

- 3.33 In the Metropolitan Zone of the Federal District, the Social Security institutions lost 2,932 beds and those serving the general public 2,158; the breakdown by institution is as follows:

<u>Institution</u>	<u>Total beds</u>
IMSS	2,306
ISSSTE	626
SSA	<u>2,158</u>
Total	5,090

The SSA also lost 60 beds in the Lázaro Cárdenas General Hospital in Michoacán.

- 3.34 This loss of hospital infrastructure capacity in the capital, compared with what each institution used to have, had the following impact:

<u>Infrastructure</u>	<u>Prior infra- structure (No. of beds)</u>	<u>Infrastructure lost (No. of beds)</u>	<u>Percentages</u>
IMSS	8,279	2,360	27.8
ISSSTE	3,015	626	20.8
SSA	4,769 ^{1/}	2,158	45.2
DDF	<u>1,807</u>	<u>-</u>	<u>0.0</u>
Total	17,870 =====	5,090 =====	28.5 =====

- 3.35 In the case of the IMSS, the loss of capacity (27.8%) affected mainly its third-level care services. Various measures have been proposed, such as temporarily transferring these services to other units. Immediate replacement of the IMSS National Medical Center is not envisaged, which will probably mean that certain services will have to be farmed out. The ISSSTE lost 21% of its beds in the Valley of Mexico, and it is not expected that it will be able to restore its operating capacity in less than some three to five months.

^{1/} 45% of this total is accounted for by the General Hospital, which had 1,627 beds, and the Benito Juárez Hospital which had 531. The rest was in six second-level hospitals and eight third-level SSA institutes (1,636 beds).

- 3.36 The SSA, the hardest hit (45.2%), will have to meet the demand of the damaged hospitals by means of temporary arrangements, together with replacement of the infrastructure lost, relocating it in coordination with the medical services of the Federal District Department and strengthening the infrastructure for retaining patients in adjoining states.
- 3.37 The SSA hospitals affected are: the General Hospital, which had an occupancy rate of 73% and the Benito Juárez Hospital with a rate of 72%; the average length of stay in them was 11.7 and 8 days, respectively. They also provided 490,000 outpatient consultations. These hospitals provided both second-and third-level care. Certain services, including maternity (of the 17,000 cases served, 80% were normal), emergencies and general medical consultations could be provided by other smaller hospital units and in some cases by primary care units.
- 3.38 The loss of these units also affects the teaching functions of the two hospitals since 305 resident physicians were being trained in various specialties in them. The basic human resources involved were 1,156 basic physicians (220 in Juárez and 936 in the General Hospital) and 2,698 nurses.
- 3.39 The health professional training system was seriously affected. More than 100 such professionals, including physicians, nurses, university professors and students, were killed by the earthquake. In addition, the Autonomous National University of Mexico, which did not have a teaching hospital of its own, lost its practical teaching establishments, since the General and Juárez hospitals, by agreement with the university, were training approximately 6,000 undergraduate and graduate students of health sciences.

3. Description

- 3.40 According to the information received and processed to date, the proposed subprogram would be used to rehabilitate hospitals, health centers and other units, as described by way of indication below:

<u>Name</u>	<u>Description of Works</u>
1. Replacement of 2nd-and 3rd-level establishments <u>1/</u>	Approx. 1,700 beds and emergency equipment
2. Setting up of 1st-and 2nd-level emergency systems	Establishment of six units with four ambulances each
3. Reconditioning of 1st-and 2nd-level establishments	Minor repairs in the affected area
4. Equipment	Miscellaneous equipment connected with the above (radiology, laboratory, etc.)

In each case, the rehabilitation would take the form of replacement and reconditioning of the respective buildings, together with the installation of the equipment required. In the case of the General Hospital, the option of constructing emergency units with a total of 300 to 500 beds was first considered if the hospital were to prove unusable. 2/ However, in light of the findings of recent inspections of the building, the government has decided to proceed with the replacement of the existing hospital, because of the urgency. Should construction of the above mentioned emergency units be considered advisable in the future, the option of their financing will be maintained, either by means of the funds from this operation or those of the Reconstruction Program that would be proposed separately. 3/

- 3.41 The sites on which the facilities would be located would be those on which the previous buildings stood, except when these are included by the government in the list of high-risk locations. If new sites have to be found, these would be used as soon as they can be properly

1/ Will include, inter alia, the General Hospital, the Benito Juárez Hospital, the Respiratory Diseases Institute, the Physical Medicine and Rehabilitation Institute, the Mexico-Spain Center and the Perinatology Institute.

2/ The cost of building these emergency units would be similar to that of the proposed replacement.

3/ This Reconstruction Program could include, among other things: (i) provision of the beds for the SSA not included in the present Rehabilitation Program; (ii) construction of such emergency units as may be considered advisable in application of the hospital decentralization policy, and following demand studies; (iii) the setting up of emergency systems with ambulances and teaching capacity, in addition to those proposed in the Rehabilitation Program (paragraph 3.30 (b) and (c)); (iv) the possible transfer of beds and equipment to other locations for safety reasons; (v) construction of health units in urban high high-population-density areas or where they are needed as referral centers, to complement the care provided by the damaged establishments, and (vi) procurement of equipment, furniture, laboratory equipment and similar items connected with the foregoing.

identified and it is ascertained that there would be no technical or legal problems in the way of execution of the subprogram (see paragraph 3.52).

4. Cost

- 3.42 The estimated cost of the subprogram would be as per the following preliminary breakdown:

<u>Investments</u>	<u>Amount</u> (US\$ millions)
1. Replacement of establishments	21.6
2. Setting up of emergency systems	4.6
3. Reconditioning of establishments	3.7
4. Miscellaneous equipment	2.8
5. Studies, designs, etc.	<u>2.3</u>
Total	35.0 ====

Bases of calculation

- 3.43 The replacement costs have been calculated on the basis of recent construction costs, adjusted to take account of the expected higher specifications. The figures for hospitals were arrived at as follows: US\$160/m² for an average of 30-40 m² per bed. In accordance with national parameters based on IMSS data of August 1985, which compare reasonably with international cost figures, the cost of equipment is taken at 65% of construction cost. Equipment lists will be drawn up for the different types of hospitals and facilities to be rehabilitated, incorporating a 15% allowance for contingencies and cost escalation.

