# REVIEW OF ONGOING USAID SHELTER SECTOR ACTIVITIES IN MOROCCO

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## ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| ANHI | Agence Nationale de Lutte Contre l'Habitat Insalubre |
| CDG | Caisse de Dépôt et de Gestion |
| DGCL | Direction Générale des Collectivités Locales |
| Dh | Dirhams ($1.00 = 8.50 Dh) |
| EIRR | Economic Internal Rate of Return |
| ERAC | Etablissement Régional d'Aménagement et de Construction |
| FEC | Fonds d'Equipement Communal (Municipal Investment Bank) |
| HG | Housing Guaranty (shelter financing program of USAID) |
| NPV | Net Present Value |
| MDh | Millions of Dirhams |
| MHAT | Ministère de L'Habitat et de l'Améangement de Territoire (predecessor of MOH) |
| MOH | Ministère de l'Habitat (former MHAT) |
| MOI | Ministère de l'Intérieur |
| MOF | Ministère des Finances |
| RDE | Régie de Distribution d'Eau et d'Electricité |
| RHUDO | Regional Housing and Urban Development Office |
| SDAU | Schéma Directeur d'Aménagement Urbain |
| SPA | Special Project Account (PDU) |
| USAID | United States Agency for International Development |
| ZAC | Zone d'Aménagement Concerté |

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# REVIEW OF ONGOING USAID SHELTER SECTOR ACTIVITIES IN MOROCCO

## 1.0 SUMMARY OF FINDINGS AND RECOMMENDATIONS

The purpose of this review is to assess the institutional and economic impact of USAID's ongoing Housing guarantee financed urban shelter sector programs in Morocco and evaluate their contribution to the Agency's policy dialogue objectives and current priorities. This review did not examine in detail the supporting grant financed activities.

### 1.1 Background

The ongoing USAID shelter sector activities in Morocco were conceptualized in 1985 within a context of accelerating urbanization and massive rural urban migration. The incapacity of the economy to absorb new entrants in the labor force led to rising unemployment and a growing expatriate work force. Lagging infrastructure, escalating land values and shrinking affordability relegated limited income households to squatter settlements and peripheral under-serviced sprawl. The institutional framework for urban management in the process of adjusting to administrative decentralization suffered from imbalances and overlapping functions. Policies affecting the delivery of buildable land and the management of infrastructure were unsustainable. The urban programs initiated by USAID focused on the following priority areas:

a) Rationalizing the land delivery process and regularizing informal land development.
b) Institutionalizing sound administrative and fiscal practices in infrastructure management and finance and the delivery of urban services.
c) Widening the scope of private participation in the shelter sector by increasing the production of affordable building plots and expanding the role of private developers of low cost housing.
d) Reinforcing decentralization by strengthening local managerial capabilities and enhancing local revenues.

### 1.2 Program Activities

Current Program activities consist of two major components: the Tetouan Urban Development Program financed by HG-001 and the ANHI Low Income Housing Program financed through HG-003 and their supportive technical assistance grants (0194 and 0200 respectively).

### 1.2.1 Tetouan Urban Development Program

The Tetouan Urban Development Program includes the following four components and their support activities:

a) Infrastructure upgrading and regularization of land tenure of the Dersa-Semsa settlements involving over 10,000 households, 7,500 lots and close to 4,000 private owners.

b) New serviced sites affordable to limited income groups on a 60 ha site.

c) An experimental public/private partnership zone (ZAC) covering 240 ha of privately owned land. The private sector is expected to contribute MDh 172 toward the financing of the infrastructure. ZAC will provide a model for future urban expansion where the private sector would play a major role.

d) Off-site primary infrastructure networks not included in this review. The major activity which is a sewerage master plan currently in the study stage.

A significant improvement in managing the environment has been introduced in the municipality by the establishment of a special unit focusing on environmental issues, the initiation of the municipal waste water disposal project and the improvement and privatization of solid waste management.

The challenges currently faced by the program arise from the high cost of servicing Dersa, the difficulty encountered in regularizing land tenure, the inability of the municipality to fully recover upgrading costs and delays in the completion of off-site improvements and the ZAC's infrastructure.

### 1.2.2 ANHI Low Income Housing Program

The ANHI Low Income Housing Program is designed to alleviate constraints on the production of affordable building plots by extending a line of credit to ANHI and directing 75% of its production to households below the median income level. ANHI is seeking to expand revenue generation, reduce project costs, accelerate production, and progressively expand private sector participation in its operations and sponsor projects in conjunction with municipalities and private land owners.

