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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 THE
REPUBLIC OF KOREA
FOR A FOURTH HIGHWAY PROJECT

November 29, 1978

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CURRENCY EQUIVALENTS

Currency Unit	-	Won
US\$0.0021	=	W 1
US\$1.00	=	W 485
US\$2.06	=	W 1,000
US\$2,062	=	W 1 million
US\$2.06 million	=	W 1 billion

WEIGHTS AND MEASURES

Metric System

<u>Metric</u>		<u>British/US Equivalents</u>
1 meter (m)	=	3.2808 feet (ft)
1 kilometer (km)	=	0.6214 miles (mi)
1 square kilometer (sq km)	=	0.3861 square miles (sq mi)
1 kilogram (kg)	=	2.205 pounds (lbs)
1 liter (l)	=	0.2759 US gallons (gal)
	=	0.2207 British gallons (imp gal)
	=	1.1023 US short tons (sh ton)
1 metric ton (m ton)	=	0.9841 British long tons (lg ton)

ABBREVIATIONS

ADB	-	Asian Development Bank
BPR	-	Bureau of Public Roads (MOC)
BRD	-	Bureau of Regional Development (MOHA)
EPB	-	Economic Planning Board
ERR	-	Economic Rate of Return
FFYP	-	Fourth Five-Year Plan
GNP	-	Gross National Product
KHC	-	Korea Highway Corporation
KNR	-	Korean National Railroad
MOC	-	Ministry of Construction
MOF	-	Ministry of Finance
MOT	-	Ministry of Transportation
NHMO	-	National Highway Maintenance Office (MOC)
PCB	-	Provincial Construction Bureau
TCMO	-	Territorial Construction and Management Office (MOC)
TCC	-	Transport Coordination Committee
TCO	-	Transport Coordination Office (MOT)
MOHA	-	Ministry of Home Affairs

FISCAL YEAR

January 1-December 31

KOREA

FOURTH HIGHWAY PROJECT

Loan and Project Summary

Borrower: Republic of Korea

Amount: \$143 million equivalent

Terms: The loan would be for a term of 17 years, including 4 years of grace, with interest at 7.35% p.a.

Project

Description:

The proposed project would consist of:

- (a) construction and improvement, including paving and supervision by consultants, of 36 sections of national roads totalling about 950 km;
- (b) construction and improvement, including paving and supervision by consultants, of 10 sections of provincial roads totalling about 280 km;
- (c) procurement of additional road maintenance equipment for maintaining national roads;
- (d) a study by consultants of the institutions involved in the planning, design, maintenance, construction, administration and financing of provincial and county (gun) roads, and the preparation of a program for improving the organization and functions of such institutions, upgrading provincial and gun road maintenance and the future development of the gun road system, to be followed by detailed engineering of about 2,000 km of gun roads.
- (e) provision of fellowships for training staff of the MOC.

As the project encompasses a wide variety of major roads in many, disparate regions in Korea, it will raise the overall efficiency of Korea's transport system and thereby contribute to general economic growth. Measurable benefits of the project are mainly in vehicle operating cost savings due to the improved conditions of the paved roads. The construction of project roads will create about 300,000 man-months of employment. There are no special risks associated with the project.

Estimated Cost:

Project element	US\$ (million)			% foreign exchange component
	Local	Foreign	Total	
A. Construction and improvement of national roads	114.98	83.26	198.24	42
B. Construction and improvement of provincial roads	34.21	24.78	58.99	42
Subtotal A+B	<u>149.19</u>	<u>108.04</u>	<u>257.23</u>	42
C. Road maintenance equipment	1.20	3.80	5.00	75
D. Consultants' services:				
(i) supervision of A and B	1.82	0.90	2.72	33
(ii) Studies and engineering of provincial and gun roads	4.55	0.45	5.00	9
E. Fellowships for training staff of MOC	0.03	0.10	0.13	77
F. Contingency allowances:				
(i) Physical <u>/a</u>	15.68	11.33	27.01	
(ii) Price <u>/b</u>	25.45	18.38	43.83	
Subtotal F	<u>41.13</u>	<u>29.71</u>	<u>70.84</u>	
Total A-F	<u>197.92</u>	<u>143.00</u>	<u>340.92</u>	42
G. Right of Way	37.30	-	37.30	
Total cost of project	<u>235.22</u>	<u>143.00</u>	<u>378.22</u>	38

/a 10% on all items.

/b Price escalation assumed to be at annual rates of 7 1/2% in 1979 and 7% during each year thereafter for both local and foreign costs.

Financing Plan:

	Foreign	Local
	--- (\$ million) ---	
Proposed Bank Loan	143	-
Korean Government	-	235

Estimated

Disbursements:

	----- \$ million -----					
	<u>Bank FY</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Annual		0.2	27.8	52.0	52.0	11.0
Cumulative		0.2	28.0	80.0	132.0	143.0

Rate of Return: The weighted average economic rate of return for all project roads, which account for 96% of the total project costs, is 26%.

Staff Appraisal

Report:

No. 2186-KO, dated November 16, 1978

REPORT AND RECOMMENDATION OF THE PRESIDENT
OF THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
TO THE EXECUTIVE DIRECTORS ON A PROPOSED LOAN
TO THE REPUBLIC OF KOREA FOR A FOURTH HIGHWAY PROJECT

1. I submit the following report and recommendation on a proposed loan to the Republic of Korea for the equivalent of \$143 million to help finance a proposed fourth highway project. The loan will have a term of 17 years, including 4 years of grace, with interest at 7.35% p.a.

PART I - THE ECONOMY

2. The latest Economic Report ("Growth and Prospects of the Korean Economy") was distributed under cover of SecM77-158, dated March 4, 1977./1 The Country Data Sheets are attached as Annex I.

Recent Economic Developments

3. Korea's economic position at the commencement of the Fourth Plan period (1977-81) was stronger than ever before. Despite the balance of payments difficulties of 1974 and 1975 and a much less favorable international economic environment than expected, most of the economic objectives set in the Third Plan (1972-76) were achieved. The economy has shown continued strength since the commencement of the Fourth Plan period. The exports and balance of payments targets for 1977 were realized. The rate of growth of GNP in real terms was 10.3% (as compared with the annual average of 9.2% postulated in the Plan), and per capita income in current dollars rose from \$700 in 1976 to \$864 in 1977. Export value increased by about 29% (albeit at a considerably lower rate than the 56% registered in 1976), and exceeded the target of \$10,000 million. Continued success was achieved in diversifying the markets for, and composition of, Korean exports. Although there was a trade deficit of \$477 million, resulting from a 25% increase in imports, net receipts from services (\$266 million) and net transfers of about \$223 million offset this deficit and resulted in a current account surplus of \$12 million, as compared with a deficit of \$314 million in 1976. The rapid improvement in the balance of payments was the result of a substantial improvement in the terms of trade, due in part to quality improvements, and the sharp increase in the earnings from construction contracts abroad. Furthermore, net transfers averaged nearly \$300 million over the past two years. The net gain from all these factors, together with the increase in tourism receipts, was nearly equivalent to the total of the current account deficits in 1974 and 1975.

/1 The latest Bank Economic Mission visited Korea in October 1978 and its report is presently under preparation.

4. Although price increases averaged about 10% in 1977, due, in part, to the continued stability of import prices and, in part, to the success of anti-inflation policies, including price controls, inflationary pressures began to accelerate again during the second half of 1977 and have persisted in 1978. The Government has tended to view this as being mainly the result of the high rate of growth of the money supply caused almost entirely by the large inflows of foreign exchange earnings, especially from construction contracts abroad. In response to this view of the inflation problem, the Government has attempted to reduce the net inflow of foreign exchange by inducing more cash imports and reducing credit imports, and by neutralizing the possible monetary impact of some of the foreign exchange earnings through various monetary measures. Furthermore, the Government announced a wide ranging import liberalization scheme which took effect on May 1, 1978. In addition, interest rate adjustments have been made, the most recent being the raising of deposit and loan rates in June 1978 in an attempt to reduce the prevailing excess demand and dampen inflationary pressures.

5. The balance of payments position in 1978 is expected to remain sound with nominal increases of 24% and 32% in the values of exports and imports, respectively. The resulting trade deficit of about \$1,400 million is expected to be partially offset by a projected surplus in the invisibles account of about \$950 million (including net transfers), leaving a current account deficit of some \$445 million. Net inflows of medium- and long-term capital would be about \$1,600 million and, in spite of the substantial repayment of some of Korea's short-term debt, Korea's gross holdings of foreign exchange would be augmented by an estimated \$775 million in 1978. This revised estimate takes account of the impact of the additional import liberalization measures which is already reflected in the rate of increase of imports since the first quarter of 1978. The outlook in 1979 is also expected to remain strong with a continued high growth of exports and a gross level of capital inflow of about \$3,000 million, including an allowance for an increase in reserves to about \$6,000 million, or about four months of imports, a level considered prudent in view of Korea's trade dependency.

Longer-Term Problems and Prospects

6. The preparation of the Fourth Plan (1977-81) afforded an opportunity for a comprehensive review of Korea's economic problems, prospects and priorities. Korea's longer term goals as specified in the Plan are "growth with enhanced self-sufficiency" and "greater equity and social development." The firm intention of the Government as stated in the Plan is to achieve a maximum rate of growth consistent with a sound balance of payments and also with the maintenance of internal price stability. National savings are expected to finance as much as 92% of total investment as compared with about 72% in the Third Plan period (1972-76).

7. Growth and stability are not the only objectives. Enhanced equity and greater social development are also of importance in the Korean plans. The main emphasis is on achieving a wider distribution of the benefits of growth. Health outlays will increase as a proportion of total investment with special stress on preventive care and an innovative health delivery

system to service low-income families, particularly in the rural areas. Rural incomes are expected to increase as a result of greater agricultural productivity and diversification and of increased opportunities for non-farm employment primarily through the Saemaeul (New Community) Movement and small industries development, and also because of increasing construction activities in the rural areas. The quality of life in these areas is to be further enhanced by the provision of additional infrastructure facilities.

8. The achievement of these goals would not require a change in the basic development strategy of export-led growth, which Korea has followed so successfully since the mid-sixties. The Fourth Plan postulates an annual rate of increase of exports of 16% in real terms, and a real growth rate of 14% per year will be required during the rest of the Plan period if the target is to be met. The ratio of commodity exports to GNP is expected to rise from the level of about 30% in 1976 to about 42% in 1981, with the manufacturing sector providing about 92% of total commodities compared with 90% in 1976. This demands the achievement of continuous gains in efficiency and productivity, further success in diversifying both exports and markets and the maintenance of a favorable domestic policy environment. More than half of Korea's manufactured goods still consists of textiles, garments, electronics and footwear, but clearly Korea's comparative advantage is starting to shift from unskilled labor-intensive items to more capital- and skill-intensive products. Although not a critical factor at present, Korea will in future face increasingly severe competition from the less industrially advanced countries which are more amply endowed with natural resources and where unskilled labor is cheaper. Furthermore, Korea is beginning to experience constraints on the expansion of several traditional manufactured exports due to its already dominant position in some cases (e.g., plywood) and due, in other cases, to the trade restrictions imposed by some developed countries (e.g., textiles and footwear).

9. A changing pattern of exports reflecting and responding to shifting comparative advantage is, therefore, essential for sustained export expansion. Korean planners are conscious of the need to effect structural changes in exports and industrial output and are focusing on electronics and machinery to achieve this. The achievement of the targets set for the export of electronics, machinery and other capital goods generally requires a concerted effort on a number of fronts. As the World Development Report points out, the essential problems in expanding these exports are technological and organizational. Action is required to bring about the assimilation or learning of new technology, its adaptation to local needs and conditions, technology innovation, the rationalization of production processes, quality improvement and market development, including the provision of export credits on a significant scale if market penetration in the less developed countries is to succeed.

10. In the Korean context, the continued high rate of growth of the economy is essential, since significant progress toward the basic equity

goals of improved income distribution and reduced poverty could be more easily affordable when the growth of incomes is high. The predominant role the export sector is expected to play is appropriate in view of Korea's limited natural resources. Moreover, Korea has the manpower and the entrepreneurial capacity to implement the Plan's investment programs. The Fourth Plan's priorities, strategy and programs, therefore, remain appropriate. The Plan strikes a reasonable balance between the various objectives of increasing employment, maintaining a minimum growth of per capita incomes, strengthening the balance of payments and making progress towards diversifying the industrial structure so as to sustain export growth in the 1980s.

11. Notwithstanding the efforts being made to increase the mobilization of domestic resources, Korea will continue to need sizeable gross capital inflows. It is estimated that foreign capital commitments of about \$3,000 million would be required annually over the next several years. While Korea is extending its use of commercial financing from the traditional suppliers and private bank credits to Euro-dollar syndicated loans and bond issues in the Euro-bond and Asia bond markets, the magnitude of its external capital requirements is such that it will have to continue to rely on considerable capital inflows from official sources, including Eximbanks. Servicing of the debt should not pose serious difficulties given the present debt service ratio and the prospects for continued export growth, provided that the proportion of external debt incurred on shorter term and at high interest rates is not excessive. On the assumption that Korea can obtain the required inflow of capital on reasonable terms, the debt service ratio which now stands at just over 10% is expected to remain at 10-11% until the end of the decade and decline slowly thereafter.

