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REPORT AND RECOMMENDATION

OF THE

PRESIDENT OF THE

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED LOAN

TO

SIDERURGICA LAZARO CARDENAS - LAS TRUCHAS, S.A.

AND

NACIONAL FINANCIERA , S.A.

WITH THE GUARANTEE OF

THE UNITED MEXICAN STATES

FOR A

STEEL EXPANSION PROJECT

June 21, 1976

Currency Unit - Peso (Mex$)

US$1.00	=	Mex$12.50
Mex$1.00	=	US$0.80
Mex$1 million	=	US$80,000

Fiscal Year - January 1 to December 31

Glossary of Abbreviations

BSC	-	British Steel Corporation
IDB	-	Interamerican Development Bank
NAFINSA	-	Nacional Financiera, S.A.
PIDER	-	Investment Program for Rural Development
SICARTSA	-	Siderurgica Lazaro Cardenas - Las Truchas, S.A.

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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

REPORT AND RECOMMENDATION OF THE PRESIDENT TO THE EXECUTIVE DIRECTORS ON A PROPOSED LOAN TO SIDERURGICA LAZARO CARDENAS - LAS TRUCHAS, S. A. AND NACIONAL FINANCIERA, S.A. WITH THE GUARANTEE OF UNITED MEXICAN STATES FOR A STEEL EXPANSION PROJECT

1. I submit the following report and recommendations on a proposed loan in various currencies equivalent to $95 million jointly to Siderurgica Lazaro Cardenas - Las Truchas, S.A. (SICARTSA) and Nacional Financiera, S.A. (NAFINSA) to assist in financing the expansion of an integrated steel plant. The loan would be guaranteed by the United Mexican States and would have a term of 15 years, including five years of grace, with interest at 8.85 percent per annum. NAFINSA would charge SICARTSA a guarantee fee on the outstanding amount of the Bank loan sufficient to bring the cost of the loan to SICARTSA to 10 percent per annum.

PART I - THE ECONOMY

2. Some of the major structural features of the Mexican economy - past, present and future - were analyzed in "The Economy of Mexico: A Basic Report" (192-ME), distributed to the Executive Directors on June 26, 1973; short-run trends in 1973-76 were covered in "An Updating Report on the Economy of Mexico" (1110-ME of March 23, 1976), which was distributed to the Executive Directors. Country data sheets are contained in Annex I.

3. For the three most recent decades, the Mexican economic system, measured in terms of GDP growth, has been outstandingly successful. Since 1940, the annual average growth rate has exceeded 6 percent. And from the mid-1950's to 1972, Mexico was among the few countries in the developing world to combine sustained and rapid growth with monetary and balance of payments stability. Inflation averaged less than 5 percent a year and the dollar value of the peso was maintained at the level fixed in 1954.

4. Rapid and sustained growth was the product of successful policies affecting the mobilization and use of both private and public sector resources. The role of government in promoting economic growth was expressed on the one hand in the development of strategic infrastructure and major utility industries and, on the other, in policies which featured price support, import control and agrarian reform measures in the agricultural sector and external protection and the provision of fiscal incentives in the industrial sector.

5. The relative emphasis of public and private investment was, however, reflected in changes in the structure of output and employment and

the expansion of manufacturing industry. Agriculture, nevertheless, continued to be the chief source of employment and in 1970 accounted for 39 percent of the economically active population.

6. In spite of rapid and sustained economic growth over this long period, the combination of a high demographic growth rate - about 3.4 percent per year - and, until fairly recently, primarily import substituting industrial policies, have prevented an adequate absorption of the labor force in productive employment. Industrial growth has been quite substantial - about 8 percent annually since the mid-fifties - but could have been even faster if industrial and trade policies had been primarily focused on exploiting Mexico's unique export opportunities based on its contiguity to a large industrial market in which labor costs are much higher than those in Mexico. It was only in the early seventies that some important steps were taken to develop manufacturing exports on a large scale. The system of drawbacks on domestic taxes paid on exports and the "border industries" regime were introduced at that time; these have been so highly successful as to suggest that a lot more could still be done. As it is, 40 percent of the labor force is estimated to be still engaged in marginal occupations, relatively unproductive and hence poorly paid - or openly unemployed.

7. The Mexican strategy for development has, in the past, relied on a combination of public action and private profit. The government has played a highly important role in this process, both in promoting key industries, such as power, steel and petroleum, and in creating a regulatory and institutional framework within which private and social groups could compete and contend, but which was both firm enough and flexible enough to ensure overall continuity and stability. As a formula for growth, this system has served Mexico well; it has however also led to a sharpening of contrasts in income and wealth between people and among regions. This was not entirely an incidental by-product of the process of growth; the share of the government in the economy was kept down quite deliberately for many years, and the scope of redistributive policies was necessarily limited as long as the tax ratios remained under ten percent - among the lowest in the world. The government played a crucial role in the development of private commercial agriculture through irrigation and credit policies and of industry through the provision of infrastructure, education, social legislation and financial policies, but it did not concern itself primarily with the problems of the poorest sections of the population. While the land reform of 1915 was sustained, the absence of sufficient fiscal resources made it impossible to develop major programs to improve the economic status of its beneficiaries. The present government, which ends its term of office at the end of 1976, came to power on a program of combining past growth policies with much greater efforts in favor of the rural poor, and has launched a number of ambitious initiatives in this direction.

8. The attempts which have been made by the present administration to alleviate the poverty of the countryside and to redress some of the imbalances between rural and urban Mexico have several dimensions. They

include a revised Agrarian Reform Law (1971) and a new Federal Water Law (1972), both of which are intended to promote a more equitable distribution of basic agricultural resources. These measures have been complemented by changes in the sectoral allocation of agricultural credit in order to increase the share of low-income farmers and ejidatarios (members of ejidos, which are a form of collective land tenure based on usufruct), and the introduction of higher support prices for basic foodcrops. The government has also increased outlays for agricultural research, training and extension services, with particular regard to the needs of peasant farmers. Perhaps the most significant innovation has been a new program for integrated rural development with which the World Bank has been associated from an early stage.

9. The social and economic needs of the rural sector have not monopolized government attention; those of urban-industrial development have also been stressed in the form of heavy public investment in basic industries - delayed during the 1960's - and an innovative low-income housing program which has been financed with a five percent payroll tax. Productive investment has thus been complemented, in the urban as well as the rural economy, by institutional changes and public expenditures designed to improve the living conditions of the poor. This parallel effort has, however, generated several problems of short-run economic management.

10. In 1971, after monetary and balance of payments pressures had emerged during the previous year, the (then new) government took stringent action to control demand with the effect that the GDP growth rate fell to 3.4 percent by comparison with the decade average of 7.1 percent in the 1960's. In 1972, renewed expansion was stimulated by public expenditure and the GDP growth rate rose to 7.4 percent. There was another year of rapid growth (7.6 percent) in 1973 - but this time associated with an increase of 12.4 percent in the GDP deflator which was strongly associated with the impact of external inflation. Inflation was not the only novelty; private domestic financial savings, which in the past had helped finance sustained growth, increased by only 8 percent compared with an average annual rate of increase of 20.5 percent in 1966-72. The inflow of private capital was replaced by a net cutflow and private investment - particularly in the industrial sector - slackened, reflecting some uncertainty on the part of the business community and a declining interest rate differential vis-a-vis those prevailing on financial savings instruments in the United States. In the public sector, the fiscal deficit amounted to 6.4 percent of GDP by comparison with an average of 2.6 percent in 1966-72. A major share of the limited expansion of real credit was used to finance part of this deficit while net external borrowing of US$1 billion (2 percent of GDP) was deployed to finance the rest. These trends were inevitably reflected in the balance of payments, where the current account deficit rose to 3 percent of GDP (by comparison with an average of 2.5 percent in 1966-72).

11. Noting these trends, the authorities had, by mid-1973, put a restrictive monetary and credit policy into effect and complemented this

with what was originally intended to be an austere public finance program for FY74. Taken together, these measures were expected to restrict demand to reduce both inflation and the size of the current account deficit. The results for 1974 indicate that whereas the former objective was achieved, the latter was not. Monetary and credit policies were, on the whole, carried out as planned. The rate of increase of prices thus decelerated from April onwards, and a positive differential between Mexican and foreign interest rates was reestablished by the end of the year, although credit was not allocated as originally intended because the public sector again pre-empted a large part of what was available. Higher than planned public expenditures and lower than expected revenues meant, moreover, that the fiscal deficit was larger than foreseen as were the growth rates of aggregate demand and real imports. The deficit in the balance of payments on current account thus amounted to 4.6 percent of GDP rather than the intended 2.8 percent. Net public external borrowing of more than one year rose to US$2.4 billion.

12. During 1975, the government's original objective was to achieve sustained economic growth under what were expected to be adverse conditions associated with the world recession. The public finance program called for an increase in public expenditures, which was to be partly financed with a substantial increase in public revenues based on tax reforms, and it was expected that the public sector deficit could be reduced to 4.3 percent of GDP by comparison with 6.7 percent in 1974. Given this, and assuming only a moderate growth of imports in real terms, a decline in the resource gap and in the current account deficit in the balance of payments were anticipated. With a modest level of public internal borrowing and an expected recovery in quasi-money deposits the intention was to maintain a restrictive monetary policy while allowing a modest increase in real private credit and on this basis to achieve a substantial reduction in inflation.

13. In the light of provisional results for 1975, it is clear that the objectives of this program were not fully realized. The real GDP growth rate is estimated to have been of the order of 4.0 percent, the current account deficit in the balance of payments is estimated at the equivalent of 5.0 percent of GDP and the public sector deficit was equivalent to 8.9 percent of GDP. On a more positive note however, quasi-money growth is estimated at 27 percent over the year, and the annual average rate of inflation is estimated at 15 percent. It is clear that the world recession had a much greater than expected impact on the economy and was moreover one of the factors that led to the growth of the public deficit because the government attempted to counteract the slow-down in the economic growth with increased public expenditures. The increase in public sector revenues was somewhat smaller than expected but nevertheless amounted to an increase of about 1.2 percentage points of GDP, which represents an important achievement in resource mobilization. The discrepancy between the original targets of the 1975 economic program and its estimated outcome will however have a constraining influence on economic management in 1976.

Aware of this situation, in designing the economic program for 1976, the government decided to make a major effort to control public expenditures and to limit the size of this year's public deficit. The budget for 1976 features greater a priori realism than the budgets of the last two years. It makes only modest assumptions about the growth of revenues and puts more emphasis on controlling expenditures. Consistent with this, the government expects that the consolidated public sector deficit will decline from 8.9 percent of GDP in 1975 to 6.3 percent of GDP in 1976. Given this fiscal program and assuming a low rate of growth of GDP (3.5 percent), an improvement in the balance of payments can be foreseen. The authorities are expecting the current account deficit of the balance of payments to drop from 5.0 percent of GDP in 1975 to 3.2 percent of GDP in 1976. The monetary and credit programs have been designed so as to maintain average inflation at the same level as in 1975, while allowing a credit expansion enough to finance a larger share of the consolidated public sector deficit and to increase private credit by about 20 percent. In recent discussion with the Bank staff, the authorities have stressed their determination to take whatever action may be necessary to avoid slippage from this program. They recognize that this is a first step towards restoring financial and balance of payments equilibrium. Further action has to be taken. This is going to be the first challenge for the new administration, which will be inaugurated next December.

14. On December 31, 1975, Mexico's outstanding and disbursed public debt of more than one year was US$11.3 billion. Net medium- and long-term public borrowing in 1975 of US$3.3 billion reflected heavy reliance on external as well as internal capital to finance the fiscal deficit and some borrowing - as in 1974 - to offset private capital movements.

15. During 1975, net public external borrowing of more than one year was of the order of US$3.3 billion, which amounts to 4.2 percent of estimated GDP compared with 3.7 percent in 1974. Both in 1974 and 1975 a very large proportion of new borrowing has been in the form of credits from banking institutions. Mexico's ability to service a rising level of debt is closely associated with its export growth performance which can be expected to improve in relation to 1974 and 1975 as economic recovery takes place in Mexico's main trading partners. The behavior of petroleum exports is an important element in export performance. After allowing for the growth of domestic consumption, the rate of growth of crude output and the export surplus will continue to rise through 1980 by which time net exports of crude and petroleum products are conservatively projected as US$1,200 million annually. Mexico's debt service ratio was 20.5 percent in 1974; the estimate for 1975 is 25 percent. The debt service ratio will probably be higher than this in the remainder of the 1970's and early 80's but can be expected to decline to about the present level by the mid 80's. The actual level of debt service payments will, of course, depend on the management of the balance of payments. The Bank's share of the public debt outstanding and disbursed at the end of 1974 was approximately 12.9 percent and its share in debt service payments was about 8.5 percent. These shares are expected to fall during the remainder of this decade.