ANHI is now active in 30 cities. The number of operations increased from 47 in 1987 to 90 in 1991 and investments rose from MDh 1,750 to MDh 3,500. Annual production now stands at 12,000 lots, up from 5,700 in 1987. The challenges it now faces are to increase its economic performance in the face of rising land values and the depletion of public land reserves as well as to find formal credit for private developers and individual homeowners.

## 1.3 Program Review Methodology

The review is structured to reflect the dynamics of the overall program as well as its different components. Despite the diversity of activities, internal coherence is demonstrated by the convergence of strategic objectives and achievements under the major themes reflecting current agency priorities. Performance to date is documented through field surveys carried out in November-December 1991 at three different locations: the ANHI projects at Taza and Larache and the upgraded area of Dersa in Tetouan. Future impacts for ongoing activities are projected on the basis of parameters derived from field surveys and applied to prospective development scenarios.

Interviews with officials in concerned institutions at the central and local level were carried out in January 1992. They have proved invaluable in assessing achievements for a program with a strong focus on institution building and a special emphasis on support to decentralized structures of governance.

## 1.4 Institutional Impacts

Despite the innovative character of the Tetouan Urban Development Program USAID has selected to work through existing central and local institutions supported by technical assistance. Opting for this approach has maximized impact on public policy but does increase the complexity of organizational structures involving ten different agencies and their different departments.

Participating agencies have been exposed to changes in outlook, roles and methods, and have been enriched by the experience. Officials are unanimous in their assessment of the program's two most important achievements:

a) Tetouan Municipality's enhanced managerial capacity.

b) ANHI's technical assistance to Tetouan which has enabled the municipality to manage an infrastructure project affecting 30% of the city's population, and experiment with concepts of public/private partnership in development.

Tetouan, and more importantly DGCL, have come to appreciate the support that constructive technical assistance from a specialized central agency could bring to a municipality. ANHI has for the first time developed a capacity to work with elected municipal officials. The agency is meeting the decentralization objective by creating branch offices to enable it to replicate this cooperative experience with other interested municipalities. It is establishing working arrangements with municipalities to implement projects on their behalf and provide them with technical assistance.

Direct support to the municipality of Tetouan has provided a model with respect to modes of promoting democratic institutions and public participation in governance by reinforcing decentralization policies and strengthening local managerial capabilities. The evolution of Tetouan's municipal budget testifies to the program's impact on the locality. Expenditures rose rapidly from MDh 29.5 in 1986 to MDh 75.0 in 1991. Reflecting direct municipal management of infrastructure, capital expenditures grew from MDh 9.2 in 1986 to MDh 21.1 in 1991. More importantly, the municipal contribution to the program has risen by 27% over its original share while the HG loan has remained stable.

To enhance local self reliance, the program has sought to broaden the municipality's tax base and its revenue generation capacity by the computerization of local tax collection and sustained technical assistance. Receipt from real estate taxes increased from MDh 9.7 in 1986 to MDh 24.3 in 1991. Total receipts soared from MDh 39.8 to MDh 102.0.

## 1.5 Economic Impact

The program has increased the financial leverage achieved by investment of public resources in urban infrastructure and promoted the adoption of efficient and sustainable public investment strategies. The economic analysis assessed the performance of the programs from three different perspectives: mobilization of private resources; employment generation; and contribution to the Moroccan economy.

### 1.5.1 Mobilization of Private Resources

The private sector response to activities supported by the program is impressive. In Dersa where infrastructure works began in 1989, 70% of the households have invested in additions, rehabilitation and repairs; 75% have connected to utilities; 10% have added a rental unit, and 5% have created a shop in their ground floor. The average investment per household is Dh 17,000. In Larache, former bidonville residents are investing Dh 43,000 to Dh 73,000 in their new houses in addition to paying their plot charges of Dh 10,500. In Taza, households are investing on the average over Dh 100,000 in land and buildings. The importance of this mobilization is further enhanced by its foreign exchange contribution. Households in both Tetouan and ANHI projects have relied on transfers from members working abroad to finance 20% to 25% of their investments in land purchase and building construction.

Overall leverage ratios in excess of five highlight the magnitude of the private investment generated relative to the amount of public investment in infrastructure for both the Tetouan and ANHI projects. This ratio is highest for ZAC where it would reach 14.5 because of public/private sharing of infrastructure costs. It is lowest for Dersa-Semsa due to the high cost of servicing the site. The leverage ratios achieved by the ANHI projects are significant, 6.1 and 7.6 respectively for Taza and Larache. The ratio is lowest for Oued Fez due to the high cost of land acquisition, yielding an overall ratio of 5.6 for the 14 projects included in Phase 1 of the ANHI program.

