DISCUSSION PAPER

PUBLIC LAND DEVELOPMENT AGENCIES IN DEVELOPING COUNTRIES:
ELEMENTS OF FINANCIAL AND MANAGERIAL APPRAISAL

by

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The views presented herein are those of the author(s), and they should not be interpreted as reflecting those of the World Bank.
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ABSTRACT

This paper examines public land development agencies in developing countries and the key determinants of their success. The objective of the paper is to provide operational tools to evaluate the performance of a public land development agency. The analysis is based on two single-purpose land development agencies -- the Agence Fonciere d'Habitation in Tunisia and the Korea Land Development Corporation in Korea. The paper follows the basic format of an appraisal emphasizing the operational areas of land acquisition, inventory control, production and sales whose efficiency is of such critical importance to the success of land development agencies. Relevant material for appraising a land development agency that was not included in the paper is provided in the annexes.
VII Sales: How Well Have Estimates of Market Demand Guaranteed The Success and Speed of Sales ........................................ 37

7.2 The Lack of a Marketing Concern and the Result: Difficulties in Assessing Public and Private Land Development Demands ........................................ 37

7.8 Speed of Sales and Risk of Late Revenues: Who Pays? ......................... 40

VIII Financial Management: Recovering Cost and Financing Growth ......... 43

8.2 Financing Operations ........................................................................... 43
8.11 Working Capital: Internal and External Sources ......................... 49
8.15 Cost Recovery: Costing, Pricing and Cross-Subsidization Policy .............. 50
8.22 Monitoring Financial Performance .................................................. 53

IX Organization, Management, and Staffing ........................................ 57

X Strategy ...................................................................................................... 64

10.3 Sectoral Strategy .................................................................................. 65

10.5 Corporate Strategy ............................................................................... 66

XI Conclusion .................................................................................................. 71

Annexes

A KLDC and the Housing Sector ................................................................. 73
B AFH and the Housing Sector ................................................................. 74
C Basic Background Data on Land Development Agencies: AFH and KLDC ....... 75
D A Suggested Appraisal Format for Land Development Agencies ......... 76

Bibliography .................................................................................................... 79
PREFACE

During the second decade of World Bank activities in the housing sector the focus has shifted from project specific activities -- particularly demonstration projects for low-income housing -- to a more systematic focus on the policies and institutions affecting the dynamics of housing markets. With the financial difficulties of recent years it has also become abundantly clear that heavily subsidized welfare state approaches to housing in developing countries are simply not feasible. The productivity and efficiency of public agencies and enterprises is often called into question and a new division of labor between the public and the private sector is also being sought.

In housing, the public sector has three major functions and activities: production, regulation and finance. In particular, direct production of low income housing has been the dominant mode of public intervention over the last decade. Financial austerity, budget deficits, as well as a better understanding of the constraints inherent to direct public sector production of housing are leading to a desire to redirect government intervention away from direct production to the improvement of the regulatory and financial environment. Obviously, any lasting improvement must be based on an accurate and operational knowledge of the actual working conditions of the public sector agencies operating in the housing sector because experience shows that institutional arrangements have more staying power than formal policies. Besides, these agencies take an overwhelming share of the policy makers' attention and they are themselves often influential in shaping policies and regulations. Knowledge of the future potential of these corporations on which so much public policy has been based implies their detailed managerial and financial evaluation if past shortcomings are to be avoided and realistic plans for the future to be made.

In developing countries, the public sector operates through agencies covering every phase of the housing development process. In some countries, they are specialized into land agencies, housing agencies and financial agencies; in others, these functions are assigned to single multi-purpose agencies or authorities whose roles vary according to country and time. The present discussion paper is about specialized land agencies. It is part of an on-going effort by WUD to improve the flow of information on the decision-making environment of housing institutions. It presents quantitative managerial information on key determinants of success and bottlenecks facing land development agencies (LDA) in Tunisia and Korea. It is a working paper and not a definitive paper on the subject for several reasons: it is WUD's first paper on the subject; it is a by-product of operational activities and had to be written in a short time; access to information was often imperfect; and, most crucially, experience in other LDA's has not been taken into account. Two very important and different analytical areas which we had in mind but are mentioned only peripherally in the paper are the land policy context and the financial modelling of LDA's; both deserve separate papers. Nonetheless, we hope that the present work constitutes a useful first step toward a better understanding of land development agencies and the circulation of scarce quantitative information. We would appreciate comments and suggestions for its improvements.

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LIST OF ACRONYMS

AFH - Agence Fonciere d'Habitation (Housing Land Development Agency)
CNB - Citizen's National Bank (Korea)
CNRPS - Caisse Nationale de Retraite et de Prevoyance Sociale (Public Sector Social Security Fund)
CNSS - Caisse Nationale de Securite Sociale (Private Sector Social Security)
CPF - Conservation de la Propriete Fonciere (Office of Land Registration)
DAT - Direction de l'Amenagement du Territoire (Regional Planning Directorate)
I-SWACO - Industrial Sites and Water Resources Development Corporation
KHB - Korea Housing Bank
KLDC - Korea Land Development Corporation
KNHC - Korea National Housing Corporation
NHF - National Housing Fund
ONAS - Office Nationale d'Assainissement (National Sewerage and Sanitation Office)
SONEDE - Societe Nationale d'Exploitation et de Distribution des Eaux (National Water Production and Distribution Agency)
STEG - Societe Tunisienne d'Electricite et de Gaz (Public Gas and Electric Company)
VRD - Voirie et Reseaux Divers (Roads and Other Networks)
EXECUTIVE SUMMARY

In the environment of financial austerity of the 1980's, a greater respect for the efficiency of public enterprises, and specifically, a need to encourage corporate management and decision-making and to reward innovative behavior has become necessary. Public land development agencies are an instrument which many developing countries have introduced to address the huge unmet demand for serviced land, particularly for lower income households that constitute the greatest portion of new demand. As such, the purpose of this paper is to examine how efficiently land development agencies are achieving these objectives by focusing on corporate policy and strategies as well as financial and managerial performance. The analysis relies on two case studies—the Agence Fonciere d'Habitation in Tunisia and the Korea Land Development Corporation in Korea.

The paper is organized according to the areas of dominant strategic importance to land development agencies: sector and corporate policy, acquisition strategy, land acquisition powers, inventory policy, production, sales, finance and sector and corporate strategy. The first chapter addresses the question of whether public land development agencies are the best instrument for meeting the public sector objective of increasing the supply of serviced land. Chapter 2 steps back to examine how sector policy is reflected in agency policy. Not surprisingly, the lack of a coherent agency policy can reflect the lack of a sound housing sector policy, or strategy, for that matter, as Chapter 10 elaborates later.

The third and fourth chapters discuss the land acquisition strategy implemented by the agency and examine how well both its strategy and special land acquisition powers (such as expropriation and preemption) can help the agency in overcoming land market constraints. The ability of a land development agency to minimize its land costs by combining a thorough understanding of the land market with the effective application of special land acquisition powers is critical to the success of a land development agency. Success in minimizing land costs is critical not only to the land development agency's achievement of social objectives, but also to overall performance since land costs represent an increasing proportion of total development costs. Moreover, the inflation of land prices outpaces the inflation of building costs in almost all countries (particularly those with a high general inflation).

Chapter 5 turns to the subject of inventory policy. To date, inventory policy has not been explicitly addressed in either agency or sector policy. For the agency, inventory policy must account for the volume of land stock in inventory relative to the production volume. If the inventory volume is greater than the amount required to fulfill targeted production volumes, the inventory policy should account for the agency's cost of capital relative to the rate of appreciation of the land stock in inventory. For the sector, the inventory policy of the land development agency must consider the impact of removing a supply of raw land from the market on market prices so as to avoid the pitfall of generating artificial scarcity.

Chapter 6 uses the concept of risk management, an approach commonly used by land developers in developed countries to minimize inefficiencies in
the production cycle. Two types of risk are considered. One is the risk of capital being frozen as large capital outlays for land acquired for immediate production are immobilized by regulatory or other delays. The other type of risk is project-related risk — specifically, the project delays which can rapidly increase project costs while decreasing the volume of production obtained.

Sales, the critical final step of production, is discussed in Chapter 7. The timely receipt of sales revenue is important to maintain the liquidity of a land development agency. Late sales revenue represent lower revenues and may, in extreme cases, delay the work program of a land development agency. The assessment of market demand is the most critical step in assuring the timely receipts of sales revenues.

Chapter 8 discusses financial management, focusing mainly on the land development agency's sources of working capital. To the extent that the agency relies on internal sources of funding, policies for cost recovery, profit, pricing, costing, and cross-subsidization must enable the land development agency to generate internal funds. Cross-subsidization and pricing policies are also critical to achieving its targetted volume of serviced land for low-income households.

Chapter 9 turns to the subject of management, organization and staffing. The key determinant to establishing a sound management system and maintaining a rational organizational structure is the decentralization of project management. Particularly during periods of rapid growth, a common tendency of many public enterprises is to allow headquarter staff to grow and to develop a top-heavy organizational structure that is reflected in the agency's increasing administrative costs relative to sales.

Chapter 10 returns to questions of strategy. Tunisia's housing sector is examined to illustrate how the land development agency's corporate strategy reflects the overall housing sector strategy. After briefly examining AFH's lack of a comprehensive corporate strategy, a suggested action plan is presented.

While there is some obvious overlap in the discussion, particularly between the chapters on sector and corporate strategy and acquisition strategy on the one hand, and the chapters on sector and corporate policy, financial management and inventory policy, on the other hand, this is unavoidable since overall sector and corporate policy and strategy represent important topics of discussion in and of themselves.
INTRODUCTION

1.1 The challenges facing many developing countries in the provision of mass urban housing at affordable standards can be traced to bottlenecks in the production of serviced land. A comparison of the growth rate of the total urban housing stock to the growth rate of the serviced land stock in developing countries illustrates that the former is increasing at a pace that is often twice as rapid as the latter. The problem is, therefore, not a lack of land, but a lack of serviced land. With an urban population growth in developing countries that has reached the equivalent of a million new residents per week, the problem of increasing the supply of urban land promises to become more critical.

1.2 How should developing countries deal with this phenomenal demand for serviced land? With the soaring interest rates of the 1980's a period of financial austerity was ushered in, making the debt service burden of the government sector in developing countries even heavier than before. The most practical alternative would be to look to the private sector to fulfill the demand. However, in most developing countries, the majority of the demand for serviced land is generated by low-income households which the private sector is least able to reach. Other obstacles which the private land developers face are the complex regulatory environment that exists in most developing countries, greatly inflating the costs of developing land and an inefficient financial system which often serves to make long-term credit less accessible.
to private developers. To sum, depending on the level of development of policy, the state of the financial and regulatory systems, and the strength of the private sector, in many developing countries there is a clear mandate for public sector intervention in the land market to increase the supply of serviced land to serve the demand generated by lower- and medium-income households.

1.3 What is the best form of government intervention to fulfill the objective of supplying more serviced land? Three general approaches can be distinguished: financial, regulatory, and direct production. Financial and regulatory instruments such as subsidies, capital gains taxes, interest rate policies, and zoning mechanisms have been tested in many middle-income developing countries, but do not represent the most expeditious method to increasing the supply of serviced land. As a result of the lack of coordination of fiscal, monetary, and socioeconomic policies, direct production often offers the most promise to fulfilling the public objective of increasing the supply of serviced land. 1/

1.4 Direct production can take place through a variety of institutional forms. The three most common forms are: (1) A government ministry or bureau; (2) A multipurpose agency such as an NHA that acts both as a developer of housing as well as of serviced land; and, (3) A single-purpose land development agency. There are pros and cons of each institutional form. The advantage that a single-purpose agency has relative to the other

1/ For a more thorough discussion of the various forms of public intervention, refer to Linn, Johannes, Cities in the Developing World, pp. 143-190, and/or Dunkerley, Harold (ed.), Urban Land Policy.
forms is its financial independence and exclusive mandate to increase the supply of serviced land.

1.5 This paper focuses on single-purpose land development agencies particularly their financial and management capacity. The level of capability of land development agencies—their ability to pursue and achieve their original objectives, their level of professionalism, and overall maturity—has become more important during the last decade as the cost of the mistakes of hastily-established enterprises has become more expensive. Two case studies—the Agence Fonciere d'Habitation (AFH) in Tunisia and the Korea Land Development Corporation (KLDC) in Korea—are examined to analyze the problems land development agencies in developing countries must overcome in order to increase the volume of serviced land supplied annually. Both are single-purpose land development agencies whose main function is land development for housing. They provide a striking contrast since KLDC represents a highly advanced land development agency with a broad mandate whereas AFH with its single mandate of providing serviced land for residential uses has significant financial and managerial problems.

