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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
VOCATIONAL TRAINING PROJECT

June 21, 1977

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CURRENCY EQUIVALENTS

Currency Unit	=	Won
Won 485	=	US\$1.00
Won 1,000	=	US\$2.06
Won 1,000,000	=	US\$2,061.86

ABBREVIATIONS AND ACRONYMS

CVTI	-	Central Vocational Training Institute
MOE	-	Ministry of Education
OLA	-	Office of Labor Affairs, the agency of the Ministry of Health and Social Affairs responsible for vocational training
OSROK	-	Office of Supply, Republic of Korea
RVTC	-	Rural Vocational Training Center
VTI	-	Vocational Training Institute
VTB	-	Vocational Training Bureau
Middle Schools	-	Junior secondary schools (grades 7-9)
High Schools	-	Senior secondary schools (grades 10-12)
Higher Schools	-	Institutions currently offering secondary (grades 10-12) and post-secondary (grades 13-14) vocational courses in technical, agricultural, fisheries and marine education. Grades 10-12 are being phased out.
Junior Colleges	-	Post-secondary institutions (grades 13-14)

GOVERNMENT OF KOREA
FISCAL YEAR

January 1 - December 31

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KOREA

VOCATIONAL TRAINING PROJECT

LOAN AND PROJECT SUMMARY

Borrower: The Republic of Korea

Amount: \$23.0 million equivalent

Terms: Seventeen years, including three-and-one-half years of grace, with interest at 8.2% per annum.

Project Description: The proposed project would include:

- (a) construction, furnishing and equipping of 8 vocational training institutes, with 450 places each with boarding facilities;
- (b) equipment for the Central Vocational Training Institute in the fields of precision measurement, electrical fitting, machining, sheet metal work, and welding to give direct support to the VTIs, and permit an expansion of the enrollment in the regular 2-year course from 660 to 750, and an increase in the annual output of instructors from about 320 to 370; and
- (c) expert services for the VTB, and specialist services to the CVTI and the VTIs.

Financing Plan: The proposed Bank loan of \$23.0 million would finance 41% of the total project cost (\$56.2 million); the balance would be met by the Government (55%) and the UNDP and the Federal Republic of Germany (4%).

<u>Estimated Disbursement:</u>	Bank Fiscal Year	Annual -- \$'000 equivalent--	Cumulative
	1978	100	100
	1979	3,400	3,500
	1980	8,000	11,500
	1981	9,500	21,000
	1982	2,000	23,000

Technical Assistance: A total of about 24 man-years of specialist services and of 22 man-years of fellowships would be needed to support the other project components and to provide specific expertise needed for the large-scale introduction of in-plant vocational training. Technical assistance within the vocational training system would be allocated as follows: 6 man-years of expert services for the VTB (to be financed under the proposed loan); 10-1/4 man-years of specialist services and 2 man-years of fellowships for the CVTI (to be financed by UNDP); and 8 man-years of specialist services and 20 man-years of fellowships for the VTIs (to be financed by the Federal Republic of Germany).

Appraisal Report No. 1432-KO, dated June 17, 1977.
East Asia and Pacific Projects Department

Project Costs: The table below summarizes the total costs of the project, including staff housing and the technical assistance.

Project Items	US\$ (thousand)		
	Local	Foreign	Total
Vocational Training Institutes (8)	19,185	19,585	38,770
Central Vocational Training Institute (1)	160	1,240	1,400
Technical Assistance	<u>385</u>	<u>1,555</u>	<u>1,940</u>
Total Base Cost	19,730	22,380	42,110
Physical Contingencies	1,880	1,550	3,430
Price Contingencies	<u>5,560</u>	<u>5,140</u>	<u>10,700</u>
Total Contingencies	<u>7,440</u>	<u>6,690</u>	<u>14,130</u>
Total Project Cost	<u>27,170</u>	<u>29,070</u>	<u>56,240</u>

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 VOCATIONAL TRAINING PROJECT

1. I submit the following report and recommendation on a proposed loan to the Republic of Korea for the equivalent of \$23.0 million to help finance a vocational training project. The loan would have a term of 17 years, including 3-1/2 years of grace, with interest at 8.2% per annum. The UNDP and the Federal Republic of Germany are expected to provide assistance in meeting a substantial part of the technical assistance requirements under the project (see paragraph 43).

PART I - THE ECONOMY /1

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

Recent Economic Developments

3. During the last few years, the external economic environment has been subject to unexpected, sharp and sudden changes which seriously affected economic activity in Korea and, more particularly, its external trade and payments situation. The boom in world trade led to increases in the volume of Korean exports of 46% and 54% in 1972 and 1973 respectively. But in 1974, the quadrupling of oil prices combined with a sharp rise in the prices of foodgrains and capital goods led to a deterioration of 18% in the terms of trade. At the same time, the deep recession in the industrialized countries caused a slackening in the growth of exports to some 9%. The purchasing power of exports, which had expanded by over 46% each year in 1972 and 1973, actually decreased by nearly 11% in 1974. During 1975 export volume grew by a remarkable 23%, assisted by the devaluation of the won in December 1974 and a very vigorous drive to expand and diversify markets. However, part of this gain was offset by a further deterioration of 10% in the terms of trade.

4. Among the major economic targets set by the Government in 1976 were the containment of inflation to 10% and a reduction in the balance of payments current account deficit substantially from \$1.9 billion in 1975 to \$1.4 billion. The former goal was achieved and the latter substantially surpassed. Wholesale prices which had increased by nearly 80% between the end of 1973 and the end of 1975 have increased by around 9% in 1976, primarily because import costs (which more than doubled between 1972 and 1974) apparently decreased by about 2% in 1976; moreover, the growth in domestic credit was limited in 1976 to 21% (compared with increases of 54% and 32% in 1974 and 1975 respectively).

5. Primarily, as a result of the recovery in the OECD countries, Korea's exports appear to have increased in 1976 by about 40% in volume and there was an improvement of 13% in the terms of trade. While part of this

/1 This section is substantially identical to that contained in the corresponding section of the President's Report (No. P-2099-K0) on a Sixth Loan to the Korea Development Finance Corporation (KDFC) which was approved on June 14, 1977.

increase in exports may have been supplied by a drawing-down of inventories, it is evident that it could not have been achieved without substantial additions to production capacity in the last couple of years. A remarkable feature of Korea's economic management through the crisis of 1974 and 1975 was that fixed investment continued to grow at an average of 11% per annum in constant 1970 prices, raising its ratio to GNP from 24.3% in 1973 to 25.6% in 1975.

6. The real growth of GNP in 1976 is estimated at 15.2% as compared with an average increase of 8.5% in the two previous years. This was the result primarily of buoyant exports, but the extraordinary growth in agricultural output was also a significant factor. Value added in agriculture grew at over 7% in each of the last two years. While weather conditions were favorable over the past three seasons, there has also been a real improvement in yields as a result of better technology and the more effective use of the various inputs.

7. Although there was a large increase in the outstanding external debt during the Third Plan period (1972-76), the real burden of external debt has in fact declined. The ratio of debt service payments to exports (of goods and nonfactor services) declined from an average of 21% in the early 1970s to an estimated 11% at the end of 1976. Total outstanding debt is estimated at about \$7 billion in medium- and long-term maturities and an additional \$2 billion in maturities of less than one year. Debt service payments are estimated to have been nearly \$1 billion in 1976, which was well within Korea's repayment capacity.

8. It would appear that Korea achieved several of the objectives it set for itself in the Third Plan, despite the balance of payments difficulties experienced in 1974 and 1975 and a generally less favorable international economic environment than had been expected. The rate of growth of GNP was around 11% per year compared with the original target of 8.6%. Considerable progress has also been made in expanding the manufacturing sector. However, progress in reducing reliance on foreign savings and in restraining inflation fell short of expectations. Furthermore, even with employment growing at 4% per annum during the Third Plan period, there has been little improvement in the unemployment situation. Although over two million jobs were created during the Third Plan period, they were barely sufficient to keep pace with the growth in the labor force; the open unemployment rate in the urban areas remains at about 7%.

Longer-Term Prospects and Program

9. The preparation of the Fourth Plan (1977-81) has 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." It is the firm intention of the Korean Government to achieve a maximum rate of growth consistent with a sound balance of payments and also with the maintenance of internal financial stability. The Plan projects that the current account deficit will be eliminated during the next few years. 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). However, these projections

may prove overly optimistic. The domestic savings target appears somewhat ambitious, while the projected investment requirements may turn out to be too low.

10. Growth and stability are not the only objectives. Enhanced equity and greater social development are also of importance in the Korean scheme of things. The main emphasis is: (a) on providing adequate employment opportunities for the rapidly growing labor force to prevent aggravating the unemployment problem; and (b) on achieving a wider distribution of the benefits of growth. Rising employment is the most important instrument for achieving an equitable distribution of the benefits of growth. This is all the more so because, despite the success in reducing the rate of growth of population to around 1.8% per annum, the labor force continues to grow at over 3% per annum because of the baby boom following the Korean War in the early 1950s. 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, especially in the rural areas. Rural incomes are expected to increase as a result of a further improvement in agricultural terms of trade and increased opportunities for nonfarm employment, primarily through the Saemaeul (New Community) Movement and small industries development. The quality of life in the rural areas is to be further enhanced by the provision of additional infrastructure facilities.

11. 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. GNP is expected to rise at 9.2% per annum, fueled by the growth of 16% per annum in the volume of manufactured exports. The manufacturing sector, which now contributes 32% of GNP, is expected to provide 54% of the increase in GNP during the Plan period, increasing at 14.3% a year. The ratio of commodity exports to GNP is expected to rise from the current level of about 30% to about 42% in 1981, with the manufacturing sector providing about 92% of total exports compared with 85% in 1975. This demands the achievement of continuous gains in efficiency and productivity. Korea's comparative advantage will gradually shift towards manufactures, such as machinery, electronics and shipbuilding, which require relatively more skilled labor. It is also necessary to achieve some import substitution in steel and chemicals to ensure an adequate supply of intermediate inputs for the export industries. These changes in the industrial structure will require intensive efforts to improve the mechanisms for the transfer of foreign technology and the development of appropriate indigenous technology.

12. The Plan targets for exports are challenging but appear to be attainable, given the extraordinary drive of the Korean exporters, a continuation of the present level of export incentives and the assumption that the economies of the OECD countries will grow at an average rate of around 4-5% annually while the volume of world trade expands at an annual rate of about 8% during the period.