16. Mexico is creditworthy for borrowing on conventional terms provided the government exercises due restraint in monetary, balance of payments, credit and fiscal policies and, above all, maintains a favorable climate for export expansion; its recent decisions concerning economic policies for 1976 suggest it intends to do so, and it is our intention to continue to monitor developments in close contact with the authorities.

PART II - BANK GROUP OPERATIONS IN MEXICO

Bank Operations

17. As of May 31, 1976 Mexico had received 46 loans from the Bank amounting to US$2,512.7 million net of cancellations; of these, 26 loans totaling US$1,239.9 million were fully disbursed. As of May 31, 1976 the Bank held US$2,109.5 million of which US$985.5 million had not yet been disbursed. During FY66-70, disbursements averaged US$69.5 million per year, increasing to US$112.7 million per year over the period FY71-75 and reaching US$202.6 million in FY75. Some 36 percent of Bank lending has been for agriculture and rural development (14 loans for US$903.7 million), 28 percent for power (12 loans for US$704.8 million); and 22 percent for transportation projects (12 loans for US$546.7 million); the remaining 14 percent has been for industry (US$205.5 million), water supply (US$130.0 million) and tourism projects (US$22 million). Though significant delays have been experienced in carrying out some projects, the execution of Bank financed projects has generally been satisfactory. Annex II contains a summary statement of Bank loans as of May 31, 1976 and notes on the execution of on-going projects.

18. The Bank made four loans to Mexico in FY75 for a total of US$360 million and four loans in FY76 for US$315 million.

IFC Operations

19. As of May 31, 1976 IFC had made 13 investment commitments in Mexico for a total of US$69.9 million, of which US$36.6 million had been sold, repaid or cancelled. The balance held by the Corporation, US$33.3 million, consists of US$27.6 million in loans and US$5.7 million in equity. A summary statement of IFC investments as of May 31, 1976 is presented in Annex II.

Bank Strategy

20. The main objectives of Bank lending in Mexico have been to: (i) support policies and programs leading to a wider distribution of the benefits of economic growth; (ii) strengthen policies and programs leading to continued economic growth, by helping to finance projects that are to make directly or indirectly significant contributions to output and employment and by supporting institutional improvements that will make

possible a more effective management of the key sectors of the economy; (iii) help resolve critical adjustment problems induced by Mexico's continued economic growth; and (iv) complement Mexico's domestic savings by helping to finance economic and social investments in a framework of internal and external financial stability. Over the last few years, Bank lending to Mexico has evolved to the goals outlined above, as is evident from its sectoral mix and policy emphasis.

21. In view of the difficult structural problems of Mexico's agriculture and the sector's crucial importance to the country's further development, the Bank has made agriculture the leading sector for its lending. Consistent with the overall framework of country and sector objectives, a three-tier approach is being followed. First, Bank support is aimed at expanding and strengthening irrigation and agricultural credit programs so as to meet the demand of a rapidly growing population more adequately and to generate the foreign exchange needed for rising import requirements. Second, to assist the government in its efforts to raise the incomes of the rural poor and improve their standards of living through a combination of productive and socially oriented investment. Third, to strengthen Mexico's institutional capability to use scarce agricultural resources more efficiently.

22. As regards infrastructure, the Bank has focused on investments in key areas of the country as well as on institutional reforms and sector policies aiming, inter alia, at suitable pricing mechanisms to help generate additional resources for investment financing. While the Airports Development Project (FY74) of US$25 million has been designed in support of the government's policy of regional integration, the Mexico City Water Supply Project (FY73) of US$90 million has been instrumental in the establishment of a specialized institution for efficient management of water resources in the Mexico Valley, and in the pricing of water at levels more closely related to costs. Likewise, the Medium Cities Water Supply Project (FY75) of US$40 million seeks to mobilize additional resources for financing the large investments required to meet the increasing demand in that sector, especially among low income groups whose standards of health are thus expected to improve. In addition, new institutional arrangements have been made to allow a more systematic and economic approach to investment planning for water supply. We plan to present projects with a similar institutional focus in the future.

23. Bank lending for industry has been aimed at improving the impact of the industrial sector on the balance of payments and at assisting the government's efforts to decentralize industrial activity from increasingly congested locations. The First Industrial Equipment Fund (FONEI) Loan, of US$35 million, was made in FY72 to help finance private sector industrial projects which would have a positive effect on the balance of payments by either increasing exports or efficiently substituting imports. The Executive Directors approved a Second Industrial Equipment

Loan for US$50 million on February 3, 1976. A US$50 million loan was made in FY75 to Guanos y Fertilizantes de Mexico and NAFINSA to help finance a fertilizer project which will support Bank financed programs in the agricultural sector, make Mexico independent of imported urea in the medium term and help promote new poles of development in the resource-rich southeastern region and the north central area.

24. The proposed project is in accord with the Bank's strategy of helping form and subsequently supporting institutions which have an impact on the development of key sectors. The project being considered is the second stage of a major government undertaking to produce domestically the steel requirements of the Mexican industrial sector in the 1980's and beyond. Requirements are expected to increase significantly as Mexico's industry enters a stage in its development in which engineering and metal fabricating activities take the lead in industrial growth and capital goods production acquires greater importance. The Bank's involvement is aimed at helping maintain sound pricing policies for the supply of an input basic to the sector, and at insuring that the significant investments required to expand steel supply are technically and financially well structured and that sound policies are observed in the subsequent management of their operation. The Bank's participation is also in support of the government's broad objective of decentralizing industrial activity from the Mexico City metropolitan area, which is already experiencing serious water supply and air pollution problems as well as excessive congestion. The Lazaro Cardenas location selected by the authorities on the Pacific Coast is the best alternative for expanding domestic steel supply as iron ore resources are available and there are good transport facilities to both domestic and foreign markets. The authorities intend to promote the establishment of a number of related industries in the same location.

25. Future operations in the industrial sector are expected to be in support of medium and small scale industry; the Bank is discussing a credit project which would be aimed at improving the employment and income distribution effects of industrial investment. A second fertilizer project is also in preparation.

PART III - THE SECTOR AND SUBSECTOR

The Industrial Sector

26. Over the last 30 years Mexico has come to place heavy reliance on industrial expansion to achieve its economic growth targets. The thrust of government industrial policies has been to promote employment opportunities to absorb surplus labor, save foreign exchange through import substitution and by expanding exports of manufactures, strengthen intra- and inter-industry linkages to improve industrial efficiency, and intensify efforts at a wider regional dispersion of industrial investment. Since 1971, the government has introduced policies which further emphasize investments in export-oriented projects and the establishment of a geographically balanced industrial structure.

27. Although growth in manufacturing output slowed down in 1974 and 1975, partly as a consequence of the world recession, manufacturing industry has been one of the most dynamic sectors of the Mexican economy. In 1974 it accounted for about 30 percent of GDP (as compared with 23 percent in 1940), and provided employment to almost a quarter of the total labor force. Both domestic and export markets have enabled the relatively rapid growth of manufactured output. The product groups which have shown the highest rates of growth of output in recent years have been textiles and wearing apparel, engineering goods, metals and metal products, chemical and petrochemical products. The growth of output in the last three product groups points to a change in the structure of the industrial sector; consumer goods are losing ground to capital and intermediate goods. Nevertheless, measured in terms of the value of output in 1974, consumer goods industries still accounted for about 57 percent of manufacturing value added.

The Steel Subsector

28. Mexico's iron and steel industry is one of the oldest in Latin America. Over the past 30 years it has grown rapidly, and in 1975 produced 5.2 million tons of raw steel. Mexico is now the second largest steel producer in Latin America (after Brazil) and accounts for 29 percent of the region's output. There are five integrated steel companies, six semi-integrated plants and some 30 re-rolling plants at the present time. The government has almost complete ownership of the two largest plants and minority interests in two other integrated plants.

29. The Mexican steel industry still has a relatively low level of productivity. Pig iron is produced mainly in small blast furnaces, and only a small proportion of steel is produced with modern techniques. In addition most plants have unbalanced production facilities; installed capacity to roll finished products is substantially in excess of steelmaking capacity. Also, because of shortages of imported scrap iron and steel many semi-integrated producers have been operating at low capacity rates. The poor location of some plants in relation to raw materials sources and markets also contributes to inefficiency.

30. To improve productivity and satisfy growing domestic demand for steel, the industry in 1972 embarked on a rehabilitation and expansion program which is designed to increase raw steel production capacity to 9.2 million tons per year by 1980, or by about 85 percent over 1974 capacity, and to about 11.0 million tons by 1985. The Bank extended a loan1/ in 1973 of US$70 million equivalent to SICARTSA to finance a new integrated plant at Lazaro Cardenas on the Pacific Coast, to produce raw steel and non-flat finished products as part of this program. The project now under consideration

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1/ President's Report No. P-1307-ME dated August 21, 1973 and Appraisal Report No. 220-ME dated August 10, 1973.

constitutes the second stage of SICARTSA's program; it is designed to increase annual raw steel capacity by another 2.1 million tons for conversion into 1.7 million tons of flat steel products.

Steel Demand and Supply

31. Steel consumption in Mexico increased at an annual average of 10 percent from 1955 to 1975 as compared to an annual growth rate of about 7 percent for the economy as a whole. Construction, manufacturing and the petroleum sector mainly accounted for the growth in steel consumption. In 1975, consumption of finished products reached 4.6 million tons, of which flat products accounted for 2.3 million tons (50 percent) and non-flat products for 2.3 million tons (50 percent). During 1967-1972, domestic steel production kept pace with Mexican needs and covered about 90 percent of requirements but thereafter steel imports increased rapidly, from 152,000 tons in 1972 to 520,000 tons in 1975, while exports decreased from 374,000 to 27,000 tons in the same period.

32. The present supply/demand forecasts are based on the assumption that all of the expansion projects now underway or planned will start on schedule and that the economy will grow at a rate of 4.5 percent per annum until 1980 and 6 percent thereafter. These forecasts suggest that though there would be a small surplus of steel for export markets in 1980, equivalent to 4 percent of production,by 1985 (the first year of full production of the SICARTSA Stage II project) Mexico will produce some 11 million tons of raw steel as compared to a forecast demand of 13 million tons. Mexico would thus experience a production deficit in 1985 even if the economy were to grow at a somewhat slower rate than assumed.

33. Supply/demand projections of flat steel products, which SICARTSA would produce as a result of this project indicate that demand will increase to 5.2 million tons by 1985. This would result in a 0.2 million tons deficit by that year. Demand and supply comparisons for individual flat products further suggests that, if Stage II achieves full production in 1985, there would be a balance in supply/demand in the case of hot and cold-rolled products, but a deficit of some undetermined magnitude in plate and tinplate products even under the most pessimistic assumptions of demand growth. SICARTSA will study the economic feasibility of installing tinning lines in the early 1980's to supply such a market.

Availability of Raw Materials

34. The availability of raw materials, with the exception of scrap, has not been a problem. Mexico has been almost self-sufficient in iron ore, importing only 1 percent of total needs. Proven reserves are sufficient for about 20 years production and domestic iron ore is about half the cost of imported ore. While coal imports for steel production have been less than

10 percent of total requirements, the higher ash content of domestic coals reduce their desirability for steelmaking. Exploitable reserves are substantial, and would be sufficient for at least 35 years of steel production. The government is now planning to intensify exploration for additional reserves and to determine the commercial feasibility of domestic coal supply to the steel industry. It is, furthermore, undertaking a study of the mining sector as a whole to develop a strategy to encourage mineral exploration and exploitation. The recent discovery of new natural gas fields in the southeast appear promising and could encourage the future use of direct reduction technologies in steel production.

Government's Steel Industry Policy

35. Growing dependence on imported steel at a time when Mexico is faced with increasing balance of payment difficulties, uncertain steel availability in international markets in the volume required by the 1980's and the basic nature of steel to industrial activity as a whole, have led the government to aim at national self-sufficiency. The achievement of this goal will require investments of about US$10 billion (at 1975 prices) by 1985. The high capital cost of new plants, and the inability of the private sector to mobilize savings of sufficient magnitude, will result in a much higher government participation in the ownership and financing of the industry if self-sufficiency is to be achieved. While in 1975 the government owned on the average some 36 percent of installed capacity, its share by 1985 is expected to be 60 percent.

36. The industry as a whole and the expansion programs of individual companies are coordinated by the Steel Coordinating Commission, which was created in 1972. The effectiveness of the Commission has been handicapped by lack of sufficient technical staff, late involvement in the review of expansion plans, and lack of independence, as its Board is identical to that of two major steel companies. In view of the substantial financial resources that will have to be invested in the steel sector, there is urgent need for an independent body to determine priorities, and the optimum location, size and technology for the new investments. The government has provided assurances that it will strengthen the Steel Coordinating Commission (Section 3.04 of the Draft Guarantee Agreement).