1.6 The paper attempts to provide operational tools for monitoring the financial and management performance of land development agencies. The paper is organized according to the dominant areas of strategic concern for land development agencies—policies and objectives, acquisitions, inventory, acquisition strategy and powers, sales, finance, organizational structure, and institutional and sectoral strategy. (A more conventional appraisal format is found in Annex D).
II. LAND DEVELOPMENT AGENCY POLICIES AND OBJECTIVES:

A REFLECTION OF THE GENERAL STATE OF HOUSING SECTOR POLICY

2.1 A land development agency is a policy-implementing agency established to pursue specific objectives of housing sector policy. As such, its degree of success in fulfilling its specific mandate(s) as well as in coordinating with other housing agencies to achieve broader sector mandates will depend on the level of development of existing housing sector policy. For instance, a rational housing sector policy should specify what proportion of what population income group will be served by public and private sectors. Housing sector policy should also stress public enterprise efficiency with the goal of minimizing the level of public sector subsidies. Given a rational and comprehensive housing sector policy, a land development agency's policy statement should discuss at minimum: (1) objectives; (2) programs; (3) inventory policy; (4) project selection criteria; (5) operational efficiency; and (6) financial policies with respect to profit, pricing, costing, and cross-subsidization.

2.2 In the case of KLDC, a set of clear and rational policies with respect to the aforementioned items (with the exception of inventory policy) provides the foundation for pursuing well-defined objectives. Successful implementation of these policies has enabled KLDC to surpass both the target volumes and market shares assigned to it in sector plans. In contrast, AFH's policies are often vague, reflecting the general state of housing sector policy in Tunisia. In the case where the policy is clear, such as replacement costing, implementation is not complete. The lack of more definitive policies on inventory volume, project selection, assessing market demand, managing
risks during production, pricing for cost recovery, or, operational efficiency is directly responsible for: (1) AFH's current competition with private sector land developers in middle- and upper-income markets; (2) the provision of serviced land at subsidized prices to civil servants, a subsector which is not in need of subsidies; and (3) more generally, the lack of emphasis on managerial efficiency, undermining the agency's ability to achieve its targetted volumes of acquisition and production. (Table 2.1).

The Policies and Objectives of KLDC

2.3 KLDC's objectives, according to its policy statement included in KLDC Law of Dec. 5, 1978, are to contribute to national economic and social development and to increase the supply of serviced land in urban areas by sale and by promoting better and more efficient use of land. KLDC pursues these objectives through a variety of activities which include land development for residential, industrial, and commercial uses; urban renewal; and the purchase of land for resale. Since the Government has placed a strong emphasis on increasing the "housing supply ratio" in Korea, land acquisition and development for low- and moderate-income housing has become KLDC's primary function.

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2/ The percentage of KLDC's total land development activity devoted to housing since 1979 has varied from 28% in 1980 to over 90% in 1982 (in volume of hectares). Projections for 1986 and beyond show that it will account for over 70%. Industrial development is the second most important activity; urban renewal is the least important, never accounting for more than 1% of total volume of land serviced or renewed.

3/ The "housing supply ratio" is a Korean standard measuring the ratio of the number of housing units to the number of households. In 1982, the housing supply ratio was 73.1%, down from 83.3% in 1960. The Master Plan for Housing Construction and National Urban Land Development prepared in 1980 sets a target of 95% for 1991.
2.4 Supporting KLDC's objectives is a complex set of plans and interagency committees which are responsible for translating government policies and broad mandates into realistic annual plans, programs, and production budgets. A ministerial committee, the Housing Policy Review Committee (HPRC), reviews and approves an annual housing construction plan which is based on the general goals set in the Five-Year Social and Economic Development Plan. The annual housing construction plan sets housing site development area as well as public and private shares for achieving it. The HPRC includes representatives from the Economic Planning Board, KLDC, and the Ministry of Construction whose Housing Bureau also prepares an annual housing plan which contains specific targets for the public sector housing construction program. This represents a significant improvement over the lack of inter-agency coordination between the Korea Land Bank, predecessor of KLDC, and the various public agents involved in land use decisions.  

2.5 KLDC's production record is testimony to the quality of its policy statement. The original Fifth Five-Year Plan (1982-1986) in Korea envisioned a public sector contribution of 44.5% out of the total 28,248 hectares of

4/ In 1974, recognizing the inflationary side effects that interest rate policies were having on land markets, the government established the Korea Land Bank with the main objective of buying up idle land and reselling it at reasonable prices on the open market. Government policies offering low interest rates for business to encourage capital investments had lead to a rapid inflation of land prices during the years in the late 1960's on the order of 50-300% per year as businesses took advantage of their access to cheap credit and bought up land as an investment asset.
serviced land to be supplied and a private sector contribution for the remaining 55.5%. The public sector target was revised upwards after KLDC surpassed its performance targets in 1982 to 57.2%, almost a half of which was to be supplied by KLDC (23% of the total).\(^5\)

2.6 As a result of the disappointing level of efficiency of Government-Invested Enterprises (G.I.E.'s), the Government-Invested Enterprise Management Act was passed in December 1983, forcing KLDC, as one of 25 G.I.E.'s, to adopt a variety of new management policies, emphasizing greater management autonomy and accountability. These policy changes have been instrumental in leading KLDC to develop long-range corporate plans and to expand the volume of its activities. With its passage, the Korean Government launched a full-scale effort to overcome a series of major problems common to many developing countries: vague and conflicting managerial goals, absence of both accountability and autonomy in management, excessive government interference without control over the results, an inadequate personnel incentive system, complicated budget and procurement practices, inappropriate pricing and credit policies, etc.\(^6\)

The Policies and Objectives of AFH

2.7 AFH's policy reflects the lack of a coherent housing sector policy in Tunisia that sets rational sector objectives. AFH's general objectives and

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\(^6\) Park, Young C., p. 6.
housing sector policy are only similar to those of KLDC and the Korean housing sector in terms of their general mandate of increasing the supply of serviced land in urban areas. The main difference between the two land development agencies' policies lies in the markets they cater to. The lack of a specific housing sector policy with respect to what income group AFH should target and what the private sector should target has as one result a "de facto" AFH policy to service land for middle- and upper-income markets. Combined with AFH's costing and pricing policies, the end result is that AFH provides 200-500 square meter parcels only affordable to middle- and upper-income households at well below market prices, competing with private land developers and possibly suppressing the supply of serviced land. Its policy of requiring full payment from individuals and private real estate developers prior to beginning land development acts as a further obstacle to clients with limited access to credit, further reinforcing AFH's reliance on a higher income market in the absence of another policy indicating otherwise.

2.8 Another notable difference between the two agencies' policies is their profit and cost recovery policies. AFH's policy is a zero-profit policy --yet does aim to recover costs and to be financially self-sustaining. However, AFH is far from achieving the latter goal. Although a policy of replacement costing has been agreed upon, it is not fully implemented, making land stock renewal more difficult. Despite the fact that AFH caters to medium- and upper-income households with the means to pay, the agency suffers from illiquidity. For these and other reasons, AFH has fallen far short of its targetted production volumes and market share.
2.9 The lack of a coherent set of policies has handicapped AFH's performance, resulting in a failure to achieve the targeted acquisition and production levels. For instance, AFH's Financial Plan (Plan de Tresorerie) for 1983-1986 set target levels of 800 hectares for acquisitions and 400 hectares for land development for 1983. The volume of acquisitions and development was to increase 20% per year reaching 830 hectares in 1987. Since then, AFH has revised its original objectives downwards to an acquisition and production volume of 700 hectares for 1987, representing a targeted market share of 65% of both the legal and illegal supply of urbanized land. Yet, AFH's volume of activities (acquisitions, production, and sales) has levelled off during the past five years, representing a market share of less than 30%, and shows little promise of expanding, much less of attaining the revised production targets of 700 hectares by 1987, unless drastic improvements in finances and management are undertaken (or, the Government continues to subsidize the agency's financing gaps).

Table 2.1: AFH FORECASTED AND ACTUAL ACQUISITION AND PRODUCTION

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Total Production/1</td>
<td>925</td>
<td>976</td>
<td>1025</td>
<td>1076</td>
<td>1127</td>
<td>1180</td>
<td>1235</td>
<td>1291</td>
</tr>
<tr>
<td>Target Level/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Production/3</td>
<td>265</td>
<td>366</td>
<td>506</td>
<td>700</td>
<td>733</td>
<td>767</td>
<td>803</td>
<td>839</td>
</tr>
<tr>
<td>- Acquisition/4</td>
<td>198</td>
<td>302</td>
<td>460</td>
<td>701</td>
<td>733</td>
<td>767</td>
<td>803</td>
<td>839</td>
</tr>
<tr>
<td>Current Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Production</td>
<td>265</td>
<td>293</td>
<td>308</td>
<td>323</td>
<td>338</td>
<td>354</td>
<td>371</td>
<td>387</td>
</tr>
<tr>
<td>- Minim. Inventory</td>
<td>1855</td>
<td>2050</td>
<td>2153</td>
<td>2260</td>
<td>2367</td>
<td>2478</td>
<td>2594</td>
<td>2711</td>
</tr>
<tr>
<td>- Acquisition</td>
<td>460</td>
<td>396</td>
<td>415</td>
<td>430</td>
<td>449</td>
<td>470</td>
<td>488</td>
<td>NA</td>
</tr>
</tbody>
</table>

/1 Variant of a World Bank urban housing sector model which assumes a decline of the urban housing stock growth rate from 5% in 1985-1988 to 4.7% in 1989-1991 and 4.5% thereafter, as well as an increase in density from 40-44 hectares.

/2 Target level reflects a constant growth from present estimated production levels up to 700 hectares in 1987 and a constant market share of 65% after 1987.

/3 Production level in 1984 was estimated by the World Bank; production levels for 1985 and thereafter represent a constant market share of 30%.
2.10 The vastly different policy orientations and level of performance of AFH and KLDC leads one to consider whether land development agencies are always the appropriate policy instrument for achieving the objective of increasing the supply of serviced land. One response is that if housing sector policy establishes a clear mandate for them and if the land development agency fulfills this mandate without requiring unreasonable subsidies, land development agencies are an appropriate policy instrument. Another relevant question is what should the role of the public sector land development agency be vis-a-vis private land developers? A logical response is if the public objective is to increase the supply of serviced land, ideally the public land developers should assist private developers to gradually increase their market share. Specific strategies would be to play a role in streamlining the regulatory environment as well as serving as a training ground for future private land developers. Finally, when has the public objective for which land development agencies were created been fulfilled? A possible response is when the private sector is able to take over and service enough land and at affordable prices for all income levels, public land development agencies are no longer necessary.
III. LAND ACQUISITION: WHAT IS A VIABLE STRATEGY?

Site Selection Criteria

3.1 One of the most difficult challenges facing land development agencies is to establish a land acquisition strategy that takes into account market constraints when targeting a specific income group and volume of acquisitions. The choice of location, in particular, will greatly determine the cost and size of sites that can be purchased. In both Korea and Tunisia, as well as many middle-income countries, land ownership in the primary cities is very fragmented and land markets have become inflationary, making the land market increasingly tight. In tight land markets, the land acquisition process has become extremely time-consuming and, in some cases, prohibitively expensive.

3.2 Once having established priority locations for land acquisitions, minimizing land acquisition costs should be a high priority objective for any viable land development agency. Raw land costs have become one of the largest components of overall land development costs in most countries, reaching 15-20% in Tunisia. In Korea, where a mountainous topography has limited the amount of inhabitable and arable land, land costs range from 40-50% of land development costs. As land becomes more expensive, putting together a financially and economically viable social housing project becomes more difficult, particularly in the primary cities, even when cross-subsidizing with market rate housing.
Acquisition and Site Selection Strategy: KLDC

3.3 As a result of the increasing share of land cost in Korea relative to total building costs, particularly in primary cities, KLDC has focused its acquisition efforts increasingly on secondary cities in the nine provinces and on the periphery of Korea's two largest cities, Seoul and Busan. To improve the planning and geographical distribution of its programs, KLDC has begun to monitor demand for serviced land and has commissioned KRIHS to conduct a study of market demand on a city-specific basis.

3.4 A major element of KLDC's success in acquisitions and overall performance is the proper identification and selection of sites. KLDC performs prefeasibility studies which will involve estimating both projected economic and financial rates of return, the latter reflecting the fact that KLDC receives less than the appraised market price for plots reserved for low-cost housing or public facilities.

3.5 For KLDC, acquisition delays which may occur happen prior to purchase, so are not counted in the production cycle, but they may have the effect of increasing the indirect/administrative costs which the agency has to pass on to project costs. Between 1980-1985, for instance, over a half of the land proposed by KLDC and recommended by the MOC was rejected by the Ministries of Agriculture and Defense. Yet, the problem of diminishing productivity of acquisition efforts is faced by AFH also. As land markets grow more inflationary and land ownership patterns become more fragmented, it is inevitable that the difficulties, and specifically, the delays in acquisition and assembly, will only grow worse for land development agencies.
3.6 AFH's acquisition strategy overall has been less successful than KLDC's, and has involved excessive risk-taking. The evidence of AFH's risk-taking is the high percentage of AFH's stock which has no immediate development potential. AFH has gambled on the rezoning of relatively inexpensive land lying outside of the Plan d'Amenagement that the agency anticipated would be included as urbanizable land in the revised plan. While the results of these zoning gambles have yet to be determined, it is certain that AFH has in stock 65 hectares of land designated "interdiction" which will never have any development value and another 634 hectares of land of uncertain potential out of a total stock of 1217 hectares in Tunis and 2290 hectares in the whole country. 7/ The uncertain status of such a large portion of AFH's land stock highlights the lack of coordination between Ministries and public utility corporations which influence land use policies (specifically, the Ministries of Agriculture, Equipment and Housing, Finance, Planning, Interior, and National Economy, ONAS, SONEDE, and STEG).