PART II - BANK GROUP OPERATIONS

12. As of September 30, 1978, Korea had received 39 Bank Loans (including one Third Window Loan) and 8 IDA Credits, totalling \$2,004.5 million in loans and \$106.8 million in credits (taking into account cancellations and the refinancing of one IDA Credit in a subsequent Bank Loan). As of that date \$889.7 million of the total Bank lending remained undisbursed on effective Loans and Credits, mostly from commitments in the past two years. Annex II contains a summary statement of Bank Loans, IDA Credits, and IFC Investments as of that date and notes on the execution of ongoing projects. As indicated in the notes, progress on project implementation is generally satisfactory.

13. In recent years, the thrust of the Bank Group's lending operations in Korea has been directed towards assisting the Government's efforts: (a) to secure the external resources required to supplement domestic savings in sustaining a high GNP growth rate by following a policy of rapid export-oriented industrialization; (b) to avoid the emergence of infrastructure bottlenecks; and (c) to complement industrial development with agricultural and rural development schemes aimed at bringing about a better dispersal of the fruits of growth through raising incomes and improving the quality of life in the rural areas.

14. A substantial part of Bank financing has been directed towards the vital industrial sector through our lending to Korea's three major development banks. The Korea Development Finance Corporation has received \$220.0 million, the Korea Development Bank \$252.5 million and the Medium Industry Bank \$85 million in Bank loans for relending to private industry. This has resulted not only in the overall development of the industrial sector, but has also contributed to the achievement of institutional improvements and of the Government's objective of decentralizing industry. The loan of \$80 million for a Heavy Machinery Project was intended to assist in achieving the structural shift to more skill-intensive industries, which is necessary to ensure the long-term viability of Korea's export strategy.

15. As Korea's economy continued to grow and the pace of industrialization has quickened, there has had to be a parallel expansion of transport facilities. The Bank Group, through its association with the Government's effort to modernize and expand the transport sector dating back to 1962, has played an important role in these developments. Some \$340 million has been provided for six railway projects designed to increase the railroad's capacity and improve its operations; three loans totalling \$191.5 million have been made for highway construction and paving of high priority sections of the national network and for a countrywide maintenance organization; and two loans amounting to \$147 million have been provided for the expansion of port facilities at Busan, the premier port, and Mugho, primarily for improving coal handling facilities.

16. Korea's paucity of natural resources and dependence on the manufacturing segment of its economy has resulted in the adoption of a strategy based on maximizing the advantages of a skilled and hard working labor force. The Bank Group has been involved in helping to meet the requirements for appropriately trained workers and certain categories of skilled manpower through its lending for four education projects which have pursued the broad objectives of technical manpower development either through the expansion of relevant subsectors or through specific quality improvements. Together they have catered to a broad range of manpower training needs within agriculture, fisheries, industry and services.

17. Korea's record of achievement in modernizing its agricultural sector, although less spectacular than the gains made in the industrial sphere, are nevertheless commendable. The past fifteen years have seen agricultural output grow at about 4% per annum, which has resulted in the country becoming near self-sufficient in its staple food, rice, and made possible a steady and perceptible improvement in the living standards of the 40% of Korea's population who live in the countryside and rely primarily on agrarian pursuits for their livelihood. The Bank has lent \$325.5 million for the improvement of irrigation facilities, land and seed development and the provision of agricultural credit to farmers and processors of agricultural products. In addition, \$155 million has been provided for two rural infrastructure projects in support of the Government's rural development program initiated in 1971 to improve the quality of life and the standard of living in the rural areas.

18. The Bank's first essay into the field of regional development in Korea through the project approved in January 1975 (Loan 1070-KO) has proved successful. The project was designed to support the Government's policy by financing high priority investments in the poor, primarily agricultural, southwest region.

19. Excluding one project that was cancelled subsequently, IFC had by September 30, 1978, entered into 20 commitments totalling \$71.3 million (net of participation and cancellation). Korea's industrial development programs have required large capital expenditures in the private sector, a situation which has enabled a substantially enhanced IFC presence in the past few years.

20. A primary objective of the Bank's future lending to Korea is to assist it in sustaining its growth momentum. The basic issue in this connection is whether Korea can deepen and diversify its industrial structure to the extent necessary to ensure that it attains its export targets. In addition to the proposed loan to KDFC, further loans are planned for the other development banks. Lending to industry will be diversified by the provision of a loan for a second machinery project which will provide financial and technical assistance to small- and medium-scale machinery industries. It will also be necessary to introduce RD&E programs which are better adapted to the technological needs of industrial development. Projects for technological development of the electronics and machinery industries are envisaged in the program.

21. Korea's industrialization program, which calls for entering into more complex fields of manufacturing than hitherto, will require increasingly high levels of technical competence on the part of its labor force. A loan to modernize and expand the system of higher technical education so as to increase its flexibility and responsiveness to the changing requirements of the economy is, therefore, proposed.

22. Another strand in the lending strategy is increased support of the Government's efforts to spread the fruits of growth even more equitably by the diversification and expansion of the output of the agricultural sector and through nationwide development programs. Projects are envisaged for land/water resource development, for agricultural credit, marketing and processing and for the further development of rural infrastructure.

23. The further development of the industrial and agricultural sectors and the anticipated growth of exports will require concurrent infrastructural development. Although the transport sector will be given less emphasis than in the past, the investments required are large, and thus there is considerable support for this sector in the proposed program.

24. The share of the Bank Group in Korea's total external debt disbursed and outstanding at the end of 1977 was about 11%, and the share of debt service was of the order of 6.0% at that time. These ratios are expected to increase to around 13% and 7%, respectively, by the end of the present decade.

PART III - THE TRANSPORT SECTOR

25. The fundamental changes in Korea's economy in the past decade were accompanied by significant changes in the transport sector. The railway system, which had been rehabilitated following the Korean War and remained for many years the only means of large-scale movement of goods and passengers, has lost its preponderant position, although it still remains an important mode of transport particularly for bulk commodities. A diversified road transport network has been developed and about 5,500 km (nearly 60%) of the national highway system is now paved. The number of private cars in relation to population is lower than in such countries as Indonesia and the Philippines although incomes are higher. The share of coastal goods transport in total traffic has also increased markedly, primarily due to the movement of oil products. The country's export drive and reliance on foreign trade has led to a sixfold increase in the volume of port traffic and an eightfold increase in Korea's international fleet in the last decade.

26. As indicated in para. 15, the Bank Group, through its association with the Government's efforts to modernize and expand the transport sector dating back to 1962, has played an important role in these developments.

27. As Korea's economy continues to grow and the pace of industrialization intensifies, there will have to be a corresponding expansion of transport facilities. The internal transport system will have to cope with the movement of large volumes of widely used bulk commodities such as coal, cement, oil, iron and steel, and fertilizer. The industrial complexes which are burgeoning on the south and southeastern coast and are planned in the southwest will require the import of large amounts of raw materials and the transport of intermediate products between plants. Some of these plants are likely also to export large volumes of their output. In addition, a more diffuse pattern of growth in non-bulk freight traffic and passenger traffic is expected to result from the general growth of the economy.

28. The preparation of the Fourth Plan (1977-81) afforded an opportunity to formulate and review investment proposals related to the transport sector on a more systematic basis than hitherto. Traffic trends were analyzed in detail and the proposed investments are based on the assumption that Korea's economy will continue to grow at about 9% per annum and that the deepening of the industrial structure will intensify. The investments proposed amount to about W2,800 billion and represent just over 14% of the total investment called for in the Plan. The modal allocation, compared with that undertaken during the Third Plan, is as follows:

	1972-76		1977-81	
	\$ (million)	%	\$ (million)	%
Railways	655	17	829	14
Road transport	1,717	45	2,527	44
Ports and shipping	1,075	28	2,052	36
Aviation	251	7	122	2
Urban systems	117	3	208	4
Other	10	-	-	-
	<u>3,825</u>	<u>100</u>	<u>5,738</u>	<u>100</u>

The Fourth Plan allocation of total investment to the transport sector is about the same percentage as in the Third Plan period, but represents an increase of 50% in real terms. About half of the investment will be undertaken by the public sector (mainly for highways, railways and ports) and the other half by the private sector, for vehicles and ships. In broad terms, the investment program appears to respond satisfactorily to the growing demand for transport facilities and the intermodal allocation of investment reflects the changing composition of demand. Specific investment projects will continue to be subject to detailed economic and technical studies to ensure that their objectives are met in the most economical manner.

Transport Policy Planning and Coordination

29. The Government set up in 1970 a Transport Planning Office on the recommendations of a study by consultants under a Bank Technical Assistance Project and with assistance provided under subsequent road and railway projects. Over the past three years, the Government has taken steps to further improve transport coordination by establishing, in 1975, a Transport Coordination Committee (TCC) consisting of nine directors, representing ministries most directly concerned with transport matters, and a Transport Coordination Office (TCO) in the Ministry of Transportation. TCO's main functions are to collect data and assist in the formulation and review of transport policies, especially those related to pricing and regulations.

30. While the charter of the TCC includes intermodal coordination of transport sector investments, the TCC has not in fact exercised this function. The Economic Planning Board (EPB), which exercises budgetary control and plays a senior role with regard to all other ministries, has the dominant role in decisions on investment projects. EPB intends to make much more intensive reviews of investment projects and has established a separate Bureau of Project Evaluation to this end. Sector studies covering major aspects of transport coordination are being partly financed under the Sixth Railway Loan (1542-KO). They will be carried out under the supervision of EPB.

The Transport Modes

31. The past and planned development of the various transport modes has been influenced by: the nature of Korea's terrain (about two thirds of the country is hilly); the concentration of economic activity and population around the Seoul-Incheon and Busan areas; the location of the country's major coal deposits, limestone and cement plants in the northeast; a long coastline along which industrial activity is increasing; and the economic dependence on the export of manufactured goods and import of bulk raw materials. The major features of the transport system (illustrated in the attached Map) are summarized below.

32. Railways. The semi-autonomous Korean National Railroad (KNR) operates 3,097 route-km of standard gauge and 47 km of narrow gauge lines; 567 km are double track. The single track industrial lines between the northeast mining and industrial areas and Seoul are electrified, as well as suburban lines around Seoul.

33. As indicated above, the share of rail transport fell considerably over the last decade; the railways now carry only about 42% of the total freight ton-km versus 78% in 1966, and 28% of intercity passenger-km versus 42% in 1966. Nevertheless, cost comparison indicates that rail transport is still the most economic means of moving bulk traffic over medium and long distances, and also has an important role to play in serving long distance passenger traffic. In 1976, about 81% of rail freight traffic consisted of six bulk commodities, coal, cement, ore, oil, fertilizer, and grain, as against 69% in 1966. In addition to its long distance hauling of bulk freight and passengers, KNR is expected to play a growing role in providing rapid transit service for Seoul and its suburbs.

34. Ports and Shipping. Freight traffic through the ports has increased from about 13 million tons in 1966 to over 80 million tons in 1976. This tremendous increase resulted in serious port capacity problems, particularly at Busan, the largest port, which handles 20% of the country's external trade. The Bank has assisted the development of the port of Busan through two projects and the Asian Development Bank (ADB) is financing the expansion of Incheon, the port nearest to Seoul. The Saudi Fund for Development participated in the financing of the First Port Project (Loan 917-K0). The Government has also developed a number of specialized ports serving specific industrial sites, e.g. Bugpyeong handles cement and Pohang handles inbound and outbound material for the steel mill located there.

35. The role of coastal shipping has greatly increased in the last decade from 10% of the ton-km moved in Korea in 1966 to 27% in 1976. This is mainly due to the construction of industrial complexes at coastal locations, and, to a lesser extent, to shortages in rail and road capacity. Korea's share in the merchant shipping of its external trade has been increasing and reached about 38% of total tonnage in 1976.

36. Aviation. Although domestic air passenger traffic has grown rapidly, it still amounts to less than 1% of total passenger-km; airfreight

is also negligible. Domestic routes are served by the privately owned Korean Airlines (KAL), which also operates internationally. Most international traffic is handled at the Seoul-Kimpo International Airport; other international airports are at Busan and at Jeju Island, a major tourist center.

37. Highways. The public road network totals about 80,000 km consisting of 9,400 km of national highways, 10,900 km of provincial roads, 12,500 km of gun or county roads and some 47,000 km of village access roads. About 36,000 km of village roads had been constructed and improved under the self-help Saemaul Movement at the end of 1977. The national highways include about 640 km of grade separated toll expressways, of which about 500 km are four-lane and 140 km are two-lane. Up to 1967, little had been done to improve the roads, only 15% of the national roads were paved. Even now only 58% of the national highway system is paved, and 8% of the provincial roads (compared with about 95% and 20% respectively in Thailand). The rapidly growing demand for road transport requires the extensive improvement of the highway network.