Import and Pricing Policies

37. Imports of steel products are subject to licensing and import duties which average about 20 percent. Sales in the domestic market by Mexican steel producers have been subject to price ceilings since 1956; these ceilings are established by the Price Commission, an Agency of the Secretariat of Commerce and Industry. Up to 1972 market prices were usually lower than ceilings and no distortions resulted from price controls, but during 1973-74 market prices reached ceiling levels and it became evident that the latter were too low. Ceilings were increased substantially in 1974 in recognition of increased production costs throughout the world.

38. The current price ceilings do not enable Mexican producers to benefit from available protection at the present time. In general, Mexican ex-factory prices for steel products are close to ceiling prices, which in turn are below the current CIF cost of comparable imports from Western Europe and Japan. For instance, in May 1976 the arithmetic average ceiling price of flat steel products (plates, coal and hot rolled products) was 5 percent below the CIF cost of imports from Japan and 15 percent lower than the CIF cost of imports from Western Europe. The overall relationship between domestic and import prices varies over time and may not hold for individual products. Mexican prices are generally in line with domestic prices prevailing within the main world steel markets, which are less responsive to short term fluctuation in demand than international prices.

39. At the occasion of the first Bank loan to SICARTSA, the government agreed to review steel prices from time to time and to maintain them at levels reasonably related to local production costs and world prices, while allowing steel consumers in Mexico to benefit from the anticipated decline in production costs. A similar assurance has been obtained for the proposed project. Price control procedures were altered in 1974 in order to make them more flexible; producers who now experience cost increases of 5 percent or more may apply for a compensatory price increase, and if the Price Commission does not object within 30 days the increase is granted automatically.

PART IV - THE PROJECT

Project Objective and Scope

40. The proposed expansion is the second stage of the SICARTSA project and is designed to increase annual raw steel production capacity from 1.2 million tons yearly - the capacity which will be attained on completion of Stage I - to 3.3 million tons yearly. The Stage II project includes facilities to convert all the increased raw steel production into 1.7 million tons of flat products. Stage II is to be completed by 1983 and has been designed to take the Stage III expansion into account; this is tentatively scheduled to be started in 1984 and would increase raw steel capacity to 6 million tons yearly.

The Company

41. SICARTSA is a corporation established in 1969 under Mexican law. Its authorized capital was increased to US$528 million equivalent in February 1976. Except for 0.1 percent of the capital which is privately owned, all other shares are owned by the government or its agencies. Shares owned by the government itself (51 percent) may not be transferred since the government intends to maintain its controlling interest.

42. SICARTSA's Board of Directors and the Executive Committee are made up mainly of key government officials. Both the Board and the Executive Committee played an important part in enabling the Stage I project to be

carried out close to schedule. The Chief Executive is an experienced and highly competent engineer and the staff is capable, young and dynamic. Some of SICARTSA's top executives may be called upon to serve in other government posts when the new administration takes office at the end of 1976, but it can be expected that their replacements will be equally competent. SICARTSA has provided assurances that it will maintain high standards in recruiting executive staff.

43. In the past there has been insufficient coordination amongst company departments and some lack of delegation of authority. Management is aware of these shortcomings and has recently introduced an improved organizational structure to make the start-up and subsequent operation of Stage I easier while the Stage II expansion is being carried out. SICARTSA has a general know-how and technical assistance agreement with the British Steel Corporation (BSC) for design, construction and the initial operation of Stage I; a similar agreement has been reached for the Stage II project and it can be expected to yield equally satisfactory results. In accordance with Mexican law, SICARTSA has external auditors appointed by the Secretariat of Patrimonio Nacional to independently review SICARTSA's accounts annually. Assurances were obtained that qualified auditors will review SICARTSA's accounts and that audit reports, of the scope and detail satisfactory to the Bank, will be provided annually (Section 5.08 of the Draft Loan Agreement and Section 3.06 of the Draft Guarantee Agreement).

44. Stage I is expected to come on stream in October 1976, a few months behind the original schedule. The delay was mainly due to (i) seismic code changes which made the design and execution of civil construction more complex; (ii) late delivery of some steel structures; and (iii) somewhat slower than expected plant erection. The cost of the project is now estimated at US$870 million equivalent, or 42 percent above the original cost estimate. The increase is of about the same magnitude as in Bank financed steel projects in Brazil and Turkey which are being carried out at about the same time. Considering that the SICARTSA project involves the erection of a totally new plant in an underdeveloped region of Mexico, that the staff is all new, and that project construction coincided with a period of unusually high inflation throughout the world and with some supply constraints, progress has been impressive. The experience gained in carrying out Stage I, with costs and time schedules as well as with management techniques, has been used to develop the Stage II project.

Project Components

45. The Stage II project will result in a modern, well balanced plant with expanded ore beneficiation and agglomeration capacity, additional coke ovens designed to operate with indigenous coals, two new blast furnaces, a new basic oxygen steelmaking plant with two 220 ton vessels, a continuous casting plant with three twin strand slab casting machines,

and the installation of a new flat products rolling mill complex, including a hot strip mill and a cold reduction mill with related finishing facilities. Considering the longer learning curve associated with capacity build up in the rolling mill complex, in relation to the iron and steelmaking facilities, and to avoid premature investments the Stage II project will be carried out in two phases (Phase A and B). The entire steelmaking and hot-rolling capacity and half the iron making capacity will be installed under Phase A, which is to be completed by the end of 1979, and the remaining ironmaking, cold rolling and finishing facilities will be installed under Phase B, which is planned for completion in 1983.

46. Mines: Company-owned mines will supply both iron ore and limestone. As proven iron ore reserves in the vicinity of the plant as estimated by the Bank would be of limited duration, it has been assumed for the financial projections that the Company will import approximately 3.0 million tons annually starting in 1988. However, ore exploration is proceeding well and there are indications that economically recoverable reserves could be increased considerably, making ore imports unnecessary and improving the financial and economic desirability of the project. Local coal is of low quality and is located far from SICARTSA's plant; its use would be disadvantageous to the Company at present international coal prices. While due consideration is being given in project design to the possible use of local coal, assurances have been obtained that the government will require SICARTSA to use local coking coal only to the extent that it would not be economically or technically disadvantageous to do so (Section 3.03 of the Draft Guarantee Agreement).

47. Ecology: The project has been designed to conform to advanced pollution standards. Pollution control installations for Stage II are estimated at about 7 percent of total equipment cost. Though pollution control provisions appear adequate, assurances have been obtained that the Company will carry out the project with due regard to environmental factors (Section 4.07 of the Draft Loan Agreement).

Infrastructure Requirements

48. Housing: Construction of Stage I in a hitherto lightly populated region necessitated the development of a city (Lazaro Cardenas) to house and provide services for the employees of SICARTSA and ancillary industries. However, by the end of 1975 only 20 percent of Lazaro Cardenas was completed compared with a planned 80 percent. This delay was largely due to lack of coordination among various agencies. In order to overcome these deficiencies, responsibility for the completion of the city has now been given to the Banco Nacional de Obras y Servicios Publicos, which has extensive experience in housing development, and the Secretariat of the Presidency is giving its

direct support to the project. While no further delays are anticipated, the Bank obtained assurances from the government that adequate support will be given to the city's construction program (Section 3.05 of the Draft Guarantee Agreement). The Bank is also considering an urban/regional development project in the Lazaro Cardenas area, and preparations for such a project are currently underway through a special team organized by the Secretariat of the Presidency.

49. <u>Transport Facilities</u>: One of the main advantages of SICARTSA's location is that it is adjacent to a port through which it could import raw material requirements and export finished products. The port is adequate for the Stage II project unless SICARTSA plans to ship a larger proportion than anticipated of its finished products by sea. Assurances have been obtained that SICARTSA will carry out studies with the government prior to the end of 1978, to determine future port requirements and that the government will take the necessary measures to meet project requirements (Section 3.02 of the Draft Loan Agreement and Section 3.02(a) of the Draft Guarantee Agreement). The best alternative to transport SICARTSA's products to Mexico City and the central part of the country is by rail through Nueva Italia. A 200 km rail connection, linking the plant with Nueva Italia, is now under construction and is due to be completed by the end of 1977. The government has agreed to take all necessary steps to complete this connection by the end of 1977 (Section 3.02(b) of the Draft Guarantee Agreement). The road network in the vicinity of the plant is also being improved and will link up with the national network by the end of 1977. Completion of these projects will enable SICARTSA to have satisfactory transport facilities.

<u>Capital Cost and Financing Plan</u>

50. The capital cost estimates are based on experience gained on the Stage I project, quotations for equipment and civil works obtained in late 1975 and, for three important components, on actual bid prices quoted in May 1976. Total financing required for Phase A and B of the project, including working capital and interest during construction, is estimated at US$3.6 billion equivalent, of which approximately 55 percent is in foreign exchange. Contingency provisions account for about one third of total project costs, with price contingencies alone accounting for about US$909 million. Contingency provisions are adequate and capital cost estimates are reasonable. Of the total financing requirements for Stage II, about US$3.0 billion (83 percent) are for Phase A and US$0.6 billion (17 percent) for Phase B. Project costs are summarized in Annex III.

51. Because of the long period required to carry out the entire Stage II project, a firm financing plan has only been prepared for Phase A. Project execution in two phases will enable SICARTSA to finance a significant portion of Phase B with internally generated cash. Financing for the Stage II project will be provided from the following sources, with those shown for Phase B being tentative:

Financing Plan for the Project (US$ Million)

	Phase A (Definitive Plan)	Phase B (Tentative Plan)	Total	%
Equity:				
Gross Capital Increase	1,040.7	77.0	1,117.7	31
SICARTSA Cash Generation	185.1	159.8	344.9	9
Sub Total	1,225.8	236.8	1,462.6	40
Loans:				
IBRD	95.0	--	95.0	3
IDB	95.0	--	95.0	3
Bilaterals	1,158.3	363.1	1,521.4	42
Local Loan (Govt. or NAFINSA)	409.6	37.5	447.1	12
Sub Total	1,757.9	400.6	2,158.5	60
TOTAL	2,983.7	637.4	3,621.1	100

As can be seen, the total foreign financing foreseen ($1,711 million) is less than the total foreign cost of Stage II ($1,975 million, see Annex III).

52. The proposed Bank loan of $95 million would be for 15 years, including five years of grace, at an interest rate of 8.85 percent per annum. NAFINSA would charge SICARTSA a fee on the Bank loan sufficient to bring the cost to 10 percent per annum. SICARTSA will bear the exchange risk on all its foreign borrowings, including the Bank loan. The IDB loan would be at 8 percent per annum plus a 1 percent per annum NAFINSA service charge. Nine countries1/ have agreed to open export credits to finance procurement from the respective country, and the aggregate of such offers is a little above $1.4 billion. With this magnitude of contingent financing assured, it should be possible for SICARTSA to procure equipment of at least $1.2 billion at competitive prices. The terms of these credits vary somewhat as between supplying countries but on the average they provide credit to cover 85 percent of the value of equipment, including 15 percent for local expenses, with repayment over 10 years starting in mid-1979; the average cost is 9 percent per annum including a 1 percent NAFINSA guarantee fee. The government has agreed to increase SICARTSA's paid-in share capital to Mex$20 billion ($1.6 billion equivalent) according to an agreed time-table (Section 2.02 of the Draft Guarantee Agreement and Section 5.01 of the Draft Loan Agreement) and to provide whatever additional resources may be required to complete the project, subject to the requirements that SICARTSA's debt/equity ratio be no greater than 60/40. About $410 million equivalent required to finance local costs would also be provided by the government or one of its agencies in loan funds; these and other loan funds which might be provided by the government to meet SICARTSA's needs would be at terms and conditions satisfactory to the Bank (Section 2.03 of the Draft Guarantee Agreement).

1/ Austria, Belgium, Canada, France, Germany, Italy, Japan, U.K. and U.S.A.

Project Implementation

53. The General Manager of the Planning and Development Department of SICARTSA, will be responsible for carrying out the project under the overall guidance of the Director General. While SICARTSA has gained considerable planning and project execution experience with the Stage I project, the Company has extended its technical advisory agreement with the British Steel Corporation (BSC) for engineering and procurement and for technical assistance, training, and know-how for flat steel product processing. Engineering and procurement for the project has commenced and tender documents have been issued according to Bank guidelines. It is anticipated that the Company will be able to place all major contracts by the second half of 1976.