13. Strong policy measures are envisioned in the Plan to increase the mobilization of domestic resources. Success in restraining inflation is expected to have a significantly favorable effect on the mobilization of private savings. In the past, private savings have fluctuated with the movement of the terms of trade and the rate of inflation. The terms of trade are

projected to be fairly stable through the Fourth Plan period and a rate of inflation of the order of 10% a year is foreseen. The Government has taken measures designed to channel the higher private savings likely to be generated by these developments to an increasing extent into the financial system, and, thereby, into more effective use for productive investments. In addition to restoring a positive real rate of return on financial forms of savings, the measures include the imposition of a capital gains tax at the rate of 50% on undeveloped land, and 30% on nonprincipal household dwellings. Funds that went into real estate are now flowing into the securities market where the after-tax yields are more attractive. At the same time, direct measures have been taken to force corporations to "go public," thus increasing the supply of corporate securities. Steps are also being taken to increase the variety of financial securities in terms of maturities, yields and conditions that would constitute an attractive package to investors.

14. The measures to increase the mobilization of private savings are being supported by fiscal actions to increase public savings. The defense tax surcharge imposed in 1975 is to be continued and a value-added tax introduced. The extent of the subsidization of farmers and urban consumers through the Grain Management Fund and the Fertilizer Fund is being reduced. The increased resource mobilization and the strong restraint on most current expenditures will result in substantial budgetary current surpluses which could be used to finance capital expenditures.

15. The Plan's priorities, strategy and programs are sound. The continued emphasis on relatively rapid growth is essential in the light of the need to create additional employment for the growing labor force. Furthermore, 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 program. 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.

16. The main impediment to the successful implementation of the Plan is likely to be the difficulty that Korea may encounter in raising the necessary resources. As indicated above, Korea's ability to meet its investment requirements from domestic savings may fall short of the Plan projections, while a sizeable continuing inflow of external capital will also be necessary to help meet the burden of amortizing the external debt. It is estimated that Korea may need to borrow an average of \$2.5 billion per annum over the next several years, and its ability to obtain foreign capital in adequate amounts and in reasonable terms will continue to be a challenge. The servicing of the debt should not pose serious difficulties given the present debt servicing 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 around 11% is expected to decline slowly to just under 10% at the end of the decade and remain at that level during the 1980s.

PART II - BANK GROUP OPERATIONS

17. As of April 30, 1977, Korea had received 31 Bank Loans (including one Third Window Loan) and 8 IDA Credits, totalling \$1,417.3 million in loans and \$106.9 million in credits (taking into account cancellations and the refinancing of one IDA Credit in a subsequent Bank Loan).

18. A substantial part (\$558.2 million) of Bank financing has been for the transport sector - \$219.7 million for railways, \$191.5 million for highways and \$147 million for ports. \$289.5 million has been lent for agricultural projects. The Korea Development Finance Corporation (KDFC) has received \$150 million, the Korea Development Bank (KDB) \$142.5 million, and the Medium Industry Bank (MIB) \$30 million in Bank loans for relending to private industry. A total of \$80.3 million has been provided for three education projects; \$25.0 million for a tourism project; \$15.0 million for a secondary cities project; and \$60 million for a rural infrastructure project. In addition, two Program Loans amounting to \$175 million have also been granted to Korea.

19. As of April 30, 1977, \$574.6 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.

20. Excluding one project that was subsequently cancelled, IFC had by April 30, 1977, entered into 16 commitments totalling \$69.0 million (net of participations and cancellations). On March 22, 1977, the Board approved an investment of up to \$15.37 million in the Korea Development Leasing Corporation (KDLC), of which up to \$10.0 million will be sold to participants. A project for the production of special and stainless steel is in an advanced stage of preparation and under preliminary consideration are projects in cement distribution and construction materials.

21. The emphasis which the Government places on agricultural and rural development is reflected in the Bank's lending program for FY77. The Miho Watershed Area Development Project, the Second Agricultural Credit Project, and the Yong San Gang II Project, were approved by the Executive Directors in July and September 1976 and in January 1977, respectively.

22. 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.

23. The development of the various sectors of Korea's economy necessitates continued promotion of the educational sector with emphasis on vocational and

technical training. The participation of the Bank in this effort was accomplished through the approval of three projects, for a total of \$80.3 million. The Bank's support has had the broad objective of technical manpower development, through an expansion of the relevant segments of the educational system and through specific quality improvements. While the first two projects were addressed to priority needs in various segments of the system (and were, therefore, somewhat heterogeneous), the third project includes a major component aimed specifically at developing a new subsystem of vocational training. The First Project, supported by Credit 151-KO provided in 1969 (\$14.8 million), covered extensions to and equipping of 27 technical, commercial, agricultural, agricultural-technical, and comprehensive high schools; one post-secondary agricultural and four technical schools; four university departments of education; and related technical assistance. Project implementation was delayed initially because of the late arrival of consultants and the relative inexperience regarding equipment procurement, but proceeded well later on. The project met or exceeded its most important objectives in both physical and educational terms.

24. The Second Project continued to assist the Government in the implementation of its economic development policies through the improved alignment of the education sector with the needs of agriculture, industry, and social development. The project is about a year behind schedule because of time-consuming procurement procedures and under-staffing of the procurement unit in the Office of Supply, Republic of Korea (OSROK). Progress on civil works was temporarily slowed because of the shortage of counterpart funds in 1976. These difficulties have now been overcome, and the project is proceeding satisfactorily; it is expected that an extension of the Closing Date by about one year would be needed because of initial delays.

25. The Third Project comprises two subprojects: the financing of facilities and equipment for various educational establishments at high school and post-secondary levels under the Ministry of Education; and of seven new Vocational Training Institutes (VTIs) under the Office of Labor Affairs (OLA). The implementation of the former component is generally on schedule, while that of the latter is about six months behind schedule due to changes in course structure and location of some project institutions.

26. The share of the Bank Group in Korea's total external debt (disbursed) outstanding at the end of 1975 was about 8.7%, and the share of debt service was of the order of 4.6% at that time. These ratios are expected to increase to around 18% and 11% by the end of the present decade.

PART III - THE EDUCATION AND TRAINING SECTOR: MANPOWER NEEDS

27. Korean society has traditionally placed a high value on education as a cultural and social asset and this is reflected in Government outlays as well as in private household expenditures. The investment in education has had a significant impact on the quality of the labor force. The breadth and intensity of the improvement in educational attainment has made a major contribution to the country's economic development. Formal education in Korea,

as early as the mid-fifties, was at a stage comparable with that of countries enjoying income levels thrice as high. Compulsory primary education was introduced in 1948 and has covered the provision of a basic education of six years to an entire generation since then. Thus today, virtually all persons in age groups below 50 years are literate. This investment in education contributed in large measure to the success of the export-oriented industrialization strategy pursued over the last decade, since the availability of a skilled and adaptable work force enabled concentration on labor-intensive industries (such as textiles, clothing, electronics and plywood) and partially compensated for Korea's limited resource endowment. The quality and widespread distribution of educational opportunities also facilitated the rapid evolution of an efficient managerial and entrepreneurial class which displayed considerable skill and initiative in the exploitation of export possibilities.

28. Korea's long-term industrial plans are based on the premise that the growth-path followed over the last decade can be extrapolated through the early 1980s by continuing to rely on export-led industrial growth to provide the momentum for economic development. However, the pattern of economic growth is expected to change and show a much greater emphasis on investment in heavy industry both in order to realize the benefits of import substitution and to counteract the effects of the trend towards protectionism in some of Korea's potential markets and of increasing competition from other developing countries with lower labor costs.

29. The accelerated pace of industrial development and the increasing complexity of the production process call for a labor force with a higher degree of technical competence, regardless of the occupational level, and require continuing large-scale efforts in education and training. The Fourth Plan provides for a tripling of the investment in education and manpower development, as compared with the previous Plan. It is proposed to expand enrollment at all educational levels above the primary schools and to improve the quality of vocational and scientific training.

30. The demand and supply projections for technical manpower over the Fourth Plan period (1977-81) indicate a net surplus of 6,000 scientists/engineers, and a deficit of 8,000 technicians by 1981 (or 6 and 5% respectively of the projected 1981 stocks). However, in view of the inevitable margins of error inherent in manpower projections, it is expected that the aggregate supply of subprofessional and professional manpower will roughly be in balance with the requirements of the economy.

31. For the category of skilled workers /1 (craftsmen and operatives), the projections indicate that, without the proposed project, the period 1977-81 would be characterized by sizeable deficits, totaling more than 300,000 or 20% of the estimated 1981 stock. This justifies a continuation of the Government's reliance on a variety of vocational training modes to

/1 In Korea, the term "skilled worker" applies to occupations that would be classified as "skilled" or "semi-skilled" elsewhere. Unless otherwise indicated, this report follows the Korean terminology.

exploit, to the extent possible, the potential of the formal and nonformal training systems as well as of in-plant training. Based on present relative training capabilities and expected additions to them, the Government has allocated training targets in terms of numbers of trainees as follows: the formal system (under the Ministry of Education) is to train 30% and nonformal modes (under the Office of Labor Affairs) are to contribute 70%. Of the latter share, 15% has been attributed to the Vocational Training Institutes (VTIs), and 55% to in-plant training schemes.

The Vocational Training System

32. There are three main sources for the supply of skilled and semi-skilled industrial workers in Korea: (a) technical high schools /1 with a three-year course under the Ministry of Education; (b) vocational training centers with a variety of public or private sponsors and with courses ranging in duration from a few weeks to two years; and (c) on-the-job training in industry sponsored by the private sector.

33. Enrollments in the country's 42 public and 30 private technical high schools account for roughly one quarter of the 480,000 vocational high school pupils. The programs encompass three broad areas: mechanical, electrical, and chemical engineering. Curricula contain about 60% theoretical subjects and 40% practical work of about 1,250 hours over the 3-year course, giving the pupils a degree of practical proficiency slightly below the skilled worker level. However, the amount of theoretical instruction provided would mean that the graduate enjoys a great degree of flexibility and a definite possibility of future occupational growth. The lack of appropriate equipment in the past seriously hampered the proper operation of the technical high schools; however, with the upgrading of existing, and the establishment of new technical high schools under the Bank Group's three education projects, and the simultaneous increase in class size from 40 to 60 students, the annual output can be expected to increase to some 28,000 by 1980, more than half of the 52,000 graduates anticipated in the manpower projections. The Government currently plans to upgrade the technical high school system, and the tentative allocation of \$135 million in the Fourth Five-Year Plan (1977-81) for the improvement of vocational high schools appears to be broadly consistent with this aim.