38. During both the Second and Third Plan periods, road freight traffic grew twice as fast as all freight traffic, averaging 38% p.a. in 1967-71 and 10.5% p.a. in 1972-76. Intercity passenger traffic on highways also grew rapidly, at 16.6% p.a. in 1972-76. Despite the rapid road traffic growth, the motor vehicle fleet in Korea is still small when compared with other countries of similar and even lower income levels. The 275,000 four wheel road vehicles presently registered in Korea amount to only 7.9 per 1,000 persons. The ratios are 14.3 in Thailand, 15.4 in the Philippines, and 48.2 in Malaysia. Only Malaysia has a higher per capita income than Korea. There are many reasons why Korea's vehicle fleet is small: the high taxation of private cars, the restrictive licensing of commercial vehicles, the high cost of locally manufactured vehicles, and the fact that the road network was developed only recently. With rapidly increasing incomes, however, there is a growing demand for motor vehicles which could lead to a considerably larger ratio of vehicles to population than at present.

39. Recognizing the need to improve the highway system, the Government plans to spend a total of W 458 billion at 1975 prices (\$940 million) during the FFYP (1977-81). This represents a 30% increase in real terms over the previous Plan. Proposed road expenditures in the FFYP still reflect the Government's priority of completing the improvements of the basic national road system. However, the share of national roads expenditures in the total is gradually being reduced. Under the FFYP, 3,700 km of national roads will be improved and paved, bringing the proportion of national roads paved to about 90% of the total. Improvement and paving of provincial or secondary roads will gather momentum with a program of about 450 km. These roads come under the jurisdiction of the Ministry of Home Affairs (MOHA) and not under the Ministry of Construction (MOC) as in the case of the national roads. A study financed by the proposed loan will review the need to improve and strengthen the institutions dealing with lower class roads and, together with a study of provincial roads under the Third Highway Project, determine programs for the maintenance and improvement of such roads. The Government will retain consultants for carrying out the studies of the institutions

concerned with provincial and gun roads, and of the maintenance and development of such road systems; and will review with the Bank the findings of the studies to be followed at appropriate stages with the selection of roads for detailed engineering (Section 3.05 of the draft Loan Agreement).

40. The importance of maintenance was recognized early in the Bank Group's lending operations for highways in Korea. In 1972, the MOC field organization for maintaining national roads was set up in a pilot province with technical assistance and equipment financed under the First Highway Project. The organization was gradually extended to the entire country with financing under the Second Highway Project, and in accordance with an agreed time schedule modified under the Third Highway Project. However, since the organization became fully operational in 1977, budgetary provisions have been only half the target figures agreed during negotiations of the Third Highway Project. During negotiations agreement was reached with the Government on adequate provision for maintenance through annual budgetary appropriations (Section 4.05 of the draft Loan Agreement). Maintenance of lower class roads under the MOHA will be studied under the proposed project (Section 3.05 and Part B of Schedule 2 to the draft Loan Agreement).

41. The three previous Bank financed highway projects have had a major impact in assisting the Government with the construction and improvement of its national road system, with institution building in MOC, and with formulating revised policies affecting the whole transport sector. Assistance with institution building was provided for setting up the Bureau of Public Works (BPR), the MOC's field organization for maintaining the national highways, and for improving the MOC's planning capability. Technical assistance was also extended to help set up the Transport Coordination Office in MOT. Significant policy changes which were evolved through the highway projects include the adoption of more appropriate road standards, relaxation of restrictive licensing of the road transport industry, revision of regulations governing vehicle weights and dimensions, and a modified Government policy on toll roads requiring financial and economic studies prior to levying tolls on any road. A major advance is the introduction of a satisfactory organization for maintaining national roads, which should be fully effective when it receives adequate budgetary provision. Indirectly, the three highway projects have helped promote the Korean contracting industry through a steady and gradually increasing stream of contracts, and Korean consulting firms through their association with foreign consultants on the design of the projects.

PART IV - THE PROJECT

42. The objectives of the proposed project are to assist in improving the highway system to cope with the growing traffic by extending the network of paved highways by some 1,230 km, and by preparing a program for improving the maintenance and development of the provincial and county (gun) road systems. The project was appraised in April 1978. A Staff Appraisal Report based on the findings of the mission (No. 2186-KO dated November 16, 1978) is

being circulated separately. Supplementary project data are provided in Annex III. Negotiations were held in Washington from October 30 to November 3, 1978 with a Government team led by Mr. Hung-Ki Kim, Director-General, Bureau of Foreign Capital Management, Economic Planning Board.

43. The project consists of:

- (a) construction and improvement, including paving and supervision by consultants, of 36 sections of national roads totalling about 950 km;
- (b) construction and improvement, including paving and supervision by consultants, of 10 sections of provincial roads totalling about 280 km;
- (c) procurement of additional road maintenance equipment for maintaining the national roads;
- (d) a study by consultants of the institutions involved in the planning, design, maintenance, construction, administration and financing of provincial and county (gun) roads, and the preparation of a program for improving the organization and functions of such institutions, upgrading provincial and gun road maintenance and the future development of the gun road system, to be followed by detailed engineering of about 2,000 km of gun roads; and
- (e) provision of fellowships for training staff of the MOC.

Cost and Financing

44. The estimated total cost of the project, including contingencies, is about \$378 million. The foreign exchange component, which will be financed by the proposed loan, is \$143 million. Detailed cost estimates are given in the Loan and Project Summary. The foreign exchange component of the cost of highway construction and improvement has been estimated at 42% (excluding right of way), on the assumption that all contracts would be won by local contractors, as was the case under the previous three projects. The Korean Government would be responsible for financing the local cost component and confirmed its ability to do so from its budgetary resources.

Execution

45. The MOC will be responsible for carrying out the project, through its BPR, as for the three previous highway projects, except for the studies of provincial and gun roads for which the MOHA will be responsible. The MOC will be assisted in supervising the construction and improvement work by the same consultants who carried out the engineering. The MOHA will be assisted by consultants in carrying out the studies of the institutions concerned with provincial and gun roads, and of their maintenance, and the detailed engineering of gun roads for preparation of future projects. The estimated cost per man-month of consultants' services (excluding travel and local subsistence allowance), for supervision of construction and the study of provincial and gun roads is \$7,500 for the small number of senior foreign consultants staff to be employed, and \$3,100 for Korean consultants; the corresponding costs, including travel and allowances, are \$9,700 and \$3,600.

Procurement and Disbursement

46. Contracts for road construction and improvement will be awarded on the basis of international competitive bidding among prequalified firms, in accordance with the Bank's "Guidelines for Procurement". Road maintenance equipment will be procured through contracts awarded after international competitive bidding, also in accordance with the "Guidelines for Procurement"; a margin of preference equal to the import duties and taxes, or 15%, whichever is lower, will be allowed to domestic manufacturers.

47. Disbursements from the loan will be made over 4 years on the basis of:

- (a) 42% of the total cost of construction and improvement;
- (b) 100% of the c.i.f. cost of imported road maintenance equipment; or the ex-factory price, excluding identifiable taxes and duties, of locally manufactured equipment;
- (c) 100% of the foreign exchange costs of consultant's services; and
- (d) 100% of the foreign exchange costs of fellowships.

A disbursement schedule is given in the Loan and Project Summary.

Benefits and Economic Return

48. Together with the ongoing Third Project, this project will help the Government in achieving its targets for road improvement during the FFYP (1977-81). The two projects will assist in financing about 50% of the national road paving program (1,750 km out of 3,700 km). ADB will finance another 760 km, and the Government will fund the remaining 1,200 km entirely from its own resources. The proposed project will also partially finance 60% of the provincial road paving program (280 km out of 450 km). ADB is considering assistance for another 120 km, leaving 50 km for the Government to finance entirely on its own. The project supports the Government's strategy of paving existing gravel roads, which still account for 40% of the national network, rather than constructing new high standard highways. This approach of minimizing and phasing investments increases the rate of return of road projects and enables the highway system to meet a much larger total transport demand at lower cost; it follows the recommendations of the Bank.

49. The project roads are scattered throughout the northern two thirds of the country, with some concentration on the west coast and in the eastern mountains. Roads in the west will improve general transport and communications in a heavily populated, well endowed, agricultural area, and provide faster access to the provincial capital of Daejon. They will also enable fuller use of potential distance savings between the western coastal area and Seoul afforded by roadways built on new dams on the Asan Bay. Roads in the eastern mountains which produce primarily coal and cement will reduce the transport cost of these commodities and improve the living conditions in these less

developed areas by increasing mobility and reducing dust pollution. The other project roads will improve access and transport facilities within predominantly rural areas, which are presently isolated by the poor condition of existing roads.

50. Traffic on project roads ranged from 120 to 2,500 vehicles per day in 1975, with a median around 250 vehicles/day. The typical distribution of vehicles is cars and taxis 20%, buses 25%, and trucks 55%. Traffic is expected to continue growing rapidly at around 7% p.a. for trucks and buses and over 10% p.a. for cars and taxis. In 1982, when the project roads would be completed, traffic on them is expected to range from 300 to over 5,000 vehicles/ day, with a median over 500 vehicles/day.

51. As the project encompasses a wide variety of major roads in many, disparate regions of Korea, it will raise the overall efficiency of Korea's transport system and thereby contribute to general economic growth. While this contribution is real, it cannot readily be fully quantified. Measurable benefits of the project are mainly in vehicle operating cost savings due to the improved conditions of the paved roads compared with the existing rough gravel roads. For the typical road, total benefits following paving would be distributed among various users as follows: cars and taxis less than 10%, buses about 40%, trucks over 50%. The roads in isolated rural areas will stimulate a diversification of agricultural production as well as favor socioeconomic contacts between the rural population and other parts of the country. The construction of project roads will require an average of about 9,000 workers over a 33 month period, creating a total of about 300,000 man-month of employment, 60% of which would be for unskilled labor. The new pavements would also bring non-quantified benefits, such as quicker and better services and improved environmental conditions through a reduction of heavy dust and mud which cover villages and fields along existing gravel roads which carry much traffic.

52. The economic rate of return (ERR) for the project roads, calculated over an assumed 20 years service life, range from 16% to over 40% excluding passenger time savings. The weighted average ERR for all project roads which account for 96% of total project cost is 26%. This rate of return excludes investment in road maintenance equipment totalling 2% of project cost; and studies and training totalling 2% of project cost. Sensitivity tests assuming substantial increases in construction cost and decreases in benefits have shown that, even under the pessimistic assumptions of a 20% increase in costs or a 20% reduction in benefits, the project would have a weighted average ERR of over 20% and would thus remain well justified. There are no special risks associated with the proposed project.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

53. The draft Loan Agreement between the Republic of Korea and the Bank, and the Report of the Committee provided for in Article III, Section 4 (iii) of the Articles of Agreement of the Bank are being distributed to the Executive

Directors separately. The draft Loan Agreement follows the general pattern of Loan Agreements relating to highway projects. Special conditions of the project are listed in Section III of Annex III.