5. Execution

(a) Executing agency

- 3.44 General responsibility for execution of the program would rest with the Secretariat of Health (SSA), within the framework of the guidelines laid down by the National Reconstruction Commission, of which the Secretary of Health is a member (see paragraph 2.27).
- 3.45 Under Articles 26 and 39 of the Organic Law governing the Federal Public Administration, the SSA's functions include: (a) establishing, coordinating and carrying out the national policy on social assistance, medical services and general health; (b) setting up and administering health, public assistance and social therapy establishments; (c) regulating, promoting and supporting maternal and child medical and social assistance; and (d) studying, adapting and putting into effect the measures required to control communicable diseases.

(b) Executing unit

3.46 The Undersecretariat of Planning of the Ministry of Health would act as the executing unit, pursuant to the Resolution of the Ministry of Health dated November 5, 1985.

3.47 The Executing Unit will have the following powers:

- (i) to formulate the rehabilitation and reconstruction program for hospital infrastructure in the Mexico City Metropolitan Area, on the basis of the elements provided by the different SSA administrative units and with the assistance of the Directorate General of Planning and Budget and of the competent units of the entities making up the health sector, as far as their respective spheres are concerned;
- (ii) to monitor the execution of the program;
- (iii) to support the coordination between the various SSA administrative units to ensure the most efficient implementation of the program, and
- (iv) such other powers as may be necessary for the performance of its functions.

3.48 A Mexico-IDB Project Committee has also been formed under the above-mentioned Executing Unit, made up of the Undersecretaries of Health Services and of Sanitary Regulation and Development, the "Official Mayor" (Chief Administrative Officer), the Internal Controller, the SSA Chief of Public Health Services in the Federal District and the Chief of Coordinated Public Health Services in the State of Mexico. The Secretary of Health will be chairman of the committee, the Undersecretary of Planning will act as coordinator, and the Technical Coordinator for Hospital Reconstruction in the Mexico City metropolitan region will act as secretary.

This Internal Committee will have technical subcommittees responsible for subjects or regions, that will function in accordance with guidelines laid down by the committee and serve as support units for it. These technical subcommittees will be formed for:

- (i) Allocation and control of funds;
- (ii) Hospital infrastructure construction;
- (iii) Hospital equipment;
- (iv) Health personnel training, and
- (v) Such other matters as are deemed necessary by the committee and approved by the Secretary of Health.

- 3.49 The Secretariat of Health has sufficient staff to carry out the functions and work envisaged in the subprogram and possesses ample experience in the execution of projects of this nature.

(c) Procurement procedure

- 3.50 Procurement for the subprogram will be done in accordance with the procedure that will be included as an annex to the possible loan contract, in accordance with Bank rules and pursuant to the relevant Mexican legislation (see paragraphs 3.23-3.25). Regarding works execution, the Public Works Law and complementary provisions would be applied as appropriate.

(d) Sites

- 3.51 The facilities would be built on public sites owned by the Federal Government in Mexico District and State, on which the facilities to be rehabilitated stand. If new sites have to be used, before proceeding to award contracts for work to be financed under the program, the executing agency must demonstrate that the sites to be used are available and justify their locations.
- 3.52 No problems are anticipated in this respect, since the government has decreed the expropriation of over 6,000 properties, both to decongest the highest-risk center of the city for relocation of public services, and for the rebuilding and relocating of housing.

(e) Execution schedule

- 3.53 The construction work and purchasing envisaged would be executed over a 24-month period from the date of the loan contract. The possible Bank financing and the local counterpart funds would be invested over a two-year period.

(f) Maintenance

- 3.54 The professional and administrative staff working in the destroyed facilities will be reassigned to the facilities and services rehabilitated under the program. No additional operating costs are expected in the services to be rehabilitated.
- 3.55 The facilities built will remain national property, under the SSA, or will be property of the relevant entities in each State, depending on whether they are federal or state facilities.
- 3.56 Supervision and control of maintenance, both preventive and corrective, is exercised by the Directorate of Conservation and Maintenance (DGCM) of the Directorate General of Administration of the Office of the Chief Administrative Officer of the SSA. The SSA maintenance procedures and standards for hospital services have been examined by the Bank and found to be adequate. The DGCM has budget

funds that it allocates to each of the units concerned, which then take care of execution.

- 3.57 Regarding the services hit by the earthquake, the SSA conservation and maintenance program envisages two parallel actions. The first consists of checking by DGCM personnel of their equipment to ascertain its condition, and provide for its repair or possible reallocation. Then for the equipment of units that sustained electrical charges or exceptional shocks, it is planned to hire specialized companies so that the repairs can be made as quickly as possible.
- 3.58 The conservation strategy is a priority for equipment considered necessary for the provision of services (fluids, energy and medical), and in second place, for support equipment such as kitchen, laundry, etc. Administrative support equipment will be attended to last.

In order to ensure the adequacy of future maintenance, it is recommended that the contract documents pertaining to this operation should include a clause under which NAFIN and the government, in accordance with their policies, undertake that upon the completion of each of the works, facilities and equipment items covered by the subprogram, these will be maintained in accordance with generally accepted technical standards. 1/

(g) Outside audit

- 3.59 Throughout its execution, the financial reports on the subprogram will be submitted yearly to the Bank, duly approved by the competent Government Secretariat. In accordance with current practice in Mexico regarding examination of financial statements on projects for the execution of which the Secretariats are responsible, these statements will be approved during the execution of the subprograms by the Secretariat of Programming and Budget (SPP) or the Secretariat of the Controller General of the Federation (SCGF).

D. The Education Establishments Rehabilitation Subprogram

1. Purpose

- 3.60 The purpose of this subprogram is to help restore the essential minimum level of infrastructure and equipment existing before the earthquake, by means of the repair or replacement of public preschool, primary, secondary and higher technical education establishments in the Federal District and other areas affected.