34. Vocational training facilities in Korea (other than the vocational high schools) operate under three main agencies: those of the Central Government, the local governments, and the private sector. The Central Government subsystem includes 56 centers with about 16,500 trainees in 1976 sponsored by the Ministry of Justice (about 6,500), the Ministry of Defense (4,000), and the Office of Labor Affairs (5,000), the remaining trainees being enrolled in 6 smaller centers. Local (mainly provincial) governments operate 15 vocational training facilities (slightly over 3,000 trainees); of these,

/1 Training in industrial trades is carried out in technical high schools, in some agricultural and in comprehensive high schools. The more general term "vocational high school" applies to all nongeneral high schools: agricultural, technical, commercial and comprehensive.

8 Rural Vocational Training Centers (RVTCs) were established with UNICEF/ILO assistance. Organized vocational training in the private sector falls into two broad categories: (a) accredited vocational training recognized by the Office of Labor Affairs (OLA) following specific qualification criteria in nonprofit institutions organized as "Juridical Bodies" under public law, and (b) in-plant (on-the-job) training. The first category comprises 34 centers and over 15,000 trainees, the second (in-plant vocational training facilities) includes 396 centers with about 39,000 trainees. It is also estimated that about a third of the 1,350 nonagricultural establishments with more than 200 employees that have a vocational training obligation already have vocational training facilities.

35. The most significant component of vocational training under the Central Government is the network of Vocational Training Institutes (VTIs) under the Office of Labor Affairs (OLA). The reasons for this are: the close institutional links between OLA and industry, the foreign sponsoring of virtually all VTIs, and the concentration on key industrial trades. At present seven VTIs are in operation and two more will open in 1977. They will be joined by five VTIs in 1978 and two in 1979, financed under the Bank's Third Education Project. Without the proposed project, by 1980 OLA will be operating 16 VTIs with a total of almost 7,000 places and will be able to train more than 10,000 skilled workers in 1-1/2 shift operation. VTIs enroll middle school (grade 9) leavers in a one-year regular course completed by a craftsmen test consisting of a theoretical exam and a practical skill test. Besides the regular day course, VTIs organize evening courses that can be replicas of the day course, or adaptation courses for industrial workers.

36. VTI instructors are recruited among high school leavers (grade 12 completed) and trained in a two-year course at the Central Vocational Training Institute (CVTI) at Incheon, near Seoul. The CVTI also conducts short-term training courses for in-plant vocational instructors. VTIs suffer from a shortage of instructors, as only 60% of the CVTI graduates become instructors, 30% are drafted into military service and the remaining 10% are recruited by industry at more attractive salaries. As a result, of the 309 authorized positions of instructors for the VTIs that are in operation, 45 are vacant. There is a more serious shortage at the CVTI of instructor-trainers who are usually recruited among graduates of university engineering departments. The reason seems to be that the position and salary of CVTI instructor-trainers are inferior to those of alternative job opportunities for those graduates. As a result about 50% of the budgeted teaching positions are currently vacant. The Government has taken measures to resolve the issue of shortage of VTI Instructors and CVTI Instructor-Trainers; these measures include: the provision of rent-free staff housing for all VTIs and the CVTI, which would amount to an increase in real salaries of up to 100%, the bonding of CVTI graduates for a period of four years, arrangements to offset the effects of the drafting for military service of graduates, increase the enrollment and adjust the duration of the training in the CVTI. In addition, other measures are being initiated to ensure that there would be no shortage in the future. The Government will establish, by December 31, 1977, a plan acceptable to the Bank to resolve this issue (Section 3.08 of the draft Loan Agreement).

37. Direct supervision of the VTIs and the CVTI and indirect supervision of other vocational training is vested in the Vocational Training Bureau (VTB) of the OLA. The Bureau has 18 professional staff which is inadequate in view of the imminent expansion of the VTI system and the new administrative and technical tasks that will result from the implementation of the Basic Law for Vocational Training (e.g., the establishment of aggregate annual sectoral and occupational training targets, the review of annual training programs for establishments falling under the Law, and the assessment of contributions to the Cost-Sharing Fund for Vocational Training). This will require an expansion and strengthening of the Vocational Training Bureau (VTB). OLA has prepared an outline of the future staffing of the VTB. A tentative Staff Expansion Plan designed to provide 28 additional posts to the VTB and 110 posts for the district offices administered by VTB was being considered by the agencies concerned in Korea, and it is expected that a decision on it would be taken shortly. The Government also confirmed during negotiations its intention to communicate to the Bank detailed information on the new administrative structure of VTB and the specific functions of the additional staff and to exchange views with the Bank from time to time regarding further increases (Section 3.09 of the draft Loan Agreement).

38. The VTIs are financed entirely from the Central Government Budget. Trainees do not pay any fees for courses, lodging, and school uniforms and may receive a subsidized loan to cover the expenses of school meals. However, under the Basic Law for Vocational Training (December 1976), a trainee is obligated to work in the enterprise assigned to him on graduation for a period of at least twice the length of his training. The Government has set up the VTIs with the explicit purpose of providing an educational alternative for deserving pupils from low-income families, mostly from rural areas, who for financial reasons cannot continue their education. For the same reasons, it provides boarding for all trainees - a policy which the Bank supported in the Third Education Project through the inclusion of 50% of the VTI boarding facilities.

39. In addition to the 16 VTIs referred to in paragraph 35, the Government plans to establish 8 VTIs with 450 places each, in the years 1978 and 1979, so that by 1980 the OLA system would comprise 24 VTIs and the CVTI, an average of two to three VTIs per province. The Government also intends during the Fourth Five-Year Plan to anchor the VTIs more firmly in their regional economies and convert them into vocational training corporations with the status of Juridical Bodies. This would mean that local industry would become involved in the planning and implementation of VTI programs through their representatives on the Board of Directors, although OLA would retain the right of ultimate control of financing, personnel, training and examinations. This change in their legal status will enable VTIs to tap additional sources of revenue, e.g. through consulting services to industry, and provide them with a greater measure of budgetary flexibility.

40. Another important development in vocational training will be the transfer of an increasing share of the training responsibilities to the private sector. Under the Basic Law for Vocational Training, the Government will enforce a training obligation that has been in existence for two years. It involves firms with more than 200 employees who are expected to provide vocational training for up to 10% of their work force each year either through an in-plant training scheme with a variety of incentives to the firm, or by paying a training levy based on the average training costs of the trades represented in the enterprise. The setting of annual global, sectoral, and occupational targets by OLA would permit a timely response to changing labor market conditions.

IV - THE PROJECT

41. The proposed project was appraised by a Bank mission which visited Korea in October 1976. A report entitled "Appraisal of a Vocational Training Project" (No. 1432-KO, dated June 17, 1977) based on its findings is being distributed separately. Supplementary Project Data are given in Annex III. Negotiations were held in Washington from June 6 to 9, 1977 with a Korean delegation led by Mr. Heung-Koo Kang, Economic Counsellor at the Korean Embassy in Washington.

42. The proposed project would constitute the second phase of the Bank's support for Korea's vocational training system and with it the network of VTIs would include two to three VTIs per province, i.e. a geographic coverage that would obviate the need to transfer large numbers of trainees between provinces. Since all VTIs will be located in, or close to, urban agglomerations or industrial estates, this will also permit close and continuing contact with the majority of industrial establishments and will facilitate placement of VTI graduates in appropriate jobs. Its main objectives are:

- (a) to contribute to the supply of technical manpower at skilled and semi-skilled worker levels needed for the country's industrial development;
- (b) to provide out-of-school youth with a means to acquire skills that would make them employable in industry;
- (c) to strengthen vocational instructor-training, and
- (d) to provide technical assistance in the field of in-plant vocational training.

The Project Components

43. The major components of the proposed project are:

- (a) Establishment of Eight Vocational Training Institutes.
To assist in the construction, furnishing, and equipping of

eight additional VTIs with 450 places each. The project would include boarding facilities for 50% of the trainees. It would comprise facilities for eight trades: turning, machine fitting, welding, electrical fitting, plumbing, sheet metal work, pipe fitting and milling, with each VTI teaching five of these trades, reflecting the local industrial structure and labor market conditions. The locations tentatively selected by the Government for the new VTIs are Sasang, Naju, Nonsan, Weonju, Chungmu (or Kojae), Hongseong, Kimcheon and Pyeongtaek (or Panwol) (see Map); the first four are planned to be constructed in 1978.

(b) Investment in the Central Vocational Training Institute.

To assist in financing equipment in the fields of precision measurement, metal finishing, electrical fitting, machining, sheet metal work and welding. This will improve the general quality of instructor training, and permit an expansion of enrollments in the regular two-year courses from about 660 to 750 and of the annual output of instructors from about 320 to 370.

(c) Technical Assistance. To support the other project components and to provide specific expertise needed for the large-scale introduction of in-plant vocational training. The technical assistance would be allocated within the vocational training system as follows: 6 man-years of specialist services for the VTB (to be financed under the proposed loan); 10-1/4 man-years of specialist services and 2 man-years of fellowships for the CVTI (to be financed by UNDP), and 8 man-years of specialist services and 20 man-years of fellowships for the VTIs (to be financed by the Federal Republic of Germany).

44. The impact of the proposed project would be as follows:

Item	Number of places			Increase in %	Additional Output per annum /b
	Existing /a	New	Total		
Eight VTIs /c	6,900	3,600	10,500	53	5,400
Central Vocational Training Institute (CVTI)	660	90	750	14	50

/a 16 VTIs now operating, or being established.

/b Assuming 1-1/2 shift operations (regular courses only).

/c Numbers rounded to nearest hundred.

Project Implementation

45. Responsibility. The project unit established in the Office of Labor Affairs for the implementation of the OLA component of the Third Education Project would be responsible for administration, financial control, and liaison with the Bank. Three additional full-time staff have been appointed to the project unit and the Government has undertaken to maintain the unit with the necessary organization, staff, functions and responsibilities (Section 3.01 of the draft Loan Agreement). This will strengthen supervision of the design and construction of civil works, and of delivery and installation of equipment. Civil works would follow the space standards and equipment lists established for the VTIs in the Third Education Project, and sketch plans for major civil works and major components of lists of furniture and equipment would be reviewed by the Bank before procurement.

46. Administration. The imminent growth of the VTI system and the new administrative and technical tasks of the Vocational Training Bureau (VTB), due to the large-scale introduction of in-plant vocational training, make expansion and strengthening of the VTB mandatory. As indicated in paragraph 37, the VTB staff is being strengthened to cope with the increasing volume and complexity of the work for which it is responsible.