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

PART VI - RECOMMENDATION

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

Robert S. McNamara
President

Attachments

November 29, 1978

KOREA REPUBLIC OF - SOCIAL INDICATORS DATA SHEET

LAND AREA (THOUSAND SQ. KM.)	KOREA REPUBLIC OF			REFERENCE GROUPS (ADJUSTED AVERAGES - MOST RECENT ESTIMATE) /a		
	1960 /b	1970 /b	MOST RECENT ESTIMATE /b	SAME GEOGRAPHIC REGION /c	SAME INCOME GROUP /d	NEXT HIGHER INCOME GROUP /e
TOTAL	98.5					
AGRICULTURAL	24.4					
GNP PER CAPITA (US\$)	120.0	290.0	810.0	616.0	867.2	1796.4
ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF COAL EQUIVALENT)	258.0	815.0	1038.0	522.0	578.3	1525.0
POPULATION AND VITAL STATISTICS						
TOTAL POPULATION, MID-YEAR (MILLIONS)	25.0	32.2	36.5	.	.	.
URBAN POPULATION (PERCENT OF TOTAL)	28.0	41.2	48.5	30.1	46.2	52.2
POPULATION DENSITY						
PER SQ. KM.	254.0	327.0	371.0	156.8	50.8	27.6
PER SQ. KM. AGRICULTURAL LAND	1168.0	1371.0	1496.0	794.8	93.3	116.4
POPULATION AGE STRUCTURE (PERCENT)						
0-14 YRS.	40.5	42.1	38.6	40.8	42.9	34.8
15-64 YRS.	55.7	54.5	57.9	55.4	53.5	56.0
65 YRS. AND ABOVE	3.8	3.4	3.5	3.2	3.5	5.7
POPULATION GROWTH RATE (PERCENT)						
TOTAL	2.8	2.3	1.8	2.3	2.5	1.6
URBAN	5.9	6.4	5.4	5.1	4.7	3.4
CRUDE BIRTH RATE (PER THOUSAND)	39.7	35.0	28.8	34.6	37.8	27.0
CRUDE DEATH RATE (PER THOUSAND)	22.9	11.4	8.9	8.7	10.8	9.9
GROSS REPRODUCTION RATE	3.1 /f	2.6	1.9	2.6	2.5	1.9
FAMILY PLANNING						
ACCEPTORS, ANNUAL (THOUSANDS)	..	672.0	686.0	.	.	.
USERS (PERCENT OF MARRIED WOMEN)	..	42.0	34.2	22.1	20.0	19.3
FOOD AND NUTRITION						
INDEX OF FOOD PRODUCTION PER CAPITA (1970=100)	81.6	100.0	104.5	106.8	107.3	103.8
PER CAPITA SUPPLY OF						
CALORIES (PERCENT OF REQUIREMENTS)	85.0	114.0	115.0	108.7	105.3	110.4
PROTEINS (GRAMS PER DAY)	53.0	65.0	75.7	57.7	63.0	77.7
OF WHICH ANIMAL AND PULSE	13.0 g/	19.0	16.3	17.0	21.7	22.2
CHILD (AGES 1-4) MORTALITY RATE	..	..	..	4.0	8.0	1.9
HEALTH						
LIFE EXPECTANCY AT BIRTH (YEARS)	56.0	65.0	68.0	59.0	57.2	63.0
INFANT MORTALITY RATE (PER THOUSAND)	82.9 /h	..	38.0	44.0	53.9	38.2
ACCESS TO SAFE WATER (PERCENT OF POPULATION)						
TOTAL	..	58.0	66.0	21.9	56.8	67.7
URBAN	..	84.0	95.0	58.3	79.0	83.5
RURAL	..	38.0	38.0	9.8	31.8	41.5
ACCESS TO EXCRETA DISPOSAL (PERCENT OF POPULATION)						
TOTAL	..	25.0	64.0	28.6	30.9	70.3
URBAN	..	59.0	80.0	66.6	45.4	90.7
RURAL	..	..	50.0	14.8	16.1	38.3
POPULATION PER PHYSICIAN	3220.0	2110.0	2100.0	4103.1	2706.8	1310.8
POPULATION PER NURSING PERSON	3220.0 /i	2170.0 /i	1440.0 /i	1520.2	1462.0	849.2
POPULATION PER HOSPITAL BED						
TOTAL	2510.0	1900.0	1760.0	657.1	493.9	275.4
URBAN	..	..	..	145.5	229.6	129.9
RURAL	..	..	..	1011.8	2947.9	965.9
ADMISSIONS PER HOSPITAL BED	..	14.9	..	19.0	22.1	18.9
HOUSING						
AVERAGE SIZE OF HOUSEHOLD						
TOTAL	5.6	5.3	5.1	5.2	5.2	3.9
URBAN	5.4	5.0	4.9	5.2	5.0	..
RURAL	5.6	5.5	5.3	5.4	5.4	..
AVERAGE NUMBER OF PERSONS PER ROOM						
TOTAL	2.5	2.3	..	..	2.0	0.9
URBAN	2.8	2.7	..	..	1.5	0.8
RURAL	2.4	2.2	..	..	2.7	1.0
ACCESS TO ELECTRICITY (PERCENT OF DWELLINGS)						
TOTAL	28.0	50.0	..	39.1	64.1	59.2
URBAN	67.3	92.3	..	..	67.8	78.0
RURAL	12.0	30.0	64.9	..	34.1	12.5

KOREA REPUBLIC OF - SOCIAL INDICATORS DATA SHEET

	KOREA REPUBLIC OF			REFERENCE GROUPS (ADJUSTED AVERAGES)			
	1960 /b	1970 /b	MOST RECENT ESTIMATE /b	- MOST RECENT ESTIMATE /a			
				SAME GEOGRAPHIC REGION /c	SAME INCOME GROUP /d	NEXT HIGHER INCOME GROUP /e	
EDUCATION							
ADJUSTED ENROLLMENT RATIOS							
PRIMARY: TOTAL	94.0	105.0	109.0	95.6	99.8	97.6	
FEMALE	88.0	105.0	109.0	93.7	93.3	87.4	
SECONDARY: TOTAL	27.0	43.0	59.0	43.3	33.8	47.8	
FEMALE	14.0	34.0	50.0	38.6	29.8	42.6	
VOCATIONAL (PERCENT OF SECONDARY)	14.0	16.0	16.0	11.3	12.8	22.7	
PUPIL-TEACHER RATIO							
PRIMARY	58.0	57.0	52.0	30.0	34.9	25.4	
SECONDARY	34.0	37.0	38.0	25.4	22.2	24.9	
ADULT LITERACY RATE (PERCENT)	70.6	87.0	92.0 /1	84.0	71.8	96.3	
CONSUMPTION							
PASSENGER CARS PER THOUSAND POPULATION							
	0.4	2.0	2.4	9.3	12.4	32.3	
RADIO RECEIVERS PER THOUSAND POPULATION							
	32.0	126.0	144.0	97.6	104.5	201.9	
TV RECEIVERS PER THOUSAND POPULATION							
	0.3	13.0	48.0	21.8	28.1	97.7	
NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION							
	69.0	138.0	175.0	25.9	45.2	70.9	
CINEMA ANNUAL ATTENDANCE PER CAPITA							
	4.0	5.0	3.0	4.6	4.6	4.4	
EMPLOYMENT							
TOTAL LABOR FORCE (THOUSANDS)							
	7500.0	10200.0	13100.0	.	.	.	
FEMALE (PERCENT)							
	25.8	32.7	32.8	33.2	25.7	17.4	
AGRICULTURE (PERCENT)							
	66.0	50.4	44.6	48.4	46.2	38.4	
INDUSTRY (PERCENT)							
	9.3	20.1	22.8	..	..	..
PARTICIPATION RATE (PERCENT)							
TOTAL	33.4	35.0	36.6	38.9	33.8	33.7	
MALE	49.5	46.8	48.8	48.6	48.1	50.8	
FEMALE	17.2	23.0	24.2	28.4	17.3	12.6	
ECONOMIC DEPENDENCY RATIO	1.5	1.4	1.2	1.2	1.4	1.4	
INCOME DISTRIBUTION							
PERCENT OF PRIVATE INCOME RECEIVED BY							
HIGHEST 5 PERCENT OF HOUSEHOLDS	15.1 /k	17.1	16.1	17.3	23.6	20.2	
HIGHEST 20 PERCENT OF HOUSEHOLDS	42.3 /k	44.5	45.3	45.6	52.3	47.9	
LOWEST 20 PERCENT OF HOUSEHOLDS	5.7 /k	7.1	5.7	6.5	4.3	3.2	
LOWEST 40 PERCENT OF HOUSEHOLDS	19.0 /k	17.7	16.9	17.3	13.1	13.6	
POVERTY TARGET GROUPS							
ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)							
URBAN	..	..	220.0	140.8	191.9	..	
RURAL	..	..	200.0	112.8	193.1	157.9	
ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)							
URBAN	..	..	194.0	..	319.8	448.8	
RURAL	..	..	176.0	76.8	197.7	313.1	
ESTIMATED POPULATION BELOW POVERTY INCOME LEVEL (PERCENT)							
URBAN	..	..	9.0	27.7	19.8	23.2	
RURAL	..	..	14.0	40.4	35.1	54.5	

.. Not available
 . Not applicable.

NOTES

- /a The adjusted group averages for each indicator are population-weighted geometric means, excluding the extreme values of the indicator and the most populated country in each group. Coverage of countries among the indicators depends on availability of data and is not uniform.
- /b Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961; for 1970, between 1969 and 1971; and for Most Recent Estimate, between 1973 and 1977.
- /c East Asia & Pacific; /d Intermediate Middle Income (\$551-1135 per capita, 1976); /e Upper Middle Income (\$1136-\$2500 per capita, 1976); /f 1950-55; /g 1962; /h 1957; /i Registered, not all practising in the country; /j Aged 10 years and over; /k 1965.

Region/Income Group	Low Income ^b	Lower Middle Income ^c	Intermediate Middle Income ^d	Upper Middle Income ^e	High Income ^f	Capital Surplus Countries Oil Exporters	
AFRICA SOUTH OF SAHARA	Benin Burundi Central African Emp. Chad Comoros Ethiopia Gambia, The Guinea Guinea-Bissau Kenya Lesotho Madagascar	Malawi Mali Mozambique Niger Rwanda Sierra Leone Somalia Tanzania Togo Uganda Upper Volta Zaire	Angola Botswana Cameroon Cape Verde Congo, P.R. Equatorial Guinea Liberia Mauritania Nigeria Rhodesia Sao Tome & Principe Senegal Sudan Swaziland Zambia	Chana Ivory Coast Mauritius Mauritania Nauru Seychelles	Djibouti Reunion	Gabon	
NORTH AFRICA AND MIDDLE EAST	Egypt Yemen A.R. Yemen P.D.R.	Morocco	Algeria Jordan Syria A.R. Tunisia	Bahrain Iran Iraq Lebanon	Israel Oman	Kuwait Libya Qatar Saudi Arabia United Arab Emir.	
SOUTH ASIA	Afghanistan Bangladesh Bhutan Burma India	Maldives Nepal Pakistan Sri Lanka					
EAST ASIA	Cambodia Indonesia Laos P.D.R. Solomon Islands Viet Nam	New Hebrides Papua New Guinea Philippines Thailand Tonga Western Samoa	China, Rep. of Gilbert Islands Korea, Rep. of Macao Malaysia Trust Territory of the Pacific	Fiji Hong Kong	American Samoa Brunei French Polynesia Guam New Caledonia Singapore		
LATIN AMERICA AND CARIBBEAN	Haiti	Bolivia El Salvador Grenada Guyana Honduras St. Vincent	Antigua Belize Chile Colombia Costa Rica Dominica Dominican Rep. Ecuador	Guatemala Jamaica Mexico Nicaragua Paraguay Peru St. Kitts-Nevis St. Lucia	Argentina Barbados Brazil French Guiana Guadeloupe Netherlands Antilles Panama Puerto Rico Suriname Trinidad & Tobago Uruguay	Bahamas Bermuda Canel Zone Martinique Venezuela Virgin Islands (U.S.)	
EUROPE			Turkey	Cyprus Isle of Man Malta Portugal Romania Yugoslavia	Channel Islands Faeroe Islands Gibraltar Greece Greenland Spain		
INDUSTRIALIZED COUNTRIES	Australia Austria Belgium Canada Denmark	Finland France Germany Fed. Rep. of Iceland Ireland	Italy Japan Luxembourg Netherlands New Zealand	Norway South Africa Sweden Switzerland United Kingdom	United States		
CENTRALLY PLANNED ECONOMIES	Albania Bulgaria China P.R. of Cuba Czechoslovakia	German Dem. Rep. Hungary Korea Dem. Rep. of Mongolia Poland	USSR				

^a Based on 1976 GNP per capita in 1976 US dollars.^b \$280 or less per capita.^c \$281-550 per capita.^d \$551-1135 per capita.^e \$1136-2500 per capita.^f over \$2500 per capita.

Notes: Although the data are drawn from sources generally judged the most authoritative and reliable, it should also be noted that they may not be internationally comparable because of the lack of standardized definitions and concepts used by different countries in collecting the data. The data are, nonetheless, useful to describe orders of magnitude, indicate trends, and characterize certain major differences between countries.

The adjusted group averages for each indicator are population-weighted geometric means, excluding the extreme values of the indicator and the most populated country in each group. Coverage of countries among the indicators depends on availability of data and is not uniform. Due to lack of data, group averages for Capital Surplus Oil Exporters and indicators of access to water and excreta disposal, housing, income distribution and poverty are simple population-weighted geometric means without the exclusion of extreme values.

LAND AREA (thousand sq. km)

Total - Total surface area comprising land area and inland waters.
Agricultural - Most recent estimate of agricultural area used temporarily or permanently for crops, pastures, market and kitchen gardens or to lie fallow.

GNP PER CAPITA (US\$) - GNP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1975-77 basis); 1960, 1970, and 1977 data.

ENERGY CONSUMPTION PER CAPITA - Annual consumption of commercial energy (coal and lignite, petroleum, natural gas and hydro-, nuclear and geothermal electricity) in kilograms of coal equivalent per capita.

POPULATION AND VITAL STATISTICS

Total population, mid-year (millions) - As of July 1; if not available, average of two end-year estimates; 1960, 1970, and 1977 data.

Urban population (percent of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries.

Population density

Per sq. km. - Mid-year population per square kilometer (100 hectares) of total area.

Per sq. km. agriculture land - Computed as above for agricultural land only.

Population age structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population.

Population growth rate (percent) - total, and urban - Compound annual growth rates of total and urban mid-year populations for 1950-60, 1960-70, and 1970-75.

Crude birth rate (per thousand) - Annual live births per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970 and five-year average ending in 1975 for most recent estimate.

Crude death rate (per thousand) - Annual deaths per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970 and five-year average ending in 1975 for most recent estimate.

Gross reproduction rate - Average number of daughters a woman will bear in her normal reproductive period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970, and 1975.

