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Report No. 11519

PROJECT COMPLETION REPORT

KOREA

**URBAN LAND DEVELOPMENT PROJECT
(LOAN 2704-KO)**

DECEMBER 31, 1992

**Infrastructure Operations Division
Country Department I
East Asia and Pacific Regional Office**

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CURRENCY EQUIVALENTS

Currency Unit=Won (W)

US\$1.00=W 861 (1986 average)
=W 792 (1987 average)
=W 684 (1988 average)
=W 680 (1989 average)
=W 716 (1990 average)

WEIGHTS AND MEASURES

1 meter (m)=3.28 feet
1 square meter (sq.m)=10.8 square feet
1 pyong (py)=3.3 square meters
1 hectare (ha)=10,000 sq.m or 2.471 acres
or 3,024 pyong

ABBREVIATIONS AND ACRONYMS

MOC-Ministry of Construction
KHB-Korea Housing Bank
KLDC-Korea Land Development Corporation
KNHC-Korea National Housing Corporation
NHF-National Housing Fund

THE WORLD BANK
Washington, D.C. 20433
U.S.A.

Office of Director-General
Operations Evaluation

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MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

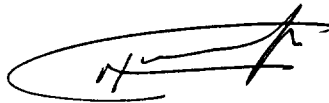
SUBJECT: Project Completion Report on Korea
Urban Land Development Project (Loan 2704-KO)

Attached is a copy of the report entitled "Project Completion Report on Korea - Urban Land Development Project (Loan 2704-KO)" prepared by the East Asia and Pacific Regional Office. The Borrower did not provide Part II.

The project exceeded its targets in terms of supply of serviced land. Institutional development was successful: the required studies were completed and new procedures established based on their conclusions, and the related training program was implemented. However, the administrative capacity of the project entity did not keep up with the rapid growth of its activities. Furthermore, the project achieved little in relaxing the restrictive regulations which stand in the way of effective private sector involvement in housing and the provision of an adequate supply of serviced land.

On balance, the project is rated as satisfactory, its institutional development impact as partial (due to its limited impact on broader sectoral objectives), and the sustainability of its policy approach as uncertain, although the direct benefits of the project are sustained.

No audit is planned.



Attachment

PROJECT COMPLETION REPORTKOREAURBAN LAND DEVELOPMENT PROJECT

(LOAN 2704-KO)

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PROJECT COMPLETION REPORT

KOREA

URBAN LAND DEVELOPMENT PROJECT (LOAN 2704-KO)

Preface

This is the Project Completion Report (PCR) for the Korea Urban Land Development Project, for which Loan 2704-KO in the amount of US\$150 million was approved on May 29, 1986. The last disbursement was made on June 8, 1990 and the loan was closed earlier than the scheduled closing date of December 31, 1990.

The PCR was prepared by the Infrastructure Operations Division of the East Asia and Pacific Region (Preface, Evaluation Summary, Parts I and III). The Government did not provide Part II.

Preparation of this PCR was based , inter alia, on the Staff Appraisal Report, the Loan Agreement, supervision mission reports, correspondence between the Bank and the Borrower, and internal Bank memoranda.

PROJECT COMPLETION REPORT

KOREA

URBAN LAND DEVELOPMENT PROJECT (LOAN 2704-KO)

Evaluation Summary

Introduction

i. This project was one of a series developed and implemented since 1980 to address the problems of the Korean housing sector. Bank involvement in this area began with the National Urban Land Development and Housing Loans I (1980-KO) and II (2216-KO) of 1981 and 1982, which supported the activities of government land development and housing production agencies. A later evaluation of the projects found that while they had met their physical goals, they had set and had met only limited goals for orienting the country's housing policy. Their impact on the housing sector was judged to be minimal. A broader sectoral focus was reflected in two subsequent loans intended to deal with the perceived "bottlenecks" in the housing sector. This project was to deal with the shortage of serviced land while the Housing Finance Sector Project of 1987 (Loan 2853-KO) addressed the shortage of housing finance. A final project, the Housing Sector Loan (3329-KO) of 1991, addresses housing policy as a whole.

Objectives.

ii. The project was intended to increase the supply of serviced land in Korea by assisting KLDC in fulfilling its role under the Sixth Economic and Social Development Plan (1987-1991). Thus, the project supported the Government's housing sector policy which relied on direct intervention in the sector. The project had four main objectives:

- (a) strengthening KLDC's management and administration;
- (b) establishing corporate goals for serving the low-income population;
- (c) improving KLDC's project evaluation procedures, and its cost allocation and pricing policies; and
- (d) supporting KLDC's urban land development program.

iii. These objectives were pursued in the project through two major components. First, an investment component would finance a time slice of KLDC's land development program. Secondly, an institutional strengthening component would improve KLDC's site selection and pricing policies as well as its internal financial management.

iv. Investment Component. The Project would partially finance a four year time slice (1986-89) of KLDC's land development activities. KLDC's program required the acquisition of about 2,700 ha of land for housing and 1,000 ha of land for industrial sites. A total of 3,700 ha of serviced land over 120 sites

would be supplied. The total cost of KLDC land development activities during this period was estimated at appraisal as US\$1,849 million; Bank financing would supply US\$150 million, or 8% of project costs.

v. Institutional Component. The institutional strengthening program was intended to deal with a number of deficiencies in planning and internal financial management identified during the previous projects. The specific goals of the institutional strengthening program were set forth in the Institutional Development Program which was to be fully implemented by December 31, 1987. The major goals of this Program were new long-term planning procedures, improved criteria for physical planning and site selection, improved cost allocation and pricing policies, computerized accounting and information systems, and a training policy. To achieve these ends, KLDC financed studies of current practices and engaged consultant services to improve accounting and management.

Implementation Experience.

vi. KLDC was more than successful in meeting the goals of the investment component. Soon after appraisal, KLDC's land development goals under the Government's housing program were increased. As a consequence, both the area of land acquired and the investment in land acquisition grew at a more rapid pace than predicted. By the end of 1989, KLDC had acquired 71,435 Ha., rather than the 44,853 predicted. While the land development process proceeded at a slower pace than anticipated, by the end of 1989 both the area developed and the investment in land development were approximately equal to the original estimates. By the end of 1990, the area developed was 30% over the predicted level over the period and expenditures on land development were nearly twice appraisal.

vii. The cost of KLDC activities was, however, underestimated. The price of acquired land rose rapidly and averaged Won 348,000 rather than the predicted Won 264,000. Total expenditure on land acquisition was Won 2,488 billion rather than the appraisal value of Won 1,183 billion. Although the development process ran more slowly than expected, costs per ha. were higher, bringing expenditure on land development during the period to the appraisal estimates. The total cost of the program rose to US\$3,936 million, over twice the original appraisal estimates.

viii. KLDC also fulfilled all the requirements of the institutional development program as set forth in both the Policy statement and the Appraisal Report. The required studies were performed on a timely basis and new procedures were based on them. Implementation of some systems took longer than anticipated, but were completed by the end of the project.

Project Impact.

ix. KLDC was projected at the time of appraisal to be a major contributor to the housing goals of the Sixth Economic and Social Development Plan. However, because of additional responsibilities given to it, KLDC quickly became a more important institution in the housing sector than anticipated. Between 1986 and 1989, KLDC accounted for 40% of all land development activities in Korea. In

1989, KLDC was responsible for half of all land development investment.

x. KLDC was notably successful in implementing its institutional development program. Bank staff played a central role in achieving this result, providing substantial assistance to the institution on selection of computer systems and the design of financial procedures. However, the increased responsibility placed on KLDC in the Government's expanded housing program strained the institution's managerial and financial capacity. As a consequence, the performance indicators set to test the success of the program deteriorated. Administrative costs and staff per ha. of developed land rose as did the level of inventories. The institution was also forced to become dependent on debt financing to launch the expanded development program. Nonetheless, KLDC was extremely profitable during the project period. However, the institution's profitability was largely due to the continued increase in land prices during the project period.

xi. KLDC's notable success in implementing its institutional development program and fulfilling its role in the Sixth Economic and Social Development Plan began to show results by the end of the 1980s. Both the real rate of increase of land and housing prices and the ratio of housing prices to income have moderated. In the early 1990s, house and land prices began to decline. These results suggest that the institution has been somewhat successful in reducing the pressures in the housing sector though not sufficiently to bring prices or sector conditions to their levels in the 1970s.

xii. However, KLDC's success in fulfilling the objectives of the project ultimately did little to solve the problems of the Korean housing sector; the institution's massive land development program served primarily to counter the restrictions on the land and housing markets created by the Korean regulatory environment. These restrictions, which reduced the ability of private land developers to respond to demand, forced the institution to take on a dominant role in the land market. But KLDC's declining efficiency under these demands, despite the good performance of its management in improving procedures and systems, casts serious doubt both on the ability of one institution to efficiently fulfill the needs of the Korean housing market and on the general direct intervention approach. Thus, the regulatory environment forced the Government to pursue a strategy which was ultimately unsustainable.

Lessons Learned.

xiii. Bank staff can play an important role in Institutional Development Programs. This project benefitted considerably from the input of Bank staff with a strong background in managerial and computer systems. It is likely that in other environments, where such skills are even more rare, such assistance will be of even greater value.

xiv. The impact of Institutional Development Programs will be limited in a counterproductive policy environment. While this project achieved noteworthy success in improving the managerial capability of the client institution, that institution operates in a policy environment which forces it to take on a dominant sectoral role. Such an environment not only makes it difficult for the

client institution to increase its managerial efficiency, but also is ultimately unsustainable as a solution to sector problems. KLDC will continue to make a sizeable contribution to the Korean housing sector, but relying on it as the main actor in a direct intervention strategy places undue burdens on the institution. Reducing regulatory distortions, as is contemplated in the Housing Sector Loan approved in 1991, will both reduce the burdens placed on KLDC and set the stage for sustainable improvements in the Korean housing sector.

PROJECT COMPLETION REPORT

KOREA

URBAN LAND DEVELOPMENT PROJECT

(Loan 2704-KO)

PART I. PROJECT REVIEW FROM BANK'S PERSPECTIVE

Project Identity

- Project Name: Urban Land Development Project
- Loan No.: 2704-KO
- RVP Unit: East Asia and Pacific Region
- Country: Republic of Korea
- Sector: Urban
- Subsector: Housing

A. Introduction

1. This project was one of a series developed and implemented since 1980 to address the problems of the Korean housing sector. Bank involvement in this area began with the National Urban Land Development and Housing Loans I (1980-KO) and II (2216-KO) of 1981 and 1982 which supported the activities of Government land development and housing production agencies. A later evaluation of the projects found that while they had met their physical goals, they had set and had met only limited goals for orienting the country's housing policy. Their impact on the housing sector was judged to be minimal. A broader sectoral focus was reflected in two subsequent loans intended to deal with the perceived "bottlenecks" in the housing sector, the Urban Land Development Project of 1986 (Loan 2704-KO) and the Housing Finance Sector Project of 1987 (Loan 2853-KO). A recent project, the Housing Sector Loan of 1991 (Loan 3329-KO), addresses housing policy as a whole.

B. Project Background

2. The Housing Sector and the Development of Korean Housing Policy. The portfolio of housing projects cited above is a reflection of the evolution of the Government of Korea's housing policy and the Bank's role in it. Korean housing policy has evolved from neglect of the sector through the early 1970s to an emphasis on direct provision of housing. By the early 1980s, Government policy had shifted to direct provision of important "inputs" in the construction of housing, namely, serviced land and long-term finance. The Urban Land and Housing Finance projects were intended to contribute to this effort. Only recently has the integral role of policy in the housing sector been given direct attention in both the Government's and the Bank's strategy for addressing housing sector problems.

3. Korean development policy has always entailed a high degree of direct intervention in the economy. During the 1950s and 1960s, economic growth was financed by steering resources to export industries through directed credit programs and other mechanisms. After a period of rebuilding war damages during the 1950s, housing was largely neglected until the 1970s.

4. At that time, the consequences of years of neglect of the housing sector began to be seen. Economic growth was accompanied by a rapid rate of urbanization; the urban population grew at an average annual rate of 5.4% from 1960-88, a rate nearly three times that of the total population. By 1988, the nation was over three quarters urban. However, low investment in urban housing led to rapid increases in crowding and housing prices. As a response, a housing policy was formulated in a ten year housing plan and specific sectoral goals were set in economic planning.