Procurement

54. Project financing will be on a parallel basis with separate single responsibility equipment packages for the Bank, IDB and bilateral lenders. These packages have been made as large as technically and economically feasible to avoid coordination problems and the administrative burden experienced during Stage I. The equipment, spare parts and building structures to be financed by the proposed Bank loan will be purchased through international competitive bidding according to Bank guidelines. A bidding and preference system has been adopted which recognizes that procurement must be in large packages with single contractor responsibility covering items which might otherwise be tendered separately. Since local suppliers are not expected to meet prequalification criteria for such overall responsibility, an incentive to use Mexican resources will be given to non-Mexican bidders, as was done in the case of the Bank loan for Stage I, by way of a 15 percent margin of preference (or the prevailing import duty, whichever is lower) on the clearly identified Mexican components of non-Mexican bids. For this purpose, a component is defined as Mexican when supplied by a company incorporated in Mexico, and when the cost of local materials, labor and services used in its manufacture are not less than 50 percent of the total value of the component. In the event that Mexican companies prequalify to bid directly, and not simply as sub-suppliers, their bids would be considered entirely Mexican if Mexican value added reached 50 percent. Such bidders would benefit from preference on the entire bid price. Procurement under the IDB loan will follow similar principles. Bilaterally financed items are likewise being procured under similar international competitive bidding procedures except that credit terms will be taken into account for purposes of bid evaluations. Civil works, which are to be financed out of local funds, will be procured competitively in Mexico as the domestic construction industry is large and competitive enough to service the project.

Disbursements

55. The Bank loan would finance the cost of equipment and spare parts for a blast furnace, and the building structures, equipment and spares for the cold rolling mill. Disbursements would be on the basis of 100 percent of foreign expenditures or the ex-factory cost of goods manufactured in Mexico. It is estimated that about 39 percent of the value of contracts to be financed by the Bank would originate in Mexico. Disbursements would be completed in 1980.

Marketing and Prices

56. SICARTSA's overall share of the domestic market for steel products is expected to increase from 13 percent in 1980, to 30 percent in 1985. Even under conservative demand assumptions, the domestic market is expected to absorb the entire production by 1985, though some small surplus for exports may develop between 1980 and 1984. SICARTSA has recently completed a comprehensive plan for marketing its products in the domestic market, which appears to be adequate.

57. For purposes of revenue projections, the average net price to SICARTSA (in 1975 terms) has been assumed to be the same as present market (and ceiling) prices for flat products and about 10 percent below present market (and ceiling) prices for non-flat products. The latter adjustment was made as long term prices for non-flat products are likely to decrease somewhat as SICARTSA, which is expected to be more efficient than existing producers, enters the market and as temporary demand pressures ease.

Financial Analysis

58. The financial projections in current terms are based on the assumption that steel prices and operating costs will increase by 5 percent and 7 percent per annum respectively; labor costs are assumed to increase by 12 percent yearly. Projections under these assumptions indicate that SICARTSA can remain financially viable even if its steel prices increase at a slower rate than the general level of prices in Mexico. While SICARTSA's long term financial position can be expected to be strong, it is likely to experience cash shortfalls in 1976 and 1977, the first two years of the Stage I operation, and in 1980, the first year of operation of Stage II. The government has however undertaken to provide sufficient resources to SICARTSA to enable it to conduct its operations and meet its obligations until project completion and to ensure that its current ratio is at least 1.5/1 at the time of project completion (Section 2.03 of the Draft Guarantee Agreement). The Company is not expected to start paying dividends prior to 1984 based on the agreed dividend covenant for Stage I. A similar covenant provides that no dividends will be paid until the debt/equity ratio drops below 50/50, or if the result would be to lower the current ratio below 1.5:1, or if cumulative dividends would exceed one half cumulative net income (Section 5.03(b) of the Draft Loan Agreement). The Company has also provided

assurances that it will not incur any new long term debt if the result would be to increase its debt/equity ratio above 60/40 and/or to reduce the debt-service coverage below 1.5 (Section 5.03(c) of the Draft Loan Agreement). SICARTSA also provided assurances that it would undertake additional investments above US$25 million per annum up to project completion only after agreement with the Bank (Section 5.02(a) of the Draft Loan Agreement).

59. The incremental financial rate of return of the project is estimated at 12.5 percent, or 13 percent if the entire iron ore requirements of SICARTSA could be met from its own mines.

Economic Justification

60. Since SICARTSA will be able to sell flat steel products at prices comparable to those of imports, the execution of the project is of high priority in view of the foreign exchange it would save (over $350 million per year when in full production), and the transfer of technology which would result from it. The incremental economic rate of return is 12.7 percent if benefits are calculated on the basis of conservative international steel price forecasts. The return would increase to 15 percent if foreign exchange is shadow priced by 20 percent. A recent Bank study suggests that international steel prices may increase in real terms in the near future and based on this more optimistic forecast, the economic rate of return would be 19.0 percent without shadow pricing foreign exchange.

61. The SICARTSA project is a major step in carrying out the government's policy of decentralizing economic activity from the Mexico City metropolitan area, which is suffering increasingly from congestion and environmental problems. The project is located in a relatively underdeveloped region of the country, with iron ore deposits close at hand and good transport facilities to both domestic and foreign markets; it is the best alternative for expanding the domestic supply of steel. The government intends to further develop the area in which the project is located by promoting the establishment of engineering industries so as to turn the region into a focus of future industrial expansion.

Conclusions, Major Loan Conditions and Recommendations

62. The proposed Stage II project is part of the overall economic development plan for the country. In order to accelerate the development of the capital and consumer goods industries in Mexico, the government intends to achieve self-sufficiency in steel, at competitive prices, utilizing local resources whenever possible. Decentralization of industrial activity around development poles in underdeveloped regions is another important goal of the government. The project has been developed to meet these two basic objectives. The Bank, together with the IDB has played a major role in the Stage I project and through it, the overall development of the Mexican steel industry. By providing limited amounts of financing

for the proposed project and by acting as a catalyst for lending by other sources, the Bank will continue to play this role in the Stage II expansion.

63. The major risks inherent in the project relate to its large size, possible delays in receiving the required funds from the government, and the ability of the Company's management to carry out the project while Stage I is being constructed and subsequently operated. The government is fully aware of the magnitude of the required funds and it is expected to make every effort to provide them as promptly as needed since it attaches very high priority to the steel industry's development. The risk of the Company's management being overburdened is not great, since various measures, including a reorganization and the extension of the contract with BSC, have been taken to strengthen management and prevent any interference of Stage I with Stage II.

64. The most important of the recommended covenants are concerned with (i) strengthening the role of the Steel Coordinating Commission; (ii) maintaining steel prices at levels reasonably related to domestic production costs and world prices; (iii) the timely payment of equity capital and the availability of local loan funds at satisfactory terms; and (iv) ensuring the Company's continued financial soundness by agreeing with SICARTSA that specified debt/equity and current ratios will be met and that borrowing, investments and dividend payments will be regulated.

65. Subject to the foregoing agreements, the project provides a sound basis for the proposed loan to SICARTSA and NAFINSA.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

66. The Draft Loan Agreement between the Bank, Siderurgica Lazaro Cardenas - Las Truchas, S.A. and Nacional Financiera, S.A., the Draft Guarantee Agreement between United Mexican States and the Bank, the Report of the Committee provided for in Article III, Section 4(iii) of the Articles of Agreement, and the text of a Resolution approving the proposed loan are being distributed to the Executive Directors separately. Besides the special conditions of the project listed in Section III of Annex IV, the Draft Loan and Guarantee Agreements conform to the usual patterns of loans for industrial projects.

67. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank.

PART VI - RECOMMENDATION

68. I recommend that the Executive Directors approve the proposed loan.

Robert S. McNamara
President

Attachments
June 21, 1976

COUNTRY DATA - MEXICO

AREA	POPULATION	DENSITY
1,972,547 km2	54.15 million (mid-1972)	.. Per km2 of arable land

SOCIAL INDICATORS

	Mexico 1960	Mexico 1970	Reference Countries: Brazil 1970	Chile 1970	Spain* 1970
GNP PER CAPITA US$ (ATLAS BASIS) /1	475	750 /a	610 /d	770 /a	1,210 /a
DEMOGRAPHIC					
Crude birth rate (per thousand)	46	46 /ab	38 /b,c	30	19 /ab,l
Crude death rate (per thousand)	11	8 /ab	10 /b,c	9	9 /ab,l
Infant mortality rate (per thousand live births)	76 /d,ac	61 /a,ac	110	79	15 /ab,l
Life expectancy at birth (years)	58 /aa	63 /e	63 /e	63 /e	70
Gross reproduction rate /2	3.2	3.0 /a	2.5 /e	2.0 /e	1.4 /e
Population growth rate /3	3.2	3.5 /g	2.9 /g	2.3 /g	1.1 /g
Population growth rate - urban	5 /h	5 /h,m	5 /i	3 /j	2 /k
Age structure (percent)					
0-14	44	46 /ab	42 /ab	39	28
15-64	52	50 /ab	55 /ab	55	63
65 and over	4	4 /ab	3 /ab	6	9
Age dependency ratio /4	0.9	1.0 /ab	0.8 /ab	0.8	0.6
Economic dependency ratio /4	1.7	2.0	1.6	1.6 /p	1.1
Urban population as percent of total	51 /h	61 /h,ab	58 /i,ab	76 /j	49 /c,k
Family planning: No. of acceptors cumulative (thous.)	..	..	250	..	..
No. of users (% of married women)	..	..	1.6	..	..
EMPLOYMENT					
Total labor force (thousands)	11,300	13,000	29,600 /q	3,000 /p	12,700 /p
Percentage employed in agriculture	54 /ap	40	44	19 /p	28 /p
Percentage unemployed	..	4	2 /c	5 /p	1 /p,ao
INCOME DISTRIBUTION					
Percent of national income received by highest 5%	29 /r,s	36 /s,t	33 /s	30 /s,u	..
Percent of national income received by highest 20%	59 /r,s	64 /s,t	62 /s	57 /s,u	..
Percent of national income received by lowest 20%	4 /r,s	4 /s,t	3 /s	5 /s,u	..
Percent of national income received by lowest 40%	10 /r,s	11 /s,t	10 /s	13 /s,u	..
DISTRIBUTION OF LAND OWNERSHIP					
% owned by top 10% of owners	..	..	..	..	..
% owned by smallest 10% of owners	..	..	..	..	..
HEALTH AND NUTRITION					
Population per physician	1,800 /v	1,440	2,070 /p,y	2,020 /p,w	720 /p,x
Population per nursing person	2,829 /aa,v,w	1,570	2,920 /p,y	5,170 /p,w	950 /c,p
Population per hospital bed	590 /z	810 /p	260	250 /p	190 /p
Per capita calorie supply as % of requirements /5	107 /v	110	109	101	107
Per capita protein supply, total (grams per day) /6	65 /v	65	64	71	81
Of which, animal and pulse	29 /aa	28 /n	39	32	40 /f
Death rate 1-4 years /7	14 /ai	11	..	3 /t	0.9
EDUCATION					
Adjusted /8 primary school enrollment ratio	81	104 /ad	130 /ad,ae	119 /c,ad	83
Adjusted /8 secondary school enrollment ratio	9	23	27 /ad,ae	29	49
Years of schooling provided, first and second level	12.	12	13	12	14
Vocational enrollment as % of sec. school enrollment	24	24 /t	17	33	20
Adult literacy rate %	62 /af,as	84 /af,at	68 /af	90 /r,af,ag	94 /b,af,ag
HOUSING					
Average No. of persons per room (urban)	2.6 /ah	2.2 /aj	1.0	1.3 /c,ak	..
Percent of occupied units without piped water	76 /ah,ao	61 /aj,ao	67 /al,am	40 /c,ak	..
Access to electricity (as % of total population)	..	59 /aj	47 /al,an	85 /ab	..
Percent of rural population connected to electricity	..	28 /aj	8 /al,an	30 /ab	..
CONSUMPTION					
Radio receivers per 1000 population	95	301 /a	61 /a	149 /a	210 /p
Passenger cars per 1000 population	14 /ar	28 /a,c	29 /p	19 /p	95 /a
Electric power consumption (kwh p.c.)	338 /v	662 /a	544 /a	890 /a	1,946 /a
Newsprint consumption p.c. kg per year	2.8	1.8 /a	2.3 /a	5.7 /a	6.0 /a

Notes: Figures refer either to the latest periods or to the latest years. Latest periods refer in principle to the years 1956-60 or 1966-70; the latest years in principle to 1960 and 1970.

/1 The Per Capita GNP estimate is at market prices for years other than 1960, calculated by the same conversion technique as the 1972 World Bank Atlas.

/2 Average number of daughters per woman of reproductive age.