47. Sites. Four out of eight sites for the new VTIs have been selected. The Government has informed the Bank that it would complete the selection of suitable sites for all VTIs by October 31, 1977. During negotiations, the Government agreed to acquire sites at least three months before the planned start of construction.

48. Professional Services. Design and supervision of civil works would be the responsibility of consultant firms that are acceptable to the Bank and selected and commissioned by OLA on terms and conditions satisfactory to the Bank (Section 3.02 of the draft Loan Agreement). The services of qualified consultant firms are available in Korea.

Project Costs and Financing

49. The total project costs are estimated at \$56.2 million equivalent. This includes the cost of staff housing to be financed by the Government, the bilateral and UNDP-financed technical assistance and contingencies. The foreign exchange component is estimated at \$29.1 million, or 52% of total project cost. A breakdown of costs is given in the Loan and Project Summary. Construction estimates are based on the recent cost of similar institutions in Korea and refer to April 1977 prices. Average building cost per square meter of \$145 is reasonable and compares well with construction costs in other East Asian countries. The estimated unit capital cost per place of about \$7,000 exceeds the unit capital cost for the VTIs under the Third Education Project as estimated during appraisal (\$5,500) by about 25%. This difference is attributable to price increases in the 2-1/2 year time interval between the two estimates (more than 20%) and to the inclusion of spare parts and safety equipment in the proposed project. Technical assistance cost was estimated on the basis of \$50,000 per man-year for expert services. Physical contingencies

for unforeseen factors amount to 10% for site development, construction, furniture and professional services and 7.5% for equipment. A price contingency of \$10.7 million has been included based on expected price increases for civil works of 9% annually during the period 1977-1979 and 8% in 1980, and for equipment and furniture of 7.5% in each of the years 1977 through 1979 and of 7% in 1980.

50. The proposed loan of \$23.0 million would finance 41% of total project cost, including contingencies. The balance would be met by the Government (55%) and the UNDP and the Federal Republic of Germany (4%). Incremental recurrent expenditure generated by this project would amount to about W 2.1 billion per annum in 1976 prices, slightly over 30% of the total estimated recurrent VTB budget for 1980. This additional expenditure would not cause budgetary difficulties because the Government assigns high priority to the development of its vocational training system, of which the proposed project is an integral part.

Procurement

51. The project unit in OLA will work closely with the Office of Supply, Republic of Korea (OSROK) for the procurement of civil works, furniture and equipment. Contracts for civil works and furniture would be awarded on the basis of competitive bidding following domestic advertising and local procedures satisfactory to the Bank. Foreign contractors would be allowed to participate. Korea's construction industry is large and efficient, and all civil works in the First, Second, and Third Education Projects have been awarded to local contractors, even though foreign firms were allowed to participate. Prior Bank approval would be required for all civil works contracts exceeding \$250,000 equivalent. Equipment contracts of \$100,000 equivalent and over would be awarded on the basis of international competitive bidding in accordance with the Bank's guidelines; domestic manufacturers would be allowed a preferential margin of 15% or the existing customs duty, whichever is the lower, over the c.i.f. price of competing imports. Equipment purchases that cannot reasonably be grouped to form contracts for at least \$100,000 equivalent would be awarded without prior Bank approval on the basis of competitive bidding advertised locally following Government procedures that are satisfactory to the Bank, provided that the aggregate of all such contracts shall not exceed \$3,500,000 equivalent. In addition, off-the-shelf items, not exceeding \$10,000 in each contract and amounting to less than \$500,000 equivalent in the aggregate could be purchased on the basis of a minimum of three quotations.

Disbursement

52. The proposed loan would be disbursed to meet:

- (a) 100% of the c.i.f. costs of directly imported equipment;
- (b) 100% of the ex-factory price of locally manufactured equipment;
- (c) 70% of the cost of imported and locally procured equipment;

- (d) 25% of the expenditure (excluding that on staff housing) on civil works, professional services, and furniture; and
- (e) 100% of the cost of technical assistance, excluding the UNDP and bilaterally financed components.

53. These percentages, except for category (b), are roughly equivalent to the relevant foreign exchange components. The estimated disbursement schedule is given in the Loan and Project Summary. Disbursement is expected to be completed by December 31, 1981. Construction, equipment and furniture procurement should be completed in about three years because preparations for implementation are in an advanced stage and most standard designs are already available, and all elements of the proposed project would be implemented in about 4-1/2 years.

Benefits, Justification and Risks

54. The proposed project would contribute to industrial development in Korea, particularly to the expansion of heavy and chemical industries, through the provision of training facilities for skilled workers. In supporting a flexible and industry-oriented mode of training, it would have a built-in element of adaptability to changing market conditions. More specifically, the project would:

- (a) increase the annual training capability for skilled and semi-skilled workers in the VTI system by 5,400 or 53%, and would create a situation of approximate balance between the supply and demand for skilled workers;
- (b) expand and improve the Central Vocational Training Institute to provide an adequate supply of properly trained instructors to support the growth of the VTI system; and
- (c) provide, under the technical assistance component, expertise relevant for establishing a large-scale in-plant vocational training network.

55. The proposed project would support the Government's aim of promoting social equity specifically through the provision of boarding places mostly for rural trainees, amounting to 50% of total enrollments, and generally through the development of the VTI system itself which would constitute an alternative means of industrial skill acquisition (and subsequent employment) for deserving middle-school graduates from low-income families.

56. The realization of these benefits depends on the fulfillment of two important conditions, namely: (a) a sufficient and timely supply of VTI instructors and, a fortiori, trainers for the future instructors; and (b) the development of an adequate and appropriate administrative and technical infrastructure in OLA to cope with both the expansion of the VTI system and new tasks deriving from the introduction of in-plant vocational training and related changes in the administration, funding and supervision of vocational training in the private sector.

57. The extension of the tracer system, to be established for the VTIs financed under the Third Education Project, to the institutions included in the proposed Vocational Training Project, in the form of a performance monitoring system in all the project institutions, would ensure a regular feedback of data on project performance and would permit an early recognition and correction of weaknesses in project design or operation (Section 3.06 of the draft Loan Agreement).

58. Possible risks associated with the project will be greatly reduced by appropriate Government measures. The Government has taken, or is about to introduce, appropriate measures to ensure smooth project implementation and successful operation of the project institutions. These measures include the appointment of three additional full-time staff to the existing unit of OLA, the selection of sites for the first group of four VTIs to be built in 1978, steps to eliminate present and future shortages of VTI instructors and CVTI instructor trainers, and the preparation of a phased program of expansion for the VTB during the period of the Fourth Plan (1977-81).

PART V - LEGAL INSTRUMENTS AND AUTHORITY

59. The draft Loan Agreement between the Republic of Korea and the Bank, the Report of the Committee provided for in Article III, Section 4(iii) of the Articles of Agreement of the Bank and the text of a resolution approving the proposed loan are being distributed to the Executive Directors separately. The draft Loan Agreement follows the pattern of Bank agreements for vocational training projects. Special conditions of the Project are listed in Section III of Annex III to this report.

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

PART VI - RECOMMENDATION

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

Robert S. McNamara
President

Washington, D.C.