2. Damage

- 3.61 The earthquake caused appreciable damage in the education system. Initial estimates, subject to confirmation, indicate that approximately 475 establishments in the Federal District (19 preschool

1/ See Recommendations.

centers, 190 primary and 144 secondary schools, 8 colleges of technology, 3 vocational training centers and 10 schools of the National Polytechnic Institute) were either seriously damaged or completely destroyed. In addition, a further 465 federal schools in the Federal District were reported to have suffered lesser damage. In the states, 302 official schools in five states in the impacted area (Colima, Jalisco, Guerrero, México and Michoacán) were badly damaged or destroyed. Of these, 180 are state-run and 122 are under federal control.

- 3.62 As of October 10, twelve of the sixteen political divisions of the Federal District had resumed education services, and the other divisions were expected to do so very shortly thereafter. The students from the establishments out of service will be served temporarily by means of the undamaged capacity, with expansion of the shift system and putting more students per classroom. Temporary board classrooms will be set up within the next 60 days. Where circumstances so require, school transportation will be used to bring students to the schools.

3. Description

- 3.63 The repairs or replacements that would be carried out with subprogram funds would cover some 1,800 public primary, secondary and higher technical schools that include classrooms, laboratories and workshops belonging to the Secretariat of Education (SDE), the Department of the Federal District (DDF), the Works and Installations Board (POI) and the states concerned. The funds would be used to restore or replace earthquake-damaged buildings.

4. Cost

- 3.64 The investments in infrastructure and equipment would be as follows, according to a preliminary estimate by the SDE:

<u>Type of Establishment</u>	<u>Class- rooms</u>	<u>Labora- tories</u>	<u>Work- shops</u>	<u>US\$ millions</u>
Preschool	30	-	-	2.5
Primary	310	-	-	10.3
General secondary	280	10	5	8.3
Technical secondary	220	7	10	8.6
Temporary classrooms ^{1/}	360	-	-	3.3
Higher technical (Poly- technic)	<u>360</u>	<u>184</u>	<u>15</u>	<u>8.0</u>
Total	1,560	201	30	41.0
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^{1/} Preschool, primary, secondary and technical.

Bases of calculation

- 3.65 The construction costs per m2, including equipment, were based on recent similar costs, adjusted to take account of the additional cost entailed by the new earthquake resistance specifications for construction. The classrooms were estimated to have an average area of 50 m2. Repair cost was estimated at US\$100/m2 on average. The cost of the temporary classrooms was put at US\$166/m2 and that of the new ones at US\$300/m2. These figures are considered acceptable, in comparison with the normal costs for this type of construction. They include a 15% allowance for contingencies and escalation.

5. Execution

(a) The Executing Agency

- 3.66 The general management of the execution of the subprogram would be the responsibility of the Secretariat of Public Education (SEP), an agency of the centralized public administration, which, under Articles 26 and 38 of the Organic Law on the Federal Public Administration, has the following functions:

- To organize, supervise and develop preschool, primary, secondary and normal education, in urban, semiurban and rural areas, and technical, industrial, commercial and arts and trades education, including adult education;
- To establish and maintain federally run schools of all categories in the Republic;
- To provide guidance for the artistic, cultural, recreational and sporting activities organized by the Federal Public Sector.

This education function is carried out through the national education system, which is made up of the combination of institutions, rules and standards, persons and goods that, on the basis of the guidelines laid down by the State and society, are combined for the performance of educational and cultural activities.

- 3.67 The education sector, headed by the Secretariat of Public Education (SEP), is formed by approximately 127 units comprising 1 Secretariat, 6 Undersecretariats, 1 Chief Administrative Officer's Office, 1 Controller's Office, 4 Councils, 37 Directorates General, 1 Coordinator General's Office, 17 Units responsible for Education Services to be Decentralized that take care of federal preschool, primary, secondary and normal education services in the entities that have not signed the Decentralization Agreement, 14 Coordinated Public Education Services in the States (responsible for federal preschool, primary, secondary and normal education services in the entities that have signed the Decentralization Agreement), 5 decentralized institutions (National Polytechnic Institute, National Pedagogic University, National Institute of Fine Arts, National Institute of Anthropology and History and Radio Education), 2 autonomous bodies

sectorized by budget (Autonomous National University of Mexico (UNAM) and Metropolitan Autonomous University (UAM), 15 decentralized bodies, 5 enterprises in which the state has a majority interest, 8 civil associations, 3 international bodies and 7 funds.

- 3.68 The education sector has over 163,000 employees and staff members. The budget authorized for it in 1985 is Mex\$1,136.5 billion (1 billion = 1 million million).
- 3.69 Article 3 of the Constitution lays the basis of the legal framework within which the system operates; it is further governed by the Federal Education Law, laws of the states pertaining to education and other laws that regulate specific matters and orders to govern the life of education institutions, such as the National Adult Education Law and the Law for Coordination of Higher Education.
- 3.70 The Federal Government meets 78% of the entire cost of education, the states 15%, private individuals 6% and the municipalities 1%.
- 3.71 Formal education covers the preschool (one or two grades), primary (six grades), secondary (three grades), final or intermediate middle (two or three grades) and higher (variable grades) levels. The secondary education may be general, technical, by television or for workers (final). Higher education comprises basic degrees, specialized studies, masters and doctorates. Normal (teacher-training) education comes under the higher category.
- 3.72 Nonformal education includes the initial education programs for the population 0-4 years old through the Initial Education Centers (CENDIS) or family members, adult work training and other programs designed to enhance the country's cultural atmosphere.
- 3.73 In the 1985-86 academic cycle the different categories together (federal, state, municipal and private) are serving over 25.1 million students in about 135,000 centers in which around 1 million teachers are employed. The approximate breakdown of the enrollment is as follows:

2.4 million children in preschool
15 million children aged 6-14 in primary
4.1 million students in secondary
450,000 young people in work training
2 million in higher middle (final and intermediate)
1.2 million in higher, including teacher training and postgraduate.

Of this total, some 67% are served by federal schools, 24% by state schools, 1% by the municipalities and 8% by private schools.