/3 Population growth rates are for the decades ending in 1960 and 1970.

/4 Ratio of population under 15 and 65 and over to population of ages 15-64 for age dependency ratio and to labor force of ages 15-64 for economic dependency ratio.

/5 FAO reference standards represent physiological requirements for normal activity and health, taking account of environmental temperature, body weights, and distribution by age and sex of national populations.

/6 Protein standards (requirements) for all countries as established by USDA Economic Research Service provide for a minimum allowance of 60 grams of total protein per day, and 20 grams of animal and pulse protein, of which 10 grams should be animal protein. These standards are somewhat lower than those of 75 grams of total protein and 23 grams of animal protein as an average for the world, proposed by FAO in the Third World Food Survey.

/7 Some studies have suggested that crude death rates of children ages 1 through 4 may be used as a first approximation index of malnutrition.

/8 Percentage enrolled of corresponding population of school age as defined for each country.

/a 1972; /b 1965-70; /c Estimate; /d 1959; /e 1970-75 UN estimate; /f 1969-70; /g 1960-72; /h Localities of 2,500 or more; /i Urban and suburban zones of administrative centers of municipalities and districts; /j Populated centers which have definite urban characteristics contributed by certain public and municipal services; /k Localities of 10,000 or more inhabitants; /l Excluding Ceuta and Melilla; /m 1960-73; /n 1964-66; /o This compares with the Bank Atlas figure of US$530 for 1972. The Atlas figure does not reflect recent revision in national accounts which has resulted in 20 percent increase in estimates of GDP; /p 1971; /q Based on 1.3 percent sample tabulation of census returns, excluding Indian jungle population; /r 1963; /s Households; /t 1969; /u 1968; /v 1961; /w Personnel in government services; /x Number on the register, not all working in the country; /y Hospital personnel; /z 1962; /aa 1961-62; /ab 1973; /ac Registered only; /ad Gross enrollment which includes overage students; /ae Net enrollment ratios in 1971 were 84 percent and 18 percent for basic and secondary education, respectively; /af Definition unknown; /ag 15 years and over; /ah Data refer to living quarters; /ai 1960-62; /aj Data refer to housing units; /ak Data refer to households; /al Estimate based on sample tabulation of census returns; data refer to dwellings; /am Inside or outside; /an Including semi-permanent dwellings; /ao Inside only; /ap 1945-62; /aq Includes nurses, nurses with midwifery qualifications, midwifery and nursing auxiliaries; /ar Includes vehicles operated by police or other governmental security organisations; /as Six years and over; /at Ten years and over; /au 1959-61.

* Spain has been selected as an objective country because its per capita income is higher than Mexico, and because both countries have in common the importance of tourism and the influence of nearby richer countries.

MEXICO: Economic Development Data Sheet

	Actual			Prelim.	Estimates	Projected		Growth Rates					As % of GDY		
	1960	1965	1970	1974	1975	1980	1985	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1960	1970	1980
National Accounts			Constant 1967-1969 Average Prices, US$ Millions												
Gross Domestic Product	15,772.6	22,249.8	31,087.1	39,418.9	40,995.7	51,317.2	73,667.7	7.1	6.9	5.7	4.6	7.5	99.8	100.3	100.4
Gains from Terms of Trade	26.3	-60.6	-5.0	-330.4	-71.8	-177.6	-249.4	--	-39.3	70.4	19.9	7.0	0.2	-0.3	-0.4
Gross Domestic Income	15,798.9	22,189.2	31,082.1	39,088.5	40,923.9	51,139.6	73,418.3	7.0	6.8	5.7	4.6	7.5	100.0	100.0	100.0
Imports (including N.F.S.)	1,910.1	2,126.5	3,117.7	3,974.1	4,069.4	4,030.6	5,779.9	2.2	8.0	5.5	-0.2	7.5	12.1	9.6	7.9
Export (Import Capacity)	1,683.6	2,000.4	2,505.5	3,103.9	2,850.1	4,305.9	7,473.4	3.5	4.6	2.6	8.6	11.7	10.7	9.0	8.4
Resource Gap	226.5	126.1	612.2	870.2	1,219.3	-275.3	-1,693.5	-11.1	37.2	14.8	--	43.8	1.4	0.6	-0.5
Consumption	12,775.6	17,866.2	25,445.8	32,193.2	34,067.1	40,600.9	56,254.6	6.9	7.3	6.0	3.6	6.7	80.9	80.5	79.4
Investment	3,249.8	4,449.1	6,248.5	7,765.5	8,076.1	10,263.4	15,470.2	6.5	7.0	5.3	4.9	8.6	20.5	20.1	20.1
Gross Domestic Savings	3,023.4	4,323.0	5,636.3	6,895.3	6,856.8	10,538.7	17,163.7	7.4	5.5	4.0	9.0	10.3	19.1	19.5	20.6
Gross National Savings	2,950.0	4,146.8	5,191.4	6,288.1	6,204.7	9,644.1	16,513.5	7.1	4.6	3.6	9.2	11.4	18.7	18.7	18.9
Trade in Goods and N.F.S.				Current Prices, US$ Millions									As % of Total		
Imports															
Food	17.6	25.4	33.7	525.1	632.6	358.0	457.4	7.6	5.8	79.8	-10.8	5.0	1.2	1.0	3.0
Petroleum and Products	34.0	23.9	44.1	382.0	161.0	0.0	0.0	-6.8	13.0	29.6	--	0.0	2.2	1.3	0.0
Other Goods	917.6	1,236.0	2,274.4	5,185.1	6,002.4	8,933.1	18,510.7	6.1	13.0	21.4	8.3	15.7	59.5	66.5	75.9
Non-Factor Services	572.3	792.3	1,064.7	1,671.4	1,721.6	2,481.5	4,563.5	6.7	6.1	10.1	7.6	13.0	37.1	31.2	21.1
Total Imports	1,541.5	2,077.6	3,416.9	7,763.6	8,517.6	11,772.6	23,531.6	6.2	10.5	20.0	6.7	14.9	100.0	100.0	100.0
Exports															
Selected Agricultural Goods	304.5	441.3	421.8	609.3	510.7	967.6	1,714.7	7.7	-0.9	3.9	13.6	12.1	22.1	15.4	7.7
Petroleum and Products	20.6	40.1	38.4	124.0	438.4	1,036.7	2,341.8	14.3	-0.9	62.8	18.8	17.7	1.5	1.4	8.2
Selected Minerals	92.5	77.9	91.5	212.0	155.4	442.2	879.4	-3.4	3.3	11.2	23.3	14.7	6.7	3.3	3.5
Manufacturers	101.5	206.8	353.5	1,212.2	1,146.7	3,305.5	10,606.3	15.3	11.3	26.5	23.6	26.3	7.4	12.9	26.3
Other Goods	285.6	353.6	442.5	841.5	802.6	1,189.7	1,668.5	4.4	4.6	12.7	8.2	7.0	20.7	16.1	9.5
Non-Factor Services	572.5	792.3	1,397.7	3,064.7	2,911.7	5,635.0	13,215.7	6.7	12.0	15.8	14.1	18.6	41.6	50.9	44.8
Total Exports	1,377.2	1,912.0	2,745.4	6,063.7	5,965.5	12,576.7	30,426.4	6.8	7.5	16.8	16.1	19.3	100.0	100.0	100.0
Trade Indices				Average 1967-1969 = 100											
Export Price Index	83.1	92.8	109.4	176.6	204.2	280.5	394.0	2.2	3.4	13.3	6.6	7.0	..	..	..
Import Price Index	80.7	97.7	105.6	195.4	209.3	292.1	407.1	3.9	2.3	13.8	6.9	6.9	..	..	..
Terms of Trade	103.0	95.0	99.8	90.4	97.5	96.0	96.8	-1.6	1.0	-0.5	-0.3	0.2	..	..	..
Export Volume	69.9	86.9	105.9	144.8	123.2	189.0	325.6	4.5	4.0	3.1	8.9	11.5	..	..	..
Value Added by Sector				Constant 1967-1969 Average Prices; US$ Millions											
Primary	2,760.2	3,417.6	4,025.1	..	..	..	..	4.4	3.4	..	..	..	17.5	13.0	-
Secondary	4,353.2	6,717.2	10,415.5	..	..	..	..	9.1	9.2	..	..	..	27.6	33.5	-
Tertiary	8,659.9	12,115.0	16,646.5	..	..	..	..	7.0	6.0	..	..	..	54.9	53.5	-
Total (GDP)	15,772.6	22,249.8	31,087.1	..	..	..	..	7.2	7.3	5.9	4.7	6.2	100.0	100.0	100.0
Consolidated Public Sector Finances 1/				Constant 1967-1969 Average Prices; US$ Millions									As % of GDY		
Current Receipts	-	2,554.5	3,503.7	4,677.8	5,358.0	8,837.4	13,566.4	-	6.5	8.9	10.5	9.0	-	11.3	17.3
Current Expenditures 2/	-	1,955.5	2,511.1	4,184.8	5,526.2	5,637.2	7,845.2	-	5.1	17.1	0.4	6.8	-	8.1	11.0
Public Savings	-	599.0	992.6	493.0	-167.2	3,200.2	5,721.2	-	10.6	..	..	12.3	-	3.2	6.3
Resources for Investment	-	651.8	1,074.1	532.4	-124.3	3,302.4	5,867.9	-	10.5	..	..	12.2	-	3.5	6.5
Investment	-	1,462.2	1,718.5	3,194.1	3,704.1	3,933.4	6,103.2	-	3.3	16.6	1.2	9.2	-	5.5	7.7
Deficit (net)	-	810.4	644.4	2,661.7	3,828.4	631.0	235.3	-	-4.5	42.8	-30.3	-17.9	-	2.0	1.2
Allocation of Consolidated Public Sector Expenditures													As % of Total		
													1970	1975	1980
Agriculture	-	-	708.2	2,168.2	2,725.2	-	-	..	..	..	..	..	8.8	15.9	-
Industry	-	-	2,939.0	4,625.3	5,525.0	-	-	..	..	..	..	..	36.3	32.4	-
Social Welfare	-	-	2,001.8	3,163.1	3,584.9	-	-	..	..	..	..	..	24.7	21.0	-
Transport and Communications	-	-	954.6	1,294.6	1,708.3	-	-	..	..	..	..	..	11.8	10.0	-
General Administration and Others	-	-	1,488.1	2,377.0	3,528.5	-	-	..	..	..	..	..	18.4	20.7	-
Total 3/	-	-	8,091.7	13,628.2	17,071.9	-	-	..	..	..	..	..	100.0	100.0	-
Selected Indicators											Period Averages				
											1961-1965	1966-1970	1971-1975	1976-1980	1981-1985
ICOR	2.42	2.91	2.89	3.28	4.93	3.25	2.62	..	..	..	2.90	3.20	3.63	4.32	2.94
Import Elasticity	1.20	0.75	1.51	3.22	0.60	0.88	1.05	..	..	..	0.31	1.16	0.96	-0.04	1.00
Marginal Savings Ratio	0.48	-0.16	-0.24	-0.10	-0.05	0.37	0.28	..	..	..	.19	0.13	0.10	0.35	0.31

Labor Force and Output per Worker

	Total Labor Force					Value Added per Worker (1967-69 Average Prices)				
	In Millions		As % of Total		1960-1970			% of Average		
	1960	1970	1960	1970	Growth Rate	1960	1970	1960	1970	Growth Rate
Agriculture	5.4	5.1	50.5	39.2	-0.6	511.2	789.2	34.7	33.0	4.4
Industry	2.1	3.0	19.6	23.1	3.6	2,073.0	3,471.8	140.6	145.2	5.3
Services 4/	3.2	4.9	29.9	37.7	4.4	2,706.0	3,396.2	183.6	142.0	2.3
Total	10.7	13.0	100.0	100.0	2.0	1,474.1	2,390.9	100.0	100.0	5.0

- Not available
.. Not applicable

1/ Includes Federal Government, Federal District, Social Security Agencies, Budgetary Controlled Enterprises and Decentralized Agencies (net savings and investment expenditures) and deficit.
2/ Includes extra-system transfers and the deficit financing of part of the non-budgetary controlled Public Sector.
3/ Includes total expenditures of the Budgetary Controlled Enterprises and Decentralized Agencies and debt amortization.
4/ Includes unallocated labor force.