June 21, 1977

TABLE 3A
KOREA REP. - SOCIAL INDICATORS DATA SHEET

LAND AREA (THOU KM ²)	KOREA REP.			REFERENCE COUNTRIES (1970)			
	TOTAL	1960	1970	MOST RECENT ESTIMATE	THAILAND	TURKEY	JAPAN**
AGRIC.	98.5						
	24.4						
GNP PER CAPITA (US\$)		110.0	270.0	550.0	210.0	480.0	2650.0
POPULATION AND VITAL STATISTICS							
POPULATION (MID-YR. MILLION)		25.0	32.2	35.3	36.3	35.7	104.3
POPULATION DENSITY PER SQUARE KM.		244.0	327.0	358.0	71.0	46.0	280.0
PER SQ. KM. AGRICULTURAL LAND		1191.0	1371.0	1422.0	263.0	65.0	1744.0
VITAL STATISTICS							
CRUDE BIRTH RATE (/THOU, AV)		39.7	35.0	28.8	44.3	40.6	17.5
CRUDE DEATH RATE (/THOU, AV)		22.9	11.4	8.9	13.7	14.4	7.1
INFANT MORTALITY RATE (/THOU)		..	60.0 /a	..	80.0	153.0 /a	13.1
LIFE EXPECTANCY AT BIRTH (YRS)		52.4 /a	65.0	..	55.5	54.4	71.1
GROSS REPRODUCTION RATE		3.1 /b	2.6	2.4	3.2	2.6 /b,c	1.0
POPULATION GROWTH RATE (%)							
TOTAL		2.8	2.3	1.8 /a	3.1	2.5	1.0
URBAN		5.9	6.4	5.4 /a	4.9	4.9 /d	4.0
URBAN POPULATION (% OF TOTAL)		28.0	41.2	48.5	15.0	38.7	84.4
AGE STRUCTURE (PERCENT)							
0 TO 14 YEARS		40.5	42.1	39.9	45.0	41.7	24.0
15 TO 64 YEARS		53.7	54.5	56.7	52.0	54.0	68.9
65 YEARS AND OVER		3.8	3.4	3.4	3.0	4.3	7.1
AGE DEPENDENCY RATIO							
ECONOMIC DEPENDENCY RATIO		0.8	0.8	0.7	0.9	0.9	0.5
		1.5 /c	1.4	1.2 /b	1.1	1.1 /e	0.6
FAMILY PLANNING							
ACCEPTORS (CUMULATIVE, THOU)		..	4424.7	7404.7	470.0	..	..
USERS (% OF MARRIED WOMEN)		..	42.0	34.0	10.0	8.2	..
EMPLOYMENT							
TOTAL LABOR FORCE (THOUSAND)		7500.0	10200.0	12300.0 /c	16700.0	14500.0 /f	53300.0
LABOR FORCE IN AGRICULTURE (%)		66.0	50.5 /b	45.9 /c	79.0	67.0	19.0
UNEMPLOYED (% OF LABOR FORCE)		9.0	4.5	4.1	..	4.0 /g	1.2
INCOME DISTRIBUTION							
% OF PRIVATE INCOME REC'D BY-							
HIGHEST 5% OF HOUSEHOLDS		17.0 /d,e	17.1	18.1 /d	..	32.8 /h	14.2
HIGHEST 20% OF HOUSEHOLDS		41.9 /d,e	44.5	43.4 /d	..	60.6 /h	37.6
LOWEST 20% OF HOUSEHOLDS		7.4 /d,e	7.1	7.2 /d	..	2.9 /h	8.8
LOWEST 40% OF HOUSEHOLDS		19.5 /d,e	17.7	18.7 /d	..	9.4 /h	22.3
DISTRIBUTION OF LAND OWNERSHIP							
% OWNED BY TOP 10% OF OWNERS		27.0	28.0	..	..	53.0	..
% OWNED BY SMALLEST 10% OWNERS		3.0	2.0	..	..	0.9	..
HEALTH AND NUTRITION							
POPULATION PER PHYSICIAN		2930.0 /f,g	2180.0 /e	2020.0	8420.0	2250.0	880.0
POPULATION PER NURSING PERSON		3220.0 /f	2170.0 /e	1440.0 /a	7020.0	1770.0 /i	240.0
POPULATION PER HOSPITAL BED		2610.0 /g	1900.0	1850.0 /f	890.0	500.0	80.0
PER CAPITA SUPPLY OF -							
CALORIES (% OF REQUIREMENTS)		85.0	103.0	107.0	105.0	110.0	106.0
PROTEIN (GRAMS PER DAY)		53.0	65.0	68.0	52.0	78.0	76.0
-OF WHICH ANIMAL AND PULSE		13.0 /g	19.0	..	17.0 /a	22.0 /i	45.0
DEATH RATE (/THOU) AGES 1-4		..	..	..	..	14.7 /k	1.0
EDUCATION							
ADJUSTED ENROLLMENT RATIO							
PRIMARY SCHOOL		96.0	104.0	104.0	82.0	111.0	101.0
SECONDARY SCHOOL		27.0	41.0	47.0 /f	16.0	28.0	91.0
YEARS OF SCHOOLING PROVIDED (FIRST AND SECOND LEVEL)		12.0	12.0	12.0	12.0	11.0	12.0
VOCATIONAL ENROLLMENT (% OF SECONDARY)		14.0	16.0	16.0 /f	14.0 /b	14.0	20.0
ADULT LITERACY RATE (%)		..	87.0	92.0 /h	79.0	55.0 /l	99.0
HOUSING							
PERSONS PER ROOM (URBAN)		2.8 /h	2.7	..	..	1.9	1.0
OCCUPIED DWELLINGS WITHOUT PIPED WATER (%)		88.0 /i	80.0 /d	57.0 /i	..	64.0	5.0
ACCESS TO ELECTRICITY (% OF ALL DWELLINGS)		28.0	50.0	91.0 /j,k	..	41.0	..
RURAL DWELLINGS CONNECTED TO ELECTRICITY (%)		12.0	30.0	67.0 /j,k	..	18.0	..
CONSUMPTION							
RADIO RECEIVERS (PER THOU POP.)		32.0	126.0	127.0	78.0	89.0	551.0
PASSENGER CARS (PER THOU POP.)		0.4	2.0	2.0	5.0	4.0	84.0
ELECTRICITY (KWH/YR PER CAP)		71.0	307.0	535.0	124.0	247.0	3391.0
NEWSPRINT (KG/YR PER CAP)		1.8	3.5	4.8	1.0	0.7	18.9

SEE NOTES AND DEFINITIONS ON REVERSE

NOTES

Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961, for 1970 between 1968 and 1970, and for Most Recent Estimate between 1973 and 1975.

** Japan has been selected as an objective country due to the similarity of the present Korean economic structure to that of Japan in the mid-fifties (with the same principle resource base, i.e., efficient, industrious, cheap labor and heavy reliance on imported raw material). Moreover, agriculture, transport and other sectors of the economy have similar characteristics. Korea also has a pattern of industrial development which is not very different from the one Japan pursued with great success in the sixties.

KOREA REP.	1960	<u>a</u> 1975-60; <u>b</u> 1950-55; <u>c</u> Ratio of population under 15 and 65 and over to total labor force; <u>d</u> Wage and salary income of households; <u>e</u> 1964; <u>f</u> Registered, not all practicing in the country; <u>g</u> 1962; <u>h</u> Refer to households; <u>i</u> Water piped inside.
	1970	<u>a</u> Government estimate is 38.0; <u>b</u> As percentage of employment; <u>c</u> Registered, not all practicing in the country; <u>d</u> Water piped inside.
	MOST RECENT ESTIMATE:	<u>a</u> 1970-75; <u>b</u> Ratio of population under 15 and 65 and over to total labor force; <u>c</u> Labor force age 14 and over; <u>d</u> 1971; <u>e</u> Registered, not all practicing in the country; <u>f</u> 1972; <u>g</u> 1969-71 average; <u>h</u> Ten years and over; <u>i</u> Percentage of population; <u>j</u> 1976.
THAILAND	1970	<u>a</u> 1964-66; <u>b</u> Public schools, which include technical education at the post-secondary level.
TURKEY	1970	<u>a</u> 1967; <u>b</u> Excludes 17 eastern provinces; <u>c</u> 1965-67; <u>d</u> 1965-70; <u>e</u> Ratio of population under 15 and 65 and over to labor force 15 years and over; <u>f</u> 15 years and over, excludes unemployed; <u>g</u> Registered only; <u>h</u> Disposable income; <u>i</u> Including assistant nurses and midwives; <u>j</u> 1964-66; <u>k</u> 1967-68; <u>l</u> Persons six years and over who tell the census takers that they can read and write.

R12, June 7, 1977

DEFINITIONS OF SOCIAL INDICATORS

Land Area (thou km²)

Total - Total surface area comprising land area and inland waters.
Agric. - Most recent estimate of agricultural area used temporarily or permanently for crops, pastures, market & 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 (1973-75 basis); 1960; 1970 and 1975 data.

Population and vital statistics:

Population (mid-year million) - As of July first; if not available, average of two end-year estimates; 1960, 1970 and 1975 data.

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

Population density - per square km of agric. land - Computed as above for agricultural land only.

Vital statistics

Crude birth rate per thousand, average - 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, average - 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.

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

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

Gross reproduction rate - average number of live 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 for developing countries.

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

Population growth rate (%) - urban - Computed like growth rate of total population; different definitions of urban areas may affect comparability of data among countries.

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

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

Age dependency ratio - Ratio of population under 15 and 65 and over to those of ages 15 through 64.

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

Family planning - acceptors (cumulative, thou) - Cumulative number of acceptors of birth-control devices under auspices of national family planning program since inception.

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

Employment

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

Labor force in agriculture (%) - Agricultural labor force (in farming, forestry, hunting and fishing) as percentage of total labor force.

Unemployed (% of labor force) - Unemployed are usually defined as persons who are able and willing to take a job, out of a job on a given day, remained out of a job, and seeking work for a specified minimum period not exceeding one week; may not be comparable between countries due to different definitions of unemployed and source of data, e.g., employment office statistics, sample surveys, compulsory unemployment insurance.

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

Distribution of land ownership - Percentages of land owned by wealthiest 10% and poorest 10% of land owners.

Health and Nutrition

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, "trained" or "certified" nurses, and auxiliary personnel with training or experience.

Population per hospital bed - Population divided by number of hospital beds available in public and private general and specialized hospital and rehabilitation centers; excludes nursing homes and establishments for custodial and preventive care.

Per capita supply of calories (% 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% 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 Economic Research Services 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 is 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.

Death rate (/thou) ages 1-4 - Annual deaths per thousand in age group 1-4 years, to children in this age group; suggested as an indicator of malnutrition.

Education

Adjusted enrollment ratio - primary school - Enrollment of all ages as percentage of primary school-age population; includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education, enrollment may exceed 100% since some pupils are below or above the official school age.

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

Years of schooling provided (first and second levels) - Total years of schooling; at secondary level, vocational instruction may be partially or completely excluded.

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

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

Housing

Persons per room (urban) - Average number of persons per room in occupied conventional dwellings in urban areas; dwellings exclude non-permanent structures and unoccupied parts.

Occupied dwellings without piped water (%) - Occupied conventional dwellings in urban and rural areas without inside or outside piped water facilities as percentage of all occupied dwellings.

Access to electricity (% of all dwellings) - Conventional dwellings with electricity in living quarters as percent of total dwellings in urban and rural areas.

Rural dwellings connected to electricity (%) - Computed as above for rural dwellings only.

Consumption

Radio receivers (per thou pop) - 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.

Passenger cars (per thou pop) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearse and military vehicles.

Electricity (kwh/yr per cap) - Annual consumption of industrial, commercial, public and private electricity in kilowatt hours per capita, generally based on production data, without allowance for losses in grids but allowing for imports and exports of electricity.

Newspaper (kg/yr per cap) - Per capita annual consumption in kilograms estimated from domestic production plus net imports of newspaper.