(b) The Executing Unit and participating bodies

- 3.7: The repair or replacement of federal and state education establishments hit by the earthquake will be done in accordance with the guidelines laid down by the National Reconstruction Commission

(see paragraph 2.27). The Secretariat of Public Education will coordinate with the Commission the actions for construction and rehabilitation of the education services and will be responsible for supervising the implementation of the Commission's recommendations within its sphere of competence. The SEP Undersecretariat of Planning will be responsible for coordinating the execution of the subprogram; it will approve the projects, authorize allocations and transfer the resources allocated for execution of the respective subprojects.

3.75 The specific works will be executed and equipped by various official agencies:

- (a) The Committee for Administration of the Federal School Construction Program (CAPFCE), a decentralized agency of the Federal Executive with juridical personality and its own property and assets, placed in the education sector, established on April 10, 1944, the law governing it having been updated on January 21, 1985. It builds and equips education facilities of all levels except for primary and general secondary, which are the responsibility of the state authorities with federal subsidies allocated through the Single Development Agreements.
- (b) The Department of the Federal District which, under the Federal Education Law, builds and equips kindergartens, primary schools, secondary schools (of all types), special education facilities and work training centers in Mexico City; the higher middle and higher level education establishments in the Federal District (except for the National Polytechnic Institute and the UNAM) are built and equipped by CAPFCE.
- (c) The Works and Installations Board (POI) of the National Polytechnic Institute, a decentralized body with juridical personality and its own property and assets, created by Presidential Decree of December 26, 1956, updated and amended on April 21, 1982. It builds and equips facilities for the Institute, while the UNAM Directorate General of Works performs the same functions for the UNAM. These bodies have ample capacity and experience for execution of the works and procurement included in the subprogram.

(c) Procurement procedure

3.76 Procurement would be effected by the procedure that would be included as an annex to the possible loan contract, in accordance with the Bank's rules and relevant Mexican legislation (see paragraphs 3.23-3.25). ^{1/} Regarding works execution, the Public Works Law and complementary provisions would be applied where relevant.

^{1/} See Resolution.

(d) Sites

- 3.77 The facilities would be built on publicly owned sites where the establishment to be rehabilitated owned by the Federal Government and the District and State of Mexico are located. If new sites have to be used, the executing agency will have to demonstrate that these are available and justify their location before proceeding to award contracts for works to be financed with program funds. There are not expected to be any problems in this respect, since the government has decreed the expropriation of over 6,000 properties, both to decongest the highest-risk central zone for relocation of public services and for the rebuilding and relocation of housing.

(e) Execution schedule

- 3.78 The construction work and procurement in question will be carried out within a period of approximately 24 months from the date of the loan contract. The possible Bank financing and the counterpart funds would be invested over a two-year period.

(f) Maintenance

- 3.79 Teaching, technical, administrative and management personnel who were working in the establishments destroyed or damaged by the earthquake will be relocated to their new facilities as soon as they are taken into service; meanwhile, this personnel has been reassigned to nearby establishments that are functioning. No additional operating costs are expected in connection with the services to be rehabilitated or replaced. The federal facilities built wherever in the country will remain federal property under the responsibility of the Secretariat of Public Education, while the state facilities will be the property of the states concerned.
- 3.80 The preventive and corrective maintenance of the facilities in the Federal District is performed with federal funds allocated to the 16 political divisions of the Department of the Federal District (Mex\$2,000 million in 1985) complemented by some funds allocated to the Directorate General of Material Resources and Services of the SEP (Mex\$100 million).
- 3.81 The maintenance of the federal schools in the states is performed with federal funds allocated to the 17 Education Services Units to be Decentralized (USEDES) and 14 Coordinated Public Education Services in the states under the SEP. Some Mex\$2,000 million is available for the purpose.

In order to ensure that future maintenance is properly done, it is recommended that the contract documents for this operation include a clause to the effect that NAFIN and the government will undertake, in accordance with their policies, to ensure that once the various facilities, installations and equipment included in the subprogram have been completed or installed, they will be maintained in accordance with generally accepted technical standards.

(g) Outside audit

3.82 The outside audit of this subprogram will be done in the same way as for the health establishments (see paragraph 3.59).

E. Cost of the Program and Financing Plan 1/

3.83 The total cost of the program is estimated at US\$125 million equivalent, that would be financed with funds from the sources set forth below and invested approximately as follows:

(Equivalent in US\$ millions)

<u>Investment Categories</u>	<u>IDB 75/IC-ME</u>	<u>Local</u>	<u>Total</u>	<u>%</u>
1. Engineering and Admin.	-	2.5	2.5	2.0
2. Direct Costs	99.0	22.5	121.5	97.2
2.1 Subprogram A	(36.8)	(8.7)	(45.5)	
2.2 Subprogram B	(28.6)	(6.4)	(35.0)	
2.3 Subprogram C	(33.6)	(7.4)	(41.0)	
	(99.0)	(22.5)	(121.5)	
3. Inspection and Super- vision	1.0	-	1.0	0.8
Total	<u>100.0</u>	<u>25.0</u>	<u>125.0</u>	<u>100.0</u>
Percentages	80.0	20.0	100.0	

3.84 The IDB funds would finance 80% of the cost of the program. This would be because:

(1) The internal effort the country will have to make in reconstruction and rehabilitation will exceed the proportions laid down in the Bank matrix for Group A countries and will also greatly exceed the resources that the Bank and other international agencies could provide. There can therefore be no doubt that the local counterpart will be in amounts larger than what is normally required so there is no need to check its size.

(2) The reasonable size of the proposed local counterpart would make it possible for the monitoring work to concentrate on proper control of the use to which the investments are put. It is not in

1/ The bank has recently received a French offer of financial assistance for the program and intended to facilitate the procurement of equipment, chiefly for the health subprogram. This assistance would be considered as included in the local contribution to this operation.

fact desirable to include as part of the cost of the program the expenditures that the government would make in other sectors, since this would entail verifying by the Bank of numerous expenditures of national funds that are not directly connected with the activities it would be financing. In addition, the execution period of all the rehabilitation and reconstruction investments the country will have to effect would be much longer than that envisaged for the operations for which the Bank funds would be used.