5. These goals were pursued through a large degree of direct Government intervention in the production of housing and its major inputs. Several major institutions were created to finance housing (the Korea Housing Bank, KHB), to develop serviced land (the Korea Land Development Corporation, KLDC) and to build and finance low income housing (the Korea National Housing Corporation, KNHC, and the National Housing Fund, NHF). Under the Third Five Year Economic and Social Development Plan (1972-76), 30% of new housing was created by both national and local public agencies. In the late 1970s, an effort to "cool" the housing sector restricted private housing development, thereby giving public institutions a still more important role.

6. The Bank began discussions with the Korean Government on the possibility of a housing loan in the late 1970s. By the early 1980s, two loans financing land development activities of KLDC and housing construction and mortgage lending through KNHC and NHF (Loans 1980-KO and 2216-KO) had been approved. These two loans attempted both to improve the operations of the two institutions and to demonstrate through the Bank-financed portion of their programs the feasibility of lower plot size and building standards. Later evaluation of these projects found that while they were largely successful in meeting these goals, they had little ultimate impact on the housing sector.^{1/}

7. Despite the increased emphasis on improving conditions, the Korean housing sector still displayed signs of a large level of excess demand. By 1985, the Korean housing price index had reached a level almost eight times its 1974 level while an index of both construction material and general consumer prices grew at only half that rate. Thus, housing costs grew at an average annual rate of approximately 20%--a real rate of increase of 6.53% per year. Evidence suggests that these trends had a significant impact on affordability despite wage increases during the same years. The ratio of single family house prices to incomes, a common measure of housing affordability, doubled during the 1970s from 2.31 in 1976 to 5.64 in 1980. Despite a decline in the early 1980s the ratio remained high at 4.66. Preliminary research suggests that this problems may have been even more acute among low-income households.^{2/}

1/ See Project Completion Report, First and Second National Urban Land Development and Housing Projects, Report No. 9723, 1991.

2/ See Kim, Kyung-Hwan, "Housing Prices, Affordability, and Government Policies in Korea", Internal Discussion Paper, Asia Regional Series Report No. IDP 99, The World Bank, July 1991.

8. By the mid 1980s, the Government had launched a major program to increase the supply of housing. Two million houses were to be built during the latter part of the decade. As attempts were made to formulate a response to housing sector problems, two factors were identified as the major constraints on housing supply: inadequate supply of serviced land and housing finance. Both public land development agencies and housing finance institutions were given ambitious goals to complete as part of this program. Under the Sixth Plan (1987-91), KLDC was to provide 4,700 ha of serviced land in 50 municipalities with total investment of \$3,300 million (W 2,750 billion). This constituted an increase of over 30% over the goals of the Fifth Plan (1982-1986), of 3,540 ha of land in 40 municipalities. It should be noted that the actual investment under the Fifth Plan-\$2,054 million-fell short of this goal.

9. This project (Loan 2704-KO) participated in the expansion of Government housing programs by supporting the expansion of serviced land development while the Housing Finance Project (Loan 2853-KO) addressed the deficiencies in the housing finance system.

C. Project Objectives and Description

10. This project was intended to increase the supply of serviced land in Korea by assisting KLDC in fulfilling its role under the Sixth Plan. Thus, the project supported the Government's housing sector policy which relied on direct intervention in the sector. The project had four principle objectives:

- (a) strengthening KLDC's management and administration;
- (b) establishing corporate goals for serving the low-income population;
- (c) improving KLDC's project evaluation procedures, and its cost allocation and pricing policies; and
- (d) supporting KLDC's urban land development program.

D. Project Design and Organization

11. These objectives were pursued in the project through two major components. First, an investment component would finance a time slice of KLDC's land development program. Secondly, an institutional strengthening component would improve KLDC's site selection and pricing policies as well as its internal financial management.

12. Investment Component. The Project would partly finance a four year time slice (1986-89) of KLDC's land development activities. KLDC's program required the acquisition of about 2,700 ha of land for housing and 1,000 ha of land for industrial sites. A total of 3,700 ha of serviced land over 120 sites would be supplied. The total cost of KLDC land development activities during this period was estimated at appraisal as US\$ 1,849 million; Bank financing would supply US\$ 150 million, or 8% of project costs.

13. To simplify loan administration, disbursements would be made only against civil works contracts of more than US\$ 5 million each and 60% of the cost of such contracts would be reimbursed.

14. Institutional Strengthening Component. Bank experience with KLDC during previous projects had identified a number of deficiencies in planning, marketing and internal financial management. A technical assistance program was designed to help the institution improve its site selection process, its land pricing policy, financial planning procedures, and accounting system.

15. During Project Appraisal, it was apparent that there were several problems in the way land development sites were chosen for development and sold after development. First, there were several technical deficiencies in the site selection process. Sites were selected on a "least cost" basis, where cost was primarily dependent on land acquisition. Little attention was paid to the market demand in the particular sites. As a result, very large sites were selected in locations where land was cheap, i.e., far from city centers or in cities where growth was low. Since there was little demand in these locations, sales were slow and the inventory of unsold developed land was large. KLDC's site selection policy had been a source of conflict with other agencies in the previous project (Loan 1980-KO). In particular, KNHC frequently complained that the KLDC developed sites in locations where it was difficult to find buyers.

16. Several deficiencies were also noted in the manner in which the selling price for developed land was calculated. First, development costs were underestimated; financial expenses of land development, such as the cost of capital over the development period, were excluded from the selling price calculations. Second, sale prices did not reflect market values. All land was sold at the same price, with no differentiation for land in better locations or with better access to services. These factors contributed to the inventory problem, since land with a lower market value was effectively overpriced and sold slowly.

17. Finally, weaknesses were noted in KLDC's long-term financial planning and accounting systems.

18. The project sought to improve KLDC's management and administration. The specific goals were set forth in the Institutional Development Program which was to be fully implemented by December 31, 1987. This program included:

- (a) The strengthening of KLDC's financial management
- (b) The establishment of improved criteria for physical planning and site selection;
- (c) A review of cost allocation and pricing policies;
- (d) The establishment of information systems for project planning and financial management, and the annual updating of short- and medium-term corporate plans, including development programs and financial projections;

- (e) The establishment of training programs and the construction of a training center; and
- (f) The establishment of computerized accounting and payroll systems.

19. To achieve these ends, the Bank mandated and KLDC financed studies of the institution's current practices and consultant services to improve accounting and management, etc. The specific services identified for financing at appraisal were studies of land pricing and financial management, implementation of long-term financial planning and new site evaluation procedures, computerization of the payroll and accounting systems, and the establishment of performance oriented goals and a training center.

E. Project Implementation

20. Investment Component. The level of KLDC investment quickly exceeded the estimates at the time of appraisal. New activities, such as the industrial land development activities of the Korea Water Resources Corporation were transferred to the institution. Moreover, after appraisal the Government of Korea launched an ambitious program to build 2 million houses, thereby increasing the pressure on KLDC to supply serviced land. As early as 1987, KLDC's level of activity exceeded appraisal estimates by some 40%.

21. As a consequence, both the amount of land acquired and the investment in land acquisition grew at a more rapid pace than predicted. By the end of 1989, KLDC had acquired 71,435 ha., instead of the 44,853 predicted. However, the land development process took longer than expected. The rate at which land area was developed from 1986 through 1988 fell 30% below the prediction at appraisal. However, in 1989 and 1990, the area developed displayed a rapid expansion. By the end of the project in 1989, both the area developed and the investment in land development were approximately equal to the appraisal estimates. By the end of 1990, the area developed was 30% over the predicted level over the period and expenditures on land development were nearly twice those of appraisal estimates. Land sales also lagged behind the original estimates, not reaching the appraised level until the end of 1989, though exceeding that prediction in 1990.

22. The cost of KLDC activities was also underestimated. The price of acquired land rose rapidly and averaged Won 348,000 rather than the predicted Won 264,000. Total expenditure on land acquisition was Won 2,488 billion rather than the appraisal value of Won 1,183 billion. Although the development process occurred more slowly than expected, costs per ha were higher, bringing expenditure on land development during the period to the appraisal estimates. The total cost of the expanded land development program rose to Won 3,381 billion, over twice the estimate at appraisal.

23. Loan disbursements proceeded smoothly. While KLDC had little problem complying with Bank procurement requirements, minor adjustments were made in disbursement procedures to help the institution smooth cash flow. The loan was totally disbursed by June 1990, six months ahead of schedule.

24. Institutional Development Program. KLDC fulfilled all the requirements of the institutional development program as set forth in both the Policy Statement and the Staff Appraisal Report. The required studies were performed on a timely basis and new procedures were based on their conclusions. However, despite these new procedures, KLDC still had some difficulty reaching the ambitious goals of the institutional development program.

25. Physical Planning and Site Selection. A study setting forth new procedures for site evaluation was completed in 1986 and its recommendations were tested in 1987. KLDC now considers market potential, costs, and expected profitability in selecting sites. A Project Feasibility Deliberation Committee was formed to analyze the financial return on projects and a computer program to evaluate the financial return in various sites was created. However, as of 1989, the program was still available only in English, thereby limiting its applicability. Consequently, market analysis was still under-emphasized in site evaluation.

26. Land pricing policy. A consultant report on plot pricing policy was presented in early 1987 and its recommendations were adapted to and implemented in KLDC operations. Sale prices are now based on estimates by certified appraisers. Thus, land prices should implicitly reflect both locational factors and local market conditions. The amount of discount given to land sold to other public agencies also varies by location. However, within projects, there is still little price differentiation according to location or access to services for residential plots. Industrial and commercial plots are sold at auction, and can be assumed to fully reflect such factors.

27. Analysis of development costs have also improved. KLDC cost estimates now include a financial opportunity cost for carrying land. However, this cost is calculated using the current rate on 3 month certificates of deposit. This rate has been controlled since 1985 and is now negative in real terms. By comparison, the corporate debt market, which would better reflect KLDC's opportunity costs, is currently paying 18%. Moreover, the continued increase in land prices (until recently) was sufficient to overcome any carrying costs, and KLDC financial calculations therefore tended to give less emphasis to such factors.

28. Financial Management. A detailed financial model for planning cash flow and financial management was prepared in 1986 and implemented in 1987. Long-term financial plans were being prepared every two years. A study was completed in 1987 providing recommendations on accounting for projects, land, accounts payable and cost allocation.

29. Computerization. Significant efforts were made by KLDC staff in this area, though progress was somewhat slower than expected. The computerized accounting system was not available until 1990. The principal problem encountered was the difficulty in finding computer equipment and developing software that could be used in the local language (Hangul).

30. Training. A local and overseas training program was established almost immediately. The training center was established in 1988.

F. Major Results of the Project

31. Contribution to supply of land developed. KLDC was projected at the time of appraisal to be a major contributor to the housing goals of the Sixth Development Plan. However, because of the additional responsibilities assigned to it (see para. 20), it quickly became a more important institution in the housing sector than anticipated. Between 1986 and 1989, KLDC accounted for 40% of all land development activities in Korea. In 1989, KLDC was responsible for half of all land development investment.

32. Institutional Development Program. KLDC was notably successful in implementing its institutional development program. However, the increased responsibility placed on KLDC in the Government's expanded housing program strained the institution's managerial and financial capacity. This factor makes a clear evaluation of the institutional development program difficult.

33. KLDC's management was strained by the rapid expansion of activities during this period. Staff and administrative expenses increased substantially under the ambitious program. Administrative expenses on sales were twice the estimate at appraisal and in 1989, the number of employees per ha of land under development was 50% above projections. Inventories of unsold land remained large, although KLDC officials ascribe this trend to the business cycle of land sales rather than badly chosen projects. Financial management suffered as well. To finance the rapid rate of expansion, KLDC had to leverage itself to a greater extent than predicted. By the end of the project, the debt to equity ratio was well over the "maximum" permitted at the beginning of the project.