ECONOMIC DEVELOPMENT DATA SHEET

	Actual						Est. 1976	Projected 1982	Growth Rates (%)			
	1965	1970	1972	1973	1974	1975			1965-73	1973-75	1976-82	1982-86
A. National Accounts (Million US\$ at 1975 prices)												
1. GDP	6,953.9	11,714.7	13,900.8	16,233.7	17,655.4	19,089.2	21,941.7	36,846.9	11.2	8.4	9.0	9.8
2. Gains from TOT	142.5	668.9	1,145.3	1,517.0	543.6	-	1,027.0	2,547.8	-	-	-	-
3. Gross Domestic Income	7,096.4	12,384.6	15,046.1	17,750.7	18,199.0	19,089.2	22,968.7	39,394.7	12.1	3.7	9.4	10.3
4. Imports (goods and NFS)	988.9	4,254.3	5,301.4	7,203.0	7,438.2	7,463.8	9,236.7	22,583.3	28.2	1.8	16.1	15.9
5. Exports volume	389.4	1,849.0	3,125.4	5,021.1	4,745.2	5,679.1	8,158.3	20,305.5	37.4	6.4	16.4	16.0
6. Exports (adjusted for TOT)	531.9	2,417.9	4,270.6	6,538.1	5,288.8	5,679.1	9,185.3	22,853.3	36.4	-7.0	16.4	16.0
7. Resource Gap (adjusted for TOT)	457.0	1,736.4	1,030.8	664.9	2,149.4	1,728.1	51.4	-270.0	..	..	..	..
8. Total consumption	6,809.2	10,655.5	12,606.7	14,264.7	15,181.0	15,381.0	16,439.1	27,778.4	9.7	3.8	9.1	8.6
9. Investment	926.7	3,308.9	3,134.1	4,327.5	5,167.4	5,120.7	5,977.0	11,351.3	21.2	8.8	11.3	14.0
10. Domestic savings (adjusted for TOT)	287.2	1,729.1	2,439.4	3,486.0	3,018.0	3,708.2	6,529.6	11,616.3	36.7	3.1	10.1	14.2
11. GDP at current US\$	2,996.5	8,238.9	9,835.8	12,457.8	16,863.1	19,089.2	25,276.7	60,819.5	19.5	24.0	15.7	18.4
B. Sector Output (Share of GDP at 1975 prices)												
1. Agriculture, Forestry and Fisheries	0.462	0.330	0.292	0.264	0.256	0.249	0.236	0.152				
2. Mining and Manufacturing	0.137	0.023	0.230	0.257	0.276	0.291	0.327	0.342				
3. Other	0.401	0.467	0.478	0.479	0.467	0.460	0.437	0.506				
C. Prices (1975=100)												
1. Export Price Index (US\$)	66.4	66.0	66.4	78.9	108.0	100.0	111.8	149.8				
2. Import Price Index (US\$)	48.6	48.5	48.6	60.6	96.9	100.0	99.3	133.1				
3. Terms of Trade Index	136.6	136.1	136.6	130.2	111.5	100.0	112.6	112.5				
4. GDP Deflator	43.1	70.3	70.8	76.7	95.5	100.0	115.2	165.1				
5. Average Exchange Rate	266.2	310.4	394.0	398.6	405.9	485.0	485.0	485.0				
D. Selected Indicators												
	1965-72	1973-75	1976-82		E.		1965	1970	1975	1982		
1. ICOR /a	2.05	4.42	3.53		1. Labor force (million)		8.9	10.2	12.3	15.3		
2. Import Elasticity	2.52 /b	0.21	1.79		2. Unemployment (% of E.1)		7.9	4.9	4.1	3.4		
3. Average Domestic Savings Rate	0.12	0.19	0.27		3. Employment (million)		8.2	9.7	11.8	14.8		
4. Marginal Domestic Savings Rate	0.27	0.17	0.31		(% shares)							
5. Imports/GDP	0.32	0.42	0.53		3.1 Agriculture, Forestry, Fisheries		58.6	50.5	45.9	37.8		
6. Investment/GDP	0.20	0.28	0.29		3.2 Mining, Manufacturing		10.4	14.3	19.1	23.7		
7. Resource Gap/GDP	0.13	0.09	0.00		3.3 Other		31.0	35.2	35.0	38.5		
F. Public Finance (% of GDP)												
	1965	1970	1972	1973	1974	1975	1982					
1. Current Revenue	13.2	17.5	18.2	13.9	15.3	17.4	25.5					
1.1 Tax Revenue	7.3	14.3	12.3	11.6	13.3	15.1	17.3					
2. Current Expenditure	9.0	11.5	11.9	9.6	10.5	11.1	18.6					
2.1 Defense Expenditures	3.7	4.0	4.5	3.7	4.3	4.8	6.5					
3. Government Savings	4.2	6.0	6.3	4.3	4.8	6.3	6.9					
4. Capital Expenditures	2.7	5.8	6.2	3.6	4.4	5.5	5.0					

/a Calculated on a one-year lag.

/b Calculated for 1965-73.

March 23, 1977

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

	Actual				Estimated	Projected			
	1972	1973	1974	1975	1976	1978	1980	1982	1986
Summary Balance of Payments									
Exports (incl. NFS)	2,075	3,962	5,125	5,679	9,121	13,827	20,879	30,417	66,942
Imports (incl. NFS)	2,577	4,368	7,209	7,464	9,172	13,981	20,747	30,058	65,958
Resource balance (X-M)	-502	-406	-2,084	-1,785	-51	-155	132	359	984
Interest (net) /a	-138	-166	-229	-399	-380	-583	-719	-807	-1,053
Direct investment income /b	-2	1	-8	-5	-24	-22	-52	-90	-165
Other factor income (net)	101	72	74	76	-49	35	-12	-80	-100
Current transfers (net)	170	190	224	226	230	225	250	250	250
Balance on current accounts	-371	-309	-2,023	-1,887	-274	-500	-400	-368	-84
Private direct investment /c	74	137	104	53	70	220	260	300	385
Official capital grants	87	61	64	-	-	-	-	-	-
Public M< loans /d									
Disbursements	735	757	1,155	1,687	1,662	2,178	2,295	2,301	4,433
- Repayments	289	334	391	368	590	888	1,055	1,387	2,102
Net disbursements	446	423	764	1,319	1,072	1,290	1,240	914	2,331
Other M< loans									
Disbursements	49	71	174	85	98	150	150	150	163
- Repayments	10	15	23	28	34	120	188	196	213
Net disbursements	39	56	151	57	64	30	38	46	50
Capital transactions n.e.i. /e	-116	-28	955	951	-82				
Change in foreign exchange reserves (- = increase)	-159	-340	-15	-493	-1,398				
Grant and Loan Commitments									
Official grants and grant-like	87	61	64	-	-				
Public M< loans									
IBRD	73	150	85	382.5	372				
IDA	26	20	-	-	-				
ADB	68	46	89	101.5	114				
Governments	431	311	446	250	731				
Suppliers	142	295	516	343					
Private banks	73	240	737	193	1,981				
Bonds	-	-	19	-					
Public loans n.e.i. /f	-	11	80	34					
Total public M< loans	813	1,073	1,972	1,304	3,198				
Actual debt outstanding on December 31, 1975									
Disbursed only									
World Bank		403.5		7.7					
IDA		92.7		1.8					
Other multilateral		196.7		3.8					
Governments		1,838.0		35.2					
Suppliers		1,595.4		30.5					
Private banks		1,004.2		19.2					
Bonds		18.8		0.4					
Public debts n.e.i. /g		77.8		1.4					
Total public M< debt /d		5,227.1		100.0					
Other M< debts		470.8							
Total external M< debt (disb. only)		5,697.9							
Short-term debt (disb. only)		2,167.0	/h						
Debt and debt services									
Public debt out. & disbursed (end of period)		2,691	3,199	3,982	5,227	6,299			
Interest on public debt		120	150	201	290	325			
Repayments on public debt		289	334	391	368	590			
Total public debt service		409	484	592	658	915			
Other debt service (net)		23	33	54	60	71			
Total debt service (net)		432	517	646	718	986			
Burden on export earnings (%)									
Public debt service		19.7	12.2	11.6	11.6	10.5			
Total debt service		20.8	13.1	12.6	12.6	11.3			
TDS + Direct Invest. Inc.		20.7	13.1	12.4	12.6	11.2			
Average terms on public debt									
Int. as % prior year DO&D		5.3	5.6	6.3	7.6	6.2			
Amort. as % prior year DO&D		12.9	12.4	12.2	9.2	11.3			
IBRD debt out. & disbursed		94.7	139.8	223.8	403.5	535.0			
" as % public debt O&D		3.5	4.4	5.6	7.7	8.5			
" as % public debt service		1.7	2.5	3.3	4.9	4.3			
IDA debt out & disbursed		47.1	58.5	78.3	92.7	96.1			
" as % public debt O&D		1.8	1.8	2.0	1.8	1.5			
" as % public debt service		0.1	0.1	0.1	0.1	0.1			

/a Interest payments on short-, medium- and long-term debt less interest earnings.

/b Net dividends receipts and payments.

/c Excludes interoffice accounts of foreign banks.

/d Includes all public guaranteed loans of maturities one year and above, except IMF.

/e Private nonguaranteed loans, including IFC loans.

/f Includes IMF credits, banking system borrowing and short-term capital inflows.

/g Includes \$580 million borrowed by the banking system.

/h Includes short-term capital inflows of \$760 million.

/i Other private financial institutions.

/j Includes short-term trade credits (\$902 million), refinance (\$829 million), other short-term debt (\$436 million).

/k Preliminary official data (includes nonguaranteed private loans).

March 22, 1977

KOREA

THE STATUS OF BANK GROUP OPERATIONS IN THE REPUBLIC OF KOREA

A. Statement of Bank Loans and IDA Credits (as of April 30, 1977)

Loan or Credit Number	Year	Borrower	Purpose	US\$ Million		
				Amount Bank	(less cancellations) IDA	Undisbursed
Twelve loans and credits fully disbursed				228.8	72.1	
600	1969	ADC	Irrigation	45.0		0.2
151	1969	Republic of Korea	Education I		14.8	0.1
669	1970	Republic of Korea	Railways III	40.0		0.4
769	1971	Republic of Korea	Highways I	54.5		1.2
795	1972	ADC	Irrigation	33.0		6.4
863	1972	Republic of Korea	Railways IV	40.0		1.7
905	1973	KDFC	Dev. Fin. Co.	40.0		0.4
906 & 394	1973	Republic of Korea	Education II	23.0	20.0	31.4
917	1973	Republic of Korea	Ports I	80.0		48.2
942	1973	Republic of Korea	Seeds Production	7.0		5.0
953	1974	Republic of Korea	Tourism	25.0		15.2
956	1974	Republic of Korea	Highways II	47.0		1.3
994	1974	AFDC	Agriculture	13.0		11.9
1070	1975	Republic of Korea	Secondary Cities	15.0		11.7
1095	1975	KDB	Dev. Fin. Co.	60.0		3.5
1096	1975	Republic of Korea	Third Education III	22.5		21.4
1101	1975	Republic of Korea	Railway V	100.0		34.4
1145	1975	KDFC	Dev. Fin. Co.	55.0		9.9
1175	1975	MIB	Dev. Fin. Co.	30.0		12.8
1193	1976	Republic of Korea	Second Integrated Dairy Development	15.0		13.3
1203	1976	Republic of Korea	Highway III	90.0		82.3
1216 & 1218-T	1976	Republic of Korea	Rural Infra- structure	60.0		35.4
1319	1976	ADC	Irrigation	29.0		29.0
1328	1976	Republic of Korea	Agricultural Credit	20.0		20.0
1338	1976	KDB	Dev. Finance Co.	82.5		82.5
1364	1977	ADC	Irrigation	95.0		95.0
1401 /a	1977	Republic of Korea	Ports II	67.0		67.0
Total				1,417.3	106.9	641.6
of which has been repaid				37.3	0.7	
Total now outstanding				1,380.0	106.2	
Amount sold				2.9		
of which has been repaid				1.0		
Total now held by Bank and IDA (prior to exchange adjustment)				1,378.1	106.2	
Total undisbursed				633.1	8.5	641.6

/a Not yet effective.