- 3.85 The above is consistent with the policy on natural disasters (OP-714), which allows of changing the relative proportions of the local contribution and the total cost of the programs concerned.
- 3.86 The subprogram funds would be transferred by the Secretariat of Finance and Public Credit to each executing agency. In the cases of the Secretariats of Health and Education they would be transferred in the same way as in previous operations with the Bank, based on the Subsidiary Agreement in effect regulating the operations with NAFIN. As regards TELMEX, which is an institution that manages bank accounts, an agreement for the transfer of the resources in question would be signed, in accordance with Mexican procedures and the relevant Bank rules. 1/
- 3.87 The local contributions to the health and education subprograms would be made up of funds from the Federal Budget, the Department of the Federal District and the National Reconstruction Fund. That for the Telephone Exchanges subprogram would be furnished by TELMEX from its own resources.
- 3.88 It has been requested that the expenditures made for the purposes set forth in the program since September 19, in an amount of US\$9 million, the estimated amount of the expenditures incurred prior to the approval of the changes proposed in this document, be recognized as local counterpart. Of these, US\$1 million is for telephone services, US\$4 million for health and US\$4 million for education.
- 3.89 It has been requested that the expenditures incurred since September 19 for the purposes set forth in the program, up to US\$35 million equivalent, the estimated amount of the expenditures and payments made prior to the changes proposed in this document, be recognized as chargeable to the loan funds. Of these, US\$5 million is for telephone services, US\$15 million for health and US\$15 million for education.
- 3.90 To facilitate the execution of the program, it is envisaged that advances of funds would be made of up to 20% of the amount of the loan funds intended for financing the program.

1/ See Resolution.

- 3.91 The disbursement period for the resources of the program will be three years. The loan amortization period would be 20 years, the grace period would be three years, the rate of interest would be variable, the credit fee would be 1.25%, and the inspection and supervision fee would be 1%.

IV. IMPACT OF THE PROGRAM

- 4.01 The impact of the Rehabilitation Program on the process of initial recovery of the sectors covered by the respective subprograms can be summarized as follows: (i) the Telephone Exchanges Subprogram includes the basic equipment for restoration of 100% of urban traffic and 60% of long distance traffic; (ii) the Health Subprogram proposes to replace 78% of the beds affected in Health Department establishments, and (iii) the Education Subprogram will permit the replacement or repair of the basic infrastructure and teaching equipment of about 90% of the schools damaged in the Federal District and the suburbs.

Impact of the Telephone Exchanges Rehabilitation Subprogram

- 4.02 As a result of the destruction wreaked by the earthquake, the whole of the subscribers in the metropolitan area, where 18 million people live, were left without long-distance telephone service, while local service was affected 70%. By means of the rehabilitation subprogram, local services will be restored completely and long-distance service substantially, through temporary location of the equipment in the same places as before. The Reconstruction Program which will be presented soon provides for redesign of the telephone network to avoid concentration and consequent vulnerable "nerve centers", together with the transfer of equipment to new locations in accordance with the new design criterion, based essentially on the concept of safety.

Impact of the Health Centers Rehabilitation Subprogram

- 4.03 The Health Subprogram provides for the replacement of 1,700 beds in 6 existing establishments, equal to 78% of affected beds in Health Ministry institutions. The network of primary health care establishments will be rehabilitated under this subprogram to restore the lost capacity and institute a new primary care concept. These new health centers would allow rapid access by patients to emergency services and, as urban polyclinical centers, would relieve the pressure of congestion on hospital outpatient services. The training given in outpatient care establishments would help to produce a new type of health professional with closer ties to the community. Similarly, the decentralized emergency services will permit faster access and thereby reduce mortality in cases of accident, heart attack, poisoning, asthma and other conditions. They will incorporate integrated obstetrical and prenatal and postnatal care services and thereby help to reduce maternal and prenatal mortality. The centers will have outpatient surgery facilities which will reduce the cost of minor surgical procedures by some 60%.

Impact of the Education Establishment's Rehabilitation Program

- 4.04 The Education Subprogram will restore the infrastructure and equipment of some 1,800 education establishments, rehabilitating about 90% of the pre-earthquake classroom, laboratory and workshop facilities. The

financing proposed in this subprogram will supplement a substantial effort planned by the Mexican Government in the education sector, for which it annually appropriates large sums in the national budget. The destruction caused by the earthquake has generated additional pressure on that budget, and the Bank's cooperation will therefore have a vital impact by facilitating implementation of Mexico's School Building Program.

- 4.05 Thus, during 1985 the Management Committee for the Federal School Building Program (Comité Administrador del Programa Federal de Construcción de Escuelas - CAPFCE) proposed to build and equip approximately 40,000 school spaces (classrooms, annexes, workshops and laboratories) for which the Federal Government is allocating \$Mex 93,000 million. The state governments, with some \$Mex 22,000 million in federal subsidies allocated through the CUD, will build about 15,000 spaces, distributed between primary and general secondary schools. The Department of the Federal District is spending about \$Mex 8,000 million in 1985 for the construction of nearly 100 education establishments at various levels. The Trust Foundations (Patronatos de Obras) of the UNAM and of the National Polytechnic Institute will spend about \$Mex 4,000 million on building and equipping their respective schools. In addition, more than \$Mex 4,000 million has been allocated during 1985 for preventive and corrective maintenance of the country's nearly 123,000 official establishments.

Final Comments

- 4.06 It was not considered necessary to perform a socioeconomic appraisal of the proposed Rehabilitation Program since we are dealing with a special situation. Thus, the purpose of the Program is to rehabilitate telephone plant, hospitals, health centers and education establishments that were seriously damaged by the earthquake, restoring them to their previous condition while incorporating modern equipment and applying advanced construction techniques which will reduce the extent of similar damage in the future. The need for these services in densely populated areas continues to be high, so that the new designs and modern equipment will considerably augment the benefits to the target population.