BALANCE OF PAYMENTS, EXTERNAL ASSISTANCE AND DEBT

(US$ million at current prices)

	Actual		Preliminary	Estimates	Projections		
	1970	1973	1974	1975	1976	1978	1980
SUMMARY BALANCE OF PAYMENTS							
Exports (including N.F.S.)	2,745.4	4,602.4	6,063.7	5,965.5	6,869.7	8,889.7	12,576.7
Imports (including N.F.S.)	-3,416.9	-5,236.8	-7,763.6	-8,517.6	-8,767.8	-9,350.7	11,772.6
Resource Balance	-671.5	-634.4	-1,699.9	-2,552.1	-1,898.1	-461.0	804.1
Interest (net)	-301.3	-563.0	-908.5	-1,107.4	-1,420.9	-1,972.8	-2,254.2
Direct Investment Income	-267.5	-419.8	-549.1	-535.0	-535.0	-664.3	-842.4
Workers Remittances	122.7	140.4	158.1	162.5	178.8	228.7	286.9
Current Transfers (net)	55.3	74.5	113.4	115.0	125.0	156.8	196.7
Balance on Current Account	-1,062.3	-1,402.3	-2,886.0	-3,917.0	-3,550.2	-2,712.6	-1,808.9
Private Direct Investment	322.8	456.3	678.1	585.0	550.0	950.0	1,204.7
Public M and L.T. Loans							
a. Disbursements (gross)	781.5	1,948.5	2,968.8	4,070.1	4,061.6	4,333.5	4,124.3
b. Repayments	-474.7	-800.9	-541.8	-809.2	-964.0	-2,695.9	-3,526.9
c. Disbursements (net)	306.8	1,147.6	2,427.0	3,260.9	3,097.6	1,637.6	597.4
Other Capital	534.8	-79.3	-182.2	71.1	-500.0	200.0	81.8
a. Public short-term	59.0	596.0	642.0	570.0	300.0	-100.0	-300.0
b. Other Capital n.e.i.	475.8	-675.3	-824.2	-498.9	-800.0	300.0	381.8
Change in Reserves (- = increase)	-102.1	-122.3	-36.9	-	402.6	-75.0	-75.0
GRANT AND LOAN COMMITMENTS							
PUBLIC M AND L.T. LOANS							
IBRD	146.8	270.0	289.0	360.0	-	-	-
IDA	-	-	-	-	-	-	-
Other Multilateral	112.3	89.5	102.0	110.0	-	-	-
Governments	81.0	476.0	129.7	165.6	-	-	-
Suppliers	69.7	60.2	118.0	248.4	-	-	-
Banks and Financial Institutions	434.4	1,918.2	2,085.1	2,999.1	-	-	-
Bonds	-	104.6	100.0	160.0	-	-	-
Total	844.1	2,918.5	2,823.8	4,043.1	-	-	-

DEBT AND DEBT SERVICE

	1970	1973	1974	1975
Public Debt Outstanding and Disbursed (end of period)	3,226.9	5,577.0	8,004.0	11,264.9
Interest on Public Debt	216.9	359.4	576.1	715.8
Repayments on Public Debt	474.7	800.9	541.8	809.2
Other Debt Service (net)	224.3	203.6	332.4	391.6
Total Debt Service (net)	915.9	1,363.9	1,450.3	1,916.6
Burden on Exports Earnings (%) 1/				
a. Public Debt Service	24.0	24.5	18.0	24.9
b. Total Debt Service	31.8	28.8	23.3	31.3
c. Total Debt Service and Direct Investment Income	44.8	37.6	32.1	40.0
Average Terms of Public Debt				
a. Interest as % of prior years D.O. and D.	7.4	8.1	10.3	8.9
b. Amortization as % of prior years D.O. and D.	16.3	18.1	9.7	10.1
IBRD Exposure				
a. IBRD Debt O. and D. as % of Public Debt O. and D.	18.0	14.5	12.2	9.4
b. IBRD Debt Service as % of Public Debt Service	7.8	7.6	8.4	7.3
IDA Exposure	-	-	-	-

EXTERNAL DEBT

	Outstanding and Disbursed on Dec. 31, 1974	
	$ Millions	Percent
Public M & L.T. Loans		
IBRD	973.2	12.2
IDA	-	-
Other Multilateral	441.1	5.5
Governments	579.8	7.2
Suppliers	323.4	4.0
Financial Institutions	4,647.1	58.1
Bonds	573.4	7.2
Public Debt n.e.i.	446.0	5.8
Total Public M & L.T. Debt	8,004.0	100.0

- Not available.

1/ Includes workers remittances

MEXICO: SOURCES AND SECTORAL ALLOCATION OF PUBLIC EXTERNAL DEBT CONTRACTED 1969-1974
(Thousands of US Dollars)

	Suppliers	Private Banks	Publicly Issued Bonds	Other Private	International Organizations	Government	Total	Percent of Total
Agriculture, Forestry and Fishing	19,793	28,238	0	0	559,767	0	607,798	6.5
- Agriculture	0	15,000	0	0	37,800	0	52,800	
- Agriculture, Livestock	0	10,129	0	0	410,477	0	420,606	
- Fishing	19,793	1,109	0	0	0	0	20,902	
- Ocean, Coastal Fishing	0	2,000	0	0	0	0	2,000	
- Other	0	0	0	0	111,490	0	111,490	
Mining and Quarrying	2,980	582,601	20,000	105,750	0	17,175	728,506	7.7
- Coal	513	0	0	0	0	0	513	
- Crude Petroleum, Gas	2,395	400,680	20,000	105,750	0	2,828	531,653	
- Metal Ore Mining	72	165,500	0	0	0	11,134	176,706	
- Other	0	16,421	0	0	0	3,213	19,634	
Manufacturing	293,742	611,631	0	226,897	1,000	232,731	1,375,001	14.6
- Food Manufacturing	2,396	0	0	0	0	1,317	3,713	
- Textile Manufacturing	115	24,614	0	0	0	637	25,366	
- Paper	254	0	0	0	0	416	670	
- Printing	1,338	416	0	0	0	0	1,754	
- Chemicals	6,707	6,300	0	0	0	12,054	25,061	
- Fertilizers, Pesticides	0	26,000	0	0	0	0	26,000	
- Petroleum Refining; Gas; Oil	83,701	232,034	0	90,897	0	6,719	413,351	
- Plastics	136	0	0	0	0	0	136	
- Glass	0	255	0	0	0	0	255	
- Iron and Steel	8,909	254,447	0	96,000	0	157,528	516,884	
- Metal Machinery	16	26,866	0	0	0	34,490	61,372	
- Metal Products NEL	0	169	0	0	0	0	169	
- Non-Electrical Machinery	68,890	0	0	0	0	1,692	70,582	
- Basic Metals	0	30,066	0	0	0	4,160	34,226	
- Transport Equipment	121,114	10,368	0	0	0	11,018	142,500	
- Other	166	96	0	40,000	10,000	2,700	52,962	
Electric Power and Water Supply	49,359	809,297	30,000	222,428	353,823	203,146	1,668,053	17.7
- Electricity, Gas, Water Production	0	65,000	0	65,000	0	0	130,000	
- Electricity, Gas, Steam	49,359	744,297	30,000	157,428	250,000	203,146	1,434,230	
- Water (Non-Agric.)	0	0	0	0	103,823	0	103,823	
Tourism	0	0	0	0	44,029	0	44,029	0.5
Transport and Communications	75,396	511,087	32,486	106,350	424,312	199,915	1,349,546	14.3
- Transport, Storage and Communications	0	48,000	0	15,000	122,512	0	185,512	
- Land Transport	40,771	380,366	32,486	88,580	256,800	127,734	926,737	
- Ocean, Coastal Transport	1,468	13,304	0	0	20,000	2,709	37,481	
- Air Transport	2,445	61,639	0	2,770	25,000	61,373	153,227	
- Communications - Other	30,712	7,778	0	0	0	8,099	46,589	
Financial and Monetary Institutions	29	1,099,518	27,322	55,000	45,000	21,591	1,248,460	13.2
- Financial Institutions	29	931,018	27,322	55,000	45,000	21,591	1,079,960	
- Monetary Institutions	0	168,500	0	0	0	0	168,500	
Other Sector Uses	8,312	284,933	0	31,948	174,000	4,462	503,655	5.3
- Social Personal Services	0	101,000	0	0	0	0	101,000	
- Public Administration (Defense)	4,620	155,413	0	31,948	174,000	4,393	370,374	
- Education Administration	1,265	28,451	0	0	0	0	29,716	
- Medical and Dental	873	0	0	0	0	0	873	
- Military	1,468	0	0	0	0	0	1,468	
- Radio, T.V.	86	0	0	0	0	0	86	
- Construction	0	69	0	0	0	69	138	
Sector Not Specified, Multisector, etc.	509	381,379	96,856	101,202	118,161	31,914	730,021	7.7
- Sector Not Specified	171	83,620	0	27,141	0	29,846	140,778	
- Multisector	0	120,326	0	34,061	80,263	0	234,650	
- Sector Not Identified	338	177,433	96,856	40,000	35,935	2,068	352,630	
- General Purpose	0	0	0	0	1,963	0	1,963	
Other Purposes	0	5,438	0	10,000	0	0	15,438	0.2
- Admin. Budget Support	0	26	0	0	0	0	26	
- Debt Relief	0	5,412	0	0	0	0	5,412	
- Other Debt Reorganization	0	0	0	10,000	0	0	10,000	
Purpose Unknown	5,000	724,585	103,058	196,535 1/	0	128,995	1,158,173	12.3
TOTAL	455,120	5,038,707	309,722	1,056,110	1,729,092	839,929	9,428,680 2/	100.0
Percent of Total	4.8	53.5	3.3	11.2	18.3	8.9		

1/ Includes 111,500 from Privately Placed Bonds.
2/ Does not include US$223,001 thousands of unclassified debts.

THE STATUS OF BANK GROUP OPERATIONS IN MEXICO

A. STATEMENT OF BANK LOANS (as of May 31, 1976) a/

Loan Number	Year	Borrower	Purpose	US$ Millions Amount less Cancellations	US$ Millions Undisbursed
		26 loans fully disbursed		1,239.9	
527	1968	Nacional Financiera, S.A.	Irrigation	25.0	0.9
695	1970	Nacional Financiera, S.A.	Roads	21.8	3.3
793	1972	Nacional Financiera, S.A.	Tourism	22.0	7.4
820	1972	Nacional Financiera, S.A.	Ports	20.0	2.0
824	1972	Nacional Financiera, S.A.	Industry	35.0	7.3
825	1972	Ferrocarriles Nacionales de Mexico and Nacional Financiera, S.A.	Railways	75.0	8.8
909	1973	Nacional Financiera, S.A.	Water Supply	90.0	75.1
934	1973	Siderurgica Lazaro Cardenas Las Truchas, S.A., and Nacional Financiera, S.A.	Steel	70.0	6.6
968	1974	Nacional Financiera, S.A.	Roads	90.0	84.7
969	1974	Nacional Financiera, S.A.	Irrigation	77.0	55.0
970	1974	Nacional Financiera, S.A.	Irrigation	47.0	45.5
1022	1974	Nacional Financiera, S.A.	Airports	25.0	22.2
1053	1974	Nacional Financiera, S.A.	Integrated Rural Development	50.0	50.0
1110	1975	Nacional Financiera, S.A.	Integrated Rural Development	110.0	110.0
1111	1975	Nacional Financiera, S.A.	Irrigation	150.0	150.0
1112	1975	Guanomex and Nacional Financiera, S.A.	Industry	50.0	41.7
1186	1975	Banco Nacional de Obras y Servicios Publicos, S.A.	Water Supply	40.0	40.0
1205	1976	Nacional Financiera, S.A.	Industry	50.0	50.0
1217	1976	Nacional Financiera, S.A.	Ag. & Liv. Credit	125.0	125.0
1232	1976	Ferrocarriles Nacionales de Mexico and Nacional Financiera, S.A.	Railways	100.0	100.0
		TOTAL		2,512.7	
		Of which has been repaid		374.9	
		Total now outstanding		2,137.8	
		Amount sold	82.7		
		of which has been repaid	54.4	28.3	
		Total now held by Bank		2,109.5	
		Total undisbursed			985.5

a/ No IDA Credits have been made to Mexico.