3.7 AFH's current acquisition strategy can only be further undermined as land supply conditions grow increasingly restrictive. The growing land supply

7/ Out of a total of 1217 hectares AFH has acquired in Tunis, approximately 696 (or 51%) are in zones wherein development is restricted. Furthermore, fully 65 hectares are in zones designated "interdiction"; 389 hectares are in zones marked "soumis a l'autorisation"; and, 245 hectares are in zones called "sauvegarde". Only in the latter category of zoning is there a reasonable chance that some of the development value of the land will be realized. It is unknown whether or how much land that AFH has purchased outside of Tunis falls under similar zoning restrictions.
constraints that AFH faces, particularly in Tunis, can be inferred from information on the size and cost per square meter of AFH's recent land purchases in the largest land markets. In Tunis, where approximately 80% of AFH's land stock resides, the size of land acquisitions has been declining. While in 1982 the average acquisition in Tunis was 4.4 hectares, it fell to 3.1 hectares in 1983 and 2.0 in 1984—a greater than 50% decrease. [See Table 3.1]

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Table 3.1: AFH: AVERAGE AND MEDIAN SIZE OF ACQUIRED PARCELS IN THE LARGEST MARKET (TUNIS), 1981-1984

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Purchases</th>
<th>Average (m²)</th>
<th>Median (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>41</td>
<td>19,912</td>
<td>2,611</td>
</tr>
<tr>
<td>1983</td>
<td>43</td>
<td>30,961</td>
<td>6,131</td>
</tr>
<tr>
<td>1984</td>
<td>60</td>
<td>43,665</td>
<td>2,181</td>
</tr>
</tbody>
</table>

3.8 As the size of parcels acquired diminishes, the time and cost required to assemble subdivisions grows considerably. The transaction costs involved in purchasing land—legal fees, registration, and search fees—are fixed, making the true market prices for small plots higher than for large plots. Regardless of the size of a purchase, a land development agency must conduct thorough title searches prior to finalizing a purchase.

3.9 The size distribution of acquisitions is also important in terms of matching the minimum threshold of a serviceable site. For instance, the statistics on the diminishing average size of AFH acquisitions contrast

- 14 -
sharply with AFH's minimum threshold of production --10 hectares-- and its preferences for developing "new towns" (i.e. large, new residential areas). 

3.10 In addition to problems of parcel size, the prices AFH paid for land in Tunis relative to the rest of the country have not only been much higher, but they have been inflating at a much more rapid rate. From 1981-1984, the land prices AFH paid rose on average 58% per year in Tunis in comparison to 23% per year in the rest of the country. [See Table 3.2]

![Table 3.2: AFH Amount and Average Cost of Acquisitions, 1981-84](Table)

Note: Given AFH's reliance on purchasing land from various public reserves at below market prices up through 1983 at which time it began purchasing a higher proportion of land from the open market, the 57% does not really represent an average. It does, however, point to the need for AFH to develop an acquisition strategy which attempts to minimize land costs.

8/ Discussions with Mr. Siala, Director of Studies at AFH, indicated that Mourouj I, II, and III, a "new town" located on a 540-hectare site, represents the ideal subdivision and that AFH hopes to engage in more "new town" projects in the future. However, presently the typical subdivision is just over 10 hectares.
3.11 Considering the much tighter land constraints in Korea relative to Tunisia, KLDC's acquisition strategy has proven relatively more successful in selecting sites where viable housing projects could be developed. While the level of inflation of prices paid for land acquired relative to general inflation has been higher in Korea than in Tunisia (on average 20%, as opposed to 13% in Tunisia), it is likely that land prices on the perimeter of Seoul and Busan are increasing much faster than is the case in Tunis, as a result of a tighter supply of urban land in Korea. While the Korean Board of Appraisers reported a 7.0% increase in the value of land in major cities in 1985, it is likely that this figure reflects the relative stability of expensive city center prices, rather than the volatility of prices for urban peripheral land.\textsuperscript{9}

\renewcommand{\arraystretch}{1.2}
\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
Year & Avg Cost(000 Won/m²) & Infl of Prices & Apprec. of Land Value/\textsuperscript{1} & Gen'1 Infl/\textsuperscript{2} \\
\hline
1980 & 7.25 & & & \\
1981 & 12.03 & 65.9 & 7.1 & 21.3 \\
1982 & 16.84 & 40.0 & 1.5 & 7.3 \\
1983 & 17.45 & 3.6 & 3.4 & \\
1984 & 22.34 & 28.0 & 2.3 & \\
1985 & 29.44 & 31.8 & 7.0 & 3.3 \\
& Annual Average: & 28.2 & & 7.5 & \\
\hline
\end{tabular}
\caption{KLDC- Average Prices Paid for Land, 1980-1985}
\end{table}
\textsuperscript{1} Source: Korean Board of Appraisers.
\textsuperscript{2} Source: IMF International Financial Statistics.

3.12 One conclusion that can be drawn from KLDC's successful acquisition strategy and AFH's problematic acquisition strategy is that land development

agencies need to concentrate their efforts on anticipating the direction and speed of urban growth so as to avoid paying increasingly higher prices for land within urbanized zones, particularly those of primary cities.
IV. ACQUISITION POWERS: HOW EFFECTIVE ARE THEY IN TACKLING TIGHT LAND MARKETS?

4.1 The acquisition powers of land development agencies as currently used in the country are a major factor in the cost and efficiency of land acquisition. Differences exist from country to country as to how the legal process favors the public land development agencies in their attempts to acquire raw land for development and how it protects the interests of private landholders. These differences are often reflected in how much advantage the courts allow public land development agencies to exercise in purchasing land from private landowners.

4.2 The date at which the price for expropriated land is set by the court relative to when possession of land is turned over to the land development agency is critical in determining what advantage public powers such as expropriation might give to land development agencies in the land development process. For instance, if the price is set at the beginning of the process, rather than at the end when the land in question has appreciated in value, the price paid by the public land development agency is considerably less. Since land comprises such a large percentage of overall development costs, the ability to acquire land at a lower price and to gain access to it quickly is a distinct advantage for a low-cost housing policy.

4.3 In Korea, the Government has increasingly favored public interests over private interests in land ownership, preferring that the government or public sector capture a higher share of "windfalls" from land appreciation. KLDC is often referred to as the "daylight bandit" as a result of advantages
it enjoys in acquiring land. Its special acquisition powers -- expropriation, "standard price," and zoning changes -- have given it a noticeable advantage over private land developers.

4.4 AFH also enjoys special acquisition powers -- expropriation, preemption, and access to publicly-held land. However, the agency's ability to draw benefits from such rights is circumscribed as a result of the time required to complete the expropriation process and the greater power of private landowners. As a result, AFH has rarely used this tool for land acquisition (less than 1% of land acquired has been through expropriation). Moreover, in Tunisia, the Arabic inheritance system has often rendered land laws and attempts to establish a cadastral system ineffective. The fact that the Tribunal Immobilier (land court) does not favor the public sector in setting land prices is reflected in the high average price set by the Tribunal Immobilier for land expropriated by AFH. During the 1981-1984 period, the average price for expropriated land was 3.89 TD/square meter -- significantly higher than the 1.68 TD/square meter for all land acquired in Tunis in 1981-1984.10/

4.5 Until now, AFH has relied heavily on land transfers from the State. While recourse to State lands has been advantageous for AFH since it involves considerably less time to acquire it and full payment does not have to be made immediately, such an approach does not constitute a viable alternative in the

10/ In Tunisia, as in France, expropriation gives the Government the right to take possession of the land once the expropriation process has been initiated, despite any action on the landlord's part to file a suit for a higher settlement. In fact, as a result of the power of private landowners in Tunisia, the expropriation process is not so effective as to allow AFH to take possession and begin sitework.
long term for land acquisitions in Tunisia or in most developing countries. A major change in urban land markets in the 1980's is that the public sector has run or is running out of unused land in most large cities around the world.11/

V. INVENTORY VOLUME: LAND BANKING OR LAND DEVELOPMENT?

5.1 In the original policy statements and subsequent policy documents for AFH and KLDC, there has been considerable emphasis placed on land banking, yet neither agency has an explicit inventory policy with respect to what percentage of the land market that they aim to control. Any viable inventory policy must consider three important factors: (1) The volume of land stock in inventory relative to production levels; (2) The ratio of the weighted average cost of capital (WACC) relative to the rate of appreciation of the land stock in inventory; and, particularly for land development agency's whose inventory policy reflects an effort to accumulate more land than is necessary for supplying the immediate needs of its land development program, (3) The impact of land banking on the prices in the land market through a reduction of effective supply.

The Impact of Land Banking on Prices in the Land Market

5.2 While land banking has been reputed to be the best approach to control the inflation of buildable land prices in urban peripheral areas caused by speculation, to encourage more orderly urban growth patterns and to reserve for the public sector increases in land values caused by spreading urbanization, critics of land banking point out that land banking is unlikely to reduce the price of developed land. As evidence, the European land banking experience in Sweden, Holland, and France, while successful in controlling urban growth and capturing for the public surplus land values, has not been successful in controlling land speculation. In some cases such as Karachi,
Pakistan; Delhi, India; and Saskatchewan, Canada, the public sector control over a significant portion of land seems to have fueled the inflation of land prices and speculation as well as to have reduced competition among private developers, encouraging the development of an oligopolistic structure in the industry.  

5.3 Speculative purchases of urban peripheral land for the expected financial returns upon sale causes irregular and inefficient patterns of urban growth. While land banking is one method that has been used in the attempt to control speculation, other methods of controlling speculation that have been tried with minimal success in Korea are: tax on idle land, changes in capital gains taxation, relaxation of the land sales permit systems, rental rather than sale of state-owned lands, control on excessive land holdings by private companies, "standard price" notification, and relaxation of greenbelt/agricultural land use controls to increase the urban land supply. Excessive use of expropriation and "standard price" runs the risk of being inequitable for those landowners affected. Evidence suggests that increasing the supply of serviced land in the long-run is more effective than trying to control the prices of large volumes of land in the effort to reduce speculation. 

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13/ Delhi Development Authority experience of providing serviced land sites to private sector through auctions was creating huge increases in land values. This points out the danger of an LDA not supplying sufficient urbanized land to the marketplace so as to cause artificial scarcity to drive up prices.

14/ Carr, Jack and Lawrence B. Smith, p. 328-329.
The Volume of Land Stock in Inventory Relative to the Production Volume

5.4 Effectively, KLDC's policy is to refrain from land banking and to increase the supply of serviced land through both its Land Development Program and Land Transaction Program, the latter program referring to the purchase of idle land from businesses and its resale. No extra inventory beyond production requirements is maintained, judging by the benchmark of what minimum inventory would be necessary to maintain a given volume of annual production. [See Table 5.1]

Table 5.1: Inventory Levels of KLDC Relative to Annual Production /1

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Production Level</td>
<td>32</td>
<td>142</td>
<td>754</td>
<td>673</td>
<td>451</td>
</tr>
<tr>
<td>2. Acquisition</td>
<td>252</td>
<td>830</td>
<td>318</td>
<td>342</td>
<td>765</td>
</tr>
<tr>
<td>3. Actual Inventory</td>
<td>733</td>
<td>1421</td>
<td>830</td>
<td>792</td>
<td>765</td>
</tr>
<tr>
<td>4. Min. Inventory/2</td>
<td>128</td>
<td>568</td>
<td>3016</td>
<td>2602</td>
<td>1804</td>
</tr>
<tr>
<td>Difference (3-4)</td>
<td>385</td>
<td>853</td>
<td>-2186</td>
<td>-1810</td>
<td>-1039</td>
</tr>
</tbody>
</table>

/1 Includes land for housing and industrial sites, not transaction land.
/2 Minimum inventory refers to the volume of inventory that a land development agency would require to produce a targeted level of serviced land annually given the length of its production cycle, which in the case of KLDC is 4 years.

Table 5.2: Inventory Levels of AFH Relative to Annual Production

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Level</td>
<td>55</td>
<td>100</td>
<td>125</td>
<td>165</td>
<td>200</td>
<td>265</td>
</tr>
<tr>
<td>Acquisition</td>
<td>180</td>
<td>180</td>
<td>503</td>
<td>732</td>
<td>518</td>
<td>198</td>
</tr>
<tr>
<td>Actual Inventory</td>
<td>1070</td>
<td>1250</td>
<td>1753</td>
<td>2485</td>
<td>3003</td>
<td>3201</td>
</tr>
<tr>
<td>Min. Inventory /1</td>
<td>385</td>
<td>700</td>
<td>875</td>
<td>1155</td>
<td>1400</td>
<td>1855</td>
</tr>
<tr>
<td>Difference</td>
<td>685</td>
<td>550</td>
<td>878</td>
<td>1330</td>
<td>1603</td>
<td>1346</td>
</tr>
</tbody>
</table>

[1] This assumes a production cycle of 7 years; however, given a 4-year production cycle, AFH's minimum inventory needs would be even substantially lower, raising the amount of surplus land that AFH has in stock.
Judging by the location and volume of acquisitions and inventory volume relative to annual production, AFH's "de facto" inventory policy reflects an effort to act as a land bank. Acquisitions have focused on acquiring large volumes of land on the urban periphery. The inventory volume has been approximately double what is needed to maintain the agency's production level, given a 7-year production cycle. (If the production cycle was closer to the norm of 4 years, the minimum inventory needed to maintain its annual production level would be considerably smaller). Furthermore, AFH's Financial Plan for 1983-1986 targetted an acquisition volume that was twice as high as targetted production volume (800 and 400 hectares, respectively), which in the 1987-1991 Financial Plan has been changed to reflect an acquisition strategy which is more balanced with respect to production levels (not to mention available long-term financial resources).