M E X I C O

Frame of Reference

A. Recent Economic Situation

1. During 1984 Mexico began to emerge from its most serious economic crisis in modern times. Generally speaking, the goals of the economic stabilization program for the year were achieved, although not in respect of every economic variable. The recovery of economic activity and the favorable development of the external sector exceeded expectations. The inflation rate, although higher than projected, declined throughout the year.
2. After two successive years of decline, Mexico's real Gross Domestic Product (GDP) rose by approximately 3.5% in 1984. This recovery was led by non-factor goods and services exports, with real growth of 16.2%. Manufactures, the most dynamic component of export, rose by 32% in real terms. This increase was the major factor in the 4.7% growth of manufacturing, the lead sector in the economic recovery of 1984.
3. Construction activity grew by 3.7% in 1984. Fixed investment rose by 5.4% (public sector 0.8% and private sector 8.8%). The increase in private investment was concentrated mainly in the second half of the year, when it was a factor in the vigor shown by the manufacturing sector and the Government's decision to give a further boost to economic activity by drawing on the contingencies reserve included in the federal budget for the year. In spite of this increase, gross fixed investment in Mexico in 1984 was low by historical standards, reaching only about 75% of average annual investment over 1978-81, the period of rapid economic expansion.
4. Mining and agriculture were the least dynamic sectors of the economy in 1984. Mining production, which includes oil extraction, rose by only 1.6%, owing mainly to the weakness of demand and the fall in world market prices. Agricultural production grew by only 2.4% as a consequence of unfavorable climatic conditions and structural bottlenecks in the sector. To alleviate these bottlenecks, the Government has undertaken a priority program for the sector which includes greater access to technical assistance and credit services and better trade terms for agricultural products.

5. The value of fuel exports in 1984 remained virtually stagnant at the 1983 level, with little change in either quantity or price. In spite of this deficient performance by a sector which accounts for approximately two-thirds of goods exports, the total value of such exports rose by about 10% (\$2,000 million) in 1984. This increase was due almost exclusively to a 35% rise in the value of non-fuel exports (including manufactures). Since about 80% of Mexico's goods exports goes to the United States, the unusually high growth of the US economy in 1984 was a factor in the great dynamism displayed by manufacturing exports. In addition, revenue from tourism, an important source of foreign exchange, rose by 20.2% during 1984.
6. The value of goods imports rose by about the same amount as exports in 1984, giving a favorable goods trade balance of \$13,200 million, about the same as in 1983. Some 93% of the value of Mexican imports in 1984 was accounted for by intermediate goods (73%) and capital goods (20%), which recorded increases over 1983 of 33% and 12%, respectively. Having regard to the low levels to which imports had fallen in 1982-83, these increases are consistent with the 1984 economic recovery and do not represent a weakening of the import substitution campaign. Imports of consumer goods rose to only \$720 million, i.e. 7%, in value terms, of total goods imports,
7. Mexico achieved a current account surplus of \$3,900 million in 1984, a decline of \$1,600 million in relation to 1983. The increase in Mexico's external debt interest payments due to the constant rise in world interest rates was the major factor, accounting for about one-third of the decline. The accumulation of international reserves in 1984 was about equal to the current account surplus. Thus, the net inflow of some \$3,900 million on capital account was offset by a net outflow of short-term capital plus errors and omissions on balance of payments, which indicates that the flight of capital from Mexico is continuing, although at a slower rate than during the crisis period of 1982-83.
8. The authorities had hoped to reduce inflation in 1984 to about one-half of the 1983 rate; however, it fell by only 35%. Inflation declined in each quarter of 1984 (though at a decreasing rate). Nevertheless, during the last quarter inflation was contained only because the previously scheduled increases in the prices of certain goods and public services were postponed until 1985. The increase in prices from December 1983 to December 1984 was about 59%, compared with 81% in the previous period. The short-range determining factors of inflation in Mexico, which are associated with structural adjustments in the economy, are well known (depreciation of the overvalued peso, abolition of price

controls, industrial inefficiency, etc.). Although they were not able to reduce inflation as quickly as desired, the Mexican authorities have wisely resisted adopting measures that would have institutionalized inflation (such as price indexing and related plans).

9. Domestic inflation, higher than projected, exerted ever-increasing pressure on the authorities in 1984 to speed up the depreciation of the peso in relation to the dollar which had been occurring, at the rate of 13 cents a day, since mid-September 1983. At the beginning of December 1984 the depreciation of the peso rose to 17 cents a day. As an annual average, the value of the peso in relation to the dollar fell by about 41% much less than the difference between the inflation rates in the two countries. Thus, the peso appreciated substantially in real terms, not only in relation to the dollar but also, by a larger amount, in relation to the currencies of the majority of the industrialized countries owing to the extraordinary firmness of the dollar on the international financial markets during the year.

B. Economic Policies

1. At the end of 1982 Mexico undertook an economic adjustment program designed primarily to "combat inflation, protect jobs, and restore the bases for dynamic, equitable and efficient development." It also negotiated an Extended Fund Facility loan with the International Monetary Fund (IMF) for the years 1983-85. The disbursements stipulated in the agreement, which were tied to the progress made in accomplishing the policy objectives formulated to speed up achievement of the economic adjustment targets, proceeded on schedule on 1984.
2. Stringent fiscal policies were implemented to combat inflation. The public-sector financial deficit, which had contracted from 17.6% of GDP in 1982 to 8.9% in 1983, declined further, to 7.1% in 1984, compared with an original target of 5.5%. A substantial part of the target overrun was due to the financial intermediation component of the deficit. The remainder can be attributed in large part to the increase in interest payments on domestic debt caused by higher nominal interest rates than projected, in turn due to domestic inflation.
3. The monetary policies were formulated with the object of controlling liquidity at the time of reversal of the process of financial disintermediation that has characterized the economy in recent years. The money supply rose during 1984 at a slightly lower rate than inflation. This increase made it possible to

absorb the inflationary pressures within the economy without stifling the incipient expansion of economic activity. Financial intermediation was boosted through the maintenance of positive real interest rates throughout the year, while the nominal rates declined in step with inflation.