34. Nonetheless, KLDC was extremely profitable during the project period. Net income on sales averaged over 30% between 1986 and 1989.^{3/} Profits were in fact so high that a public relations campaign was launched to explain the source of such high income. However, this high rate of profitability was primarily due to the increase in land sale prices. Gross profits (after administrative and operational expenses but before interest payments and taxes) remained substantially above the original estimates, suggesting that the rapid increase in land prices cushioned the impact of increased managerial and financial inefficiency. Net income (after interest payments and taxes) was only slightly greater than that predicted at appraisal, reflecting the increased debt loan of the institution.

3/ It should be noted that standard accounting practices do not contemplate the opportunity cost of carrying land, which can be high in the case of a land development company such as KLDC.

35. Under such circumstances, evaluating the success of the institutional development program is difficult. While many of the indicators designed at appraisal to measure the success of the project worsened, the original projections did not contemplate the rapid expansion of KLDC's program. It could also be argued that the institution could not have withstood this rate of growth without improved managerial capabilities. What is clear, however, is that KLDC did not benefit from any economies of scale in expanding the size of its operations.

36. Economic Rate of Return. The economic rate of return on sites partially financed by Bank funds reflects the high profitability of KLDC. To some extent, this calculation remains an estimate rather than a true ex post calculation. Although most of these sites were begun the year before final loan approval, by the end of 1990 some 35% of the developed land remained unsold. However, if the remaining land is assumed to be sold in 1992 and only a financial charge on the value of investment in this land and its development is charged during that year, the subprojects would yield a rate of return, after inflation, of 17.4%^{4/} Such a high rate demonstrates the profitability of KLDC.

37. Impact on Housing Sector. KLDC's notable success in implementing its institutional development program and fulfilling its role in the Sixth Economic and Social Development Plan began to show results by the end of the 1980s. Both the real rate of increase of land and housing prices and the ratio of housing prices to income have moderated. In the early 1990s, house and land prices began to decline. These results suggest that the institution has been somewhat successful in reducing the pressures in the housing sector though not sufficiently to bring prices or sector conditions to their levels in the 1970s.

38. However, the ultimate impact of the project on the sector is less obvious. Korean land policy continues to pursue a course which makes it difficult for the land development system to respond to market demand. Korean land policy is heavily regulated to achieve a number of economic and social goals. Most regulations stem from a general conception of land as a "scarce" resource in Korea, which therefore must be regulated to ensure that it be available for important uses (such as agriculture) or so that the total population rather than a few benefit from its development, sale, and use. As the demand for land and its price have increased, government policies have increasingly been directed towards blocking "speculative" land transactions. Thus, land policy is based on a series of goals, each commendable individually, but counterproductive when taken in combination.

39. The National Land Use Planning Act gives the Ministry of Construction the power to estimate the amount of land needed for various use categories based on spatial population and economic trends. It then prepares a national land use plan which establishes the designated use for nearly all the land in Korea.^{5/}

4/ A detailed explanation of these assumptions and the calculations is given in Annex 1.

5/ See Kim, Kyung-Hwan, Ibid.

40. Residential land development requires conversion from an agriculture use designation, to urban. In practice, MOC issues conversion permits almost exclusively to Government agencies except for small projects, reportedly to prevent private developers from reaping large profits from their land development activities." (Kim 1991) Land surrounding many major cities may also be subject to a further level of control if its is designated part of a "greenbelt," that is, an area in which construction is strictly controlled to contain the growth of urban areas. The total land area inside the greenbelts was 5,397 sq km as of 1988, or about 5.5% of the total land area of Korea.

41. Finally, fear of excessive returns from speculation has led Korean authorities to put restrictions on land transactions. Permits are required for large land transactions. The Government has the power to intervene over prices when a transaction has been judged "speculative." As a consequence, the Government exercises considerable control over the price, location, and timing of land development.

42. The net result of these regulations has been a significant barrier to entry for private land developers. The creation of KLDC has to some extent functioned as a partial corrective for the extent of regulatory barriers. Since most permits must be obtained from a Central Government institution in Seoul, KLDC has a comparative advantage in surmounting regulatory barriers. Thus, the regulatory environment has been a major factor in KLDC's emergence as the dominant force in land development. However, even KLDC has encountered difficulty in dealing with the extent of land regulation. Half of the sites proposed by KLDC since 1980 have been rejected by other agencies.

43. The final irony of Korean urban policy is that regulations designed to protect land may actually be increasing its scarcity. Regulations impeding the redevelopment of inner city land have slowed the production of high-density housing in cities such as Seoul, thereby increasing the pressure to expand into suburban and rural areas. KLDC itself operates in a manner which does not use land "efficiently," since the agency sets aside 40% of each development project for roads and public spaces, a high percentage by international standards. Thus, not only is the supply of regulatory land restricted by the regulatory environment, but the number of housing units created per sq km developed is also restricted.

44. By the end of the project, the importance of the regulatory environment as the chief problem in the land and housing market had become increasingly obvious to both Bank staff and Korean officials.

45. The Government of Korea has now demonstrated its growing recognition that regulatory complexity may become a barrier to land development by introducing some measures to streamline the permit process. Bank staff have participated in this process through the policy dialogue in the Housing Sector Project (Loan 3329-KO), which seeks to deal with the total regulatory environment.

G. Project Sustainability

46. KLDC performed well in the role assigned to it by the Government as the primary supplier of serviced land. However, the strains which have shown in its management during the course of this project make the sustainability of the current approach doubtful. Under the 2 million houses program the Government has been able to arrest the rate of growth of land and housing prices seen over the past 20 years. Nonetheless, these trends have yet to be reversed. The performance of KLDC during the 1980s suggests that, even if the Government could find the resources to finance greater expansion of its housing program, even a well-managed institution like KLDC could not single-handedly manage the level of land development needed. Ultimately, the direct intervention approach is unsustainable.

H. Bank and Borrower Performance

47. Bank and KLDC staff collaborated closely during the design and implementation of this project. KLDC achieved noteworthy results in pursuing its institutional development program. Bank staff were closely involved in the implementation of the managerial and computer systems, often displaying considerable skill as "adjunct consultants" to the project. Staff aided KLDC in overcoming the problems associated with translating software into Hangul and finding appropriate computer equipment. Staff also helped evaluate the financial models developed for KLDC. Thus, Bank staff were extremely useful in helping the institution evaluate and implement consultant recommendations.

I. LESSONS LEARNED

48. Bank staff can play an important role in Institutional Development Programs. This project benefitted considerably from the input of Bank staff with a strong background in managerial and computer systems. It is likely that in other environments, where such skills are even more rare, such assistance will be of even greater value.

49. The impact of Institutional Development Programs will be limited in a counterproductive policy environment. While this project achieved noteworthy success in improving the managerial capability of the client institution, that institution operates in a policy environment which forces it to take on a dominant sectoral role. Such an environment not only makes it difficult for the client institution to increase its managerial efficiency, but also is ultimately unsustainable as a solution to sector problems. KLDC will continue to make a contribution to the Korean housing sector, but relying on it as the main actor in a direct intervention strategy places undue burdens on the institution. Reducing these regulatory distortions, as is contemplated in the Housing Sector Project (Loan 3329-KO) approved in 1991, will both reduce the burdens placed on KLDC and set the stage for sustainable improvements in the Korean housing sector.

Annex I
Rate of Return Calculations

Calculations of the rate of return was based on the actual costs and sales prices associated with Bank-financed subprojects. Both the costs and the benefits (i.e., sales prices) associated with the subprojects were deflated by the CPI. These data are detailed in the attached table. Since approximately 25% of the land developed in these sites remained in inventory at the end of 1991, it was assumed that the remaining unsold land would be sold on Dec. 31, 1992. A financial cost, calculated by applying a 3% real interest rate to the investment in inventory, was applied over 1992. These calculations yielded an estimated return of 17.4%.222

Economic Rate of Return Calculations

	Costs		Inflation		Deflated	Benefits	Deflated	Net Deflated	Economic
	Land Acquisition and Development*		Consumer 1985 = 100	Price Index 1986 = 100	Costs*	Sales of land*	Benefits*	Benefit*	Rate of Return
1986	238,857,000		102.8	100	238,857,000	0	0	(238,857,000)	0.174
1987	144,437,000		105.9	103	140,208,910	0	0	(140,208,910)	
1988	775,318,134		113.4	110	702,845,716	46,737,156	42,368,427	(660,477,289)	
1989	530,700,286		119.9	117	455,012,422	289,843,857	248,506,660	(206,505,762)	
1990	534,044,512		130.2	127	421,657,264	1,502,852,800	1,186,584,238	764,926,974	
1991	301,678,111		144.9	141	214,026,983	707,189,235	501,718,795	287,691,812	
1992**	49,503,246		144.9	141	35,120,316	1,650,108,215	1,170,677,168	1,135,556,872	

* in thousand Won

** Estimated

Sites financed under the third IBRD Project (2704-KO)
 Status as of Dec. 31, 1986 (in thousand Won)

	Acquisition	Construction	Overhead	Total	Sales	Cost of Land Sold	Profit	Inventories
1 Kimhae-Eobang	13,232,000	3,464,000	0	16,696,000	0	0	0	16,696,000
2 Suwon-Maetan II	0	0	0	0	0	0	0	0
3 Incheon-Namdong Ind.	29,969,000	6,680,000	0	36,649,000	0	0	0	36,649,000
4 Seoul-Junggae	70,653,000	35,000,000	0	105,653,000	0	0	0	105,653,000
5 Cheongju-Bokdae	0	0	0	0	0	0	0	0
6 Chungju-Choongae	0	0	0	0	0	0	0	0
7 Kyeongsan-Imdang	0	0	0	0	0	0	0	0
8 Pohang Iron Ind. III	0	0	0	0	0	0	0	0
9 Pohang Iron Ind. IV, V	0	0	0	0	0	0	0	0
10 Gwangju-Hanam Ind.	0	0	0	0	0	0	0	0
11 Ulsan-Samho	0	0	0	0	0	0	0	0
12 Daeduck Housing Site I	5,637,000	243,000	0	5,880,000	0	0	0	5,880,000
13 Daeduck Housing Site II	0	0	0	0	0	0	0	0
14 Daeduck Site I	4,000	58,000	0	62,000	0	0	0	62,000
15 Daeduck Site II	0	0	0	0	0	0	0	0
16 In Ind. II	0	0	0	0	0	0	0	0
17 Songtan Ind.	0	0	0	0	0	0	0	0
18 Kyeongju Yonggang Ind.	0	0	0	0	0	0	0	0
19 Ulsan-Petrochemical Ind.	0	0	0	0	0	0	0	0
20 Incheon-Yeonsu	12,670,000	179,000	0	12,849,000	0	0	0	12,849,000
21 Daejeon-Doosan	60,794,000	274,000	0	61,068,000	0	0	0	61,068,000
22 Chuncheon-Seogsa	0	0	0	0	0	0	0	0
23 Chuncheon-Hoopyong II	0	0	0	0	0	0	0	0
24 Jeonju-Samcheon	0	0	0	0	0	0	0	0
25 Gunsan Ind.	0	0	0	0	0	0	0	0
26 Gwangju-Hanam Housing Site II	0	0	0	0	0	0	0	0
	192,959,000	45,898,000	0	238,857,000	0	0	0	238,857,000

Sites financed under the third IBRD Project (2704-KO)
 Status as of Dec. 31, 1987 (in thousand Won)