B. STATEMENT OF IFC INVESTMENTS (as of May 31, 1976)

Year	Obligor	Type of Business	US$ Million Loan	Equity	Total
1958/59	Industrias Perfect Circle, S.A.1/	Industrial Equipment	0.8	--	0.8
1958	Bristol de Mexico, S.A.1/	A/C Engine Overhaul	0.5	--	0.5
1961	Acero Solar, S.A.1/	Twist Drills	0.3	--	0.3
1962/65/66/68	Compañia Fundidora Fierro y Acero de Monterrey, S.A.	Steel	2.3	21.4	23.7
1963	Tubos de Acero de Mexico, S.A.1/	Steel	0.9	0.1	1.0
1963	Quimica del Rey, S.A.1/	Sodium Sulphate	0.8	--	0.8
1964/66	Industria del Hierro, S.A.	Construction Equipment	--	2.0	2.0
1970	Minera del Norte, S.A.	Iron Ore Mining	1.5	--	1.5
1971	Celanese Mexicana, S.A.	Textiles	12.0	--	12.0
1972	Promotora de Papel Periodico, S.A. de C.V.	Pulp and Paper	2/	2/	2/
1973	Cemento Veracruz	Cement	10.5	--	10.5
1974	Cancun Aristos Hotel	Tourism	1.0	0.2	1.2
1975	Mexinox, S.A.	Steel	12.0	3.6	15.6
	Total Gross Commitments		42.6	27.3	69.9
	Less Cancellations, Terminations, Repayment and Sales		15.0	21.6	36.6
	Total Commitments Now Held by IFC		27.6	5.7	33.3
	Total Undisbursed		8.0	2.9	10.9

1/ Investments which have been fully cancelled, terminated, written off, sold, redeemed or repaid.

2/ US$25,000.

C. PROJECTS IN EXECUTION[1]

Ln. No. 527 Fourth Irrigation Project: $25 Million Loan of January 26, 1968; Effectiveness Date: March 1, 1969. Closing Date: June 30, 1976.

Civil works to be executed under the project are completed. The loan is expected to be fully disbursed by the present closing date. Annual net agricultural production values, valued in terms of 1967 prices (appraisal date) are already at a level equal to 87 percent of those projected at appraisal for full development.

Ln. No. 695 Fourth Road Project: $21.8 Million Loan of June 26, 1970: Effectiveness Date: October 1, 1970. Closing Date: December 31, 1976.

Seven project roads have been completed and opened to traffic. The remaining four roads are expected to be completed in 1976, about two years behind schedule. This delay was caused by slow budgetary appropriations and because of the need for additional works. There have been cost increases on five of the project roads for these same reason, and also because of design revisions and sharp price increases since late 1973.

Ln. No. 793 Zihuatanejo Tourism Project: $22 Million Loan of January 22, 1972; Effectiveness Date: March 30, 1973. Closing Date: December 31, 1975.

Infrastructure works are due to be substantially completed in June 1976. The second hotel, El Presidente (308 rooms) will be open in August 1976. By the end of 1976, more than 800 rooms will be open, with another 700 rooms opening by June 1977. Construction of the hotel training school is planned to start in August; FONATUR intends to open the school by January 1977 and the practice hotel by March 1977. Sales of the first condominium and other building lots have already begun. The public beach and recreation and shopping facilities, along with the full municipal services, are to be opened this Summer.

Ln. No. 820 Ports Project: $20 Million Loan of May 17, 1972; Effectiveness Date: August 17, 1972. Closing Date: December 31, 1976.

Progress in execution of the project continues to be satisfactory. Various measures to insure proper operation,

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1/ These notes are designed to inform the Executive Directors regarding the progress of projects in execution and, in particular, to report any problems which are being encountered and the action being taken to remedy them. They should be read in that sense, and with the understanding that they do not purport to present a balanced evaluation of strengths and weaknesses in project execution.

maintenance and adequate user charges are being discussed with the government. Appraisal of a second ports project based largely on studies carried out as part of this project, has been undertaken.

Ln. No. 824 Industrial Equipment Fund (FONEI) Project: $35 Million Loan of June 2, 1972; Effectiveness Date: October 12, 1972. Closing Date: June 30, 1976.

All funds under this project were committed by June 1975.

Ln. No. 825 Second Railway Project: $75 Million Loan of June 2, 1972; Effectiveness Date: August 17, 1972. Closing Date: June 30, 1977.

Progress in the implementation of the Investment Plan, procurement and disbursements are satisfactory. Freight traffic continues to increase and the figures for 1975 indicate growth according to forecasts. Locomotive utilization has improved and the introduction of unit/thru trains has resulted in improved car utilization. The financial situation improved in 1975 due to increased tariffs; the operating ratio for January-August 1975 was 120 against a full year appraisal target of 130. However, because of cost increases, the operating ratio will rise and N de M will need to raise tariffs again.

Ln. No. 909 Mexico City Water Supply Project: $90 Million Loan of June 18, 1973; Effectiveness Date: April 4, 1974. Closing Date: December 31, 1977.

As of December 31, 1975, disbursements amounted to only $8 million, but are expected to accelerate considerably. Total disbursements for schemes approved by the Bank are estimated to amount to $58 million, or 64 percent of the loan. New project components for the period 1976-1980 will be reviewed in July-August when the Mexico Valley Water Commission (CAVM) concludes its plans for that period. The CAVM recently entered into a sales agreement with the State of Mexico for bulk water supply and this agreement has been approved by the Bank.

Ln. No. 934 Las Truchas Steel Project: $70 Million Loan of September 12, 1972; Effectiveness Date: October 29, 1973. Closing Date: December 31, 1977.

Project Execution is progressing satisfactorily and SICARTSA is expected to start production in the Fall of 1976 - some six months behind the original tight schedule. Cost overruns are estimated at 40 percent, 15 percent for foreign costs and 55 percent for local costs. The housing schemes for mill employees and the rail link joining the mill to the national network are delayed.[1/]

Ln. No. 968 — Seventh Highway Project: $90 Million Loan of March 1, 1974; Effectiveness Date: May 29, 1974. Closing Date: December 31, 1978.

Substantial delays have been encountered in the initiation of project works, mainly because of insufficient budgetary allocations. Project costs have in the meantime increased about 50 percent. The government is expected to propose a reduction in project scope. Assurances are being sought that adequate budgetary allocations will be made.

Ln. No. 969 — Rio Panuco Irrigation Project: $77 Million Loan of March 1, 1974; Effectiveness Date: May 29, 1974. Closing Date: December 31, 1980.

Construction is proceeding rapidly; irrigation service will be started on 20,000 ha of the Las Animas unit by late 1976. Intensified manpower training, extension and farm-planning efforts are needed if these programs are to keep pace with construction, especially since 85 percent of the area is to be settled by ejidatarios under collective farming systems. Cost inflation and some changes in project design have resulted in an overall increase of 71 percent in the cost of this project.

Ln. No. 970 — Rio Sinaloa Irrigation Project: $47 Million Loan of March 1, 1974; Effectiveness Date: May 29, 1974. Closing Date: December 31, 1980.

Construction of major project works remain slightly behind the original schedule. Total project costs have risen by 73 percent over appraisal estimates. A Bank mission in June will discuss this issue with the government.

Ln. No. 1022 — Airport Development Project: $25 Million Loan of May 28, 1974; Effectiveness Date: September 16, 1974. Closing Date: June 30, 1978.

The first group of contracts for this Regional Airports Development Project was awarded at the end of 1974, for amounts averaging 15 percent above appraisal estimates, including contingencies. Because of budget constraints, the executing agency, SOP, has proposed a rescheduling of the future contract awards to extend the construction period by two years. Such an extension would add additional escalation costs. This matter is under discussion with the government.

1/ See para. 44 of main text for a further discussion on the progress of this project.

Ln. No. 1053 Papaloapan Integrated Rural Development Project: $50 Million Loan of November 15, 1974; Effectiveness Date: January 27, 1975. Closing Date: June 30, 1980.

Although the quality of works has been satisfactory, first-year goals have not been achieved. The government reduced the CY'76 budget for the project, which will slow down future operations and reduce effectiveness. An upward revision of the budget is being considered. Reprogramming of project activities will be necessary.

Ln. No. 1110 Second Integrated Rural Development Project: $110 Million Loan of May 8, 1975; Effectiveness Date: October 29, 1975. Closing Date: December 31, 1982.

Progress is generally satisfactory. The government is continuing to strengthen management at federal and state levels with PIDER staff now operating at state level for each micro-region. Monitoring and supervision of project works is receiving increased attention. The new Institute for Rural Development Evaluation (CIDER) is carrying out a number of interim evaluations in project regions. PIDER has decentralized budget disbursement to the regional level, which has expedited implementation at the micro-region level. Bank supervision missions continue to encourage improvement in extension, ejido organization, marketing, cost recovery and health. Project investments are generally on schedule.

Ln. No. 1111 Seventh Irrigation Project - Bajo Rio Bravo and Bajo Rio San Juan: $150 Million Loan of May 8, 1975; Effectiveness Date: July 30, 1975. Closing Date: December 31, 1982.

Basic studies and designs work underway indicate that a significant revision of project design and construction schedules will be necessary. Design is complete for some major project elements and construction could begin; however, SRH is negotiating cost recovery charges with landowners and wishes to complete these negotiations before proceeding.

Ln. No. 1112 Fertilizer Project: $50 Million Loan of May 22, 1975; Effectiveness Date: July 30, 1975. Closing Date: December 31, 1978.

Work of the Bajio urea plant is experiencing some delay on account of procurement. Selection of the engineering firm for the Istmo urea plant has been completed. The plant is expected to be in commercial operation in October 1978. The Salamanca Parathion expansion plant is expected to be on stream in November 1977. Project costs are still within the appraisal estimates.

Ln. No. 1186 Medium Cities Water Supply and Sewerage Project: $40 Million Loan of January 13, 1976; Effectiveness Date: April 26, 1976. Closing Date: December 31, 1980.

The Project Unit has been formed and staffed. Agreements for subprojects in four cities are expected to be finalized in 1976, the remaining agreements for four other cities would be signed in 1977 and somewhat later than anticipated during appraisal. These delays could result in delayed execution of the project as a whole.

Ln. No. 1205 Industrial Equipment Fund (FONEI) Project: $50 Million Loan of April 30, 1976. Closing Date: December 31, 1979.

This loan is not yet effective.

Ln. No. 1217 Fifth Agricultural and Livestock Credit Project: $125 Million Loan of March 11, 1976. Closing Date: January 1, 1980.

This loan is not yet effective.

Ln. No. 1232 Third Railway Project: $100 Million Loan of April 30, 1976; Effectiveness Date: June 16, 1976. Closing Date: June 30, 1979.

Tender documents are in preparation.

MEXICO

Loan and Project Summary

Borrower: Siderurgica Lazaro Cardenas - Las Truchas, S.A. (SICARTSA), the entity which will carry out this project, and Nacional Financiera, S.A. (NAFINSA), one of the two financial institutions which may borrow from the Bank under Mexican law.

Guarantor: United Mexican States.

Amount: US$95 million equivalent.

Terms: Payable in 15 years, including 5 years of grace, at an interest of 8.85 percent per annum.

Project Description: The project includes facilities for an iron ore mine and integrated iron and steel works to increase raw steel production by about 2.1 million metric tons annually and to produce about 1.7 million metric tons per year of flat finished steel products. The major project components are:

a) additional ore beneficiation facilities and agglomeration capacity of about 3.4 million tons per year;

b) 130 additional coke ovens designed to operate with indigenous coals with a capacity of about 1.3 million tons a year;

c) two new blast furnaces with a total capacity of about 6600 tons per day;

d) a new basic oxygen steelmaking plant with two 220 ton vessels;

e) a continuous casting plant with three twin strand slab casting machines, with a total capacity of about 2 million tons slab a year;

f) a new flat products rolling mill complex including a semi-continuous 60" hot strip mill and a cold reduction mill with related finishing facilities.

Estimated Cost of Project: (US$ Million)

	Foreign	Local	Total	%
Plant and Spares	737.4	190.9	928.3	46
Structures	68.0	48.3	116.3	6
Erection	128.5	262.0	390.5	19
Transport	62.8	9.3	72.1	3
Civil Works	7.6	246.7	254.3	14
Engineering Procurement and Inspection	45.9	41.4	87.3	4
	1050.2	798.6	1848.8	92
Administration, Advisory and Expediting Services	25.5	85.4	110.9	6
Preoperating Expenses	8.3	47.2	55.5	2
Total Preoperating Costs	33.8	132.6	166.4	8
Total Base Estimate	1084.0	931.2	2015.2	100
Physical Contingencies	107.8	92.4	200.2	10
Price Contingencies	501.2	408.0	909.2	45
Total Contingencies	609.0	500.4	1109.4	55
Total Fixed Cost	1693.0	1431.6	3124.6	155
Working Capital	53.8	175.4	229.2	11
Total Project Cost	1746.8	1607.0	3353.8	166
Interest During Construction	228.4	38.9	267.3	13
Total Finance Required	1975.2	1645.9	3621.1	179

Financing Plan:

	US$ Million	%
Equity:		
Gross Capital Increase	1117.7	31
Cash Generation	344.9	9
Sub Total	1462.6	40
Loans:		
IBRD	95.0	3
IDB	95.0	3
Bilateral	1521.4	42
Government or NAFINSA	447.1	12
Sub Total	2158.5	60
TOTAL	3621.1	100

Estimated Disbursements: (US$ Millions)

CY	In Year	Accumulated
1976	2.7	2.7
1977	29.8	32.5
1978	51.4	83.9
1979	7.0	90.9
1980	4.1	95.0

Procurement: Plant facilities will be procured in large single responsibility packages under international competitive bidding according to the Bank guidelines. Since Project Financing will be on a parallel basis, there are separate equipment package lists for IBRD, IDB and bilateral sources of financing.