Ratio of Weighted Average Cost of Capital to the Rate of Appreciation of the Land Stock in Inventory

With respect to the ratio of the cost of capital to the rate of appreciation in land stock, neither KLDC, nor anybody investing in land in Korea, for that matter, could have failed in the past decade as a result of rapid inflation of land prices and subsequent appreciation of land. In the early 1970's, land prices (unadjusted for inflation) in Korea increased

15/ A production cycle of 4 years is considered a realistic period (6 months for studies; 2 months for preparing bids and contracts; 13 months for all sitework including installation of roads, gas, electricity, and water; 24 months for the construction of buildings; and 3 months for finishing sidewalks (tertiary infrastructure), if this included).
annually from 50-300%. However, in recent years with the decrease in inflation, land investment has not provided the same easy returns.

5.7 It is hard to estimate how AFH's land stock has appreciated in the absence of an appraisal of the current market value of its inventory. Were it not for AFH's unusually low average cost of capital [see table 5.3], AFH's financial position would have become more critical than it currently is, judging from the high proportion of its inventory located in areas of uncertain development potential. Unfortunately, comparing the appreciation in the land stock to the agency's cost of capital will remain an irrelevant exercise until AFH implements a policy of replacement costing for pricing all lots and not just for pricing lots in primary markets.

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<table>
<thead>
<tr>
<th>Source</th>
<th>Weight</th>
<th>Cost (%)</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks -CNEL</td>
<td>.035</td>
<td>8.25</td>
<td>0.3</td>
</tr>
<tr>
<td>-Revolving Funds</td>
<td>.056</td>
<td>10.5</td>
<td>0.6</td>
</tr>
<tr>
<td>State</td>
<td>.079</td>
<td>6.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Clients</td>
<td>.821</td>
<td>4.0</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Average:</strong></td>
<td></td>
<td><strong>4.7%</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

VI. PRODUCTION: A QUESTION OF MINIMIZING RISKS AND ENCOURAGING INNOVATION IN PROJECT MANAGEMENT

6.1 The major risks encountered by land development agencies in production can be divided into two types: (1) Capital exposure risk; and, (2) Risks encountered in project management. Capital exposure risk refers to the risk that a large capital outlay for land will be immobilized as a result of a delay during the period between acquisition and beginning of site work. To avoid the risk of capital exposure when land acquired for immediate development sits idle as a result of production bottlenecks or regulatory delays, land development agencies coordinate acquisition volumes with production capacity. Production budgets and production programming which accurately estimate the timing of production outlays and sales revenues and which anticipate potential delays are essential in this respect. With respect to risks encountered in project management, a critical factor in the overall success of a land development agency is the project management that guides project scheduling, cost control, and quality assurance.

6.2 The three basic requirements for a successfully managed subdivision project are completion on schedule, within budget, and as specified in terms of quality and performance. To accomplish these objectives, cost is estimated starting with preliminary estimates for the feasibility studies and refined after completing detailed site design work or signing with the subcontractors in order to develop the project control budget. Contingency reserve funds

(roughly 15% for AFH) are created to handle cost variances. Two scheduling techniques— the Critical Path Method (CPM) and Project Evaluation and Review Technique (PERT)— are used extensively in developed countries to plan and schedule activities, deliveries, and works. Bar charts, progress curves, matrix schedules and linear balance charts are other graphic methods used to plan and control development progress. Above all, the means are less important than the managerial priority given to scheduling.

Capital Exposure Risk

6.3 To accomplish the task of coordinating acquisitions with production and thereby minimizing the risk of capital exposure, KLDC has developed a simple model. Acquisitions and development volumes are programmed such that 80% of a new project's land is acquired during the first year and the rest the following year. The new project volume for the current year would be equal to 20% of the development volume for the current year, 50% of the development volume of the next year, and 30% of the development volume in the year after. The following chart illustrates these relationships:
6.4 AFH does not appear able to exercise any discipline with respect to coordinating acquisitions and production. During 1981 to 1983, AFH's level of acquisitions were outpacing both AFH's production and financial capabilities. On the basis of an estimated level of production of serviced land shown in Table 6.1, in 1981 to 1983 AFH was purchasing annually three to four times the amount of land that it could deliver, a proportion that seems unjustifiably high in view of: 1) The lack of long- and medium-term funds; 2) The level of acquisitions needed to maintain a minimum inventory equal to seven years times AFH's annual production; and, 3) The production bottlenecks to be discussed in the next section.

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**TABLE 6.1: AFH VOLUME OF ACQUISITIONS RELATIVE TO VOLUME OF PRODUCTION, 1981-1984 (Hectares)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Acquired</td>
<td>503</td>
<td>732</td>
<td>518</td>
<td>198</td>
</tr>
<tr>
<td>Estimated Serviced Land Delivered /*1</td>
<td>125</td>
<td>165</td>
<td>200</td>
<td>265</td>
</tr>
<tr>
<td># Hectares Acquired/# Ha Serviced</td>
<td>4.0</td>
<td>4.4</td>
<td>2.6</td>
<td>0.8</td>
</tr>
</tbody>
</table>

/\*1 World Bank estimate.

---

**Risks Encountered in Project Management**

6.5 Typically, most land development agencies in developing countries have neither routinized nor rationalized project scheduling, cost control, or quality assurance. Time constraints, overly ambitious goals, lack of trained technicians, and financial constraints have in most cases lead to an ad hoc approach to project management.
6.6 AFH's ad hoc approach to project management is apparent from project records which vary widely in the patterns of cash-outlays. To a certain extent, variations from project-to-project are unavoidable as a result of the uniqueness of sites, but standardization of procedures in project management is a necessity to help the agency in avoiding cost overruns and poorer quality work by setting guidelines as to what stages of production should be completed at what time and when contractors and utilities should be paid.

6.7 Ideally, cost control begins with the feasibility study when project costs are estimated and bids from contractors and utility companies gathered, but AFH does not prepare feasibility studies. While cost control partially entails avoiding cost overruns, it also entails managing the timing of cash-flows. Ideally, large capital outlays should be deferred until the end of the project to reduce financial risks (and, thus, financial expenses) -- the risks that later delays will hold earlier outlays hostage. A review of AFH records reveals that this strategy is not pursued on a regular basis.

6.8 Too many land development agencies in developing countries lack project-by-project accounting to monitor project cash-flow, leading to major bottlenecks in both project management and in cost-recovery. For instance, while information on annual expenses for projects can be reconstructed from AFH records, no data on the levels and timing of project revenue flows is maintained. As a result, only a very partial picture of the total project cash-flow is available. If AFH intends, as it has indicated, to change its profit management strategy and to price its product so as to make a profit and/or to cross-subsidize between social and market rate housing, the first step towards accomplishing this goal is to maintain accurate project revenue
data so that a calculation of each project's internal rate of return (IRR) is possible.

6.9 KLDC has recently undertaken several project management strategies that promise to streamline and standardize construction management routines to ensure efficient project scheduling, cost control, and quality assurance. A routine helps to compare project performance with regards to production schedule, level of production, quality and cost control. Such comparability is vital to the evaluation of projects (ongoing, proposed, or past). Production and management efficiency overall are being addressed more comprehensively through KLDC's Institutional Development Program to be implemented during 1986-1988.

6.10 The financial risks that public land-developers assume occur most often during the production cycle in the form of production delays. The various phases of the production cycle are:

(1) Acquisition;
(2) Technical Studies (Topographical) - this phase also includes permit, approval, title registration;
(3) Putting out bids for contractors;
(4) Topographical work and construction of roads and other on-site primary infrastructure;
(5) Connection of water and gas;
(6) Construction of buildings;
(7) Finishing (laying sidewalks, putting in curbs) - mainly secondary infrastructure

6.11 The length of the production cycle varies between land development agencies depending on: 1) Local regulatory conditions; 2) The efficiency of
the land development agency; 3) The inclusion of a finishing stage for tertiary infrastructure after construction, and 4) The efficiency of local contractors. For instance, data gathered by the Bank shows that the average length of AFH's production cycle from the beginning of acquisition to the end of finishing is 8 years. On average, the period from the beginning of acquisition to the beginning of sitework (VRD) accounts for about 70% of the projects' total life (an average of 5.5 years), while the period from the beginning of sitework until finished product required 2.5 years.

Realistically, the acquisition and studies phase should require no more than 1.5 years, at worst. However, the 8-year production cycle includes the construction period where any delays that occur are beyond AFH's control. KLDC's production cycle, which ends after the completion of primary infrastructure installation and does not include either building construction or finishing, is a short 4.0 years.

Acquisition

6.12 Production delays can occur at any one of the stages listed above. Ideally, acquisition and assembly of land should not require more than a year. For AFH, acquisitions seem to take often several years as a result of 1) the length of time it takes to clear the land's title before purchase; and, 2) the small average size of land acquisitions which increase the average administrative time spent per hectare acquired. KLDC's delays from the beginning of acquisition to the beginning of "studies" are minimal, mainly as a result of a careful site selection process. For instance, KLDC does not purchase land unless the assurance of a zoning change has been obtained. Typically, KLDC takes 12-24 months to approve a site and gain ownership.
6.13 Delays created by excessive amounts of time taken for title registration and a generally inefficient regulatory environment have an impact on all developers. The amount of time such delays represent varies widely from country to country, and even municipality to municipality, particularly in the U.S. However, the impact on the cost of serviced land can be enormous.

6.14 Often, AFH's worst delays are associated with the local government permit processes. The largest production bottleneck occurs while the land is in the "studies" stage. A disproportionate amount of time (an average of three years) is spent obtaining the necessary permits and registering the land. An indication of this bottleneck is the growing proportion of their stock which AFH has not yet begun to service. From 1981-1983, the proportion of land that was delayed in "studies" grew from 19% to 28%, according to the agency's balance sheets.

6.15 Regulatory delays are also a problem for private land developers in Korea, especially in the acquisition of large sites, and to a lesser extent, for KLDC. The government has recently initiated a review of various regulatory policies that increase delays in land development including agricultural greenbelt policies.
Topographical Work

6.16 Delays in the third and fourth stages of the production cycle, putting out bids for contractors and topographical work, vary from site to site and arise either as a result of the lack of qualified local contractors or as a result of environmental factors—topographical or climatic irregularities such as bad soil conditions, hills to be leveled, excessive rain—that make sitework more difficult. Factors that can be foreseen prior to acquisition such as topographical irregularities should be factored into the feasibility analysis and cost estimates, and thus should have no impact on the expected project returns.

Call for Bids, Installation of On-Site Infrastructure, and Connection of Off-Site Infrastructure

6.17 Risk exposure during the provision of primary infrastructure—roads, water, drains, and sewerage—vary according to the agents involved in their installation. Some land development agencies rely on private sector contractors, others rely on public utilities, and others have in-house staff for this work. AFH has had problems with its reliance on national utilities and as a result has proposed developing an in-house division to install primary infrastructure, claiming that local contractors are unreliable. But, using in-house staff is usually the least efficient method of resolving such problems. Methods of enlisting greater participation from the private sector in the form of joint ventures or otherwise should be encouraged, but will vary in success depending on the technical and managerial experience of the private sector.
6.18 Delays in the "works" stage are the result of several factors internal and external to AFH. Some of the external factors which have been identified are: coordination of local contractors; delayed construction of buildings, which, in turn, delays AFH's final phase of "finishing"; the registration of the land with CPF (Conservation de la Propriete Fonciere); and the programming of SONEDE and STEG (the water and electricity and gas companies, respectively). A good estimate of the "uncertainty" involved with programming utilities is evident from data on the state of AFH work sites which indicated that in 30% of the cases, work by the national utility companies is delaying completion of a project where 95-100% of the VRD work has been completed.

6.19 The public utilities in Tunisia, also responsible for the connection of off-site infrastructure (water and electricity), often do not provide water and gas connections until two years after the land has been delivered to clients for construction. In general, these delays vary from country to country, depending on the capability of public utilities and the level of coordination between the public utilities and land development agencies.

6.20 The type of contract that exists between the land development agency and utilities or contractors involved is also critical, since the contract allocates responsibility for various delays and divides the risk accordingly. Contract provisions with contractors should clearly spell out liabilities, responsibilities, and contingencies. Both AFH and KLDC contract site development work to registered civil works contractors on the basis of open bids; however, given the limited number of eligible contractors in Tunisia, competition for the contracts is limited.
Construction and Finishing - Provision of Secondary Infrastructure

6.21 Delays on the part of clients past the 2 years allotted for residential construction can cause delays for AFH in providing the final secondary services such as sidewalks and curbs. AFH has calculated delays in finishing to occur in approximately 21% of the cases. KLDC finishes all infrastructure installation prior to delivering a plot to builders, so avoids this delay.