	Acquisition	Construction	Overhead	Total	Sales	Cost of Land Sold	Profit	Inventory
1 Kimhae-Eobang	(80,000)	2,282,000	0	2,202,000	0	0	0	2,202,000
2 Suweon-Maetan II	0	0	0	0	0	0	0	0
3 Incheon-Namdong Ind.	11,079,000	18,956,000	0	28,037,000	0	0	0	28,037,000
4 Seoul-Junggae	3,525,000	4,426,000	0	7,951,000	0	0	0	7,951,000
5 Cheongju-Bokdae	0	0	0	0	0	0	0	0
6 Chungju-Choongeue	0	0	0	0	0	0	0	0
7 Kyeongsan-Imdang	0	0	0	0	0	0	0	0
8 Pohang Iron Ind. III	0	0	0	0	0	0	0	0
9 Pohang Iron Ind. IV V	0	0	0	0	0	0	0	0
10 Gwangju-Hanam Ind.	0	0	0	0	0	0	0	0
11 Ulsan-Samho	0	0	0	0	0	0	0	0
12 Daeduck Housing Site I	2,906,000	1,147,000	0	4,055,000	0	0	0	4,055,000
13 Daeduck Housing Site II	0	0	0	0	0	0	0	0
14 Daeduck Site I	32,748,000	118,000	0	32,866,000	0	0	0	32,866,000
15 Daeduck Site II	0	0	0	0	0	0	0	0
16 Iri Ind. II	2,052,000	116,000	0	2,168,000	0	0	0	2,168,000
17 Songtan Ind.	3,000	146,000	0	149,000	0	0	0	149,000
18 Kyeongsu Yonggang Ind.	5,000	90,000	0	95,000	0	0	0	95,000
19 Ulsan-Petrochemical Ind.	0	28,000	0	28,000	0	0	0	28,000
20 Incheon-Yeonsu	26,378,000	50,000	0	26,428,000	0	0	0	26,428,000
21 Daejeon-Doosan	40,428,000	30,000	0	40,458,000	0	0	0	40,458,000
22 Chuncheon-Seogss	0	0	0	0	0	0	0	0
23 Chuncheon-Hoopyong II	0	0	0	0	0	0	0	0
24 Jeonju-Samcheon	0	0	0	0	0	0	0	0
25 Gunsan Ind.	0	0	0	0	0	0	0	0
26 Gwangju-Hanam Housing Site II	0	0	0	0	0	0	0	0
	119,066,000	25,371,000	0	144,437,000	0	0	0	144,437,000

Sites financed under the third IBRD Project (2704-KO)
Status as of Dec. 31, 1988

	Acquisition	Development Costs (in thousand Won)			Sales	Cost of Land Sold	Profit	Inventories
		Construction	Overhead	Total				
1 Kimhae-Eobang	13,380,129	7,512,750	288,937	21,136,816	0		21,136,816	
2 Suwon-Maetan II	32,036,015	9,477,809	253,385	41,767,209	39,723,750	27,689,336	14,077,873	
3 Incheon-Namdong Ind.	72,789,220	56,353,081	1,804,558	130,946,869	0	0	130,946,869	
4 Seoul-Junggae	75,606,716	19,652,003	1,208,033	96,466,752	0	0	96,466,752	
5 Cheongju-Bokdae	18,197,434	4,180,056	288,748	22,664,240	407,421	434,752	22,229,488	
6 Chungju-Choongae	9,091,343	4,290,528	192,048	13,543,919	6,605,985	3,161,753	10,382,166	
7 Kyeongsan-Imdang	9,860,285	270,299	122,529	10,253,113	0	0	10,253,113	
8 Pohang Iron Ind. III	2,163,790	3,286,803	102,614	5,553,177	0	0	5,553,177	
9 Pohang Iron Ind. IV, V	2,985,571	7,380,242	177,629	10,543,442	0	0	10,543,442	
10 Gwangju-Hanam Ind.	18,745,937	14,252,186	556,648	33,554,971	0	0	33,554,971	
11 Ulsan-Samho	12,518,942	6,851,340	275,912	19,646,194	0	0	19,646,194	
12 Daeduck Housing Site I	6,777,862	1,863,659	111,145	10,752,666	0	0	10,752,666	
13 Daeduck Housing Site II	44,029,667	3,471,569	693,991	48,195,447	0	0	48,195,447	
14 Daeduck Site I	56,502,066	18,066,912	1,008,329	75,575,307	0	0	75,575,307	
15 Daeduck Site II	83,131,735	7,967,381	1,068,982	92,168,078	0	0	92,168,078	
16 In Ind. II	5,293,024	1,409,722	81,592	6,784,336	0	0	6,784,336	
17 Songtan Ind.	18,213,208	335,182	269,101	18,817,501	0	0	18,817,501	
18 Kyeongju Yonggang Ind.	11,123,535	782,474	172,733	12,078,742	0	0	12,078,742	
19 Ulsan-Petrochemical Ind.	6,479,575	212,036	97,056	6,788,667	0	0	6,788,667	
20 Incheon-Yeonsu	164,729,686	895,274	2,440,796	168,065,956	0	0	168,065,956	
21 Daejeon-Doosan	274,356,567	696,322	4,279,473	279,334,362	0	0	279,334,362	
22 Chuncheon-Seogsa	8,138,145	124,516	119,835	8,382,496	0	0	8,382,496	
23 Chuncheon-Hoopyong II	801,956	17,545	11,887	831,388	0	0	831,388	
24 Jeonju-Samcheon	13,595,419	208,654	200,279	14,002,352	0	0	14,002,352	
25 Gunsan Ind.	4,777	3,418	119	8,314	0	0	8,314	
26 Gwangju-Hanam Housing Site II	10,483,383	96,116	149,317	10,728,816	0	0	10,728,816	
Total	973,018,377	189,645,901	15,947,856	1,158,612,134	46,737,156	31,285,641	15,451,315	1,127,326,293

Sites financed under the third IBRD Project (2704-KO)
Status as of Dec. 31, 1988

	Acquisition	Development Costs (in thousand Won)			Total	Sales	Cost of Land Sold	Profit	Inventories
		Construction	Overhead						
1	Kimhee-Eobang	13,920,319	8,341,027	264,217	22,525,563	0	0	0	22,525,563
2	Suwon-Maetan II	32,036,015	9,477,809	253,385	41,767,209	52,097,904	36,497,329	15,600,373	3,289,680
3	Inchon-Namdong Ind.	78,814,597	75,835,112	1,877,087	156,126,796	84,903,204	56,473,143	28,430,061	99,653,633
4	Seoul-Junggae	76,307,214	43,279,991	862,672	120,449,877	132,278,336	86,657,037	45,621,299	33,792,840
5	Cheongju-Bokdae	18,197,434	4,180,058	266,748	22,644,240	24,870,563	19,752,425	5,118,138	2,911,815
6	Chungju-Choongae	9,091,343	4,280,528	192,048	13,543,919	17,395,733	10,061,888	7,313,845	3,482,031
7	Kyeongsan-Imdang	10,270,258	655,449	126,956	11,052,661	0	0	0	11,052,661
8	Pohang Iron Ind. III	2,173,090	5,972,957	141,183	8,287,230	7,182,972	6,877,172	505,800	1,610,058
9	Pohang Iron Ind. IV, V	2,985,571	9,798,302	172,621	12,956,494	0	0	0	12,956,494
10	Gwangju-Hanam Ind.	18,835,201	17,318,561	573,561	36,725,323	17,852,301	14,643,359	3,208,942	22,081,964
11	Ulsan-Samho	12,791,403	8,879,538	299,729	21,970,670	0	0	0	21,970,670
12	Daeduck Housing Site I	8,822,332	1,931,129	111,882	10,865,343	0	0	0	10,865,343
13	Daeduck Housing Site II	48,867,853	5,000,582	730,728	54,599,163	0	0	0	54,599,163
14	Daeduck Site I	56,853,228	19,397,174	1,014,205	77,064,605	0	0	0	77,064,605
15	Daeduck Site II	92,304,941	22,116,042	1,078,946	115,499,929	0	0	0	115,499,929
16	Iri Ind. II	5,768,991	5,295,096	104,109	11,168,196	0	0	0	11,168,196
17	Songtan Ind.	22,070,468	2,758,219	232,393	25,061,080	0	0	0	25,061,080
18	Kyeongju Yonggang Ind.	12,291,829	3,845,237	200,857	16,337,923	0	0	0	16,337,923
19	Ulsan-Petrochemical Ind.	8,583,990	7,178,753	156,831	15,917,574	0	0	0	15,917,574
20	Incheon-Yeonsu	188,917,890	15,193,241	2,488,349	204,599,480	0	0	0	204,599,480
21	Daejeon-Doosan	597,170,935	8,750,553	6,453,538	612,375,026	0	0	0	612,375,026
22	Chuncheon-Seogae	15,061,098	1,547,449	152,293	16,760,840	0	0	0	16,760,840
23	Chuncheon-Hoopyong II	8,551,281	245,593	54,955	8,851,829	0	0	0	8,851,829
24	Jeonju-Samcheon	32,017,427	2,635,071	337,892	34,990,390	0	0	0	34,990,390
25	Gunsan Ind.	229,092	4,364,438	32,884	4,626,414	0	0	0	4,626,414
26	Gwangju-Hanam Housing Site II	10,492,343	1,671,857	160,846	12,525,046	0	0	0	12,525,046
Total		1,381,025,939	289,925,766	18,360,715	1,689,312,420	336,561,013	230,782,553	105,796,460	1,458,529,867

Sites financed under the third IBRD Project (2704-KO)
Status as of Dec. 31, 1980

	Acquisition	Development Costs (in thousand Won)			Sales	Cost of land sold	Profit	Inventories
		Construction	Overhead	Total				
1 Kimhae-Eobang	13,985,281	11,488,350	312,889	25,786,520	35,381,257	21,578,434	13,784,823	4,210,088
2 Suwon-Maetan II	32,036,015	9,477,809	253,385	41,767,209	58,484,150	38,872,275	17,591,875	2,894,934
3 Incheon-Namdong Ind.	81,904,073	98,332,078	2,281,917	180,498,068	369,352,175	180,199,761	209,352,414	20,298,305
4 Seoul-Junggae	80,178,843	48,096,223	818,743	129,083,809	174,642,291	108,100,889	68,541,802	20,983,120
5 Cheongju-Bokdae	18,187,434	4,180,058	286,748	22,654,240	27,987,382	21,773,498	6,193,884	890,742
6 Chungju-Choongseu	9,091,343	4,280,528	192,048	13,543,919	19,484,999	11,584,885	7,900,284	1,959,234
7 Kyeongsan-Imdang	10,414,081	854,893	168,552	11,437,526	2,878,098	2,661,455	16,641	8,778,071
8 Pohang Iron Ind. III	2,173,090	5,972,957	141,183	8,287,230	9,082,979	8,134,549	928,430	152,681
9 Pohang Iron Ind. IV, V	3,082,702	12,370,882	199,908	15,633,572	1,854,782	549,836	1,104,948	15,083,736
10 Gwangju-Hanam Ind.	18,835,201	17,316,561	573,561	36,725,323	23,931,283	19,289,471	4,641,812	17,436,852
11 Ulsan-Samho	35,531,617	11,025,448	325,419	46,882,484	44,587,168	33,090,143	11,497,023	13,792,341
12 Daeduck Housing Site I	9,236,787	12,464,089	178,382	21,877,238	21,861,410	21,801,454	(140,044)	75,784
13 Daeduck Housing Site II	13,845,882	6,625,829	257,876	20,529,387	45,398,798	16,041,836	29,356,962	4,487,531
14 Daeduck Site I	38,125,485	8,164,903	619,285	44,909,633	35,377,423	22,987,094	12,390,329	21,922,539
15 Daeduck Site II	52,887,220	19,723,388	1,185,307	73,575,915	89,545,726	54,459,037	15,086,689	19,118,878
16 Iri Ind. II	123,537,423	30,317,772	(2,291,315)	151,563,880	121,518,110	114,464,572	7,053,538	37,088,308
17 Songtan Ind.	5,798,544	7,105,328	147,054	13,048,926	10,139,884	5,867,380	4,272,524	7,181,566
18 Kyeongju Yonggang Ind.	12,393,153	4,520,028	211,883	17,125,074	10,013,942	7,888,130	2,145,812	9,258,944
19 Ulsan-Petrochemical Ind.	22,874,173	11,132,808	318,946	34,125,927	80,893,753	30,213,181	30,880,582	3,912,788
20 Incheon-Yeonsu	200,039,572	47,230,422	3,075,384	250,345,358	181,108,090	147,824,153	33,283,937	102,521,205
21 Daejeon-Doosan	882,787,791	34,823,823	8,827,948	926,339,362	322,004,468	281,280,991	40,723,477	648,058,371
22 Chuncheon-Seogsa	19,857,213	3,091,731	234,847	23,183,591	28,173,578	22,705,855	3,467,923	477,938
23 Chuncheon-Hoopyong II	11,930,457	2,938,153	180,857	15,047,287	10,837,449	9,908,922	830,527	5,140,345
24 Jeonju-Samcheon	32,213,934	6,570,752	421,903	39,206,589	48,711,888	33,723,927	14,987,941	5,482,882
25 Gunsan Ind.	5,533,982	16,351,363	490,306	22,375,631	11,380,380	10,490,250	890,110	11,885,381
26 Gwangju-Hanam Housing Site II	10,538,190	26,865,932	379,134	37,783,256	99,282,444	27,308,242	71,974,202	10,475,014
							0	0
							0	0
Total	1,748,387,248	457,399,984	19,589,702	2,223,356,932	1,839,433,813	1,232,775,580	608,658,233	990,581,352