Family planning - acceptors, annual (thousands) - Annual number of acceptors of birth-control devices under auspices of national family planning program.

Family planning - users (percent of married women) - Percentage of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

FOOD AND NUTRITION

Index of food production per capita (1970=100) - Index number of per capita annual production of all food commodities.

Per capita supply of calories (percent of requirements) - Computed from energy equivalent of net food supplies available in country per capita per day. Available supplies comprise domestic production, imports less exports, and changes in stock. Net supplies exclude animal feed, seeds, quantities used in food processing, and losses in distribution. Requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distributions of population, and allowing 10 percent for waste at household level.

Per capita supply of protein (grams per day) - Protein content of per capita net supply of food per day. Net supply of food is defined as above. Requirements for all countries established by USDA 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 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.

Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day.

Child (ages 1-4) mortality rate (per thousand) - Annual deaths per thousand in age group 1-4 years, to children in this age group.

HEALTH

Life expectancy at birth (years) - Average number of years of life remaining at birth; usually five-year averages ending in 1960, 1970, and 1975.

Infant mortality rate (per thousand) - Annual deaths of infants under one year of age per thousand live births.

Access to safe water (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) with reasonable access to safe water supply (includes treated surface waters or untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells) as percentages of their respective populations. In an urban area a public fountain or standpost located not more than 200 meters from a house may be considered as being within reasonable access of that house. In rural areas reasonable access would imply that the housewife or members of the household do not have to spend a disproportionate part of the day in fetching the family's water needs.

Access to excreta disposal (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) served by excreta disposal as percentages of their respective populations. Excreta disposal may include the collection and disposal, with or without treatment, of human excreta and waste-water by water-borne systems or the use of pit privies and similar installations.

Population per physician - Population divided by number of practicing physicians qualified from a medical school at university level.

Population per nursing person - Population divided by number of practicing male and female graduate nurses, practical nurses, and assistant nurses.

Population per hospital bed - total, urban, and rural - Population (total, urban, and rural) divided by their respective number of hospital beds available in public and private general and specialized hospital and rehabilitation centers. Hospitals are establishments permanently staffed by at least one physician. Establishments providing principally custodial care are not included. Rural hospitals, however, include health and medical centers not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.) which offer in-patient accommodation and provide a limited range of medical facilities.

Admissions per hospital bed - Total number of admissions to or discharges from hospitals divided by the number of beds.

HOUSING

Average size of household (persons per household) - total, urban, and rural - A household consists of a group of individuals who share living quarters and their main meals. A boarder or lodger may or may not be included in the household for statistical purposes. Statistical definitions of household vary.

Average number of persons per room - total, urban, and rural - Average number of persons per room in all, urban, and rural occupied conventional dwellings, respectively. Dwellings exclude non-permanent structures and unoccupied parts.

Access to electricity (percent of dwellings) - total, urban, and rural - Conventional dwellings with electricity in living quarters as percentage of total, urban, and rural dwellings respectively.

EDUCATION**Adjusted enrollment ratios**

Primary school - total, and female - Total and female enrollment of all ages at the primary level as percentages of respectively primary school-age populations; normally includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education enrollment may exceed 100 percent since some pupils are below or above the official school age.

Secondary school - total, and female - Computed as above; secondary education requires at least four years of approved primary instruction; provides general vocational, or teacher training instructions for pupils usually of 12 to 17 years of age; correspondence courses are generally excluded.

Vocational enrollment (percent of secondary) - Vocational institutions include technical, industrial, or other programs which operate independently or as departments of secondary institutions.

Pupil-teacher ratio - primary, and secondary - Total students enrolled in primary and secondary levels divided by numbers of teachers in the corresponding levels.

Adult literacy rate (percent) - Literate adults (able to read and write) as a percentage of total adult population aged 15 years and over.

CONSUMPTION

Passenger cars (per thousand population) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles.

Radio receivers (per thousand population) - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.

TV receivers (per thousand population) - TV receivers for broadcast to general public per thousand population; excludes unlicensed TV receivers in countries and in years when registration of TV sets was in effect.

Newspaper circulation (per thousand population) - Shows the average circulation of "daily general interest newspaper", defined as a periodical publication devoted primarily to recording general news. It is considered to be "daily" if it appears at least four times a week.

Cinema annual attendance per capita per year - Based on the number of tickets sold during the year, including admissions to drive-in cinemas and mobile units.

EMPLOYMENT

Total labor force (thousands) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc. Definitions in various countries are not comparable.

Female (percent) - Female labor force as percentage of total labor force.

Agriculture (percent) - Labor force in farming, forestry, hunting and fishing as percentage of total labor force.

Industry (percent) - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force.

Participation rate (percent) - total, male, and female - Total, male, and female labor force as percentages of their respective populations.

These are ILO's adjusted participation rates reflecting age-sex structure of the population, and long time trend.

Economic dependency ratio - Ratio of population under 15 and 65 and over to the labor force in age group of 15-64 years.

INCOME DISTRIBUTION

Percentage of private income (both in cash and kind) received by richest 5 percent, richest 20 percent, poorest 20 percent, and poorest 40 percent of households.

POVERTY TARGET GROUPS

Estimated absolute poverty income level (US\$ per capita) - urban and rural - Absolute poverty income level is that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable.

Estimated relative poverty income level (US\$ per capita) - urban and rural - Relative poverty income level is that income level less than one-third per capita personal income of the country.

Estimated population below poverty income level (percent) - urban and rural - Percent of population (urban and rural) who are either "absolute poor" or "relative poor" whichever is greater.

ECONOMIC DEVELOPMENT DATA SHEET

	Actual					Prelim		Projected		Growth rates (in percent)				
	1965	1970	1972	1973	1974	1975	1976	1977	1980	1985	1965-75	1975-80	1980-85	1985-90
A. National Accounts														
1. GDP (Million US\$ at 1975 prices)	6,939.3	11,760.4	13,852.7	16,127.4	17,542.2	19,089.2	21,947.8	24,097.4	32,031.5	52,575.1	10.7	10.9	10.4	10.6
2. Gains from TOT	140.4	665.3	1,122.9	1,486.4	346.7	-	1,160.5	2,325.4	3,390.4	6,080.2	-	-	-	-
3. Gross domestic income	7,079.7	12,425.7	14,975.6	17,613.7	17,890.9	19,089.2	23,108.4	26,422.8	35,423.3	58,655.3	10.4	13.1	10.6	10.7
4. Imports (Goods and NFS)	984.3	4,228.6	5,273.4	7,154.3	7,372.4	7,464.0	8,468.0	12,574.5	18,885.0	37,318.7	22.5	20.5	14.6	14.6
5. Exports volume	388.3	1,843.8	3,111.5	5,001.9	4,687.9	5,678.6	8,129.6	10,226.4	15,362.1	31,693.3	30.7	22.2	15.6	15.2
6. Exports (adjusted for TOT)	528.7	2,509.1	4,234.3	6,488.3	5,236.6	6,678.6	9,290.1	12,551.8	18,754.4	37,773.5	26.1	27.0	15.3	14.7
7. Resource gap (adjusted for TOT)	455.6	1,719.5	1,039.0	664.0	2,136.8	1,785.4	389.9	22.7	130.6	-454.8	-	-	-	-
8. Total consumption	6,873.1	10,771.0	12,686.9	13,617.4	14,525.2	15,381.1	16,538.4	17,696.7	24,632.6	40,514.2	8.3	9.9	10.4	10.1
9. Investment	917.1	3,276.1	3,105.5	4,275.9	5,070.2	5,120.6	5,874.4	7,247.7	10,921.7	17,692.5	18.8	16.4	11.0	11.9
10. Domestic savings (adjusted for TOT)	206.6	1,654.8	2,288.7	3,996.3	3,365.7	3,708.1	6,569.9	8,724.2	10,790.7	18,141.2	33.6	19.6	16.6	16.6
11. GDP at current US\$	2,996.5	8,303.4	9,833.8	12,393.1	16,780.1	19,089.2	25,369.5	31,644.7	46,698.7	100,585.7	20.7	19.6	16.6	16.6
B. Sector Output (Share of GDP at 1975 prices)														
1. Agriculture, forestry and fisheries	46.3	32.8	29.3	26.1	25.3	24.9	23.6	22.2	19.0	13.7	36.8	41.4	44.9	44.9
2. Mining and manufacturing	13.9	20.5	23.4	26.2	28.2	29.2	31.8	32.2	36.8	41.4	44.2	44.2	44.9	44.9
3. Other	39.8	46.7	47.4	47.8	46.5	45.9	44.5	45.6	44.2	44.9	19.0	13.7	13.7	13.7
C. Prices (1975 = 100)														
1. Export price index ^{/a}	57.7	67.4	67.3	65.2	107.9	100.0	111.7	122.3	141.6	176.4	116.0	148.0	148.0	148.0
2. Import price index ^{/a}	46.3	46.2	46.8	46.5	97.2	100.0	98.0	100.2	116.0	119.2	122.1	119.2	119.2	119.2
3. Terms of trade index ^{/a}	124.6	145.9	143.8	136.3	111.0	100.0	114.0	122.1	122.1	122.1	122.1	122.1	122.1	122.1
4. GDP deflator	43.2	70.6	71.0	76.8	95.7	100.0	115.6	131.3	145.8	191.3	145.8	191.3	191.3	191.3
5. Average exchange rate	266.2	310.4	394.0	398.5	406.0	484.0	484.0	484.0	484.0	484.0	484.0	484.0	484.0	484.0
D. Selected Indicators														
1. TOR	2.59	2.82	2.82	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21
2. Import elasticity	2.10	1.88	1.88	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
3. Average domestic savings rate	0.15	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
4. Marginal domestic savings rate	0.29	0.34	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
5. Imports/GDP	0.36	0.52	0.65	0.65	3.1	Agriculture, forestry, fisheries	3.1	Agriculture, forestry, fisheries	3.1	Agriculture, forestry, fisheries	3.1	Agriculture, forestry, fisheries	3.1	Agriculture, forestry, fisheries
6. Investment/GDP	0.25	0.33	0.31	0.33	3.2	Mining and manufacturing	3.2	Mining and manufacturing	3.2	Mining and manufacturing	3.2	Mining and manufacturing	3.2	Mining and manufacturing
7. Resource gap/GDP	0.11	0.02	0.00	0.00	3.3	Other	3.3	Other	3.3	Other	3.3	Other	3.3	Other
E. Labor force (million)														
1. Labor force	18.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
2. Unemployment (% of E.1)	13.2	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3. Employment (million)	11.6	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
F. Public Finance ^{/c} (% of GDP)														
1. Current revenue	17.8	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
1.1 Tax revenue	13.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
2. Current expenditure	14.2	11.6	11.6	12.4	14.4	14.4	14.3	15.7	15.7	15.7	15.7	15.7	15.7	15.7
2.1 Defense expenditures	4.5	3.7	3.7	4.4	4.8	4.8	5.7	6.3	7.0	7.0	7.0	7.0	7.0	7.0
3. Government savings	3.5	5.3	5.3	5.0	5.8	5.8	8.5	7.0	8.5	8.5	8.5	8.5	8.5	8.5
4. Capital expenditure ^{/d}	11.3	8.7	8.7	8.0	8.3	8.3	12.7	10.5	10.5	10.5	11.0	11.0	11.0	11.0

^{/a} Dollar price index. Refers to merchandise trade only.

^{/b} Refers to period 1976-80.

^{/c} Refers to the Government Sector, comprising Central Government (including government enterprises), Local Government and Special

^{/d} Refers to total capital expenditures, less repayment of debts, for 1972-77.

^{/e} Budget estimates.