6.22 Final delays can be caused in transferring land titles as a result of difficulties encountered by the land development agency in land registration, or, in the surveying and marking of land boundaries. In Tunisia, the government agencies involved (Direction de l'Amenagement de Territiore (DAT) and Conservation de la Propriete Fonciere (CPF) for land registration) are notoriously slow in performing their duties.

6.23 Finally, a delay unique to AFH, the long delay in determining its income taxes, has caused it, in turn, to delay determining the final price on the basis of historical costs ("prix definitif"). The impact of this delay hits hardest on clients who, to date, have never received payment for the financial expenses incurred by AFH.

6.24 AFH does no estimation of the costs of the various production delays it encounters. However, given present financing arrangements, many of the delays mentioned here do not actually involve financial costs to AFH as much as an inconvenience and risk to the clients who make the downpayment for the
total cost of the serviced plot. For lack of project-specific data, it is not possible to quantify the impact of production delays because the cost of these delays are borne by the client and factored into the price clients pay. AFH imputes a flat 4.5% per annum for these funds, but this is well below the clients' actual opportunity cost of funds. The receipt of project revenue prior to beginning work also removes from AFH the incentive to identify and control risks which slow down production and hence, raise production costs. In effect, AFH appropriates through inefficiencies the large betterment value on land that is being serviced and whose scarcity value is high.
VII. SALES: HOW WELL HAVE ESTIMATES OF MARKET DEMAND GUARANTEED THE SUCCESS AND SPEED OF SALES?

7.1 The major problem many land development agencies face in the area of marketing and sales is the lack of a marketing concern or the ability of the staff to conduct market feasibility studies that could guide the land development agency in its location and production decisions and discipline the agency in its execution of contracts and commitments and overall management of risk. Land development agencies in developing countries face significant exposure to risk as a result of slow sales and delays in the receipts of revenues. Specific areas of risk exposure are: (1) The lack of a marketing concern and the resulting difficulties in assessing public and private land developers' demand; and (2) The slow speed of sales and the risks of delayed sales revenues. The apparent indifference to risk displayed by a land development agency (AFH, in this case) is based on the agency's ability to shift financial costs either to the central government -- an alternative which is no longer feasible in Tunisia and other developing countries, for that matter -- or to customers.

The Lack of a Marketing Concern and the Result: Difficulties in Assessing Public and Private Land Developers' Demands

7.2 The ability to accurately assess market trends and to perform market feasibility studies is critical to the long-term financial success of a land development agency and to its ability to achieve its equity goals of providing serviced land to the lower-income segments of the market that the private sector cannot profitably reach. To date, both AFH and KLDC have been weak in...
their ability to assess market demand. Both reflect current public sector thinking in their countries—for instance, that size of a unit alone determines the income level of the homebuyer, since only low-income families, if any, will purchase small units. The lack of awareness of market forces results in the competition of both AFH and KLDC with the private sector in middle and high-income brackets.

7.3 The standards of servicing offered by a land development agency should reflect a knowledge of the income levels of households to be reached. Ideally, land development agencies perform feasibility studies to determine what level of standards their target clients can afford.

7.4 The issue of what standards a land development agency employs is closely linked to the question of market feasibility studies. Unfortunately, until recently AFH has shown little interest in what lower income clients can afford and still has no division doing market studies nor any explicit marketing goals. As a result of its reliance on clients' downpayments and its lack of hard data, AFH has convinced itself that only middle and upper-income clients can afford the downpayment for single family sites. AFH has produced a high percentage of large lots (200-500 m2), equipped with equivalent levels of servicing. As a result of pressure from lenders, AFH has shown an increasing interest in producing smaller lots in the 100-200 m2 range, but still has not taken the initiative to further reduce units costs by defining the service level with respect to the population income level to be reached.
7.5 KLDC has begun to place more emphasis on market studies. Demand analysis plays an important role in both site selection and in sales. Prior to acquiring a site, the selling price is estimated from market values and the current demand for developed sites and the mix of public and private use to determine what percentage of the sites will be sold at cost and what percentage at market values. KLDC has also commissioned KRIHS to conduct market studies of major urban areas.

7.6 Interestingly, both AFH and KLDC have been accused of being biased against the public sector housing development agencies that they are supposed to serve. SNIT, the Tunisian real estate development company, claims that AFH does not service sites at the level of standards SNIT requires and charges SNIT excessively for serviced land. The Korean National Housing Corporation (KNHC) also claims that KLDC charges excessively for serviced land. In both cases, a major problem is the pricing policy that the land development agencies use in determining "at cost" prices for the housing development corporations.

7.7 To illustrate, only 20% of the land AFH has developed in Tunis (probably less if one considered the AFH operations in all Tunisia) is devoted to collectives, whereas 45% is devoted to single-family dwellings on lots measuring 200-500 m². Despite an unmet demand for fully-serviced land for collectives by SNIT, AFH claims that there is not enough demand to justify developing land for collectives. Furthermore, SNIT claims that the land AFH offers is over-priced. The problem lies first in AFH's heavy-handed methods of zoning and pricing land for collectives. Land serviced for collectives must observe the same floor-area-ratio requirements as single-family dwellings,
necessitating a disproportionate amount of land reserved for green space and inflating the land component cost of developing collectives. Second, AFH includes the indirect cost of the increased impact that a collective has on social infrastructure in the cost of the land, even though AFH is compensated by the Ministries later for serviced land reserved for social infrastructure. These two factors represent an artificial dampening of the demand for collectives by inflating the development costs.

**Speed of Sales and Risks of Late Revenues: Who Pays?**

7.8 Land development agencies expose themselves to considerable risk after production is completed and sales are underway. Typically, a marketing program establishes the expected pace of sales. However, because of their public nature, land development agencies are expected to absorb the financial expenses associated with late receipts of payments for lots. This is a problem for land development agencies whose working capital conditions are generally tight, with large sums of money tied up in land. The slower the receipt of revenues, the less working capital the land development agency has to acquire and service land.

7.9 KLDC has developed a model, mentioned above (para. 6.4), that projects land acquisitions, development, and the supply of serviced land. The entire sale of a subdivision takes on average 2 years — 75% of lots are sold the first year and the remaining 25% are sold the second year. Receipts of revenues are collected during three years according to a payment schedule of 40% the first and second years and the remaining 20% the third year.
7.10 AFH sales for a specific development are spread on average over four years. Unfortunately, while AFH's policy is to collect a full cash downpayment from all clients (except public land developers who pay a 50% downpayment), revenue is received during a period that ranges from 3-7 years. Sensitivity analysis of the revenue variable illustrates the importance of timely receipt of project revenues to successfully achieve expected project IRR. Statistics on AFH's speed of sales and receipt of revenues were gathered and the expectancy of delayed payments under certain conditions was estimated. Unfortunately, since no history of project revenues was available, it is impossible to quantify the impact of risks of late payments on the project's financial return.

7.11 AFH frequently experiences late payments for serviced land reserved for various ministries. AFH is required to set aside approximately 10% of a project's surface area for social infrastructure. However, in many cases, the ministries in charge do not intend to use the reserved land, confirming the need for greater inter-agency coordination in programming land uses. A lengthy process is required to verify that the lands are not needed by the ministries before they can be sold for residential or commercial uses. In 1985, AFH had in stock 39 hectares of land which were serviced or in the process of being serviced, amounting to approximately 7% of the stock which is serviced or partially serviced, but that has not been paid for. Technically, late payments by ministries should be charged for financial expenses incurred by AFH in the form of interest charges.
TABLE 7.1: AFH SERVICED STOCK RESERVED BUT NOT PAID FOR (as of Dec.31, 1984)

<table>
<thead>
<tr>
<th>Serviced Land Reserved for Ministries but not paid for:</th>
<th>39.1</th>
<th>7.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Stock of Serviced Land</td>
<td>559.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>

7.12 The frequency and severity of potential losses from delayed receipt of project revenues can be illustrated by another revenue collection problem encountered by AFH. AFH's claim is that 60% of its clients rely on CNRPS or CNNS, the public and private pension agencies, for credit and that often as many as 50% of the clients from the first selection round do not come forward and pay, necessitating a second selection round that often requires an additional delay of 3-6 months. On the basis of the sites examined, it was estimated that approximately 40% of AFH clients receive financing from CNSS and CNRPS and that CNSS/CNRPS payments fall after the average date of payment in about 60% of the cases. Given that CNSS/CNRPS loans account for 70% of the total payments and that CNSS/CNRPS payments are received by AFH on the average of 5 months after the clients' downpayments, it is possible that 20% of a project's revenue could be about 6 months late, significantly damaging a project's cash-flow and expected financial return.

7.13 The commercialization of projects is often inadequate. For instance, AFH traditionally waits until clients have completed construction and moved in before auctioning off land reserved for commercial use. AFH has recently decided to take the initiative to construct commercial centers, itself, to quicken the process of commercialization and residential construction. Given the problems AFH has encountered in land development, it seems premature to undertake a totally new type of function—commercial development—which entails different risks and financing requirements.
VIII. FINANCIAL MANAGEMENT: RECOVERING COSTS AND FINANCING GROWTH

8.1 There are a number of financial problems endemic to land development agencies: (1) Financing operations — specifically, acquisitions and long-term assets in inventory; (2) Sources of working capital — internal and external; (3) Cost recovery — costing, pricing, cross-subsidization, and profit policies; and (4) Monitoring financial performance.

Financing Operations:

8.2 Theoretically, various sources of finance exist for public land acquisition: (1) tax expenditures; (2) debt financing — issuance of land bonds to sellers or general public, loans from the State, commercial banks, or external sources; (3) equity financing — paid-in capital, issuance of stock, selling of securities backed by land purchases; and (4) other sources such as grants of variances, lease-back arrangements, direct sale of excess land, contract savings schemes, forced savings schemes and land readjustment.18/

18/ Land development agencies face specific problems with respect to locating different sources of finance. For instance, only private land developers formed for largely private, profit-making purpose are well-positioned to sell shares, although there are exceptions. Problems for public land development agencies without significant equity is that without equity, it is often difficult to contract for debt. The issue of whether the land development agency is a profit-making venture is important. For instance, KLDC has no problem arranging for debt, but other non-profit LDA’s may. Another source — special tax levies — are used in both Brazil and Mexico. But, in countries with strong economic planning, earmarking future tax revenues for present needs may seem inappropriate. Once established, special taxes are also hard to change.
8.3 During KLDC's six years of operations, it has greatly reduced its reliance on government equity contributions while maintaining a rapid rate of growth. KLDC generates a high percentage --30% to 40%-- of its financing from internal sources. Government paid-in capital has represented a high percentage of total sources in the past, but is slowly declining --from over 80% in 1979 to under 5% in 1984. Land bonds (specifically, secured bonds, or, debentures) are slowly taking the place of government capital as an important source of financing. KLDC also has benefitted from two large World Bank loans (comprising roughly 5.5% of KLDC's total source of funds since 1981) and will be receiving another 18-year loan for 4.5-year operations in 1986.

<table>
<thead>
<tr>
<th>Year</th>
<th>Internal Sources</th>
<th>Land Sales</th>
<th>Other</th>
<th>Gov't Capital'z'n</th>
<th>Borrowings</th>
<th>Land Bonds</th>
<th>Bonds for Debt</th>
<th>Repayment</th>
<th>IBRD Loans 1 &amp; 2</th>
<th>Reserves &amp; Allow</th>
<th>Total</th>
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<tr>
<td>1979</td>
<td>11.3</td>
<td>(8.0)</td>
<td>(3.3)</td>
<td>20.0</td>
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<td>(3.6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>38.3</td>
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<td>1980</td>
<td>27.1</td>
<td>(18.1)</td>
<td>(9.0)</td>
<td>15.0</td>
<td>26.0</td>
<td>(26.0)</td>
<td></td>
<td></td>
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<tr>
<td>1981</td>
<td>44.3</td>
<td>(40.3)</td>
<td>(4.0)</td>
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<td>(30.0)</td>
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<td>(10.0)</td>
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<td>155.7</td>
</tr>
<tr>
<td>1982</td>
<td>103.7</td>
<td>(97.5)</td>
<td>(6.2)</td>
<td>40.0</td>
<td>51.7</td>
<td>(40.0)</td>
<td></td>
<td></td>
<td>(11.7)</td>
<td></td>
<td>197.0</td>
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<tr>
<td>1983</td>
<td>128.6</td>
<td>(112.9)</td>
<td>(15.7)</td>
<td>20.0</td>
<td>82.9</td>
<td>(34.9)</td>
<td></td>
<td></td>
<td>(9.7)</td>
<td></td>
<td>211.5</td>
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<tr>
<td>1984</td>
<td>188.3</td>
<td>(173.7)</td>
<td>(14.6)</td>
<td>10.0</td>
<td>134.1</td>
<td>(34.8)</td>
<td></td>
<td></td>
<td>(17.9)</td>
<td></td>
<td>322.5</td>
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</table>

Note: This does not include 38.9 billion won of paid-in capital that KLDC inherited from KLB as of March 27, 1977.