Sites financed under the third IBRD Project (2704-KC)
 Status as of Dec. 31, 1991

	Development Costs (in thousand Won)				Sales	Cost of land sold	Profit	Inventories
	Acquisition	Construction	Overhead	Total				
1 Kimhae-Eobang	13,985,281	11,466,350	312,889	25,764,520	37,356,746	22,936,791	14,421,955	2,849,729
2 Suwon-Maetan II	32,036,013	9,477,809	253,385	41,767,209	58,255,398	40,571,300	17,684,098	1,195,909
3 Incheon-Namdong Ind.	83,029,817	133,583,493	2,833,866	219,447,176	450,718,133	199,686,806	251,029,327	19,770,390
4 Seoul-Junggae	80,178,843	48,086,223	818,743	129,083,809	180,202,384	110,321,043	69,881,341	18,772,766
5 Cheongju-Sokdae	18,197,434	4,180,058	286,748	22,664,240	28,746,834	22,500,707	6,246,127	163,533
8 Chungju-Choongseu	9,081,343	4,280,528	182,048	13,543,919	20,459,870	12,483,438	7,976,432	1,080,481
7 Kyeongsan-Imdang	11,839,810	911,466	173,732	12,925,008	2,315,365	3,019,417	(504,052)	9,707,391
8 Pohang Iron Ind. III	2,173,090	5,972,957	141,183	8,287,230	9,062,972	8,134,549	928,423	152,881
9 Pohang Iron Ind. IV, V	3,805,389	13,014,178	208,549	17,028,116	20,530,643	12,074,664	8,455,979	4,751,212
10 Gwangju-Hanam Ind.	18,835,201	17,316,561	573,561	36,725,323	38,180,853	27,362,938	10,797,715	9,342,385
11 Ulsan-Samho	38,522,376	11,772,871	300,966	49,596,213	47,319,180	35,280,644	12,038,536	13,335,591
12 Daeduck Housing Site I	10,004,983	14,457,272	199,558	24,661,813	23,427,954	24,881,822	(1,233,889)	1
13 Daeduck Housing Site II	13,845,882	6,825,829	257,876	20,929,587	62,032,479	19,473,362	42,566,087	1,056,005
14 Daeduck Site I	72,675,255	9,150,287	(2,181,533)	79,643,009	56,475,388	28,575,929	27,899,459	51,088,090
15 Daeduck Site II	52,667,220	19,723,368	1,185,307	73,575,915	76,244,892	56,357,234	17,887,658	15,218,881
16 Iri Ind. II	133,987,140	46,466,422	1,032,045	181,485,607	128,044,834	128,757,093	1,287,541	54,711,514
17 Songtan Ind.	5,840,295	7,138,006	9,674	12,988,975	18,514,659	10,282,888	8,231,771	2,708,307
18 Kyeongsu Yonggang Ind.	12,363,153	4,520,028	211,893	17,125,074	15,183,978	12,172,498	3,011,478	4,952,578
19 Ulsan-Petrochemical Ind.	22,874,173	11,132,806	318,948	34,325,927	66,648,918	32,688,566	33,960,352	1,437,381
20 Incheon-Yeonsu	215,368,510	73,898,824	3,574,579	292,841,913	299,778,745	214,183,797	85,594,948	78,646,116
21 Daeyon-Doosan	889,073,131	79,415,922	9,008,780	977,497,833	857,870,818	420,370,922	237,499,896	557,128,911
22 Chuncheon-Seogsa	20,281,820	6,297,421	275,693	26,854,934	31,090,315	26,657,423	4,432,892	197,511
23 Chuncheon-Hoopyong II	11,944,224	4,041,128	183,075	16,168,427	13,241,458	11,204,568	2,036,870	4,963,839
24 Jeonyu-Samcheon	32,465,384	9,418,414	454,754	42,338,552	68,823,368	42,190,985	26,632,383	147,587
25 Gunsan Ind.	78,724,118	31,723,779	1,499,919	111,947,816	40,731,859	58,891,815	(18,160,156)	53,058,001
26 Gwangju-Hanam Housing Site II	10,538,190	26,865,932	379,134	37,783,256	125,368,807	30,417,465	94,949,342	7,365,791
Total	1,891,577,667	610,931,962	22,525,414	2,525,035,043	2,546,623,046	1,811,258,884	935,364,364	913,778,359

PART II: PROJECT REVIEW FROM BORROWER'S PERSPECTIVE

Not Available.

KOREA
URBAN LAND DEVELOPMENT PROJECT (LOAN 2704-KO)

PART III - STATISTICAL INFORMATION

1. Related Bank Loans

Loan/Credit	Purpose	Year of Approval	Status	Comments
LN 1980-KO National Urban Land Development and Housing I	To provide housing for low-income families and to further develop the capabilities of the major public institutions serving the housing sector, namely Korea Land Development Corporation (KLDC) and Korea National Housing Corporation (KNHC). The objectives to be pursued in the context of an ongoing dialogue on housing policy issues between the Bank and the Korean Government was through the technical assistance and housing sector study.	04/30/81	Completed.	PCR No. 8689 of 05/23/90 and PPAR No. 9723 of 06/23/91 have been issued.
LN 2216-KO National Urban Land Development & Housing II	To advance the Bank/Government dialogue on sector policy and programs and thus (a) assist in rationalizing and strengthening the housing and land development institutions in the public sector; (b) support the development of the National Housing Fund (NHF) as a viable financial intermediary with capacity for project appraisal and supervision; and (c) support investments in the policies and programs for delivering housing to lower income families by financing the development of land and housing by KLDC and KNHC.	12/14/82	Completed.	PCR No. 8689 of 05/23/90 and PPAR No. 9723 of 06/23/91 have been issued.

<p>LN 2853-KO Housing Finance Sector</p>	<p>To support measures designed to expand the Housing Finance System over time and increase its effectiveness in improving housing conditions, especially for the lower-income population. The project to support a two-year (mid-1987 through mid-1989) time slice of the ongoing reform of the lending program of the National Housing Fund (NHF) by providing: (a) sub-loans to eligible borrowers (Korea National Housing Corporation, local governments, and private contractors) for construction financing to be converted into long-term mortgages for about 210,000 low-income owner-occupied and rental units for households below the average urban income level; and (b) consultant services for assistance in carrying out studies.</p>	<p>06/23/87</p>	<p>Completed. PCR prepared.</p>	
<p>LN 3329-KO Housing Sector</p>	<p>To support the government's housing sector strategy by providing resources through the National Housing Fund for lower-income housing and by assisting the government in formulating a framework for housing policy development and an agenda for policy reform in the sector. The government's housing policy objectives are to target public housing assistance in terms of the needs of the recipients and to minimize the cost of providing the assistance, while improving regulation of the sector in order to increase the efficiency of housing services.</p>	<p>05/23/91</p>	<p>Project under execution.</p>	<p>Project became effective 10/16/91.</p>

2. Project Timetable

ACTIVITY/EVENT	DATE PLANNED	DATE REVISED	DATE ACTUAL
Project Identification			November 26 - December 12, 1984
Preappraisal Mission	November 4, 1985		
Appraisal Mission	November 4, 1985	December 2, 1985	Nov. 11-28, 1985
Negotiations	March 15, 1986	February 1986	April 7-9, 1986
Board Approval	June 24, 1986	March 1986	May 29, 1986
Loan Signing			July 14, 1986
Loan Effectiveness			September 9, 1986
Completion Date	December 31, 1989		December 31, 1989
Closing Date	December 31, 1990		June 8, 1990
Final Disbursement			June 8, 1990
Final Loan Account Closing			June 14, 1990

3. Loan Disbursements

Cumulative Estimated and Actual Disbursements (US\$ Million)

FY	Semester	Appraisal Estimate Amount	Actual Amount	Actual as % of Appraisal	Actual as % of Loan Amt.
1987	12/31/86	12.0	11.89	99.1%	7.9%
	06/30/87	15.0	19.19	127.9%	12.8%
1988	12/31/87	33.0	28.33	85.8%	18.9%
	06/30/88	53.0	52.05	98.2%	54.0%
1989	12/31/88	74.0	81.01	109.5%	68.8%
	06/30/89	98.0	103.15	105.3%	92.5%
1990	12/31/89	122.0	138.72	113.7%	100.0%
	06/30/90	137.0	150.00	109.5%	
1991	12/31/90	150.0			

Note: With the final disbursement on June 8, 1990, the loan account was closed on June 14, 1990, six months prior to the original loan closing date of December 30, 1990. US\$ 150,121,080.12 was disbursed against civil works, i.e. 60% of the KLDC's expenditures. US\$ 121,080.12 was deducted to represent the exchange rate fluctuation for transactions made under Special Account.

4. Project Implementation

a) Monitoring Indicators - Appraisal

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Land Acq.- 000 sq meters	14,511	11,714	15,456	11,475	11,095	11,581	10,692	11,563	12,522	13,576
Land Dev.- 000 sq meters	7,395	7,279	7,523	9,914	10,129	9,170	9,277	9,153	9,514	10,465
Land ReDev.- 000 sq meters	0	0	0	17	13	12	12	12	10	10
Land Supply- 000 sq meters	13,774	22,727	21,635	13,071	13,997	13,118	12,832	12,673	12,739	13,410
Land Acq.- Billion Won	88.379	141.712	278.890	235.535	268.884	313.126	387.462	435.029	515.020	609.720
Land Dev.- Billion Won	45.197	51.795	72.165	91.041	91.484	90.585	99.124	107.751	120.841	139.571
Land ReDev.- Billion Won	0.266	14.348	7.892	12.000	6.840	7.000	7.360	7.728	8.090	8.495
Land Supply- Billion Won	209.674	336.726	357.552	486.565	507.076	546.805	616.623	658.444	803.180	ERR
Land Sold - Billion Won	103.780	72.321	81.150	76.413	59.931	70.954	92.437	75.742	102.529	85.467
MANAGEMENT										
# Days Acc. Receivable	122	48	48	48	48	48	48	48	48	48
Number of Employees	820	869	959	992	990	983	966	990	1,027	1,080
% increase # of Employees		6.0%	10.4%	3.4%	-0.2%	-0.7%	-1.8%	2.4%	3.8%	5.2%
Employees/Mill. sq m Dev.	110.2	119.4	127.5	99.9	97.6	107.1	104.0	108.0	107.8	103.2
FINANCIAL										
Debt Service Ratio	1.7	2.7	5.3	4.3	1.9	5.3	4.5	8.4	6.7	9.0
Debt Equity Ratio	1.3	1.3	0.9	0.8	0.5	0.4	0.4	0.3	0.2	0.2
% Debt on Debt + Equity	55.6%	56.7%	48.3%	43.5%	32.9%	29.7%	26.1%	23.2%	19.5%	16.8%
Gross Income on Sales	18.5%	26.9%	44.8%	35.4%	31.6%	32.5%	30.4%	31.2%	30.8%	30.8%
Operating Inc. on Sales	12.9%	23.2%	42.9%	33.5%	29.7%	30.7%	28.7%	29.4%	29.1%	29.2%
Inc. before Tax on Equity	4.7%	15.8%	36.0%	24.8%	18.2%	19.9%	17.1%	17.3%	16.8%	16.8%
Net Income on Sales	9.1%	20.5%	36.3%	29.3%	23.7%	28.8%	26.3%	29.1%	28.0%	29.2%
Sales on Inventories	18.5%	21.5%	38.2%	39.2%	39.3%	39.5%	40.2%	38.9%	41.0%	40.8%
Personnel/Field S. Cost	2.047	1.939	1.796	1.843	1.865	1.897	1.950	1.929	1.887	1.827
Adminis. Expenses on Sales	5.6%	3.7%	1.9%	1.9%	1.8%	1.8%	1.8%	1.8%	1.7%	1.6%
% Contrib. to Cap.Expenditures	44.4%	56.6%	78.2%	90.9%	56.3%	97.8%	92.1%	96.3%	97.1%	96.9%