November 10, 1978

BALANCE OF PAYMENTS AND EXTERNAL ASSISTANCE
(\$ million at current prices)

	Actual									Projected		
	1969	1970	1971	1972	1973	1974	1975	1976	1977	1980	1985	1990
A. Summary of Balance of Payments												
1. Exports (incl. NFS)	998	1,221	1,478	2,075	3,962	5,125	5,679	9,111	12,508	21,753	55,907	141,361
2. Imports (incl. NFS)	1,880	2,066	2,490	2,577	4,368	7,209	7,464	9,493	12,531	21,906	55,243	139,112
3. Resource balance	-882	-843	-1,012	-502	-406	-2,084	-1,785	-382	-23	-153	664	2,249
4. Net factor service income:												
(1) Net interest payments	2	-29	-91	-138	-166	-229	-399	-411	-479	-665	-815	-534
of which interest on public MLT loans	-47	-68	-89	-120	-150	-201	-290	-345	-437	-900	-1,296	-1,475
(2) Direct investment income	-6	-8	-	-2	1	-8	-5	-	-	-32	-150	-215
(3) Workers' remittances (net)/a	-	-	-	-	-	-	-	-	-	-	-	-
(4) Other factor service income (net)	91	77	84	101	72	74	76	167	354	400	350	300
5. Current transfers (net)	246	180	171	170	190	224	226	349	223	250	250	289
6. Balance on current account	-549	-623	-848	-371	-309	-2,023	-1,887	-314	12	-220	299	2,090
7. Private direct investment	16	65	43	74	137	104	53	76	90	260	360	505
8. Official capital grants	150	131	84	87	61	64	-	-	-	-	-	-
Public M & LT loans												
9. Disbursements	660	414	625	735	757	1,155	1,687	1,701	2,218	3,041	3,316	4,209
10. Amortization	109	205	215	289	334	391	368	504	717	1,322	2,681	3,384
11. Net disbursements	551	209	410	446	423	764	1,319	1,197	1,501	1,719	635	825
Other M & LT loans												
12. Disbursements	17	78	33	49	71	174	85	120	50	162	390	802
13. Amortization	3	8	10	10	15	23	28	66	73	78	272	468
14. Net disbursements	14	70	23	39	56	151	57	54	-23	84	118	334
15. Use of IMF resources /b	-	-10	-8	-10	-	132	130	97	-24	-78	-	-
16. Short-term capital transactions	57	122	135	-19	82	-45	680	357	59	-250	50	150
17. Capital transactions NEI /c	-78	71	112	-87	-110	858	141	-48	-270	-350	-	-
18. Change in reserves (= increase) /d	-161	-35	49	-159	-340	-15	-493	-1,419	-1,345	-1,165	-1,462	-3,904
19. Foreign exchange reserves /e (end of period)	549	584	535	694	1,034	1,049	1,542	2,961	4,306	7,302	13,811	28,981
B. Grant and Loan Commitments												
1. Official grant	150	131	84	87	61	64	-	-	-	-	-	-
2. Total public M & LT loans	753	475	689	813	1,073	1,972	1,304	3,613	3,465	-	-	-
(1) IBRD	65	40	85	73	150	85	382.5	372	426	-	-	-
(2) IDA	15	15	7	26	20	-	-	-	-	-	-	-
(3) Other multilateral /f	125	20	81	68	46	89	101.5	114	135	-	-	-
(4) Governments /g	102	161	255	479	383	477	360	917	427	-	-	-
of which centrally planned economies	-	-	-	-	-	-	-	-	-	-	-	-
(5) Suppliers	374	134	248	94	223	486	232	689	1,067	-	-	-
(6) Private banks	144	104	13	73	240	737	193	1,448	1,341	-	-	-
(7) Bonds	-	-	-	-	-	19	-	60	68	-	-	-
(8) Public loans NEI /h	28	1	-	-	11	79	34	-	-	-	-	-
3. Other M & LT loans /i	100	26	67	74	213	120	138	97	16	-	-	-
Outstanding December 31, 1977												
Amount												
1. IBRD					(835.1)	(9.9)						
2. Bank Group /j					946.2	11.2						
3. Other multilateral /k					322.8	3.8						
4. Governments					2,917.7	34.4						
of which centrally planned economies					-	-						
5. Suppliers					1,560.0	18.4						
6. Financial institutions /l					2,538.6	30.2						
7. Bonds					167.1	2.0						
8. Public debt n.e.i.					-	-						
9. Total public M< debt					8,472.3	100.0						
10. Other M< debt					544.8	-						
11. Total public debt (incl. undisbursed)					13,483.9	-						
12. Total M< debt (disbursed only)					9,017.1	-						
13. Total M< debt (incl. undisbursed)					14,053.1	-						
Average Terms on Public Debt												
Interest as % prior year D&D					5.3	5.6	6.3	7.6	8.2	7.3		
Amortization as % prior year D&D					12.9	12.4	12.2	9.2	10.9	11.9		
IBRD debt outstanding & disbursed					94.7	139.8	223.8	403.5	659.0	835.1		
" as % public debt O&D					3.5	4.4	5.6	7.7	9.9	9.9		
" as % public debt service					1.7	2.5	3.3	4.9	5.7	6.7		
IDA debt outstanding & disbursed					47.1	58.5	78.3	92.7	102.4	111.1		
" as % public debt O&D					1.8	1.8	2.0	1.8	1.5	1.3		
" as % public debt service					0.1	0.1	0.1	0.1	0.1	0.1		

/a Included in other factor service income.

/b Net of "drawings" and "repayment by purchase" (IFS).

/c Includes \$580 million borrowed by the banking system in 1974. Since bulk of item consists of Errors and Omissions, no attempt was made to obtain projections for 1985 and 1990.

/d Excludes net use of IMF resources which are shown separately.

/e "International Reserves" (IFS).

/f ADB.

/g Includes bilateral ODA, Eximbanks, official export credits, including U.S. CCC credits.

/h Other guaranteed private loans.

/i Private loans without guarantee.

/j Excludes IFC.

/k ADB.

/l Private banks and other financial institutions.

KOREA

THE STATUS OF BANK GROUP OPERATIONS IN THE REPUBLIC OF KOREA

A. Statement of Bank Loans and IDA Credits (as of September 30, 1978)

Loan or Credit Number	Year	Borrower	Purpose	Amount (\$ million) (less cancellations)			
				Bank	TW	IDA	Undisbursed
Ten loans and nine credits fully disbursed				466.5		106.8	
795	1972	ADC	Irrigation	33.0			0.1
863	1972	Republic of Korea	Railways IV	40.0			0.7
906	1973	Republic of Korea	Education II	23.0			17.6
917	1973	Republic of Korea	Ports I	80.0			16.2
942	1973	Republic of Korea	Seeds Production	7.0			3.8
953	1974	Republic of Korea	Tourism	25.0			7.1
956	1974	Republic of Korea	Highways II	47.0			0.1
994	1974	AFDC	Agriculture	13.0			5.7
1070	1975	Republic of Korea	Secondary Cities	15.0			5.3
1096	1975	Republic of Korea	Education III	22.5			14.9
1101	1975	Republic of Korea	Railways V	100.0			13.0
1145	1975	KDFC V	Dev. Fin. Co.	55.0			0.2
1175	1975	MIB - I	Dev. Fin. Co.	30.0			1.8
1193	1976	Republic of Korea	Second Integrated Dairy Development	15.0			4.6
1203	1976	Republic of Korea	Highways III	90.0			46.9
1216 & 1218-T	1976	Republic of Korea	Rural Infra- structure I	20.0	40.0		2.1 4.2
1319	1976	ADC	Irrigation	29.0			28.1
1328	1976	Republic of Korea	Agricultural Credit	20.0			12.7
1338	1976	KDB II	Dev. Finance Co.	82.5			26.1
1364	1977	ADC	Irrigation	95.0			92.8
1401	1977	Republic of Korea	Ports II	67.0			67.0
1461	1977	KDFC VI	Dev. Finance Co.	70.0			38.8
1466	1977	Republic of Korea	Heavy Machinery	80.0			63.0
1474	1977	Republic of Korea	Vocational Training	23.0			23.0
1503	1978	ADC - Ogseo Stage I	Agriculture/Irri- gation	36.0			36.0
1507	1978	MIB - II	Dev. Finance Co.	55.0			35.1
1530	1978	Republic of Korea	Rural Infrastruc- ture II	95.0			92.8
1542	1978	Republic of Korea	Railway VI	120.0			120.0
1574	1978	KDB III	DFC	110.0			110.0
Total				1,964.5	40.0	106.8	889.7
of which has been repaid				68.3	-	1.1	
Total now outstanding				1,896.2	40.0	105.7	
Amount sold				7.1			
of which has been repaid				1.9			
Total now held by Bank and IDA (prior to exchange adjustment)				1,891.0	40.0	105.7	
<u>Total undisbursed</u>				<u>885.5</u>	<u>4.2</u>	<u>0.0</u>	<u>889.7</u>

B. Statement of IFC Investments (as of September 30, 1978)

Fiscal Year	Obligor	Type of Business	Amount (\$ million)		
			Loan	Equity	Total
1968	KDFC	Development Financing	-	0.7	0.7
1969	Honan Silk Co.	Textiles	1.4	0.3	1.7
1970	Atlas Paper	Pulp and paper	4.5	0.5	5.0/a
1971	Korea Investment Finance Corp.	Capital Market Development	-	0.6	0.6
1974	KDFC	Development Financing	-	0.4	0.4
1974	Korea Investment Finance Corp.	Capital Market Development	-	0.3	0.3
1975	Gold Star & Co., Ltd.	Electronic Products	16.0	1.3	17.3
1975	Korea Securities Finance Corp.	Capital Market Development	5.0	0.6	5.6
1975	Tong Yang Nylon Company, Ltd.	Synthetic Fibers	6.9	2.1	9.0
1975	Hae Un Dae Develop- ment Company, Ltd.	Tourism	2.8	0.7	3.5
1976	Korea Investment Finance Corp.	Capital Market Development	-	0.4	0.4
1976	Chungju Paper Mfg. Co.	Paper	5.0	0.5	5.5
1976	Korea Zinc Co., Ltd.	Zinc	15.0	4.0	19.0
1976	KDFC	Development Financing	17.8	-	17.8
1976	Gold Star & Co., Ltd.	Electronic Products	10.0	0.4	10.4
1977	Gold Star & Co., Ltd.	Electronic Products		0.2	0.2
1977	KDFC	Development Financing		0.3	0.3
1977	Korea Securities Finance Corp.	Capital Market	-	0.5	0.5
1977	Korea Development Leasing Corp.	Capital Market	15.0	0.4	15.4
1978	KDFC	Development Financing	-	0.1	1.1
1979	Gold Star & Co., Ltd		-	1.7	1.7
	Total gross commitment		99.4	17.0	116.4
	less cancellations, terminations, repayments and sales		44.1	1.0	45.1
	Total commitments now held by IFC		55.3	16.0	71.3
	Total undisbursed		-	1.1	1.1

/a Cancelled at the request of the Company.

PROJECTS IN EXECUTION /1

Agricultural Sector

Loan No. 795 Yong San Gang Irrigation Project; \$33.0 Million Loan
Credit No. 283 and \$15.0 Million Credit of February 2, 1972; Effective
Date: September 15, 1972; Closing Date: December 31, 1978

The project, located in one of the most drought-prone areas of Korea, provides four storage dams, canal systems and land development to irrigate 33,700 ha. The project was delayed initially by modifications in the design of the dams and later when rapid inflation outpaced the allocation of local funds. The dams have now been completed and about 19,000 ha was irrigated in 1977. Good progress is being made on other works which are expected to be completed before the end of 1978, about 18 months behind schedule. Consequently, the Closing Date has been extended from September 30, 1977 to December 31, 1978. The project cost is estimated at about \$151 million compared to \$88.6 million at appraisal, but because of increases in rice and barley prices, the economic rate of return is expected to be close to the appraisal estimate of 13%.

Loan No. 942 Seeds Project; \$7.0 Million Loan of November 16, 1973;
Effective Date: April 24, 1974; Closing Date: December 31,
1979

Progress of implementation is satisfactory and physical implementation should be completed by June 1979, one year later than the appraisal estimate. The closing date has been postponed from December 1978 to December 1979. The four seed potato storage and processing plants are expected to be completed in 1978. The final two cereal plants should be completed and ready for operations by June 1979. Disbursements are now 46% of the loan amount, however, it is estimated that disbursements will be nearly completed by June 1979. All plants will operate on a pilot basis in 1979 and would reach an average of 75% of capacity by 1980.

Loan No. 994 Integrated Agricultural Products Processing Project;
\$13.0 Million Loan of June 7, 1974; Effective Date:
March 19, 1975; Closing Date: June 30, 1979

This project provides long-term funds to the Agriculture and Fisheries Development Corporation (AFDC) for onlending to subborrowers in the

/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 this sense, and with the understanding that they do not purport to present a balanced evaluation of strengths and weaknesses in project execution.

private sector for the purpose of integrating on-farm production of fruits and vegetables with modern, hygienic processing facilities, using land that was idle or underutilized. The vegetables and fruits involved are mainly asparagus, shiitake (oak mushroom), spinach, mushroom, strawberry and peach. Implementation of the project was delayed by about 18 months owing to lack of loan demand for some of the processing facilities included in the project. However, the project is now progressing satisfactorily since September 1977 when the Bank approved AFDC's proposal to widen the project's scope to meet changed investor demand. Under the revised scope, AFDC will finance processing and cold storage of fish, meat, fruits and vegetables, and also fruit juice extraction and concentration and vegetable drying, for which the loan demand is strong. Subloan applications and approvals have increased significantly, and AFDC expects to disburse all the project funds by the end of 1979. Disbursements as of September 30, 1978 were over 56% of the loan.

Loan No. 1193 Second Integrated Dairy Development Project;
\$15.0 Million Loan of June 4, 1976; Effective Date:
November 11, 1976; Closing Date: December 31, 1982

The project consists of: (a) the establishment of about 450 new dairy farms; (b) the continuation of the development begun as part of the First Integrated Dairy Beef Project on about 400 dairy farms; (c) the expansion of existing processing plants, the diversification of their production, the establishment of 2 milk collection centers and 50 small milk cooling units and the construction of a milk products plant at Yeongnam; and (d) the expansion of technical services for both farm development and milk processing. Effectiveness of the project was delayed for about a year, but farm development is progressing rapidly and the project may be completed within the period originally foreseen. Although technical assistance for new farmers has been somewhat weak, the Korea Dairy Beef Company (KDBC) is in the process of strengthening its farm advisory staff. Construction of KDBC's new processing plant and expansion of one of the existing plants are under way. KDBC's financial situation improved over the course of 1976 and the company showed a profit for the first time in 1977. Prospects are for continued, gradual improvement. As of September 30, 1978, disbursements were over 69% of the loan.