8.4 KLDC has been given the power to raise funds through the issuance of two kinds of land debentures: Land debentures to landowners for already developed lands which KLDC subdivides prior to resale and land debentures.
issuable to businesses with idle land which KLDC resells without further development. As of 1985, the former carried an annual interest rate of 8% with a maturity of two years. Even with their exemption from capital gains taxes on land transfer and from income tax on interest income from the bond, for taxpayers in the 25% marginal tax bracket, they do not compare favorably with corporate bonds whose interest rate was on average 14.5% during 1984. The second bond is not at all attractive to business firms with its low interest rate of 5% and a maturity of 5 years.

8.5 The advantage of these bonds as a form of financing has been the leverage they have given a public agency, in this case KLDC, in the raising of private sector funds through limited public investment. Beginning in 1982, for every public won (unit of currency) invested, KLDC was raising a private won. By 1984, the leverage of each public won was about 1:3.5.

8.6 The use of bonds as a source of finance raises two types of issues: (1) Issues for the agency such as: (i) How much private sector demand for bonds as an investment vehicle is there? (ii) What kind of bonds work best, what term, interest rate, and tax status? and, (2) Issues for the public sector as a whole regarding the appropriate level of public debt. Specifically, what limits should there be on the total amount of land bonds

19/ Land bonds' interest rate is administratively set at low levels, representing a cheap source of capital for KLDC. Considering only the exemption from income tax on interest from the bonds that bondholders enjoy, they do not compare favorably with corporate bonds. The impact of the capital gains exemption on yield is harder to estimate since it varies between 30-75% depending on the length of time the land was held and whether or not it is registered with the Court. Capital gains from sale on land held for less than two years not registered with the Court is 75%.
outstanding at one time, considering the effects bond issuances will have on other investments of national interest?

8.7 AFH, partially as a result of a lack of other sources of working capital or long-term finance, has had to rely extensively on clients' downpayments (prefinancing) as a source of funds. The Table of Sources and Uses of Funds (Table 8.2) illustrates the importance of prefinancing. In 1982, prefinancing accounted for 37% of total resources; in 1983 and 1984, it accounted for 58% and 60%, respectively. A similar deterioration in AFH's debt-equity ratio reflects a similar trend -- AFH is becoming more and more leveraged and indebted to its clients. AFH's increasing reliance on clients' downpayments is a bottleneck in two respects -- it represents a built-in liquidity problem as AFH falls increasingly behind in its delivery of prefinanced lots as well as an obstacle for reaching lower income beneficiaries who cannot afford the downpayment.

8.8 In addition to financing acquisitions, land development agencies must consider the financial costs of maintaining an inventory of land. The holding costs of land, depending on the cost of capital for the land development agency, can incur large expenses for a land development agency. These holding costs ultimately are factored into the final price of the developed sites. As mentioned in Chapter 6, capital immobilization between the phase of acquisitions and beginning of site work is the risk that the financial costs holding land in inventory will increase beyond the levels foreseen in project feasibility studies. Unfortunately, many land development agencies, like other public sector agencies, neglect to pay adequate attention to the cost of capital invested in fixed assets and do not attempt to minimize capital exposure risk.
<table>
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<td>159.8</td>
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<td>15432.4</td>
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<tr>
<td>Credit :lan -CNEl</td>
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<td>Autres</td>
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<td>11512.8</td>
<td>19811.7</td>
<td>15432.0</td>
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</table>

(d'actif):

| VALEURS D'EXPLOITATION | 0.0 | 381.3 | 0.0 |
| DONT: Terrains Bruts | 0.0 | 381.3 | 0.0 |
| Autres | 0.0 | 0.0 | 0.0 |
| VALEURS REALISABLES A C.T. | 6275.9 | 567.0 | 1015.2 |
| DONT: Compte de Tiers | 1744.1 | 875.5 | 872.2 |
| dont: Produits a Recevoir | 14.5 | 0.0 | 311.9 |
| Charges Payees Av. | 159.6 | 0.0 | 467.1 |
| Autres | 3.0 | 87.5 | 40.0 |
| DONT: Compte Financiers | 5856.4 | 479.5 | 1015.2 |
| dont: Emprunts Echus et NP | 5856.4 | 479.5 | 1015.2 |
| Autres | 0.0 | 0.0 | 0.0 |
| RESULTAT | 17787.7 | 20550.0 | 15432.0 |
8.9 AFH and KLDC are no exception -- neither have given adequate consideration to the holding costs of land. For KLDC, whose inventory volume relative to production levels has shrunk considerably in recent years, this is obviously less of an issue. Theoretically, a large inventory can be justified only if the appreciation of the land stock is greater than the interest being paid on the borrowed funds which finance fixed assets. Despite AFH's low average cost of capital (4.7%), AFH's holding costs are considerable. The overall appreciation on its inventory, half of which has no immediate development potential, is probably even lower than AFH's average cost of capital. Out of a total of 3200 hectares that AFH has acquired during the 1974-1984 period, almost 2300 (over 70%) remain in inventory.

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<tr>
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<th>Weight</th>
<th>Cost (%)</th>
<th>Factor</th>
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<td>- Revolving Funds</td>
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<td><strong>Average:</strong></td>
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</tbody>
</table>

8.10 The overall structure of real estate development finance operating in a country is important not only from the point of view of land development agency needs, but for the credit needs of its clients. A prerequisite to being attractive to lenders for a land development agency is to provide clear and reliable financial statements so that lenders can ascertain the financial position of the corporation and the type of risks that they would be entering into as a lender. Given the present confusing state of its balance sheet,
AFH currently cannot realistically expect much access to either commercial or external financing.

Working Capital: Internal and External Sources

8.11 Initial capitalization and subsequent additions of paid-in capital establish a base of working capital for the land development agency, particularly if the agency has no authority to issue bonds and has no other access to capital.

8.12 As could be expected from its reliance on customers' advances, AFH has severe liquidity problems. Its coverage of current liabilities by current assets was 10.6% in 1982, down to -3.3% in 1984. AFH did receive initial capitalization of 2.0 million TD which, as we discussed earlier, was insufficient to achieve the level of acquisition and production which AFH had targeted. Subsequently, AFH received a subsidy of 187 thousand TD and a loan of 5.0 million TD in 1978, which is in the process of being consolidated into a state budget transfer.

8.13 KLDC's working capital condition has remained fairly strong despite its rapid growth. Its liquidity has declined --current ratio for 1983 was 32.0%, decreasing slightly to 23.0% in 1984. The corporation inherited the existing financial structure of the Korea Land Bank which included a substantial inventory of land and equity in the form of Government paid-in capital. In addition, KLDC has received generous injections of Government capital, not to mention very long-term World Bank loans, which have been instrumental in KLDC's rapid expansion of operations (See Table 8.1).
8.14 KLDC's substantial access to external financing has enabled it to offer flexible and suitable sales terms to clients since it is not as desperate for working capital as is AFH. Effectively, however, AFH does not receive full payment for serviced plots often until three years after clients' initial downpayment, suggesting that AFH may be indirectly suffering the consequences of the credit problems facing clients.

Cost Recovery: Costing, Pricing and Cross-Subsidization Policy

8.15 Central to the success of a public land development agency is to be financially self-sustaining. Pricing policies are critical from the point of view of replicability and increasing land development agency's ability to supply greater amounts of serviced land to the market, while fulfilling its public purpose of keeping the prices for serviced land low enough so as to be affordable to lower-income clients and avoid contributing to land inflation.

8.16 AFH's complex method of pricing its product on the basis of "provisional costs" as opposed to real costs does not appear to have a strong negative impact on cost-recovery; however, without more complete records on historical
project costs, it is difficult to be certain.20/ On the contrary, for most of the projects analyzed, real costs turned out to be consistently below the projected "provisional" costs, perhaps partly because of AFH's habit of double-charging for financial expenses in its calculation of "provisional cost". For some of the projects reviewed, certain finishing costs and financial costs had not yet been expensed --costs that could potentially make AFH's total real costs higher than the provisional costs. On the other hand, the method of prefinancing understates AFH's opportunity cost of funds. AFH rationalizes provisional pricing on the basis of the delays in determining the total real costs (specifically, income taxes and finishing costs) which sometimes amount to several years after plot delivery, but actually "provisional pricing" serves as a clever disguise for costly production delays and cost overruns. In the end, it is difficult to determine whether AFH gains or the client gains without a better method of project accounting that relies on historical, real costs and an accurate method for charging administrative and financial expenses to projects which considers AFH's opportunity cost of funds.

20/ AFH uses a "provisional pricing" policy of pricing which relies on a detailed estimate of the costs of subdivision to set the price of plots within the subdivision. This detailed estimate, or "prix provisionel," is the price which AFH charges private land developers upfront before beginning any work on the land (AFH requires only 50% upfront from public developers). The use of provisional prices is a necessary policy given AFH's policy of requiring full cash payment upfront (prefinancing). However, it can be criticized as a method of disguising production inefficiencies since AFH has the right to charge cost overruns (or, any costs which exceed the provisional price) to clients. So far, AFH has never charged clients for cost overruns, however, the provisional price has been finalized (and the prix de revient calculated) in very few of AFH's completed subdivisions as a result of the uncertainty surrounding final costs --mainly taxes and finishing costs.
8.17 AFH has instituted a policy of replacement costing which, because of its recent adoption, is still difficult to evaluate. However, replacement costing has only been instituted for large regions where AFH feels the demand will bear the additional costs. In practice, if AFH is to achieve full project cost recovery and replicability, it must implement replacement costing for all regions, whether in conjunction with cross-subsidization or not.

8.18 To adequately assess replacement costs, a land development agency must have a method of appraising land. Trained appraisers are essential to the task of land valuation. Currently, AFH has no professional appraisers, and in Tunisia, the system of taxation which normally relies on a staff of appraisers is extremely inefficient. On the other hand, in Korea KLDC has both appraisers in-house as well as access to the country's Board of Appraisers.

8.19 Cross-subsidization between regions and projects was approved in principle on December 8, 1983, but AFH's Board has not accepted the notion of cross-subsidization between large and small plots within a subdivision, the one method of differential pricing that might dampen the demand for large 200-500 m² lots and assist lower-income clients.

8.20 By cross-subsidization, KLDC is able to sell serviced sites for low income households at lower than cost (roughly 75% of cost), and still make a profit. By mandate, KLDC is required to earn a profit on sales of developed residential land for middle-income households and commercial users. Land for resale can also be sold at a profit through a competitive bid process. The profits generated from these sales not only cover the subsidized sites, but generate a profit before tax that in 1981 was equal to 15.8% of total sales.
8.21 To illustrate, KLDC's profit before tax on sales reached a healthy 21% in 1984. In contrast, AFH's profit on sale ratio has fluctuated widely from 85.6% in 1982 to 298% in 1984. The latter figure does not reflect large profits in 1984 (since reported profits this year were under half of those reported in 1981), but rather reflects both a particularly steep decline in reported sales activity in 1984 and a short-term approach to financial planning.

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<tbody>
<tr>
<td>KLDC</td>
<td>15.8%</td>
<td>NA</td>
<td>18.3%</td>
<td>21.0%</td>
</tr>
<tr>
<td>AFH</td>
<td>28.0%</td>
<td>85.6%</td>
<td>32.8%</td>
<td>298.0%</td>
</tr>
</tbody>
</table>

Despite AFH's zero-profit strategy, profit on equity was a healthy 21.9% in 1982, but fell dramatically to 3.5% in 1984 compared to KLDC's profit on equity ratio of 8.3% in 1983 and 16.4% in 1984.

**Monitoring Financial Performance**

8.22 For the benefit of both potential lenders and for self-monitoring efforts, land development agencies must keep clear and detailed project-specific as well as corporate financial statements. Thorough histories of project's finances are essential to calculate performance and management statistics from which both the corporate senior management and lenders can monitor a land development agency's financial health.
AFH's financial statements do not clearly portray its financial position. The two most prominent problems are: (i) the lack of differentiation in reporting the status of the stock; and (ii) the confusion which arises as a result of basing "prefinancing" on provisional prices. The latter problem is substantial in that it obscures AFH's financial position and allows AFH to disguise project mismanagement and cost overruns. The former problem involves the lack of distinction between land which cannot be immediately be put into production from the stock which can be, nor are there separate accounts for land which has been supplied (finished), but not yet delivered. Another problem with AFH's balance sheet is the presentation beginning in 1983 of an unpaid loan received from the State as a long-term loan. While the loan is in the process of being consolidated into equity, this presentation overstates AFH's ability to secure the necessary medium- and long-term funds.

AFH's resource base has remained relatively level at 18-20 million TD, but certain financial indicators have changed dramatically. Contrary to what one might expect, the proportion of acquisitions to total financial resources has declined rapidly from 42.6% in 1982 to 18.4% in 1984. The funds committed to acquisitions declined during these years as AFH committed more funds to paying off land debts and to the production of serviced land. Growth has been slow, but consistent, as measured by a growth in equity of 13.8% in 1982, 21.9% in 1983, decreasing slightly to 20.5% in 1984.