4. In Mexico, wages have been adjusted in accordance with ex ante official projections of inflations instead of with real inflation. Since the latter exceeded the official projections, real wages contracted again in 1984. This was the third consecutive year of decline, with the result that the cumulative deterioration in real wages between 1980 and 1984 amounted to approximately 29%. While the reduction in real wages undoubtedly helped to protect employment levels during the period, it also imposed severe penalties on Mexico's working class. Some recovery is consequently to be expected in the coming years in real wages, adjusted to take account of productivity increases in relation to 1984.
5. An important additional factor in the restoration of confidence in the economic recovery was the multiannual rescheduling of Mexico's public and private external debt contracted with commercial lenders, which was negotiated in 1984 and signed at the beginning of 1985. Particularly noteworthy are the agreements to convert amortization payments of approximately \$49,000 million of external public debt held by commercial institutions, which were concentrated in the period 1985-90, into amortization payments of approximately \$1,000 million a year from 1985-87 onward, gradually increasing thereafter to a peak of about \$6,000 million a year in 1997-98. Important interest-rate premium concessions were also obtained when these payments were renegotiated. In 1985-86 Mexico will pay a premium of 7/8 of a percentage point above the London market inter-bank rate (LIBOR) on the whole of the rescheduled public debt. This premium will rise to 1-1/8 percentage points during 1987-91 and 1-1/4 thereafter on the remaining principal of the restructured debt. It has been calculated that these more favorable terms will yield Mexico a saving of more than \$500 million in interest payments in 1985 alone. However, as a result of the negotiations, the foreign commercial banks were given the right to convert their national currencies unilaterally for up to one-half of their rescheduled loans to Mexico denominated in dollars and to use an appropriate short-term domestic market interest rate as the reference rate in calculating interest payments due.

C. Outlook

1. The economic strategies that will be adopted during the term of office of the present administration to guide Mexico's future development have been clearly set forth in the national development plan and in the various sectoral development plans. Mexico will first of all protect its present productive plant. Incremental economic development will then be directed, through the use of appropriate economic incentives, to stimulating labor-intensive agricultural, construction and manufacturing activities. Special emphasis will be laid on supplying goods within the reach of wage-earners in order to satisfy the needs of the bulk of domestic consumers, diversifying exports and replacing imports, particularly in the capital goods sector. In this way the economic development strategy seeks to harmonize the growth and restructuring goals with private-sector initiatives in fields that are considered to offer comparative advantages in the future.
2. The last year of the stabilization program agreed upon with the IMF is 1985. The program negotiated for the year limited the deficit to 4.9% of GDP (after substantial cuts in expenditure and adjustments to the public-sector finances as announced at the beginning of the year).
3. As part of the financial reform, the authorities placed strict limits on expansion of the monetary base in 1985. This compelled the public sector to finance a substantial part of the programmed deficit by borrowing on the domestic capital markets. The exchange rate and trade policies were designed to keep the peso competitive and thereby stimulate exports (particularly of manufactures), further boost import substitution in cases where it is justified, and direct the growth of imports, both of capital and of intermediate goods, toward the alleviation of bottlenecks in the various sectors of the economy.
4. Mexico encountered serious obstacles during the year to its efforts to achieve its economic goals, in spite of the reduction in world interest rates. Foreign exchange income and public-sector receipts from oil exports were affected by the declines in world prices, the stagnation of demand in the industrialized countries and the dissention concerning production and price policies within the organization of Petroleum Exporting Countries (OPEC), with which Mexico maintains a consultation relationship although it is not a member. Growth rates in the industrialized countries (particularly the United States) have fallen at a time of rising pressure in favor of protection against foreign competition.

5. To these developments has to be added to earthquake of last September, which destroyed hospitals, schools, telephone networks, housing, municipal installations, hotels and commercial and industrial facilities. The Economic Commission for Latin America (ECLA) estimates that the cost of reconstruction and rehabilitation could reach \$4,000 million. In addition, tourism receipts could fall by \$200 million in the rest of 1985 as a consequence both of the damage to infrastructure and of the psychological impact of the earthquake abroad. The earthquake could also reduce non-oil exports by about \$100 million.
6. The agreement with the IMF was suspended in September owing to failure to achieve the goals of the program. However, it is expected that Mexico will negotiate another agreement incorporating in its goals the consequences of the earthquake. It is also expected that the authorities will continue their stabilization efforts in pursuit of significant improvements in fiscal revenue and in inflation.

SPECIAL INSTITUTIONAL-COORDINATION MEASURES TAKEN
TO COPE WITH THE EMERGENCY AND CARRY OUT THE PROGRAM

1. The Government of Mexico, being aware of the extent of the damage caused by the earthquake, the complexity of the sectors affected, and the diversity of the agencies involved, has taken a number of special measures to coordinate action so as to cope with the emergency, as an adjunct to the normal procedures and machinery whereby activities are carried out.
 - A. The National Reconstruction Commission
2. On October 4, 1985, the Executive Branch of Government issued a decree establishing the National Reconstruction Commission (Comisión Nacional de Reconstrucción).
3. The Commission's basic purpose is to serve as a consultative and participatory agency for activities carried out by the public, private, and community sectors at the national level, in order to cope with and resolve the problems caused by the earthquake.
4. Among the Commission's tasks, the following should be noted in connection with the operation in question: (i) coordination of public and community action with regard to priorities in the rebuilding of houses, hospitals, schools, communications, and drinking water systems, and the restoration of public services; (ii) promotion of sources of financing and consideration of strategies and priorities for the allocation of resources required for rebuilding; (iii) elaboration of such adjustments as may be necessary to government plans and programs, effectively reconciling the task of rebuilding with national, sector, and regional development policies; and (iv) promotion and proper use and obtaining of international assistance.
5. In order to carry out its functions in streamlined fashion and to assure proper coordination in the implementation of the strategies defined, the Commission will be assisted by the Greater Mexico City Reconstruction Committee (see part C below), the Regional Reconstruction Committee, the Financial Affairs Committee, the Social Assistance Committee (see part B below), the International Assistance Coordination Committee, and the Security and Prevention Committee.
6. In carrying out their functions, and so as to move ahead with properly coherent implementation of the strategies and lines of action defined, the Committees will coordinate their work with other local bodies set up for the same purposes in the various states and territories.
7. In view of the importance attached to the Commission, as well as to the Committees, the Chairman of the Commission is the President of the Republic, and its members are all those public servants that the

President thinks it necessary to appoint, including representatives from the universities, professional associations, the Government, the states, and municipalities.