4. Project Implementation

b) Monitoring Indicators - Actual

	1983	1984	1985	1986	1987	1988	1989	1990
Land Acq.- 000 sq meters	14,523	11,547	15,371	11,605	15,004	13,794	31,032	50,270
Land Dev.- 000 sq meters	7,808	7,916	8,923	6,774	6,965	8,069	13,607	26,111
Land ReDev.- 000 sq meters	0	0	0	0	0	0	0	0
Land Supply- 000 sq meters	13,519	20,031	15,097	18,282	23,612	15,247	29,071	36,740
- Residential- 000 sq m	5,737	4,552	5,033	6,759	8,765	7,080	21,038	19,126
Land Acq.- Billion Won	179.956	268.377	348.397	266.796	371.301	549.527	1,797.440	2,485.926
Land Dev.- Billion Won	57.932	46.833	69.883	94.519	98.426	127.469	164.512	506.288
Land Redev.- Billion Won	0.000	0.117	0.223	0.008	0.000	0.000	0.265	5.670
Land Supply- Billion Won	201.937	328.317	350.530	530.809	661.725	804.029	2,776.070	3,529.844
Land Sold - Billion Won	119.936	181.023	399.465	327.860	380.407	479.450	713.319	873.020
<u>MANAGEMENT</u>								
# Days Account Receivable.	122	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Number of Employees	820	-	994	991	1,091	1,271	1,848	2,231
% increase # of Employees	-	-	-	-0.3%	10.1%	16.5%	45.4%	20.7%
Employees/Mill. sq m Dev.	110.2	-	111.4	146.3	156.6	157.5	135.8	85.4
<u>FINANCIAL</u>								
Debt Service Ratio	1.7	2.7	5.3	4.3	n.a.	3.6	2.7	n.a.
Debt Service Ratio	1.3	1.3	0.9	1.5	1.6	2.7	1.7	n.a.
% Debt on Debt + Equity	55.6%	56.7%	48.3%	59.4%	61.3%	73.1%	63.6%	n.a.
Gross Income on Sales	18.5%	26.9%	44.8%	35.4%	35.0%	36.5%	40.8%	23.9%
Operating Inc. on Sales	12.9%	23.2%	42.9%	33.5%	31.9%	33.0%	37.6%	23.2%
Inc. before Tax on Equity	4.7%	15.8%	36.0%	24.8%	17.2%	22.6%	26.8%	48.2%
Net Income on Sales	9.1%	20.5%	36.3%	29.3%	21.4%	29.1%	27.9%	16.7%
Sales on Inventories	18.5%	21.5%	38.2%	39.2%	29.5%	29.7%	27.7%	112.4%
Personnel/Field Staff Cost	2.047	1.939	1.796	1.843	n.a.	n.a.	n.a.	n.a.
Adminis. Expenses on Sales	5.6%	3.7%	1.9%	1.9%	3.1%	3.4%	3.2%	0.7%
% Contrib. to Cap.Expenditure	44.4%	56.6%	78.2%	90.9%	n.a.	n.a.	n.a.	n.a.

4. Project Implementation

c) **Appraisal vs. Actual - Critical Financial Indicators for the Period 1986-1992**

Variable or Indicator	===== Appraisal =====			===== Actual =====		
	Minimum	Maximum	Average	Minimum	Maximum	Average
Cash (Billion Won)	34	286	167	46	242	149.25
Operating Income on Sales	28.7%	33.5%	30.1%	31.9%	37.6%	34.2%
Net Income on Sales	23.7%	29.3%	27.8%	21.4%	29.1%	26.1%
% Income before Tax on Equity	16.8%	24.8%	18.7%	17.2%	26.8%	22.2%
Debt Service Ratio	1.9	9.0	5.7	2.7	3.6	3.15
Days Accounts Receivable	48	48	48	n.a.	n.a.	n.a.
Debt on Debt plus Equity	16.8%	43.5%	27.4%	59.4%	73.1%	64.3%
Contrib. to Capital Expenditure	56.3%	97.8%	89.6%	n.a.	n.a.	n.a.

5. Project Costs and Financing

a) Project Costs - Appraisal

Project Components	Local	Foreign	Total	% of	Local	Foreign	Total	%
	-----	(Won Billion)-----	-----	Base	-----	(US\$ Million)-----	-----	Foreign
LAND ACQUISITION	988.02	0.00	988.02	74.4%	1,122.75	0.00	1,122.75	0.0%
For Housing	910.40	0.00	910.40	68.6%	1,034.55	0.00	1,034.55	0.0%
For Industrial Sites	77.62	0.00	77.62	5.8%	88.20	0.00	88.20	0.0%
LAND DEVELOPMENT	219.44	104.68	324.12	24.4%	249.37	118.95	368.32	32.3%
For Housing	175.13	83.54	258.67	19.5%	199.02	94.93	293.95	32.3%
For Industrial Sites	44.31	21.14	65.45	4.9%	50.35	24.02	74.37	32.3%
ENGINEERING & ADMINIS.	11.61	3.87	15.48	1.2%	13.19	4.40	17.59	25.0%
BASE COST - JAN/86 PRICES	1,219.07	108.55	1,327.62	100.0%	1,385.31	123.35	1,508.66	8.2%
PHYSICAL CONTINGENCIES	60.95	5.43	66.38	5.0%	69.27	6.17	75.44	8.2%
PRICE CONTINGENCIES	166.99	14.02	181.01	13.6%	244.45	20.48	264.93	7.7%
TOTAL COST	1,447.01	128.00	1,575.01	118.6%	1,699.03	150.00	1,849.03	8.1%

b) Project Costs - Actual

Project Components	Local	Foreign	Total	Local	Foreign	Total
	-----	(Won Billion)-----	-----	-----	(US\$ Million)-----	-----
LAND ACQUISITION	2,845.10	0.00	2,845.10	4,039.94	0.00	4,039.94
For Housing	2,583.06	0.00	2,583.06	3,685.10	0.00	3,685.10
For Industrial Sites	262.04	0.00	262.04	354.84	0.00	354.84
LAND DEVELOPMENT	285.78	198.87	484.65	514.64	147.35	661.99
For Housing	174.38	121.35	295.73	309.76	89.91	399.68
For Industrial Sites	111.40	77.52	189.92	204.88	57.44	262.31
ENGINEERING & ADMINIS.	49.16	2.28	51.44	70.40	2.65	73.05
TOTAL COST	3,180.04	201.15	3,381.19	4,624.98	150.00	4,774.98

5. Project Costs and Financing

c) Project Costs by Years - Appraisal vs. Actual
(US\$ MILLION)

Project Components	-----Appraisal-----				-----Actual-----			
	1986	1987	1988	1989	1986	1987	1988	1989
LAND ACQUISITION	248.64	267.54	290.17	316.40	268.63	386.66	604.03	2,044.55
For Housing	215.35	239.13	263.68	316.40	220.76	292.23	492.43	1,994.16
For Industrial Sites	33.29	28.41	26.51	0.00	47.87	94.43	111.60	50.39
LAND DEVELOPMENT	96.60	92.88	87.57	91.27	109.75	114.30	148.02	190.73
For Housing	80.64	65.80	69.51	78.00	82.74	70.79	74.97	114.93
For Industrial Sites	15.96	27.08	18.06	13.27	27.02	43.51	73.06	75.80
ENGINEERING & ADMINISTRATION	4.39	4.43	4.44	4.33	n.a.	14.97	20.83	33.73
BASE COST - JAN/86 PRICES	349.63	364.85	382.18	412.00	-	-	-	-
PHYSICAL CONTINGENCIES	17.48	18.24	19.11	20.60	-	-	-	-
PRICE CONTINGENCIES	8.70	40.50	81.01	134.72	-	-	-	-
TOTAL COST	375.81	423.59	482.30	567.33	378.38	515.94	772.88	2,269.01

d) Project Financing - Appraisal vs. Actual

	-----Appraisal-----				-----Actual-----			
	Local	Foreign	Total	Share	Local	Foreign	Total	Share
	----- (US\$ Million) -----				----- (US\$ Million) -----			
Bank Loan	0.0	150.0	150.0	8%	0	150.0	150.0	4%
Other Loans	30.0	0.0	30.0	2%	1,360.63	0.00	1,360.63	35%
KLDC's Contribution	1,669.0	0.0	1,669.0	90%	2,425.58	0.00	2,425.58	62%
TOTAL	1,699.0	150.0	1,849.0	100%	3,786.21	150.00	3,936.21	100%

6. Project Results

**a) Direct Benefits
(thousand square meters)**

	1986	Appraisal 1987	1988	1989	1986	Actual 1987	1988	1989
Land Acquisition	8,975	9,115	9,601	8,712	9,510	11,931	12,421	27,900
For Housing	6,000	6,600	7,260	8,712	5,431	6,560	8,639	22,711
For Industrial Sites	2,975	2,515	2,341	0	4,079	5,371	3,782	5,189
Land Development	9,792	10,129	9,170	9,277	6,774	6,965	8,069	13,607
For Housing	7,478	6,202	6,552	7,352	4,705	3,231	2,780	7,245
For Industrial Sites	2,314	3,927	2,618	1,925	2,069	3,734	5,289	6,362
Land Supply	8,222	10,497	9,594	9,288	9,328	13,595	12,972	26,074
For Housing	5,122	6,149	6,281	6,774	6,759	8,765	7,080	21,038
For Industrial Sites	3,100	4,348	3,313	2,514	2,569	4,830	5,892	5,036

b) Studies

Following studies were completed under the project and were financed by the government (KLDC).