B. Statement of IFC Investments (as of April 30, 1977)

<u>Fiscal Year</u>	<u>Obligor</u>	<u>Type of Business</u>	<u>Amount in US\$ Million</u>		
			<u>Loan</u>	<u>Equity</u>	<u>Total</u>
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	-	0.7	0.7
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 Development Company, Ltd.	Tourism	2.7	0.7	3.4
1976	Korea Investment Finance Corp.	Capital Market Development	-	0.4	0.4
1976	Chongju 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
	Total gross commitment		<u>84.3</u>	<u>13.4</u>	<u>97.7</u>
	less cancellations, terminations, repayments and sales		<u>27.8</u>	<u>0.9</u>	<u>28.7</u>
	Total commitments now held by IFC		<u>56.5</u>	<u>12.5</u>	<u>69.0</u>
	Total undisbursed		<u>10.9</u>	<u>2.0</u>	<u>12.9</u>

/a Cancelled at the request of the Company.

PROJECTS IN EXECUTION /1

Agricultural Sector

Loan No. 795 Yong San Gang Irrigation Project; US\$33.0 Million Loan
Credit No. 283 and US\$15.0 Million Credit of February 2, 1972; Effective
Date: September 15, 1972; Closing Date: September 30, 1977

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. Works are expected to be completed in mid-1978, about 18 months behind schedule. 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 good progress is being made on other works. The project cost is estimated at about US\$151 million compared to US\$88.6 million at appraisal being financed at present by the Saudi Fund for Development (SFD); but because of increases in rice and barley prices, the economic rate of return of 14% is close to the appraisal estimate.

Loan No. 942 Seeds Project; US\$7.0 Million Loan of November 16, 1973;
Effective Date: April 24, 1974; Closing Date: December
31, 1978

The project consists of: (a) the installation of five field crop seed processing and storage facilities; (b) farm machinery for seed production; (c) procurement of seasonal seed inventories through the operation of a revolving fund; (d) seed testing laboratories and equipment; (e) crop research (financed in part by USAID); (f) feasibility studies for irrigation and area development; and (g) technical assistance. The necessary legislative and administrative action for revising the Seed Law and establishing an "Office for Seed Production and Distribution" has been taken. Project implementation although one year behind the appraisal schedule, is proceeding satisfactorily. Project cost (OSPD/NAPIO components) have increased from the appraisal estimates of about US\$14.0 million to more than US\$20.0 million. Disbursement has been somewhat slower than expected at appraisal but is expected to substantially improve in FY77/78.

/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.

Loan No. 994 Integrated Agricultural Products Processing Project;
US\$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 Fishery Development Corporation (AFDC) for onlending to subborrowers in the private sector for the purpose of integrating on farm production of fruits and vegetables with modern hygienic processing facilities, using land that is presently idle or underutilized. The vegetables and fruits involved are mainly asparagus, shiitake (oak mushroom), spinach, mushroom, strawberry and peach. The project is to be implemented over a four-year period, and AFDC lending of project funds to subborrowers is being channelled through the National Agriculture Cooperative Federation. The project became effective in March 1975 at a time when Korea's export markets were adversely affected by the worldwide economic recession. With the global economic upturn in 1976 and the consequent improvement in foreign demand for Korea's processed food, investor demand for modernization and expansion of agricultural processing facilities improved. Thus, significant progress in project implementation has been achieved since November 1975. Project lending for processing facilities, mushroom growing houses, and asparagus cultivation was initiated in recent months, and loan demand is expected to pick up momentum in the coming year. On farm development of oak mushrooms, which has been implemented on schedule since the outset of the project, continues to progress satisfactorily. However, in view of the absence of lending in 1975 for processing facilities, which accounts for nearly 70% of total project costs, implementation of the project as a whole will be further delayed.

Loan No. 1193 Second Integrated Dairy Development Project;
US\$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 two milk collection centers and fifty small milk cooling units and the construction of a frozen milk products plant at Yeongnam; and (d) the expansion of technical services for both farm development and milk processing.

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

The project includes about 62 minor irrigation, 29 upland reclamation, 11,000 fuelwood, 900 roads and bridges, 4,200 water supply, and 2,700 rural electrification subprojects. Technical assistance is provided for upland reclamation and improvements to hydrologic services. Special evaluation studies are also included. Project implementation is on schedule, costs and disbursements are all close to appraisal estimates. The monitoring

and reporting systems have also been established and are functioning well. Disbursements are at present about 42% of the total loan.

Loan No. 1319 Miho Watershed Area Development Project; US\$29.0 Million
Loan of July 17, 1976; Effective Date: October 21, 1976;
Closing Date: December 31, 1982

The aim of the project is to increase agricultural production and farm incomes on about 12,665 ha, and to benefit directly some 10,400 farm families. The project consists of: (a) the construction of dams and canals to irrigate 8,315 ha; (b) the conversion of 2,045 ha of cultivated upland to irrigate paddy fields; (c) land consolidation on 4,600 ha of irrigated and non-irrigated land; (d) the development of 495 ha for irrigation of upland crops and 550 ha for orchards; (e) upland reclamation and bench-terracing of 1,200 ha of presently uncultivated land; (f) the improvement of about 80 km of river channels; (g) the construction of about 150 km of village access roads; (h) aerial photography, surveys and mapping; and (i) provision for technical assistance, procurement of vehicles and a feasibility study for a second-stage project of the Miho Watershed.

Loan No. 1328 Second Agricultural Credit Project; US\$20.0 Million Loan
of September 21, 1976; Effective Date: March 10, 1977;
Closing Date: June 30, 1981

The project provides medium- and long-term loans through the National Agricultural Cooperative Federation (NACF) to about 7,900 farmers for (a) the establishment of about 2,100 ha of apple orchards; (b) the construction and equipping of improved silkworm rearing houses including improvement of existing mulberry plantings; (c) sprinkler irrigation to producing orchards of 2 ha or more; (d) the construction and equipping of greenhouses for vegetable production; and (e) the construction of on-farm fruit storage facilities.

Loan No. 1364 Yong San Gang Irrigation Project Stage II, US\$95.0 Million
Loan of January 25, 1977; Effective Date: April 22, 1977;
Closing Date: December 31, 1984

The principal features of the project are: (a) construction of an estuary dam across the mouth of the Yong San Gang, consisting of a 4,500 m long embankment, a 240 m wide concrete sluice and a navigation lock; (b) construction of a 4,000 m long sea dike; (c) construction of 16 pumping stations to serve a total area of 20,700 ha, including the land to be reclaimed and developed; (d) construction of about 315 km of main and secondary canals to serve an area of about 15,200 ha; (e) reclamation of about 5,500 ha of tidal land through land leveling and construction of canals, drains and farm roads; (f) land development comprising land consolidation on 3,200 ha of existing paddy, conversion of 3,250 ha of upland to irrigated paddy, development of 1,050 ha of upland for irrigation, and tertiary canals and drains on 4,400 ha of existing paddy land; (g) construction in the project area of office

buildings, warehouses, access roads and temporary pier required for the construction of the estuary dam; and (h) provision of the services of consultants to assist in project implementation and preparation of feasibility studies for future development stages of the Yong San Gang Basin.

Industrial Sector

Loan No. 905 Fourth KDFC Project; US\$40.0 Million Loan of June 13, 1973; Effective Date: September 10, 1973; Closing Date: December 31, 1977

The project is progressing satisfactorily.

Loan No. 1095 Korea Development Bank Project; US\$60.0 Million Loan of March 31, 1975; Effective Date: June 17, 1975; Closing Date: June 30, 1979

The project provided funds to KDB to make subloans to finance direct imports for subprojects principally in the manufacturing and transportation sectors. Almost the full amount has already been committed to finance 31 subprojects, ahead of the time estimated at appraisal. Disbursements now amount to over 94% of the loan amount, also ahead of the original estimate. KDB's performance in using the loan has been highly satisfactory.

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

The loan covers about half the KDFC's foreign exchange requirements through the end of 1977. The proceeds are used to finance direct imports of machinery and equipment, and the foreign exchange component of domestically produced capital goods and of civil works. About 82% of the loan proceeds have already been disbursed.

Loan No. 1175 Medium Industry Bank (MIB); US\$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 over two years. The project is progressing satisfactorily. Disbursements are at present over 57% of the total loan.

Loan No. 1338 Second Korea Development Bank Project; US\$82.5 Million Loan, of which US\$7.5 Million for the Korea Industrial Leasing Company, of November 16, 1976; Effective Date: March 23, 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, would be relent by KDB to its wholly-owned subsidiary KILC, which would use these funds to acquire machinery, equipment, facilities and other property to be leased to investment enterprises during the same period.

Education Sector

Loan No. 906 Second Education Project; US\$23.0 Million Loan and
Credit No. 394 US\$20.0 million Credit of June 13, 1973; Effective Date:
September 10, 1973; Closing Date: December 31, 1977

The project provides equipment for, and extensions to, 75 educational institutions at secondary, post secondary and university levels. It also includes preinvestment studies on health and management education. The project execution is now about 12 months behind schedule. The principle cause of delay has been slow equipment procurement owing to staff shortages in the Office of Supply (OSROK). The Government is taking steps to overcome the source of delay. All equipment lists have been approved; tenders have been made for US\$28 million, and contracts have been awarded for US\$11 million. Total project cost remains at US\$75.8 million, about 8% above the appraisal estimates. Disbursements are expected to reach US\$20 million by the end of FY77. Covenant requirements under the Development Credit Agreements are largely met. The project is now expected to be completed by mid-1978, which requires an extension of the Closing Date.

Loan No. 1096 Third Education Project; US\$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 under the Office of Labor Affairs (OLA). After 15 months of execution, project implementation is about 3 months behind schedule but considerable progress has been made. Site layouts and sketch plans have been approved for 11 institutions and one is already under construction. All sites have been acquired. Remaining sketch plans have been prepared and construction will begin at ten institutions in 1977. Progress in equipment procurement is satisfactory. No cost overrun is anticipated at this time. The chief problem, about which the Bank has requested Government action, is temporary lack of counterpart funds which may delay project implementation. Both MOE and OLA project units are functioning satisfactorily. Disbursements are expected to be made on schedule.