B. The Social Assistance Committee

8. The October 14, 1985, issue of the Diario Oficial (Official Gazette) contained the President's resolution setting up the Social Assistance Committee, in accordance with the provisions of the decree of October 4 that established the National Reconstruction Commission.
9. The Committee's objectives and *raison d'être* are clearly spelt out in the preamble of the resolution by which the Committee came into being: "Whereas assistance should be channelled through specific actions geared essentially to the restoration of health and education services ..." (our underscoring); and later the resolution goes on to say, "Whereas, in order to achieve maximum efficiency in social assistance work and to optimize the utilization of the efforts and resources devoted to these purposes, it is vital that the public, community, and private sectors cooperate actively, giving order and coherence to the identification of work necessary and the execution thereof ...".
10. In keeping with the considerations set forth in the preamble, the body of the resolution sets out guidelines as to how the Committee is to act as a consultative and participatory body charged with ensuring that the actions carried out by the public, community, and private sectors, in the framework of rebuilding efforts in the areas of education and health, proceed swiftly and efficiently.
11. So that matters turned over to the Social Assistance Committee may be properly considered, analyzed, and discussed, the Committee will have two Coordinating Groups:
 - I. The Education Coordinating Group, which will have the following functions:
 - (a) To analyze and propose measures aimed at restoring access to schools and to fully functioning programs.
 - (b) Forecasting needs for the reorganization of administrative services and the optimum use of infrastructure in support of other activities requiring this.
 - (c) Suggesting ways to reconcile the needs created by the emergency with the targets of the National Education, Culture, Sports, and Recreation Program.
 - II. The Health Coordinating Group, which will have the following functions:
 - (a) To give its opinion regarding strategies for restoring health services in the Greater Mexico City area and in other states and territories, where applicable.

RECOMMENDATIONS

- A. It is recommended that the respective loan or guarantee contracts, as applicable, include the following conditions that must be fulfilled to the Bank's satisfaction, in addition to the conditions specified in the resolution:
1. Unless the Bank agrees otherwise, prior to issuing each call for public bids, the borrower shall submit to the Bank: (a) the general plans, specifications, budget, specific bidding requirements and other documents necessary for the call for bids, and (b) in the case of works, evidence that it is in the legal possession of or has sufficient rights to the lands necessary for execution of the works.
 2. As part of the local contribution to the Program, the Bank may recognize expenses up to the equivalent of US\$9,000,000 incurred before the date of the resolution but after September 19, 1985, provided that requirements substantially similar to those contained in the resolution and in the loan contract have been fulfilled. This amount is tentatively distributed as follows: the equivalent of US\$1,000,000 for Subprogram A, the equivalent of US\$4,000,000 for Subprogram B, and the equivalent of US\$4,000,000 for Subprogram C.
 3. The borrower, and the guarantor in accordance with its policies, shall undertake that upon the completion of each of the works, facilities, and equipment included in Subprograms B and C, these will be maintained to generally accepted technical standards.
 4. When the applicable requirements established in the loan contract have been fulfilled, the Bank may authorize an advance of funds of up to 20% of the amount of the financing.
 5. Beginning with the financial year for the calendar year in which execution of the Program commences, the following financial statements shall be submitted annually to the Bank:
 - (i) Those of the borrower during the life of the loan contract and those for Subprogram A during the execution of the Program, audited by a firm of independent public accountants appointed by Mexican authorities and acceptable to the Bank; and
 - (ii) Those for Subprograms B and C during the execution of the Program, approved by the competent Ministry of the guarantor.

- E. The loan contract shall include an annex whose contents are substantially similar to Appendix III of this document.

THE PROGRAM
(Annex A to the Loan Contract)

I. DESCRIPTION AND OBJECTIVES

- 1.01 The objective of the Program is, in the short term, to rehabilitate in whole or in part, either temporarily or permanently, basic services in the health and telecommunications sectors and educational facilities damaged by the earthquake that struck the Federal District and the states of Mexico, Jalisco, Michoacán, and Colima on September 19, 1985. For these purposes, basic services shall be understood to mean buildings, installations, instruments, and other elements necessary for the proper functioning of the sectors - that is to say, functioning under conditions that are, so far as possible, similar to those that existed before the earthquake.
- 1.02 The Program includes the following subprograms and their respective components:
- Subprogram A, Telephone Sector

Replacement of telephone equipment and facilities for domestic and international long-distance services, as well as for urban communications, chiefly by purchasing long-distance, switching, and ancillary equipment.
 - Subprogram B, Health Sector

Replacement and repair of infrastructure and equipment in hospitals and health centers.
 - Subprogram C, Educational facilities

Replacement and repair of infrastructure and equipment at schools used for teaching at all levels, including child development centers.

II. COST OF THE PROGRAM AND FINANCING PLAN

- 2.01 The total cost of the Program is estimated at the equivalent of US\$125.0 million, which would be financed using the resources indicated below, invested approximately as follows:

(Equivalent in millions of US\$)

<u>Investment Categories</u>	<u>Bank</u>	<u>Local</u>	<u>TOTAL</u>	<u>%</u>
1. Engineering and Adm.	-	2,5	2,5	2,0
2. Direct Costs	99,0	22,5	121,5	97,2
2.1 Subprogram A	(36,8)	(8,7)	(45,5)	
2.2 Subprogram B	(28,6)	(6,4)	(35,0)	
2.3 Subprogram C	<u>(33,6)</u>	<u>(7,4)</u>	<u>(41,0)</u>	
3. Inspection and Supervision	<u>1,0</u>	<u>-</u>	<u>1,0</u>	<u>0,8</u>
TOTAL	100,0	25,0	125,0	100,0
Percentages	80,0	20,0	100,0	

III. SELECTION CRITERIA FOR INCLUDING WORKS IN THE PROGRAM

- 3.01 In selecting the works to be included in the Program, the criterion that will be used is that of whether the works will help to reestablish the relevant services to conditions that are, so far as possible, similar to those that existed before the earthquake.

IV. PURCHASES

- 4.01 When the goods or services that are purchased or contracted for are financed in whole or in part with foreign exchange from the financing, the procedures and the terms and conditions for the bidding or other form of purchase or contracting shall permit unrestricted participation of goods and services, including those related to any mode of transport, originating in the member countries of the Bank. Consequently, no conditions that would limit or restrict the offer of goods or the participation of contractors from such countries may be imposed through such procedures or specific requirements.