AFH's lack of medium- and long-term financing to cover land acquisitions has been discussed in depth. The balance sheet reveals a total debt-equity ratio which has deteriorated from 15.1:1.0 in 1981 to 18.4:1.0 in
1984 --too high for a land development agency. The long-term debt-equity ratio for 1984 was 1.7:1.0 --low compared to total debt, reflecting AFH's dependence on short-term debt. Medium- and long-term debt make up a small percentage of total debt —3.2% in 1984. 

8.26 The lack of a realistic medium-term financial plan provides the key to understanding the rest of the major problems facing AFH. The most glaring result is a growing deficit that is, by current estimates, on the order of 9.6 million dinars (5.3 million of which is a loan from the State, scheduled to be consolidated into a budget transfer; 2.6 million in short-term loans from banks; and 1.6 million for revolving credit).

8.27 KLDC's financial condition appears strong on the basis of its financial statements. Its success in the area of financial management has helped in earning it the top rank among government-invested enterprises in Korea in 1984, up from the eighth in 1983. The dominant aspect of KLDC's financial condition is its relative financial independence. In 1984, net internal resources amounted to 117 billion won, or 36% of total investments. Growth has been rapid by reference to almost any indicator: growth in equity was 17.1% in 1984 and 24.4% in 1985. Growth in earnings was 122% in 1984 and 65.1% in 1985.

21/ There is no one appropriate total debt-equity ratio for a land development agency, but to arrive at a benchmark figure for a particular LDA, consideration would have to be given to: after-tax cost of debt, cost of government equity, the riskiness of the particular enterprise, implicit local government guarantees and general inflation.
The Management Act reflected the Korean Government's determination to stabilize prices, reduce external costs, and free more investment resources for the private sector, thereby achieving overall gains in the national economy. Some of the important financial performance ratios used in ranking KLDC were: (1) Public profitability; (2) Operating profits/operating capital; (3) Inventory/sales; (4) Research and development expenditures/administrative costs; and (5) Equity and fixed liabilities/fixed assets. Qualitative indicators included long-term corporate planning. While there has been considerable controversy over the selection of performance indicators and the biases that they may introduce, on the whole, the results of the Management Act have pleased Government officials.
IX. ORGANIZATION, MANAGEMENT, AND STAFFING

9.1 Over the next decade, the technology of management information systems (MIS) is expected to change rapidly in developing countries as the general appreciation of the importance of efficient management to overall corporate performance increases. Asian countries are making rapid progress in this respect. For public land development agencies, improving their management information systems involves all aspects of operations from land stock management and accounting; personnel and organizational management; planning, executing and evaluation system; data bank management; and more. This next section will focus on the immediate concerns of organizational and personnel management as they pertain to overall corporate performance.

9.2 Without proper monitoring of manpower needs, rapid growth of corporations often leads to decreasing efficiency of existing staff and overstaffing of central offices where administrative functions are executed, particularly in public enterprises. KLDC and AFH are no exception. In an effort to achieve the acquisition and production levels assigned them, AFH and KLDC grew rapidly during the late 1970's and early 1980's.

9.3 Performance ratios such as the number of persons relative to project volume or administration costs as a percentage of total costs can provide an indication of trends in management, staffing, and personnel practices. AFH's growth, specifically in the administrative division, has been matched by a ratio of administrative expenses to total sales which has increased from 4.1% in 1981 to 212.1% in 1984 when sales plummeted to 51.4 thousand TD from 2283.6 thousand TD in 1983. The results of management improvements that KLDC
implemented to lower the costs of administrative overhead are evident in the ratio of administrative expenses to total sales which has decreased from a high 5.4% in 1983 to 3.7% in 1984 with predictions of under 2% for 1985 and thereafter.

9.4 In 1982 as a result of side-effects resulting from the rapid expansion of both KLDC's output and organization during the early years from 1979-1981, KLDC reevaluated both its management system and the rationale of its internal organization.

9.5 In April, 1982, KLDC decided to de-emphasize the strong line organization of its main office. Prior to that date, KLDC's organizational structure included a President, Executive Vice President, 5 Vice Presidents, and 14 departments. Since then, KLDC has reduced the 14 departments into 10 departments. The general effect of the new organizational structure was to decentralize the main office's decision-making authority relating to projects to branch offices in which 700 of KLDC's total staff of 920 now work [See organizational charts 9-1 and 9-2]. A second reform was a greater reliance on the committee system to overcome the lack of coordination and communication between parts of the organization and to encourage greater organization flexibility.

9.6 KLDC has undertaken a variety of management improvements to increase accountability and autonomy of its management, to install personnel incentive systems, and to simplify and increase management control over budgetary and procurement processes with a management by objective system (MBO). To achieve these goals, KLDC has also installed its own internal performance evaluation
unit. As with all Government-Invested Enterprises in Korea, KLDC has introduced a two-tier system of management organization with a Board of Directors as policy-making body and the CEO in charge of implementation. Overall, partially as a result of the 1984 Management Act, KLDC has improved managerial efficiency which has reflected in better overall performance.

9.7 The rapid growth of AFH's staff size during 1981-1985 from 251-383—a 50% increase—has been accompanied by a number of significant changes, but no significant reforms. The most rapid growth overall has been experienced in the regional offices, reflecting a positive trend of decentralization of AFH activities. The second highest growth rates have been experienced in the administrative and financial divisions which grew 23.5% and 22.2%, respectively, in 1981 to 1982 in comparison to a 10-11% growth over this period for the other divisions.

9.8 The overall rapid growth of AFH's permanent staff at its Tunis headquarters has been accompanied by less and less communication between the various departments, according to some of AFH's staff. It is not clear whether this deterioration in communication is a result of the lack of coordination between departments or deeper institutional rigidities. The lack of communication between departments impairs the agencies' overall efficiency and is particularly notable in conflicting statistics furnished by different divisions.
9.9 AFH's organizational structure needs re-evaluation in light of the rapid growth the agency has experienced in the last six years. The extremely horizontal line organization of AFH's structure and dominance of senior management results in inefficient management patterns and insufficient horizontal integration [Chart 9-3].
X. STRATEGY

10.1 The success of a land development agency's strategy is dependent first of all on a coherent national housing policy that is well coordinated with national development plans in terms of: (i) assigning geographic priorities and the target income population for the public land development agency; (ii) establishing a realistic market share of the targeted annual volume of land to be serviced to be achieved by public and private sectors, specifically, the land development agency; and (iii) coordinating the relationship between various public agencies in the housing sector (typically, land development agency, real estate development agency, and housing bank). Decisions regarding geographic targets, in particular, should be made through committees with representatives from public utilities, housing agencies, appropriate ministries, and as much local participation as possible.

10.2 The quality of housing sector policy and plans and, hence, sectoral strategy is often linked to the level of housing policy that is implemented in the country. Three phases of housing policy development can be distinguished: (i) No policy; (ii) "De facto" policy defined by whatever policies the public housing agencies are implementing. Often in this phase of policy, housing agencies work at cross-purposes and are not well-coordinated; and (iii) Comprehensive policy reflecting the coordination of national, fiscal, monetary, land, social and economic policy and an understanding of how these policies impact on housing activity.
Sectoral Strategy

10.3 Tunisia is a typical middle-income country where the level of policy development is roughly at the second stage and focuses on whatever the public sector is doing. The country's budget has been severely restricted by the high cost of funds, not to mention the lower revenues from exports (chiefly, oil). The lack of a coherent and operational Tunisian housing sector strategy is highlighted by the serious crisis the sector faces—a large bottleneck in the provision of serviced land and legal new housing units. Private housing developers are restricted in their ability to construct new units by the inaccessibility of long-term credit. Public developers, on the other hand, have not been able to contribute a significant volume of either housing units or serviced land. What serviced land AFH has supplied is affordable only to middle and upper-income households, the markets best-suited for the private sector. Low-income demand, which makes up a high percentage of total demand, has few alternatives but to turn to the informal sector, which accounts for over 50% of urban housing activity. The bottleneck in serviced land has had direct consequences for CNEL, the housing bank, where over 20% of CNEL's 128,000 housing contracts are over the four-year mark, at which time contract holders are entitled to a housing loan. As a result of CNEL's restriction of its lending to new housing units which are in short supply, it has suffered from excessive liquidity.

10.4 Recent work has addressed the critical need for sectoral reform. Technical assistance missions focusing on housing finance have used a physical-financial model illustrating the sources and uses of funds in the urban housing sector (including informal activity) to locate inconsistencies...
in government planning assumptions and to identify possible reforms. Basing assumptions on data provided by a Commission of Tunisian housing officials, the model estimates the financing gaps experienced by the sector. The model serves as a valuable policy instrument in encouraging heightened dialogue between ministries and in testing the viability of various reform options.18/

Corporate Strategy

10.5 AFH has no clear or explicit strategy aside from maintaining the status quo — supplying serviced land to a privileged subsector (civil servants) and using dubious and complicated methods of costing and pricing which disguise to what degree costs are recovered and thus makes it difficult to trace the origins of the large financing gap they have incurred. To be fair, AFH’s strategy is both the result of various handicaps the agency faces as well as the result of unfortunate decision-making. For instance, it has been handicapped from the start by insufficient capitalization and subsequently, insufficient working capital to free it from its dependence on clients’ downpayments (“prefinancing”). The dependence on clients’ downpayments has forced AFH to rely on middle- and upper-income clients. This is exacerbated by another deficiency — a lack of a marketing awareness — but which is also the result of a deliberate ignorance of market forces. The agency’s senior management has resisted suggested reforms in its acquisitions and sales strategy. Perhaps even more deliberate is their use of the “provisional pricing” method which raises many problems: (i) license to charge clients for agency’s inefficiencies; (ii) no incentive to increase

production efficiency; (iii) the difficulty in determining whether AFH recovers costs; and, (iv) the refusal of banks to finance AFH as a result of its unusual pricing methods and incomprehensible balance sheet. As a consequence, AFH is forced to turn to the central government to cover financing gaps. The agency's acquisition and operations strategy, as mentioned above, need to be completely revised. Organizational strategy reflects the insistence of senior management to maintain absolute control over the agency's operations, rather than to devolve management decisions to project-level management where they belong.

10.6 A first step facing AFH would be a revision of its Policy Statement in order to clarify the agency's target income populations (what percentage of project volume for what household income group) and its costing, pricing, and cross-subsidization policies for achieving targetted acquisition and production levels and to establish a clear and rational acquisition strategy. In order of priority, the ensuing actions which AFH needs to undertake to become a viable land development agency addressing both equity and efficiency goals are:

A. Internal reorganization to de-emphasize the existing line organization of AFH's internal structure to achieve a decentralization of decision-making and project management and a more pyramidal organizational structure overall. Regional field offices located in urban areas of rapid growth should be staffed with experienced project managers well-versed in project scheduling, cost control, and risk management.
B. Reformulation of corporate financial strategy and financial planning and budgeting. Alternative sources of financing should be studied—such as land bonds, land participation notes, equity sharing arrangements, tax sources, etc.—with the goals of discontinuing the agencies' current reliance on clients' downpayments and central government resource transfers. The latter should be used for growth in volume of activities rather than maintenance of the current level. Financing plan for short-term and medium term that ensures sustainability of the land agency's efforts and includes realistic projections of sources of funds from both internal and external sources. Revision of accounting practices as well as the presentation of balance sheets, income sheets, and all financial reports.

C. Reformulation of acquisition strategy based on physical land development plans and coordination with Ministries and public utilities that prepare and influence physical land use plans. Identification of priority locations. Assignment of desirable acquisition and production volume targets. Calculation of necessary additional capitalization. Coordinate with preparation of sectoral plans in determining market share for APH relative to public and private sectors. Establish target percentage of SNIT demand to be supplied by APH. Not lastly, evaluate inventory policy and develop models for coordinating production, acquisitions, and total cash-flows.

D. Development of a Real Estate or Market Research Department which would work in conjunction with the Land Purchase Department in selecting between alternative sites. The Market Research Department would be staffed with land experts/appraisors who would prepare market feasibility studies and develop a data base to centralize information on land prices and to support project
offices. To achieve this, current AFH personnel could be trained, although it might be more effective to recruit new personnel with experience in the area of marketing. Market studies to include demand analysis, affordability analysis, appropriate levels of standards, size, location, etc.

E. Preparation of new approach to project management that emphasizes project-by-project approach. Selection of an appropriate method of project management—Critical Path, PERT, simple bar charts— that establishes a framework for monitoring projects’ schedules, estimates costs, and provides guidelines for managing risks of project delays, project budget overruns, and poor quality.

F. Reevaluate pricing strategy along with profit management strategy; coordinate with budgets and financial plans. Study impact of pricing on public housing efforts, specifically SNIT.

G. Emphasis on cost-reduction. Research alternative methods for reducing production delays and overall costs. For instance, for reducing acquisition costs: land readjustment, land exchange with zoning changes; for reducing costs associated with slow sales: “fast track” phasing. Assisting cost reduction efforts, analyze alternatives for reforming regulations and administrative policies which delay the transfer and sale of land, based on studies which have been recently done.