1. Financial Management
2. Land Pricing
3. Demand Analysis
4. Staff Training
5. Performance Oriented Goals

6. Project Results

c) Financial Results

(f) KLDC's Balance Sheet as of December 31, at Appraisal (1983-1992)
(Billion Won)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
TOTAL CURRENT ASSETS	<u>72.398</u>	<u>63.908</u>	<u>54.271</u>	<u>177.052</u>	<u>100.869</u>	<u>188.812</u>	<u>248.110</u>	<u>291.425</u>	<u>348.535</u>	<u>400.751</u>
Cash and Banks	3.527	4.371	11.318	114.772	33.819	115.820	167.310	204.350	248.526	286.209
Receivables on Land Sold (net)	40.158	33.817	38.680	59.660	64.403	70.309	78.075	84.305	99.193	111.678
Marketable Securities	25.893	23.663	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
Advances to Contractors	1.654	1.792	0.777	0.777	0.804	0.840	0.882	0.927	0.973	1.021
Other Current Assets	1.166	0.465	3.498	1.823	1.823	1.823	1.823	1.823	1.823	1.823
TOTAL LAND INVENTORY	<u>648.819</u>	<u>840.418</u>	<u>1,046.317</u>	<u>1,156.572</u>	<u>1,243.659</u>	<u>1,351.458</u>	<u>1,473.281</u>	<u>1,648.856</u>	<u>1,836.962</u>	<u>2,079.809</u>
Inventory Developing Land	401.593	516.928	709.636	818.791	898.269	1,004.472	1,138.938	1,308.774	1,513.359	1,753.657
Inventory Transaction Land	246.226	323.490	336.681	337.781	345.390	346.986	334.323	338.082	323.603	326.152
NET FIXED ASSETS	<u>4.270</u>	<u>4.099</u>	<u>3.671</u>	<u>3.662</u>	<u>3.742</u>	<u>3.907</u>	<u>4.053</u>	<u>4.181</u>	<u>4.291</u>	<u>4.384</u>
Fixed Assets in Operation	4.767	4.743	4.538	4.738	5.038	5.438	5.838	6.238	6.638	7.038
Accumulated Depreciation	0.497	0.644	0.867	1.076	1.296	1.531	1.785	2.057	2.347	2.654
OTHER ASSETS	<u>34.272</u>	<u>31.773</u>	<u>11.718</u>	<u>13.780</u>	<u>14.030</u>	<u>14.340</u>	<u>14.749</u>	<u>15.077</u>	<u>15.861</u>	<u>16.518</u>
Receivables on Land Sold (net)	27.619	5.523	1.078	3.140	3.390	3.700	4.109	4.437	5.221	5.878
Restricted Bank Deposits	0.000	18.301	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Other Assets	6.653	7.949	10.640	10.640	10.640	10.640	10.640	10.640	10.640	10.640
TOTAL ASSETS	<u>757.759</u>	<u>940.198</u>	<u>1,115.977</u>	<u>1,351.066</u>	<u>1,362.300</u>	<u>1,558.517</u>	<u>1,740.173</u>	<u>1,957.539</u>	<u>2,205.649</u>	<u>2,501.462</u>
TOTAL CURRENT LIABILITIES	<u>224.087</u>	<u>278.139</u>	<u>293.679</u>	<u>471.826</u>	<u>336.610</u>	<u>393.435</u>	<u>396.938</u>	<u>422.314</u>	<u>467.231</u>	<u>520.730</u>
Advanced Received	184.565	196.603	132.470	170.296	177.477	191.382	215.818	230.455	281.113	325.112
Other Accounts Payable	17.142	31.239	62.037	64.208	67.096	70.453	73.976	77.674	81.568	85.636
Income Taxes Payable	0.884	10.482	21.484	19.866	17.339	22.992	23.299	27.845	31.504	36.926
Current Maturities Long-Term Debt	41.496	39.815	77.708	217.455	74.696	98.608	53.846	86.340	73.056	73.056
OTHER LIABILITIES	<u>3.303</u>	<u>4.205</u>	<u>5.597</u>	<u>6.900</u>	<u>8.413</u>	<u>10.156</u>	<u>12.063</u>	<u>14.194</u>	<u>16.595</u>	<u>19.316</u>
Accrued Severance Indemnities	3.303	4.205	5.597	6.900	8.413	10.156	12.063	14.194	16.595	19.316
Other Liabilities	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LONG-TERM DEBT (net)	<u>276.458</u>	<u>356.038</u>	<u>354.320</u>	<u>256.811</u>	<u>284.694</u>	<u>277.014</u>	<u>315.059</u>	<u>285.934</u>	<u>276.125</u>	<u>268.762</u>
TOTAL LIABILITIES	<u>503.848</u>	<u>638.382</u>	<u>653.696</u>	<u>735.537</u>	<u>629.717</u>	<u>670.605</u>	<u>694.000</u>	<u>722.442</u>	<u>759.951</u>	<u>808.808</u>
TOTAL EQUITY	<u>253.911</u>	<u>301.816</u>	<u>462.381</u>	<u>615.529</u>	<u>732.582</u>	<u>887.913</u>	<u>1,046.115</u>	<u>1,235.097</u>	<u>1,445.699</u>	<u>1,692.654</u>
Capital	203.943	213.943	228.943	248.943	248.943	248.943	248.943	248.943	248.943	248.943
Retained Earnings & Reserves	49.968	87.873	233.438	366.586	483.639	638.970	797.172	986.154	1,196.756	1,443.711
TOTAL EQUITY & LIABILITIES	<u>757.759</u>	<u>940.198</u>	<u>1,115.977</u>	<u>1,351.066</u>	<u>1,362.299</u>	<u>1,558.518</u>	<u>1,740.175</u>	<u>1,957.539</u>	<u>2,205.650</u>	<u>2,501.462</u>

6. Project Results
c) Financial Results
(ii) KLDC's Actual Balance Sheet as of December 31 (1983-1990)
(Billion Won)

	1983	1984	1985	1986	1987	1988	1989	1990
TOTAL CURRENT ASSETS	<u>72.398</u>	<u>63.908</u>	<u>54.271</u>	<u>177.052</u>	<u>120.614</u>	<u>183.968</u>	<u>260.863</u>	<u>937.333</u>
Cash and Banks	3.527	4.371	11.316	114.772	46.172	113.559	196.704	242.365
Receivables on Land Sold (net)	40.158	33.617	38.660	59.660	62.479	62.095	59.467	681.341
Marketable Securities	25.893	23.863	0.020	0.020	n.a.	n.a.	n.a.	n.a.
Advances to Contractors	1.654	1.792	0.777	0.777	9.311	5.876	3.545	6.333
Other Current Assets	1.166	0.465	3.496	1.823	2.652	2.438	1.147	7.294
TOTAL LAND INVENTORY	<u>646.819</u>	<u>840.418</u>	<u>1,046.317</u>	<u>1,156.572</u>	<u>1,422.755</u>	<u>1,801.503</u>	<u>3,352.720</u>	<u>3,449.145</u>
Inventory Developing Land	401.593	516.828	709.636	818.791	n.a.	n.a.	n.a.	n.a.
Inventory Transaction Land	245.226	323.490	336.681	337.781	n.a.	n.a.	n.a.	n.a.
NET FIXED ASSETS	<u>4.270</u>	<u>4.099</u>	<u>3.671</u>	<u>3.662</u>	<u>5.338</u>	<u>7.217</u>	<u>12.365</u>	<u>23.113</u>
Fixed Assets in Operation	4.767	4.743	4.638	4.738	6.566	8.770	14.496	n.a.
Accumulated Depreciation	0.497	0.644	0.967	1.076	1.228	1.553	2.133	n.a.
OTHER ASSETS	<u>34.272</u>	<u>31.773</u>	<u>11.718</u>	<u>13.780</u>	<u>12.172</u>	<u>15.069</u>	<u>30.395</u>	<u>59.990</u>
Receivables on Land Sold (net)	27.619	5.523	1.078	3.140	n.a.	n.a.	n.a.	n.a.
Restricted Bank Deposits	0.000	18.301	0.000	0.000	7.812	10.856	19.069	36.267
Other Assets	6.653	7.949	10.640	10.640	4.360	4.233	11.326	23.723
TOTAL ASSETS	<u>757.759</u>	<u>940.198</u>	<u>1,115.977</u>	<u>1,351.066</u>	<u>1,609.879</u>	<u>2,007.777</u>	<u>3,656.343</u>	<u>4,469.581</u>
TOTAL CURRENT LIABILITIES	<u>224.087</u>	<u>278.139</u>	<u>293.679</u>	<u>471.826</u>	<u>463.157</u>	<u>814.312</u>	<u>2,153.123</u>	<u>1,991.147</u>
Advanced Received	164.566	196.803	132.470	170.296	305.266	510.482	1,555.959	1,059.858
Other Accounts Payable	17.142	31.239	62.037	64.208	37.398	51.844	120.185	224.493
Income Taxes Payable	0.884	10.482	21.464	19.865	20.952	29.070	47.502	129.955
Current Maturities Long-Term Debt	41.496	39.815	77.708	217.455	71.462	183.568	191.103	115.974
Other Current Liabilities					28.079	39.548	238.674	469.866
OTHER LIABILITIES	<u>3.303</u>	<u>4.205</u>	<u>5.567</u>	<u>6.900</u>	<u>28.079</u>	<u>33.629</u>	<u>31.619</u>	<u>41.821</u>
Accrued Severance Indemnities	3.303	4.205	5.567	6.900	8.468	11.892	14.965	27.462
Other Liabilities	0.000	0.000	0.000	0.000	11.073	21.737	16.654	14.359
LONG-TERM DEBT (net)	<u>276.458</u>	<u>356.038</u>	<u>354.320</u>	<u>256.811</u>	<u>445.053</u>	<u>382.491</u>	<u>486.951</u>	<u>607.795</u>
TOTAL LIABILITIES	<u>503.848</u>	<u>638.382</u>	<u>653.566</u>	<u>735.537</u>	<u>936.289</u>	<u>1,230.432</u>	<u>2,671.693</u>	<u>2,640.762</u>
TOTAL EQUITY	<u>253.911</u>	<u>301.816</u>	<u>462.381</u>	<u>615.529</u>	<u>633.127</u>	<u>777.339</u>	<u>984.647</u>	<u>1,828.804</u>
Capital	203.943	213.943	228.943	248.943	253.942	258.942	370.000	650.000
Retained Earnings & Reserves	49.968	87.873	233.438	366.586	379.185	518.397	614.647	978.804
TOTAL EQUITY & LIABILITIES	<u>757.759</u>	<u>940.198</u>	<u>1,115.977</u>	<u>1,351.066</u>	<u>1,609.416</u>	<u>2,007.771</u>	<u>3,656.340</u>	<u>4,469.566</u>

6. Project Results

c) Financial Results

H) KLDC's Income Statements For the Twelve Months Ending December 31, at Appraisal (1983-1992)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Total Land Acquisition - 000 sq m	14,511	11,714	15,456	11,475	11,065	11,581	10,692	11,583	12,522	13,576
Land Development	7,395	7,279	7,523	9,914	10,129	9,170	9,277	9,153	9,514	10,465
Land Redevelopment	0	0	0	17	13	12	12	12	10	10
Land Supply	13,774	22,727	21,636	13,071	13,907	13,116	12,832	12,673	12,739	13,410
Land Sold	n.a.	11,833	16,327	12,571	14,573	13,289	13,006	12,749	12,735	13,202
Total Supply - Billion Won	209.674	336.726	357.552	486.555	507.076	546.505	616.623	658.444	803.180	928.892
Developed Land Supplied	113.812	221.708	245.312	434.500	451.930	488.077	514.298	590.032	684.592	806.200
Other Land & Buildings Supplied	95.862	115.020	112.240	52.055	55.146	78.728	102.325	68.412	118.588	122.692
Sales of Land - Billion Won	119.936	181.023	399.465	453.248	489.214	534.012	592.901	640.161	752.995	847.635
Developed Land Sales	15.222	107.756	317.095	375.363	427.782	461.490	496.817	562.690	648.651	790.282
Other Land & Renew. Build. Sold	103.780	72.321	81.150	78.413	59.931	70.954	92.437	75.742	102.529	85.467
Rent & Other Income	0.934	0.946	1.220	1.450	1.501	1.568	1.847	1.729	1.815	1.906
Cost of Sales - Billion Won	97.504	132.299	220.360	292.945	334.692	380.398	412.364	440.507	521.159	586.418
Cost of Developed Land Sold	11.811	81.883	193.295	222.598	266.342	303.227	337.995	379.439	436.822	517.490
Cost of Other Land Sold	85.664	49.887	56.726	70.000	47.945	56.783	73.950	60.593	82.023	68.373
Services & Other Costs	0.329	0.529	0.337	0.349	0.375	0.408	0.439	0.475	0.514	0.555
GROSS PROFIT	22.132	48.724	179.105	160.301	154.552	173.616	180.517	199.654	231.836	261.217
Selling & Admin. Expenses - B. Won	6.718	6.776	7.670	8.420	9.014	9.783	10.597	11.412	12.474	13.550
Personnel (Administrative)	3.214	3.157	3.400	3.782	4.009	4.312	4.638	4.989	5.398	5.772
Severance Expenses	0.770	0.406	0.685	0.691	0.695	0.813	0.915	1.009	1.106	1.203
Overhead	2.281	2.439	2.702	2.934	3.127	3.383	3.618	3.891	4.188	4.502
Other Expenses	0.303	0.575	0.680	0.924	0.983	1.039	1.172	1.251	1.628	1.795
Depreciation	0.170	0.197	0.223	0.209	0.220	0.236	0.254	0.272	0.290	0.308
OPERATING INCOME	15.414	41.948	171.435	151.881	145.538	163.833	169.920	188.242	219.362	247.667
Other Income	19.118	25.064	32.036	31.068	36.900	42.082	46.243	51.003	51.694	60.139
Interest on Sales Receivables	8.968	14.294	20.011	25.090	33.314	35.957	39.250	43.578	47.062	55.345
Other Interest	8.121	7.967	8.995	9.928	1.731	1.817	1.908	2.003	2.193	2.209
Other Income	1.011	3.703	3.080	3.080	3.856	4.288	5.085	5.422	2.539	2.585
Other Expenses	22.628	19.298	36.955	30.184	51.090	29.056	36.943	25.051	26.719	23.757
Interest Expenses	20.099	19.204	24.994	29.184	50.025	27.974	35.907	23.869	27.467	22.442
Other Expenses	2.537	0.092	11.971	1.000	1.035	1.082	1.136	1.182	1.252	1.315
Income Before Taxes	11.906	47.716	188.516	152.805	133.378	176.859	179.220	214.194	242.337	264.049
Income Taxes	1.016	10.583	21.494	19.885	17.339	22.992	23.299	27.845	31.604	36.826
Net Income	10.888	37.133	145.052	132.940	116.039	153.867	155.921	186.349	210.733	247.123
Operating Income on Sales	12.0%	23.2%	42.9%	33.5%	29.7%	30.7%	28.7%	29.4%	28.1%	29.2%
Gross Profit on Sales	18.5%	26.9%	44.8%	36.4%	31.6%	32.5%	30.4%	31.2%	30.8%	30.8%
Net Income on Sales	9.1%	20.5%	36.3%	29.3%	23.7%	28.8%	26.3%	29.1%	28.0%	29.2%
Income Before Tax/Equity	4.7%	15.8%	38.0%	24.8%	18.2%	19.9%	17.1%	17.3%	18.8%	18.8%