Tourism Sector

Loan No. 953 Kyongju Tourism Project; US\$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; a school for training hotel personnel; and a feasibility study for the development of tourism on Cheju Island. Final design for almost all project components is complete and several contracts have been awarded. Execution of the works, however, is progressing slower than originally scheduled mainly due to a rather slow start, and delay in water exploration. It appears likely, therefore, that project completion will have to be extended by one year to the end of 1978. Considerable efforts are being made by the newly established Kyongju Tourism Agency to promote hotel investors' interest and an agreement with a major international hotel company for construction of the first hotel is now in the final stage of negotiations. About 40% of the loan has been disbursed and disbursements are expected to accelerate in the months ahead.

Regional Development

Loan No. 1070 Secondary Cities Regional Project; US\$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. Construction on seven, out of nine subprojects, is progressing on schedule. A contract for the eighth subproject will be awarded shortly. Three housing sites, a city market and two access roads will be completed by mid-1977. Consultants appointed to provide Technical Assistance to Gwangju Regional Development Unit have started work. The project is nearly a year behind appraisal schedule, mainly due to delays in fulfilling conditions of effectiveness and establishing the Gwangju Regional Development Unit. Total project costs are in line with the appraisal estimate of \$25.0 million, and disbursements as of April 30, 1977, were 22% of the loan amount.

Transportation Sector

Loan No. 769 First Highway Project; US\$54.5 Million Loan of June 29,
1971; Effective Date: December 7, 1971; Closing Date:
December 31, 1977

The construction of approximately 370 km of national highways between Jeonju and Busan was satisfactorily completed in December 1973, at a final cost of about 5% above the appraisal estimate. Feasibility studies and detailed engineering have been completed for 1,400 km and 900 km of national highways, respectively. A study of road maintenance and the establishment of a pilot maintenance organization formed the basis of the creation of a country-wide Highway Maintenance Organization which is being carried out under the Second Highway Project. The Closing Date has been

extended by two years to permit completion of procurement of highway maintenance equipment, and staff training. About 98% of the total loan amount has already been disbursed.

Loan No. 863 Fourth Railway Project; US\$40.0 Million Loan of November 22, 1972; Effective Date: February 26, 1973; Closing Date: December 31, 1977

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 95% already disbursed. The Closing Date has been extended by a year to December 31, 1977 to allow time for the completion of procurement.

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

Six civil works contracts and three equipment supply contracts are already let and work is proceeding satisfactorily except at Mukho which is slightly behind schedule. A contract has also been let for the grain handling facility but no work has started. Three civil works and one equipment contract are out for bids. This will complete all contracting requirements for the project. Overall the project is about 50% completed and at this stage only the grain handling facility appears likely to be delayed (about six months) beyond the May 1978 target date for completion. Total cost is currently estimated to be US\$160 million with a foreign exchange component of US\$107 million. The Loan provides US\$80 million foreign exchange and the overrun is being financed by the Saudi Fund for Development (SFD). The Korea Maritime and Port Authority (KMPA) is being adequately staffed, but there has been a delay in adopting operational and financial procedures recommended by consultants appointed to advise KMPA on these matters. Disbursements are at present about 40% of the total loan.

Loan No. 956 Second Highway Project; US\$47.0 Million Loan of January 25, 1974; Effective Date: April 4, 1974; Closing Date: December 31, 1977

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 which is expected to be completed in mid-1977. 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 been requested to increase the budgetary allocation to enable an adequate program of periodic maintenance to be carried out. By the end of April 1977, disbursements were above 97%

Loan No. 1101 Fifth Railway Project; US\$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 helping in: 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 signalling; 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 US\$75 million equivalent. About 66% of the loan proceeds have already been disbursed. In connection with this loan, the Government undertook to formulate a financial recovery plan for KNR and to discuss it with the Bank. A mission which visited Korea in October 1976 discussed this matter with the authorities concerned.

Loan No. 1203 Third Highway Project; US\$90.0 Million Loan of February 3, 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 totalling 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 have been awarded and work is progressing on schedule. The Government is currently drafting the terms of reference for feasibility studies. Disbursements are already about 9% of the total loan.

Loan No. 1401 Second Ports Project; US\$67.0 Million Loan of
April 12, 1977; Effective Date:/1 Closing Date:
December 31, 1982

The project consists of: (a) a 700 m extension of container berths being financed under the First Port 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.

/1 Not yet effective

KOREA

VOCATIONAL TRAINING PROJECT

SUPPLEMENTARY PROJECT DATA SHEET

Section I:

Timetable of Key Events:

- (a) Time taken to prepare the projects: five months (June-October 1976).
- (b) Agency which prepared the project: the project unit of the Office of Labor Affairs (OLA).
- (c) Date of the first Bank mission to consider the project: May/June 1976.
- (d) Departure of Appraisal mission: October 1976
- (e) Negotiations completed: June 9, 1977
- (f) Planned Date of Effectiveness: October 31, 1977

Section II:

Special Bank Implementation Action

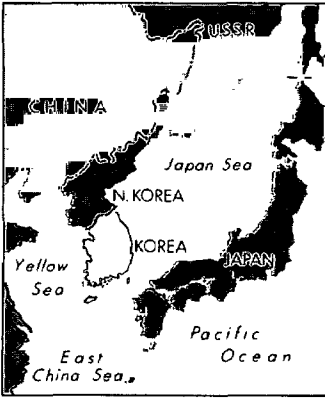
None

Section III:

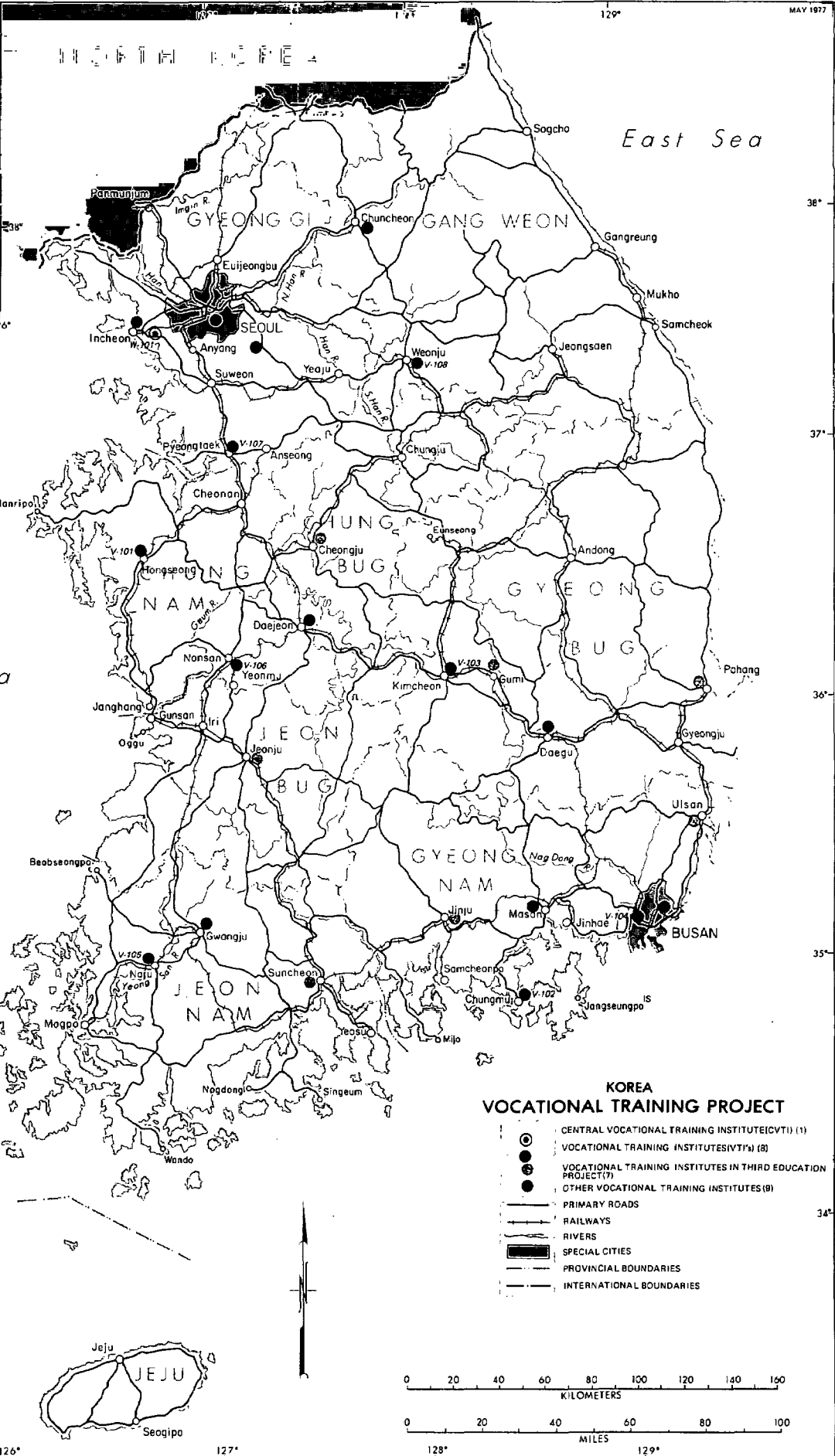
Special Conditions

- (a) The Government should prepare a detailed plan acceptable to the Bank outlining measures to eliminate present, and avoid future, shortages of VTI instructors and CVTI instructor-trainers, and agree to implement it according to an agreed schedule (paragraph 36).
- (b) The Government will maintain the OLA Project Unit with the necessary organization, staff, functions and responsibilities (paragraph 45).
- (c) The Government should submit a Staff Expansion Program for the VTB by October 31, 1977, to become effective by December 31, 1977 (paragraph 37).

- (d) The Government should acquire sites for the VTIs at least three months before the planned start of construction (paragraph 47).
- (e) The Government will establish a performance monitoring system in all the project institutions that would collect information to be used to (i) ascertain whether project objectives are being attained and (ii) identify weaknesses in the structure or operation of the project institutions that would need correction (paragraph 57).



The boundaries shown on this map do not imply endorsement or acceptance by the World Bank and its affiliates.



- KOREA VOCATIONAL TRAINING PROJECT**
- CENTRAL VOCATIONAL TRAINING INSTITUTE (CVTI) (1)
 - VOCATIONAL TRAINING INSTITUTES (VTI's) (8)
 - VOCATIONAL TRAINING INSTITUTES IN THIRD EDUCATION PROJECT (7)
 - OTHER VOCATIONAL TRAINING INSTITUTES (8)
 - PRIMARY ROADS
 - RAILWAYS
 - RIVERS
 - SPECIAL CITIES
 - PROVINCIAL BOUNDARIES
 - INTERNATIONAL BOUNDARIES