Loan No. 1216 Rural Infrastructure Project; \$60.0 Million Loan of which
Loan No. 1218T \$40.0 Million Third Window of March 19, 1976; Effective Date:
June 4, 1976; Closing Date: June 30, 1979

Project implementation is proceeding very well. The Fuelwood, Roads and Bridges, Water Supply and Rural Electrification components were completed by the end of 1977. Minor Irrigation has experienced some delays, mainly the result of budgetary shortages and a cost overrun of 18%, but should be substantially completed by early 1979. Upland reclamation is proceeding in accordance with the revised time schedule and will be completed in 1978. Project monitoring and reporting continue to be satisfactory and a good start has been made on the Hydrologic Services Study and a

major project evaluation study. The estimated cost of the project is likely to be 16% above the appraisal estimate, mostly as a result of cost overruns for Minor Irrigation and Rural Electrification and an increase in the size of the Water Supply component. Disbursements are practically in line with appraisal estimates.

Loan No. 1319 Miho Watershed Area Development Project; \$29.0 Million
Loan of August 5, 1976; Effective Date: October 21, 1976;
Closing Date: December 31, 1982

This project, located in the central region of Korea, is being financed under the first Bank loan for area development in Korea. A project office has been established, and construction work has started on the first of five major civil work contracts. Altogether, the five contracts will involve construction of 8 large and 19 small earthfill dams, 284 km of main and secondary canals and land development for irrigating 12,700 ha. The project, which will require five years to complete, also involves construction of 80 km of river channel improvement and 150 km of village access roads, as well as feasibility studies for a second stage project in the Miho Watershed.

Loan No. 1328 Second Agricultural Credit Project; \$20.0 Million Loan
of October 12, 1976; Effective Date: March 10, 1977;
Closing Date: June 30, 1981

The project is a continuation and expansion of the agricultural program financed under the First Agricultural Credit Project (Credit 335-KO). It provides funds to the National Agricultural Cooperative Federation (NACF) for medium and long-term loans to farmers, through selected Gun (county) cooperatives of NACF, for investments in apple orchard development, silkworm rearing houses, sprinkler irrigation for orchards, greenhouses for vegetable production, and on-farm storage. The project became effective on March 10, 1977 and lending to subborrowers commenced in the following month. Project implementation and lending to farmers are generally progressing satisfactorily, with lending in 1977 exceeding the appraisal estimate. As of September 30, 1978, disbursements were about 37% of the total loan.

Loan No. 1364 Yong San Gang Irrigation Project Stage II; \$95.0 Million
Loan of February 11, 1977; Effective Date: April 22, 1977;
Closing Date: December 31, 1984

The project will provide irrigation and land development on 20,700 ha in the lower reaches of the Yong San River. Project works include an estuary dam, sea dike, pumping stations, irrigation canals, reclamation of 5,500 ha of tidal lands, conversion of 3,250 ha of uplands for irrigation of paddy, land consolidation of 3,200 ha, and irrigation of 1,050 ha of uplands. Construction of the access roads and a portion of the estuary dam was recently completed. The main contract for estuary dam construction was awarded in December 1977, in line with the appraisal schedule.

Loan No. 1503 Ogseo Area Development Project - Stage I; \$36.0 Million
Loan of January 4, 1978; Effective Date: March 29, 1978;
Closing Date: June 30, 1983

The project will benefit some 23,000 farm families by providing new irrigation on 7,100 ha, improved irrigation and drainage on 3,700 ha and a more assured water supply on an additional 1,500 ha. Project work consists of nine pumping stations, 190 km of main and secondary canals and land development including 5,800 ha of land consolidation, 2,500 ha of improved drainage (of which 1,500 ha would also be consolidated), 2,200 ha of tertiary irrigation and conversion of 1,800 ha of upland and forest to paddy land.

Loan No. 1530 Rural Infrastructure Project II; \$95.0 Million Loan of
March 13, 1978; Effective Date: June 8, 1978;
Closing Date: June 12, 1982

The project would assist the Government's program to intensify agricultural production, thereby raising rural incomes and foodgrain production, and to improve the quality of rural life. The project includes 60 irrigation subprojects on about 9,200 ha, construction of water supply systems in about 7,400 villages, construction or improvement of about 2,500 km of river banks, connection of about 2,700 villages to the telephone network and the installation of about 75,000 subscriber's lines, and training and project monitoring and evaluation. The project would benefit about 7.7 million people or about 48% of Korea's rural population.

Industrial Sector

Loan No. 1145 Fifth Korea Development Finance Corporation Project;
\$55.0 Million Loan of July 23, 1975; Effective Date:
September 5, 1975; Closing Date: June 30, 1980

The loan covered about half the KDFC's foreign exchange requirements through the end of 1977. The proceeds are being used to finance direct imports of machinery and equipment, and the foreign exchange component of domestically-produced capital goods and of civil works. Over 99% of the loan proceeds have already been disbursed. KDFC's performance in using the loan has been highly satisfactory.

Loan No. 1175 Medium Industry Bank (MIB); \$30.0 Million Loan of
November 26, 1975; Effective Date: January 28, 1976;
Closing Date: March 31, 1980

The project provides funds to MIB to make subloans to small and medium-sized manufacturing enterprises. The project is progressing satisfactorily. Disbursements are 94% of the total loan.

Loan No. 1338 Second Korea Development Bank Project; \$82.5 Million Loan, of which \$7.5 Million for the Korea Industrial Leasing Company, of December 23, 1976; Effective Date: March 21, 1977; Closing Date: December 31, 1980

The project provides \$75.0 million to be used by KDB to make subloans and investments to finance direct imports for industrial subprojects during the period 1977-78; the remainder of the loan, \$7.5 million, was relented by KDB to its wholly-owned subsidiary KILC, to acquire machinery, equipment, facilities and other property to be leased to investment enterprises. Commitment of funds is progressing as expected; as of September 30, 1978, disbursements were over 68% of the total loan amount.

Loan No. 1461 Sixth Korea Development Finance Corporation Project; \$70.0 Million Loan of June 30, 1977; Effective Date: September 15, 1977; Closing Date: December 31, 1981

The loan was made to help cover the foreign exchange requirements of industrial subprojects to be financed by KDFC subloans in 1977-78. KDFC's performance has been very satisfactory. As of September 30, 1978, commitments reached \$69.0 million.

Loan No. 1466 Heavy Machinery Project; \$80.0 Million Loan of June 30, 1977; Effective Date: December 1, 1977; Closing Date: December 31, 1980

The project is designed to manufacture equipment required for power generation, steel mills, and chemical and petrochemical plants. It consists of: (a) foundry and forge shops; (b) fabrication shops; (c) machine shops; (d) assembly and test shops; (e) support facilities; (f) other auxiliary facilities; and (g) technical assistance. Project costs have been increased by 24% above the appraisal estimate due to addition of equipment to meet increased emphasis in nuclear power plant in KEPCO's construction program; and depreciation of the US Dollar since appraisal. Project implementation is proceeding well, although increased project scope and some procurement delays have extended the targeted completion date to April 1980. The company has submitted a plan of action to achieve, by year-end the debt equity ratio to 70:30 level specified in the Project Agreement. As of September 30, 1978, disbursements were over 20% of the total loan amount.

Loan No. 1507 Second Medium Industry Bank Project; \$55.0 Million Loan of January 4, 1978; Effective Date: March 10, 1978; Closing Date: December 31, 1982

The project provides \$55.0 million, to be used by MIB to help cover the foreign exchange requirements of industrial subprojects over four years. A substantial portion of the loan - \$20.0 million - would be earmarked to assist small-scale, labor-intensive subprojects creating employment at a gross capital cost per job not greater than \$6,000 or enterprises whose fixed assets are not greater than \$250,000. As of September 30, 1978, disbursements were over 36% of the loan amount.

Loan No. 1574 Third Korea Development Bank Project; \$110 Million Loan of June 21, 1978; Effective Date: September 14, 1978; Closing Date: December 31, 1982

The loan would be used to help cover the foreign exchange requirements of subprojects to be financed by KDB; apart from direct imports, the loan would be utilized by KDB to finance the foreign exchange component of domestically produced capital goods. An amount of up to \$10.0 million of the proceeds of the proposed loan would be made available to KDB's subsidiary, the Korea Industrial Leasing Corporation Ltd. (KILC), by way of subloans in order to finance small- and medium-sized leasing projects. Overall progress is satisfactory. Commitments started in October 1978.

Education Sector

Loan No. 906 Second Education Project; \$23.0 Million Loan and
Credit No. 394 \$20.0 Million Credit of June 13, 1973; Effective Date:
September 10, 1973; Closing Date: December 31, 1979

The project provides equipment for, and extensions to, 85 educational institutions at secondary, post secondary and university levels. It also includes preinvestment studies on health and management education. The Loan/Credit funds are mainly used to finance equipment, with the Government financing the related civil works. Project execution is now about two years behind schedule. Initial project actions were slow owing to staff shortages in the Project Implementation Unit and the Office of Supply (OSROK), causing delays in the preparation of designs and equipment lists. A government internal review of procurement procedures halted equipment procurement for almost a year. These problems are now largely resolved and the project has been making steady progress. About 70% of the equipment has been contracted, and 40% delivered; furniture procurement has been completed; civil works are about 90% complete; and the fellowship program is well under way. However, because of the initial delays and some project changes recently requested by the Borrower, the project is now expected to be completed by June 1979; consequently, the Closing Date was extended to December 31, 1979 to allow time for the completion of procurement. The Credit has been totally disbursed as well as 33% of the total loan amount. Disbursements are expected to improve rapidly as an additional 45% of the Loan is fully committed.

Loan No. 1096 Third Education Project; \$22.5 Million Loan of March 31,
1975; Effective Date: June 6, 1975; Closing Date: June 30,
1980

The project includes assistance for extensions and equipping of nine institutions (technical, agricultural and fisheries) under the Ministry of Education (MOE) and seven vocational training institutes (VTIs) under the Administrator of Labor Affairs (ALA). Project implementation is about one year behind schedule. Lack of counterpart funds for consultants' fees during the first 20 months delayed preparation of the design and bidding documents in the MOE component. Changes of the training program of the ALA

component during implementation necessitated revisions and subsequent delays; however, because of recent progress in both MOE and ALA components, these delays will not affect the Closing Date of June 30, 1980. Project costs are below the appraisal estimates. As of September 30, 1978, disbursements were around 34% of the total loan and should improve significantly in the months ahead.

Loan No. 1474 Vocational Training Project; \$23.0 Million Loan of
July 22, 1977; Effective Date: October 25, 1977;
Closing Date: June 30, 1982

The loan provides funds to help finance: (a) construction of and equipment for 8 Vocational Training Institutes (VTIs), with 450 places each with boarding facilities; (b) equipment for the Central Vocational Training Institute (CVTI); and (c) expert services for the Vocational Training Bureau (VTB), and specialist services to the CVTI and VTIs. Since effectiveness, overall progress has been satisfactory. About 25% of the civil works had been tendered by June 1978 (two of the eight VTIs), equipment lists for the two VTIs (25% of the total) have also been prepared by the Project Implementation Unit and approved by the Bank. Adequate local funds have been provided.

Tourism Sector

Loan No. 953 Kyongju Tourism Project; \$25.0 Million Loan of
January 4, 1974; Effective Date: May 6, 1974;
Closing Date: December 31, 1978

The project forms part of the first phase of the planned development of the Bomun Lake resort near Kyongju. It provides for a multipurpose dam; an irrigation system for about 1,200 ha; improvement and expansion of the water supply and sewerage and solid waste disposal systems for the city of Kyongju and the resort area; installation of electrical supply and telecommunication facilities for the resort area; the construction and/or realignment of about 57 km of roads, infrastructure, including storm water drainage, environmental sanitation, community facilities, and a golf course; and a school for training hotel personnel. Project implementation is now progressing satisfactorily although completion of some project components is likely to be delayed by about a year, due mainly to budgetary constraints. The Government has now taken steps to provide all needed funds. The delay has had no adverse effects on hotel development. The first two hotels with 600 rooms are under construction and are scheduled to commence operations in the spring of 1979. Negotiations with other private investors are under way for a third hotel and also for apartments and restaurants in the Bomun resort area. About 72% of the loan had been disbursed as of September 30, 1978.