6. Project Results — c) Financial Results
h) KLDC's Actual Income Statements For the Twelve Months Ending December 31 (1983-1990)

	1983	1984	1985	1986	1987	1988	1989	1990
Total Land Acquisition - 000 sq m	<u>14,511</u>	<u>11,714</u>	<u>15,456</u>	<u>11,475</u>	<u>15,004</u>	<u>13,794</u>	<u>31,032</u>	<u>50,270</u>
Land Development	7,395	7,279	7,523	8,914	6,985	8,089	13,807	26,111
Land Redevelopment	0	0	0	17	0	0	0	0
Land Supply	13,774	22,727	21,636	13,071	23,612	15,247	29,071	36,740
Land Sold	n.a.	11,633	18,327	12,571	n.a.	n.a.	n.a.	n.a.
Total Supply - Billion Won	<u>209.674</u>	<u>336.726</u>	<u>357.552</u>	<u>486.565</u>	<u>661.725</u>	<u>804.029</u>	<u>2,776.070</u>	<u>3,529.844</u>
Developed Land Supplied	113.612	221.706	245.312	434.500	n.a.	n.a.	n.a.	n.a.
Other Land & Buildings Supplied	95.962	115.020	112.240	52.065	n.a.	n.a.	n.a.	n.a.
Sales of Land - Billion Won	<u>119.936</u>	<u>181.023</u>	<u>399.465</u>	<u>453.246</u>	<u>380.408</u>	<u>479.451</u>	<u>713.319</u>	<u>3,822.690</u>
Developed Land Sales	15.222	107.766	317.095	375.393	299.299	364.705	561.365	745.447
Other Land & Renew. Buid. Sold	103.780	72.321	81.150	76.413	110.457	113.535	150.698	127.573
Rent & Other Income	0.934	0.946	1.220	1.450	0.682	1.211	1.056	1.010
On-Going Land	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2948.86
Cost of Sales - Billion Won	<u>97.904</u>	<u>132.299</u>	<u>220.360</u>	<u>292.945</u>	<u>247.243</u>	<u>304.504</u>	<u>422.367</u>	<u>2,908.729</u>
Cost of Developed Land Sold	11.611	81.863	163.295	222.596	162.262	226.334	346.625	410.676
Cost of Other Land Sold	85.984	49.887	56.728	70.000	84.188	77.631	74.958	55.874
Services & Other Costs	0.329	0.629	0.337	0.349	0.793	0.539	0.784	0.994
Cost of On-Going Land Sold	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2,441.183
GROSS PROFIT	<u>22.132</u>	<u>48.724</u>	<u>179.105</u>	<u>160.301</u>	<u>133.165</u>	<u>174.947</u>	<u>290.952</u>	<u>914.161</u>
Selling & Admin. Expenses - B. Won	<u>8.718</u>	<u>6.776</u>	<u>7.670</u>	<u>8.420</u>	<u>11.884</u>	<u>16.505</u>	<u>23.074</u>	<u>26.963</u>
Personnel (Administrative)	3.214	3.157	3.400	3.782	4.197	6.089	8.036	n.a.
Severance Expenses	0.770	0.406	0.685	0.591	0.563	1.806	1.648	n.a.
Overhead	2.261	2.439	2.702	2.934	5.950	7.191	11.021	n.a.
Other Expenses	0.303	0.575	0.680	0.924	0.848	1.066	1.703	n.a.
Depreciation	0.170	0.197	0.223	0.209	0.306	0.373	0.666	n.a.
OPERATING INCOME	<u>15.414</u>	<u>41.948</u>	<u>171.435</u>	<u>151.881</u>	<u>121.301</u>	<u>158.442</u>	<u>267.878</u>	<u>887.198</u>
Other Income	<u>19.118</u>	<u>25.064</u>	<u>32.036</u>	<u>31.086</u>	<u>43.076</u>	<u>74.531</u>	<u>71.515</u>	<u>77.341</u>
Interest on Sales Receivables	9.966	14.294	20.011	25.000	n.a.	n.a.	n.a.	n.a.
Other Interest	8.121	7.067	8.965	3.026	n.a.	n.a.	n.a.	n.a.
Other Income	1.011	3.703	3.060	3.060	n.a.	n.a.	n.a.	n.a.
Other Expenses	<u>22.626</u>	<u>19.296</u>	<u>35.955</u>	<u>30.164</u>	<u>55.176</u>	<u>57.447</u>	<u>75.673</u>	<u>180.264</u>
Interest Expenses	20.069	19.204	24.964	29.164	n.a.	n.a.	n.a.	n.a.
Other Expenses	2.537	0.092	11.971	1.000	n.a.	n.a.	n.a.	n.a.
Income Before Taxes	<u>11.906</u>	<u>47.716</u>	<u>166.516</u>	<u>152.805</u>	<u>109.201</u>	<u>175.526</u>	<u>263.520</u>	<u>784.275</u>
Income Taxes	1.018	10.563	21.464	19.865	27.624	36.206	64.611	145.070
Net Income	<u>10.888</u>	<u>37.153</u>	<u>145.052</u>	<u>132.940</u>	<u>81.277</u>	<u>139.320</u>	<u>198.709</u>	<u>639.205</u>
Operating Income on Sales	<u>12.9%</u>	<u>23.2%</u>	<u>42.9%</u>	<u>33.5%</u>	<u>31.9%</u>	<u>33.0%</u>	<u>37.6%</u>	<u>23.2%</u>
Gross Profit on Sales	<u>19.5%</u>	<u>26.9%</u>	<u>44.8%</u>	<u>35.4%</u>	<u>35.0%</u>	<u>36.5%</u>	<u>40.8%</u>	<u>23.9%</u>
Net Income on Sales	<u>9.1%</u>	<u>20.5%</u>	<u>36.3%</u>	<u>29.3%</u>	<u>21.4%</u>	<u>29.1%</u>	<u>27.9%</u>	<u>16.7%</u>
Income Before Tax/Equity	<u>4.7%</u>	<u>15.6%</u>	<u>36.0%</u>	<u>24.8%</u>	<u>17.2%</u>	<u>22.6%</u>	<u>26.6%</u>	<u>48.2%</u>

7. Status of Major Covenants

Section	Subject	Status
<u>LOAN AGREEMENT</u>		
2.02 (b)	Borrower to open and maintain in dollars a special account in the Korea Exchange Bank on terms and conditions satisfactory to the Bank.	Complied with.
3.03	Borrower to approve the Sub-projects in accordance with criteria agreed with the Bank.	Complied with. Improved evaluation procedures were established in 1986 and were reviewed and updated based on experience with new sites.
3.04	Borrower to review annually with the Bank the progress achieved in the implementation of the institutional development program included in the Policy Statement. The first such review to take place not later than October 31, 1986.	Annual reports were provided to the Bank. Implementation was good.
3.05	Commencing on February 28, 1987 Borrower to furnish annually to the Bank, its projections of development programs, including financial projections and monitoring indicators for the next five years for Bank's review and comments.	Projections were prepared satisfactorily with support of a Bank's consultant. However, it was discovered that computers were incompatible in Hangul and thus management could not make use of the projections. But by the end of the project, projections in Hangul were completed.
5.01	The Borrower to maintain records and accounts and have its accounts and financial statements and the Special Account audited annually and furnish to the Bank certified copies of its financial statements and audit report, six months after the end of each fiscal year.	Complied with. Ministry of Construction (MOC) maintained records. Audited accounts were submitted to the Bank on schedule.
5.02	The Borrower not to incur any debt, unless the net revenues of the Borrower for the fiscal year immediately preceding the date of such incurrence or for a past twelve-month period be at least 1.3 times the estimated maximum debt service requirements of the Borrower for any succeeding fiscal year on all debts, including the debt to be incurred.	Debt service ratio was maintained at 1.6. KLDC's strong financial position led to a proposal to reduce the prices of some types of land sold. (was this done). KLDC also launched a major public relations campaign to acquaint the public with the true costs and profits of their activities.

Schedule 1, 1.	Loan amount to meet 60% of expenditures for each civil works contract.	Complied with. The full loan amount of US\$ 150 million was disbursed against civil works.
Schedule 1, 2.	No withdrawals to be made for expenditures for civil works contracts costing less than US\$4,000,000.	

GUARANTEE AGREEMENT

2.01	The guarantor promptly to provide the Borrower with funds needed to meet expenditures.	Complied with.
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POLICY STATEMENT

Review land pricing policies and price allocation procedures.	Study completed in June 1987. Recommendations regarding overhead, interest during construction, separated pricing for land for public housing, etc. were implemented. Land for low income housing was sold at cost.
Implement long-term financial planning and corporate planning.	In addition to financial projections, a comprehensive long-term plan was prepared every two years by consultants and university professors.
Implement improved site evaluation procedure.	Study completed in January 1986 and implemented.
Study to improve financial management.	Study completed in June 1987; it provided recommendations on project accounts, land, accounts payable and cost allocation.
Implement computerization of accounts.	Computerized accounting was implemented by end-1989.
Review implementation of performance-oriented goals.	Study completed in December 1986 and implemented in stages.
Maintain training programs and establish a training center.	Numerous in-house and overseas training programs were implemented.

8. Use of Bank Resources

a) Bank/Staff Consultant Inputs
(Staff Weeks)

PROJECT CYCLE	BANK FISCAL YEAR									
	FY84	FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	TOTAL
Preparation	0.2	0.7	34.0							34.9
Appraisal			8.6							8.6
Negotiations			9.2							9.2
Loan Processing			9.0							9.0
Supervision			2.5	7.1	10.3	7.6	1.9	0.1		29.5
Project Administration				0.3		0.1				0.4
Project Completion								0.5	9.3	9.8
TOTAL	0.2	0.7	63.3	7.4	10.3	7.7	1.9	0.6	9.3	101.4

8. Use of Bank Resources

b) Bank Missions

TYPE OF MISSION	TERMS OF REFERENCE	MISSION DATES	STAFF	PERFORMANCE RATINGS	MISSION REPORTS
Identification	11/13/84	Nov. 26-Dec. 12, 1984	Economist Financial Analyst Engineer		
Preparation	08/06/85	Aug. 12-20, 1985	Financial Analyst-3 Economist Engineer		Project Brief 10/04/85
Appraisal	10/28/85	Nov. 11-28, 1985	Sr. Financial Analyst Sr. Engineer Economist		Aide Memoire 11/27/85 Issues Paper 12/02/85
Supervision I	05/30/86	June 18-19, 1986	Sr. Financial Analyst Sr. Engineer Engineer	1	08/06/86
Supervision II	03/04/87	March 25-27, 1987	Sr. Financial Analyst Sr. Engineer	1	04/21/87 & 04/24/87
Supervision III	09/29/87	September 1987	Sr. Financial Analyst	n.a.	
Supervision IV	01/19/88	February 6-9, 1988	Sr. Financial Analyst	1	03/17/88
Supervision V	04/15/88	May 2-5, 1988	Sr. Financial Analyst Sr. Engineer	1	05/27/88
Supervision VI	09/23/88	October 24-27, 1988	Sr. Financial Analyst Economist	1	11/09/88
Supervision VII	04/04/89	May 2-3, 1989	Sr. Economist Engineer	1	05/07/89 & 06/25/89