For the purposes of bid comparison a 15 percent margin of preference or prevailing level of import duties, whichever is lower, will be granted to Mexican components of foreign bids. Bids, or components in foreign bids, are considered Mexican if supplied by a company incorporated in Mexico and if the cost of local materials, labor and services are not less than 50 percent of the total value of the components offered. In those cases where Mexican companies can qualify to bid directly, their bids are considered entirely Mexican when Mexican value added reaches 50 percent and will then benefit from the preference on the entire bid price.

Likely Allocation of Bank's Loan:

	US$ Million	%
Foreign Equipment and Spares	58.5	61
Mexican Equipment, Spares and Structures	36.5	39
	95.0	100

Consultants: The British Steel Corporation will provide general technical assistance for design, construction and initial operation of Stage II, extending an existing agreement for Stage I. Societe Francaise D'Etudes Minieres of France is providing technical assistance for pellatizing, iron ore exploration and mine planning.

Rate of Return:	The economic rate of return is at least 12.7 percent.
Staff Project Report:	Report No. 1060-ME dated June 15, 1976, Industrial Projects Department.

MEXICO

SUPPLEMENTARY PROJECT DATA SHEET

SICARTSA

I. Timetable of Key Events

(a) Time taken by county to prepare the project: approximately one year. Date of technical, economic and financial feasibility study: October 1974.

(b) Project prepared by SICARTSA with the assistance of the British Steel Corporation.

(c) First presentation to the Bank: December 1974. First joint Bank/IDB mission to consider project: May 1975.

(d) Departure of appraisal mission: October 1975.

(e) Completion of negotiations: May 1976.

(f) Planned effectiveness: August 1976.

II. Special Bank Implementation Actions

(a) A Bank mission visited SICARTSA in June 1976 to review the bid evaluation of major procurement packages.

III. Special Conditions

(a) That the Government will strengthen the role and staff of the Steel Coordinating Commission (para. 36).

(b) That the Government will review steel prices from time to time and maintain them at levels reasonably related to local production costs and world prices, while allowing steel consumers to benefit from declining production costs (para. 39).

(c) That SICARTSA will maintain high standards in recruiting management staff (para. 42).

(d) That qualified auditors will prepare audit reports annually (para. 43).

(e) That the Government will require SICARTSA to use local coals only to the extent that it would be economically and technically advantageous to do so (para. 46).

(f) That SICARTSA will carry out the project with due regard to environmental factors (para. 47).

(g) That the Government will support the construction program for Lazaro Cardenas city (Para. 48).

(h) That SICARTSA will carry out a study of future port service needs and that the Government will take the necessary measures to insure that port and rail service needs for the project are met (para. 49).

(i) That the Government will increase SICARTSA's paid-in capital according to an agreed time-table and provide loan funds at terms and conditions acceptable to the Bank (para. 52).

(j) That the Government will provide additional resources to SICARTSA during its initial period of operation. That SICARTSA will not make dividend payments, incur new long-term debt or undertake additional investments above $25 million per annum unless specified conditions are met (para. 58).

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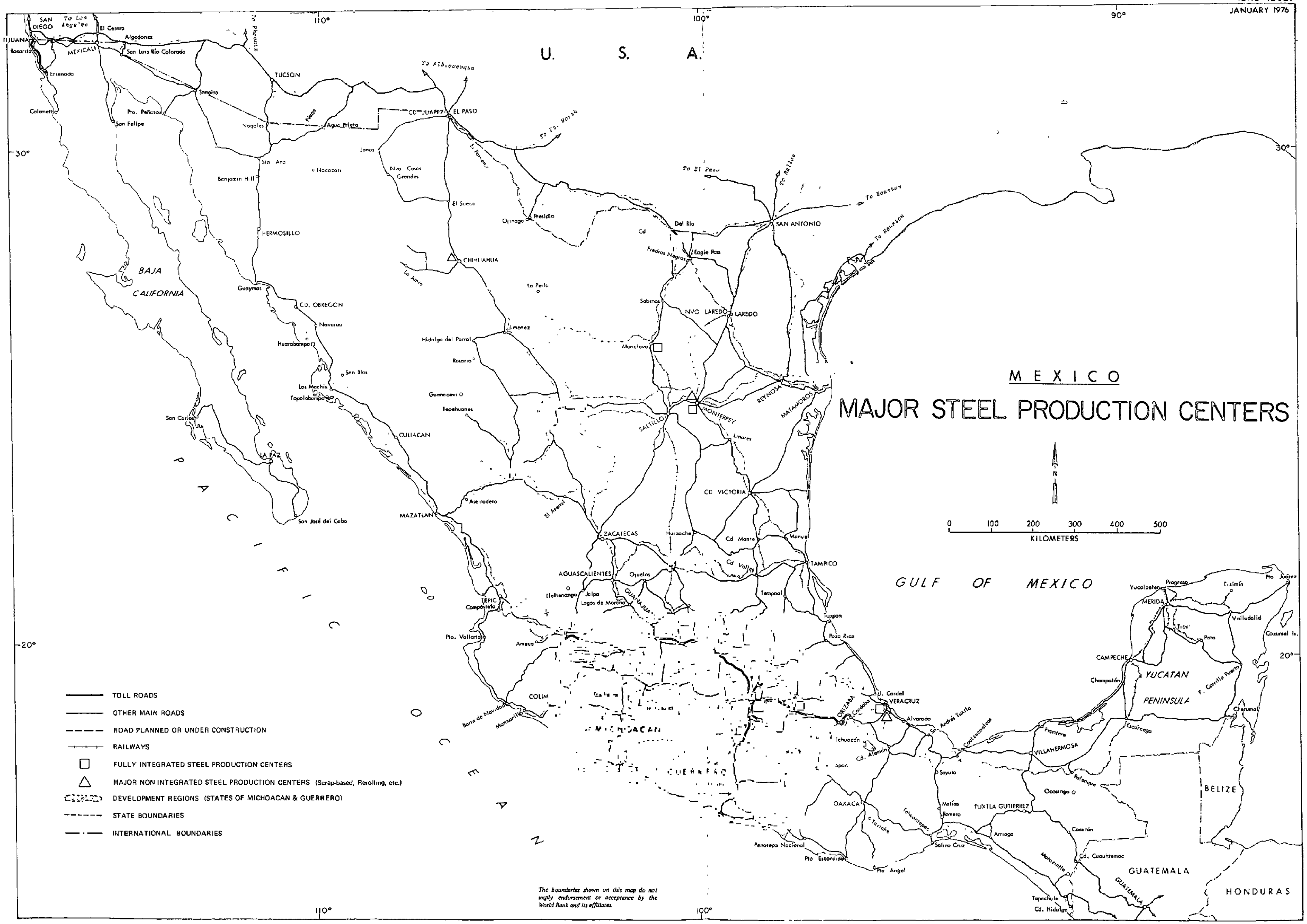
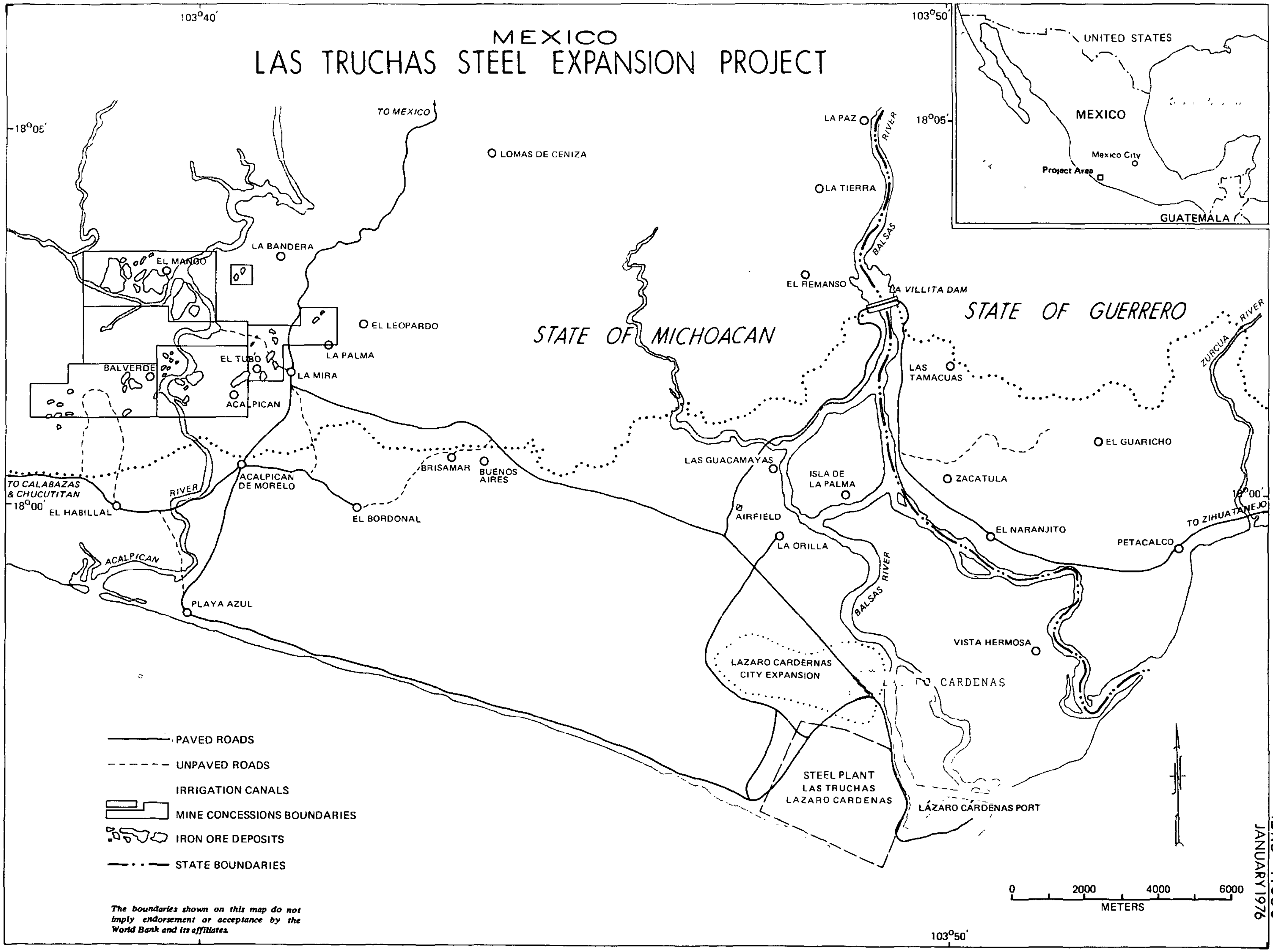
JANUARY 1976




MEXICO
LAS TRUCHAS STEEL EXPANSION PROJECT
103°40'
103°50'
18°05'
18°00'
TO MEXICO
LOMAS DE CENIZA
LA PAZ
LA TIERRA
EL REMANSO
LA VILLITA DAM
BALSAS RIVER
STATE OF GUERRERO
STATE OF MICHOACAN
LA BANDERA
EL MANGO
EL LEOPARDO
LA PALMA
EL TUBO
BALVERDE
LA MIRA
ACALPICAN
ACALPICAN DE MORELO
BRISAMAR
BUENOS AIRES
EL BORDONAL
TO CALABAZAS & CHUCUTITAN
EL HABILLAL
RIVER
ACALPICAN
PLAYA AZUL
LAS TAMACUAS
EL GUARICHO
ZACATULA
LAS GUACAMAYAS
ISLA DE LA PALMA
AIRFIELD
LA ORILLA
EL NARANJITO
PETACALCO
TO ZIHUATANEJO
ZURCUA RIVER
VISTA HERMOSA
LAZARO CARDENAS CITY EXPANSION
CARDENAS
STEEL PLANT LAS TRUCHAS LAZARO CARDENAS
LÁZARO CARDENAS PORT
UNITED STATES
MEXICO
Mexico City
Project Area
GUATEMALA
PAVED ROADS
UNPAVED ROADS
IRRIGATION CANALS
MINE CONCESSIONS BOUNDARIES
IRON ORE DEPOSITS
STATE BOUNDARIES
0
2000
4000
6000
METERS
The boundaries shown on this map do not imply endorsement or acceptance by the World Bank and its affiliates.
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JANUARY 1976