Regional Development

Loan No. 1070 Secondary Cities Regional Project; \$15.0 Million
Loan of January 15, 1975; Effective Date: August 18,
1975; Closing Date: March 31, 1979

Implementation of the Secondary Cities Regional Project is proceeding satisfactorily. Three housing sites, two access roads and a city market have been completed. Construction contracts on the remaining two subprojects are nearly on schedule. Tenders for the ninth subproject are being evaluated. Allocation of housing plots has been completed at all three sites and construction of core houses is under way. After the initial delays, mainly in fulfilling conditions of effectiveness and establishing the Gwangju Regional Development Unit, the project has moved extremely well. Total project costs are now estimated at \$22.6 million compared to the appraisal estimate of \$25.0 million (\$20.8 million at current exchange rate). As of September 30, 1978, disbursement was about 65% of the loan amount.

Transportation Sector

Loan No. 863 Fourth Railway Project; \$40.0 Million Loan of
November 22, 1972; Effective Date: February 26, 1973;
Closing Date: March 31, 1979

The main elements of the project are: electrification of lines in the Seoul suburban area; purchase of electric railcars and locomotives; the completion of electrification of 350 km of line running from Seoul to the northeastern part of Korea; track and bridge renewal; provision of yard facilities; acquisition of passenger and freight cars; and improvement of facilities for the maintenance and repair of motive power and rolling stock. No major problems have been encountered; most of the loan proceeds have been committed, and over 98% already disbursed. The Closing Date has been extended to March 31, 1979 to allow time for the completion of procurement.

Loan No. 917 Ports Project; \$80.0 Million Loan of June 27, 1973;
Effective Date: September 18, 1973; Closing Date:
June 30, 1979

Nine civil works contracts and ten equipment supply contracts are already let and work is proceeding satisfactorily. Contract work is also progressing on the grain handling facility and the grain silo; work on the head house foundations has been completed. All cargo-handling equipment is on site and under erection. Overall the project is about 90% completed. Total cost is currently estimated to be \$144 million with a foreign exchange component of about \$102 million. The loan provides \$80 million foreign exchange and the overrun is being financed by a loan of \$35 million from the Saudi Fund for Development (SFD). The Korea Maritime and Port Authority

(KMPA) is adequately staffed, but there has been a delay in implementing operational and financial procedures recommended by consultants appointed to advise KMPA on these matters. Consultants for the implementing phase have now been selected by KMPA and the contract recently awarded. Around 81% of the loan proceeds have already been disbursed.

Loan No. 956 Second Highway Project; \$47.0 Million Loan of January 25, 1974; Effective Date: April 4, 1974; Closing Date: December 31, 1978

The works, consisting of construction, chiefly on new alignments, of about 130 km of highways and paving, chiefly on existing alignments, of a further 634 km of national highways were completed on schedule and the highways opened to traffic in October 1975. The cost, in US dollar equivalent, exceeded the estimate by about 5%. Feasibility studies for future projects of about 1,000 km of roads were started in August 1975, followed by detailed engineering. Delay occurred in setting up a new nationwide highway maintenance organization but the organization has now been established in accordance with decrees published in June 1975. All the maintenance offices have been constructed and staffed and equipment procured under the loan. The Government has agreed to increase the budgetary allocations to enable an adequate program of periodic maintenance to be carried out. By the end of September 1978, disbursements exceeded 99%, after extending the Closing Date by a year to allow for procurement of spare parts needed for the maintenance equipment.

Loan No. 1101 Fifth Railway Project; \$100.0 Million Loan of April 10, 1975; Effective Date: July 15, 1975; Closing Date: December 31, 1978

The project will help the Korean National Railroad (KNR) continue as a major carrier of freight and passengers by providing for: the upgrading, modernization and expansion of track, rolling stock, motive power, and other equipment; the improvement of the efficiency of operation; and the strengthening of its financial position. The main components of the project are: an increase in station and line capacity and improvements in signaling; acquisition of rolling stock, diesel and electric locomotives, spare parts and repair facilities; track renewal and improvement; bridge strengthening; completion of electrification of 71 km of industrial lines; and other miscellaneous items. Contracts, financed by the loan, have been signed for procurement of passenger and freight cars, wheel sets, spares for locomotives, rail, bridge girders and track maintenance machinery, amounting to about \$95 million equivalent. Ninety-two percent of the loan proceeds have already been disbursed.

Loan No. 1203 Third Highway Project; \$90.0 Million Loan of
February 20, 1976; Effective Date: May 17, 1976;
Closing Date: December 31, 1979

The loan provides funds to help finance: (a) the construction, chiefly on new alignments, including paving, of about 195 km of four national highways, including supervision of the work by consultants; (b) paving and improvement, chiefly on present alignments, of nine national highways totaling about 600 km, including supervision of the work by consultants; and (c) feasibility studies by consultants of about 1,200 km of national and provincial roads, to be followed by detailed engineering. Contracts for construction and paving are progressing substantially on schedule. Feasibility studies by consultants were not started until January 1978, but are now proceeding satisfactorily. Disbursements to the end of September 1978 were about 48% of the total loan. The Saudi Fund for Development is providing a loan of \$35 million to assist in financing the project.

Loan No. 1401 Second Ports Project; \$67.0 Million Loan of
April 28, 1977; Effective Date: July 27, 1977;
Closing Date: December 31, 1982

The project consists of: (a) a 700 m extension of container berths being financed under the First Ports Project and a 335,000 sq m expansion of the container stacking area provided under that project; dredging to provide an alongside depth of 12.5 m; construction of an access road, inside the port limits, a guard house, and an 8,000 sq m container freight station, and the necessary ancillary facilities; rehabilitation of piers 3 and 4, the central wharf, and lighter wharf No. 5; (b) procurement of container cranes, mobile container handling equipment, and two tugboats; (c) Engineering Consultant Services - to carry out detailed design and supervision of construction and procurement; and (d) Technical Assistance and Training - to assist in cargo handling (including the handling of containers), maintenance, port planning, and accounting. Engineering consultants for the civil works have recently been appointed.

Loan No. 1542 Sixth Railway Project; \$120.0 Million Loan of April 10,
1978; Effective Date: August 3, 1978; Closing Date:
June 30, 1982

The project would provide KNR with the capacity required to meet forecast traffic, and reduce operating and maintenance costs. It includes continued double tracking and electrification of lines, extension of yards and terminals, continued installation of centralized traffic control, track and rail renewal, separation of road and rail at crossings, installation of a permanent way workshop, procurement of diesel locomotives, passenger cars and freight cars, provision of a new passenger car workshop, installation of additional telecommunication and power facilities and provision of technical assistance to KNR. The loan will also finance transport sector studies. Bids have been received for about 95% of the Bank-financed items.

KOREA

FOURTH HIGHWAY PROJECT

Supplementary Data Sheet

Section I - Timetable of Key Events

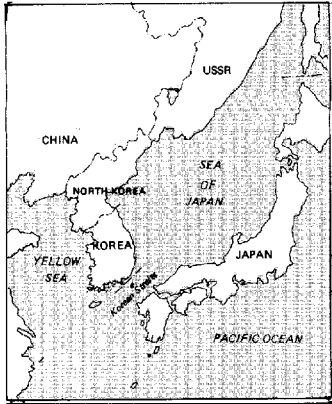
- | | |
|---|---|
| (a) Time taken to prepare a project: | The project was prepared through consultations during regular supervision of the ongoing Third Highway Project. |
| (b) Agency which prepared the project: | Ministry of Construction and Consultants. |
| (c) Date of the first Bank mission to consider the project: | October 1976. |
| (d) Departure of appraisal mission: | March 1978 |
| (e) Negotiations completed: | November 5, 1978 |
| (f) Planned date of effectiveness: | March 30, 1979 |

Section II - Special Bank Implementation Action

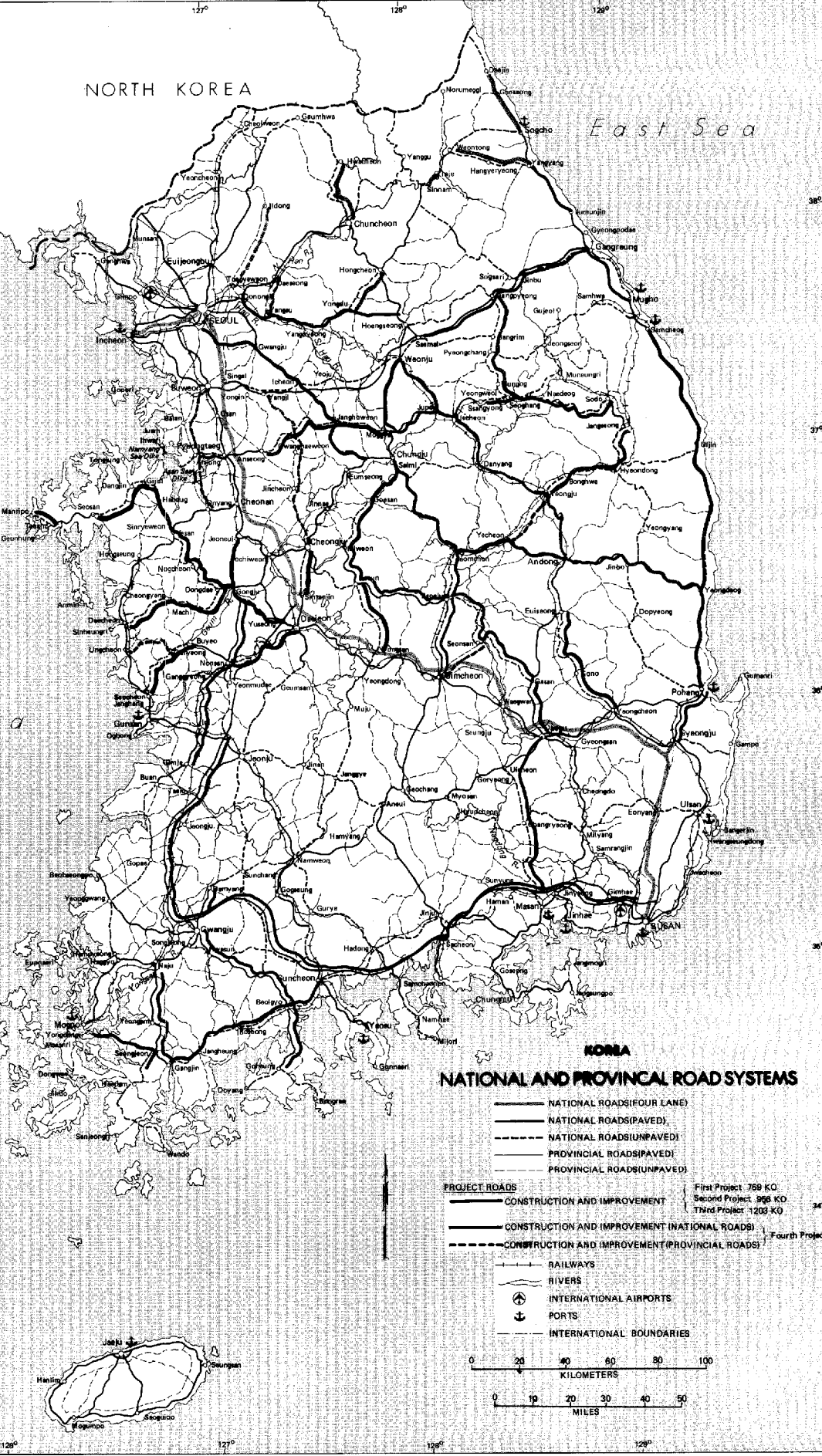
No specific action is considered necessary.

Section III - Special Conditions

- (a) The Government will make adequate arrangements, satisfactory to the Bank, for carrying out the studies of the institutions concerned with provincial and gun roads, and of the maintenance and development of such road system, and will review with the Bank the findings of the studies to be followed at appropriate stages with the selection of roads for detailed engineering (para. 39).
- (b) The Government will cause the national roads (including its toll highways) to be adequately maintained and will make adequate arrangements satisfactory to the Bank for timely provision of funds, personnel, equipment and other resources for that purpose, including provision for maintaining its maintenance equipment, and the procurement of spare parts (para. 40).



This map has been prepared by the United States Coast and Geodetic Survey for the convenience of the reader of this report to which it is attached. The dimensions shown are for the boundaries shown on this map do not imply, as the part of the World Bank and its affiliates, any judgment as to the legal status of any territory or an endorsement or acceptance of such boundaries.



NATIONAL AND PROVINCIAL ROAD SYSTEMS

- NATIONAL ROADS (FOUR LANE)
 - NATIONAL ROADS (PAVED)
 - NATIONAL ROADS (UNPAVED)
 - PROVINCIAL ROADS (PAVED)
 - PROVINCIAL ROADS (UNPAVED)
- PROJECT ROADS**
- CONSTRUCTION AND IMPROVEMENT
 - CONSTRUCTION AND IMPROVEMENT (NATIONAL ROADS)
 - CONSTRUCTION AND IMPROVEMENT (PROVINCIAL ROADS)
- RAILWAYS
 ——— RIVERS
 ⚓ INTERNATIONAL AIRPORTS
 ⚓ PORTS
 - - - - - INTERNATIONAL BOUNDARIES

First Project: 769 KO
 Second Project: 966 KO
 Third Project: 1200 KO
 Fourth Project