H. Evaluation and reformulation of management and information systems. Formulation of both short-term and long-term management plans which would include discussion of necessary management reforms. Institute data management system for land, personnel, etc.
I. Develop a policy for personnel management which would include both an incentive system and a discipline system to encourage better performance. A system for rationalization of existing manpower needs and forecasting future needs by department and by region.
CONCLUSION

11.1 In middle-income countries like Tunisia and Korea, public land development agencies have an important role to play. The need for housing units calls for a major acceleration in the provision of serviced land. One of the most difficult parts of this task is the acquisition and assembly of land. As the public sector's land reserves diminish, public land development agencies will have to turn to the private land market for an increasing proportion of their land acquisitions. For the present, while public land development agencies still enjoy advantages over the private sector with respect to access to credit and their close relationship with other public bodies regulating the sale and transfer of land, special acquisition powers, and economies of scale, their performance is particularly critical.

11.2 This paper has focused on a specific form of public sector direct production of serviced land -- single-purpose land development agencies, yet the findings presented herein have a broader relevance to the evaluation of multi-purpose agencies engaged in land assembly and development. Moreover, while it is beyond the scope to cover the broader issues of housing sector policy and how the land development agency fits into broader sectoral policies, the paper has attempted to point to several topics that should be explored further in a future paper on this topic. The most important topic is the need for sector strategy to act as a catalyst in improving both the regulatory and policy environment for private land developers. In most developing countries, a complex regulatory environment acts as a large bottleneck in the provision of serviced land, particularly by the private sector. A second topic that deserves further attention is the public sector's
potential role introducing innovation to and providing training for private sector land developers.
ANNEX A: KLDC and the Housing Sector

The key institutions in the housing sector in Korea are the Housing Policy Review Committee (HPRC), the Ministry of Construction's Housing and Land Bureaus, the Korea National Housing Corporation (KNHC), the Korea Land Development Corporation (KLDC), the Korea Housing Bank (KHB), the Citizen's National Bank (CNB), and the National Housing Fund (NHF) all under the control of the public sector, and a private trade association, the Korea Housing Association (KHA).

The Ministry of Construction's Housing and Land Bureau are responsible for, inter alia, preparing recommendations on housing and land policy, overseeing and controlling building and land development standards, respectively. KNHC is the major public sector housing developer. KLDC develops land for both public and private sector clients.

MOC's Land Bureau is responsible for, inter alia, land policy, land development, the acquisition of public land, establishing land prices, and the supervision of KLDC. The Land Bureau is organized into four divisions: Policy, Development, Administration and Management, and Land Price Surveys. The Land Policy Division is responsible for recommending national land policy, controlling land transactions, land banking (as means of price control), and the supervision of KLDC's financial planning and policies. The Land Development Division oversees industrial development programs and carries out long-term demand and supply planning for various land uses and designates and oversees development of housing estates, reviewing KLDC project proposals and implementation. The Land Administration Division is responsible for the purchase of and compensation for public lands. It studies and establishes measures for compulsory purchasing and carries out land appraisals. Expropriation of land is also under their authority. Land Price Surveys Division surveys land price changes, studies land appraisal system, and is responsible for notification of standard land prices which are used for public acquisition in the country.

KLDC is a Government-owned corporation established March 27, 1979 after the dissolution and restructuring of the Korea Land Bank, whose capital and land stock KLDC inherited. It derives its power from the National Land Use Act, City Planning Act, Residential Land Development Promotion Act, and Eminent Domain Act.

KLDC engages in several activities: land acquisition for resale and development and sale of land for residential and industrial uses. Land reclamation and new town development are two new mandates. Its major near-term priorities are development of residential land for low-income groups.

The executive body of KLDC consists of a President, Vice President, a maximum of seven directors, and an Auditor. On the operational side, there are nine departments: Planning, Research, Finance, General Affairs, Land Acquisition I and II, Land Development, Land Projects, and Technical Assistance. There are also in the organization a Secretariat, Security Office, and Inspection Office. In total, KLDC has approximately 1000 employees as of 1985.
ANNEX B: AFH and the Housing Sector

The key institutions in the housing sector in Tunisia are the Agence Fonciere d’Habitation (AFH), Societe Nationale Immobilier de Tunisie (SNIT), Agence pour la Rehabilitation et la Renovation Urbaine (ARRU), Direction de l’Aménagement du Territoire (DAT), all under the supervision of the Ministry of Equipment and Housing (MOEH), and Caisse Nationale D’Epargne (CNEL), FOPROLOOS (the workers’ housing fund), CNRPS and CNSS, all under the supervision of the Ministry of Finance (MOF), and SONEDE (Ministry of Agriculture), and STEG (Ministry of the National Economy), and ONAS (MOEH).

MOEH has several divisions. Its land service division is responsible for land ownership maps and expropriations. MOEH also supervises DAT, which is responsible for regional and physical planning, preparing Master Plans, etc. While DAT has a regulatory impact, it really has no executive impact. Traditionally, there has been competition over urban planning between MOEH and the Ministry of Interior, MOINT.

MOEH also supervises SNIT and AFH. SNIT is mainly a public housing construction agency, although until now has also engaged in land assembly and development, a role it is devolving. AFH is the public land development agency which until now has supplied land mainly to private developers and a small percentage to SNIT.

The housing sector in Tunisia is characterized by a large informal sector which annually comprises approximately 50% of the growth in urbanized land.

AFH is a Government-owned, non-profit corporation established in 1973 at the same time as two other land banks, Agence Fonciere d’Industrie (AFI) and Agence Fonciere de Tourisme (AFT) under Law 73-21. The original objective of AFH was simply to serve as a land bank, providing serviced land for residential uses.

One of the obstacles that prevents AFH from supplying serviced land to lower-income households is access to financing. CNEL, the housing bank, does prefinance housing construction by SNIT and private developers, but to date, has not fulfilled financing needs for purchasers of plots (excluding a prefinancing loan AFH received from CNEL in 1983). CNRPS and CNSS, the public and private pension funds, respectively, provide financing for plot acquisition but, since they cater to salaried workers, by definition, do not provide a financing alternative for lower-income households.

AFH has a President Director General (PDG), an Assistant General Director (DGA), and a General Director in the Director General’s Office and nine other divisions: Planning and Control, Administration, Financial Affairs, Sales, Land and Legal Affairs, Technical Studies, Topographical Works, and two divisions for projects in the North Region and South Region, and three branch offices in Sousse, Sfax, and Siliana. As of 1985, AFH employed a staff of 384.
ANNEX C: BASIC BACKGROUND DATA ON LAND DEVELOPMENT AGENCIES: AFH AND KLDC
(as of 1984 unless indicated otherwise)

<table>
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<th>General Economic Data:</th>
<th>AFH/ Tunisia</th>
<th>KLDC/Korea</th>
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<tbody>
<tr>
<td>Level of urbanization (1983)</td>
<td>54%</td>
<td>62%</td>
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<tr>
<td>Rate of urbanization (1983)</td>
<td>3.7%</td>
<td>4.8%</td>
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<tr>
<td>Per capita GNP (1983 $)</td>
<td>1290</td>
<td>2010</td>
</tr>
<tr>
<td>Rate of general inflation</td>
<td>8.4%</td>
<td>3.0%</td>
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<tr>
<th>Other Agencies in the Sector</th>
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<tr>
<td>Other Land Agencies</td>
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<td>NHF</td>
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<td>CNB</td>
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| LDA Market Share (1985)           |              |            |
| of Total Public                   | 71%          | 28.9%      |
| of Total Formal Sector            | 62%          | 18.4%      |
| of Total Sector                   | 28%          | 18.4%      |

| Land Acquisition Volume           |              |            |
| For housing (ha)                  | 198          | 786.5      |
| For industrial sites (ha)         | 0            | 168.9      |
| Other (ha)                        | 0            | 364.1      |
| Average prices paid ($ per m²)    | 2.86         | 27.92      |
| Average inflation for prices paid | 58%          | 28%        |

| Land Development Volume           |              |            |
| For housing (ha)                  | 265          | 671.7      |
| For industrial sites (ha)         | 0            | 56.2       |
| Growth Rate (1983-1984)           | 16%          | 33%        |

| Land Sales Volume                 |              |            |
| Annual sales of land for housing ($) | 41,124.16   | 134,625,000.00 |
| Growth rate (1983-1984)           | 20%          | 609%       |
| Average Prices of Land Sold ($/m²) | NA           | 61.64      |

| Assets                            |              |            |
| Inventory of land for development (ha) | 3201         | 7654       |
| Value of land inventory (US $)     | 65,157.8     | 517,300.0  |

| Length of Production Cycle         |              |            |
| Acquisition                        | 2.5          | 2.0        |
| Development                        | 5.5          | 2.0        |
| Sales                              | 1.0          | 3.0        |

| Number of Staff                    |              |            |
| Absolute                           | 352          | 92         |
| Growth Rate of Staff Employed      | 197%         | 5.6%       |
| Employees million sq. m developed  | 132.6        | 119.4      |
ANNEX D: A Suggested Appraisal Format for Land Development Agencies

The following is provided as a suggested list of questions and is not meant to be exhaustive:

I. Legal Status, Objectives, and Functions

1. What is the LDA's legal status (i.e. government ministry or department within a ministry, or government agency, government-owned corporation, or para-statal corporation)?

2. What is the regulatory context relevant to the LDA's operations? (i.e. What coordination or approval by other agencies is necessary? What are the laws affecting land use, the approval process, subdivision review, recording, land transfer and titling?)

3. What is the LDA's role within the urban housing sector? How does it relate to other public and private sector institutions who undertake activities related to land and/or housing construction? (i.e. how well does the LDA coordinate with other agencies responsible for the provision of primary infrastructure and financial services?)

4. What are the LDA's functions and activities? (i.e. land acquisition, assembly, land upgrading, etc.)

II. Organization, Management, and Staffing

1. How is the LDA organized? What are the main units of the agency (acquisition, production, finance, sales, etc.)

2. How many professional staff work in headquarters and branch offices? How many staff by function? What are the growth rates over the past five years?

3. What is the management structure of the LDA? Is decision-making centralized or decentralized to project management?

4. How are projects managed? Is project decision-making divided by sub-project? What form of project implementation management is used?

5. Are staff recruited or appointed? What is the overall quality and experience of staff? (Other considerations: turnover rate, salary relative to civil servants, availability of staff training in-house or out)

6. Who is on the Board of Directors (or equivalent) and what organizations do they represent? Who appoints them?

III. Policies and Procedures

1. How comprehensive are the agency's policy guidelines? What are the procedures to institute change?
2. What markets are they targeting? (Low income, commercial properties? Include precise income levels to be served and standards employed.)

3. What are the site selection criteria employed by the agency? (for instance, how does the lack or existence of trunk infrastructure figure into the site selection process, preference for primary cities vs. secondary cities?)

4. What methods of land acquisition are has the LDA been enabled to use (i.e. transfer of public land, expropriation, land readjustment)?

5. What is the inventory policy employed by the LDA (i.e. how much land stock is accumulated relative to the volume of production)? Is there an explicit policy of land banking? If so, is any consideration given to the ratio of the weighted average cost of capital relative to the appreciation of the land stock? or, to the impact of their land banking activity on land market prices?

6. How are project approvals obtained? (i.e. Are financial or economic feasibility studies performed?)

7. What are the LDA's costing, pricing, and cross-subsidization policies? And what are the cost recovery procedures for off-site improvements and community facilities?

8. How do procedures differ for work the agency does for private land purchasers as opposed to other public agencies? How are the LDA's services paid for in each instance? (downpayment, payment terms, etc.)

9. Is sitework done with force account or contracted? If latter, by competitive bidding or direct negotiation?

10. What financial management policies does the agency employ? (i.e. are there program and project plans which coordinate with long-term budgets?)

IV. Operations and Finance

1. How large a land stock does the LDA maintain? What percentage of the land stock is in the primary city? in other areas? How does this reflect sectoral strategy? agency strategy?

2. How effective are the LDA's acquisition powers in terms of procuring land quickly and at below-market rates? How much land is acquired through expropriation, pre-emption, public reserves?

3. How is the demand for sites justified?

4. What is the average period required to complete a subdivision's sales? How does this compare to a norm of two years?

5. What are the average size of parcels and what is the level of servicing provided? (Paved roads, covered drainage, water and electricity network?)
6. How well-defined is the level of servicing relative to the income level of the population to be reached?

7. Who takes responsibility for off-site infrastructure and its timely delivery? Are delays a problem?

8. How long do sales take? Does this differ from city-to-city?


10. How well coordinated are the agency's pricing policy, profit policy and long-term growth plans?

11. Is there a financial plan? How many years? How is it coordinated with overall government budget or five year plan?

12. Who provides financial intermediation services and what kind of agreement is there between LDA and FI?

13. How are financial costs of land development calculated? Are the holding costs of land stock considered?

14. Do financial statements provide a clear and reliable picture of the LDA's financial position?

V. Performance:

1. With respect to development activity: How has the volume of land acquisitions and land development kept pace with targets?

2. With respect to profitability: what is the net income as a % of operating income? as a % of capital? as a % of sales?

3. With respect to growth: What kind of growth has the LDA registered in the last five years (i.e. growth in equity, earnings, sales, assets, etc.)

4. With respect to operations: How efficient are operations as measured by operating expenses as % of operating income or sales?

5. With respect to the land development agency's financial structure: What do the following indicators reflect: current ratio, liability/assets ratio, asset/equity and liability/equity ratios.
BIBLIOGRAPHY