### 1.5.2 Employment Generation

The investment in urban infrastructure supported by the programs has resulted in a 20% increase in the economically active population, and a 20% to 40% increase in household income in Tetouan. Of the activities currently operating on the Dersa site, 64% were established after the start of the project and the rate of development has tended to accelerate. Furthermore, 80% are newly established enterprises and the majority (75%) are food related stores located on the ground floor of buildings. Business owners report net receipts of Dh 1,000 to 1,500/month and rentals added Dh 250 to Dh 300 to the incomes of property owners. These micro businesses have generated, on the average, 1.5 jobs/business.

Despite having to pay for plot charges and finance the construction of their dwellings, 40% of the households in the ANHI projects experienced an improvement in their income. This is particularly striking in Larache where 34% of the former bidonville residents report an increase of 30% in the number of wage earners and a rise in income of over Dh 1,000/month, despite restrictions on the development of commercial activities which deprive 50% of the beneficiaries from the ability to supplement their income from commercial premises within their house. Over 40% of beneficiaries in Larache would take advantage of this opportunity.

In Tetouan, existing settlements on the site will tend to spark private investment in anticipation of servicing as is already happening. In ANHI projects the establishment of economic activities on the site will be slow as it will tend to follow the build up of population in the project sites.

Over the 1990-2004 period, ANHI Phase I projects would generate close to 30,000 man-years of work and Tetouan over 40,000, the bulk of which would be in the Dersa-Semsa and ZAC areas. The employment generated will have a ratio of 2:3 between skilled and unskilled workers and if current patterns continue to prevail, 70% to 90% of construction workers will be residents of the locality.

### 1.5.3 Benefits to the Moroccan Economy

The NPV is positive for all components at a discount rate reflecting a real interest rate of 4.5%. The EIRR is above 10% for all components except the serviced sites project in Tetouan where it is 9%, the estimated lower limit for the real social cost of capital for urban projects of this nature. Corresponding nominal rates would be 18% to 20%.

The sensitivity analysis shows remarkable robustness to changes in costs. Net benefits would be significantly reduced if the pace of development in the ANHI projects is slower than

projected and in the event of further delays in the implementation of public works in Tetouan. In particular the performance of the ZAC would be eroded by the loss of its land to unplanned sprawl. The overall performance of the Tetouan program will depend on the share of major sewerage works allocated to each component, and the proportion of private investment attributed to program activities in Dersa-Semsa and the ZAC.

## 1.6 Recommendations for Ongoing and Future Program Activities

Building upon their impressive achievements to date, the ongoing programs must overcome the new challenges to be faced in the coming 4 to 5 years (1992-1997). In Tetouan, the challenge currently faced arise from the high cost of servicing Dersa, the difficulties encountered in regularizing land tenure, the inability of the municipality to fully recover upgrading costs and delays in the completion of off-site improvements and the ZAC's infrastructure. For ANHI, the challenges are to increase economic performance in the face of rising land values and the depletion of public land reserves as well as finding formal credit at terms suited to the special needs of small scale private developers and individual homeowners.

The interlinkages between administrative, financial and technical matters in program management should be clarified. The council needs to gain a better understanding of the impact of political decisions on program performance particularly as they affect the ZAC and the upgrading areas. On their part, the technical agencies have to learn to interact with the residents in the project areas and mobilize their energies to sustain popular confidence in the program in the face of delays.

Carefully located program activities can become very effective mechanisms to guide urban growth and structure development. Public officials at the central and local levels are enthusiastic about the ZAC concept which they view as a dynamic and flexible new mechanism, easily adapted to local conditions. They are looking to the Tetouan ZAC to provide them with a workable model for public/private partnership in urban development.

ANHI should place high priority on working with responsible agencies to amend the framework for urban land development which constrains the agency's performance and depresses returns on public investments in urban infrastructure. The urban development bill presented to parliament in July 1991 constitutes an important step in establishing the enabling framework which USAID wants to promote.

In meeting the conditions of the USAID program, ANHI can demonstrate the impact that efficiency in land utilization can have on the sustainability of increased production of affordable building plots as well as the contribution that flexible development standards can make to the poorer segments of the population in helping them develop through self reliance.

The ANHI program offers unique opportunities to demonstrate alternative approaches which can shape future land policy. In structuring new projects ANHI should not loose sight of the longer term policy impacts of its activities.

The prevailing characteristics and dynamics of urban land markets are working to reinforce trends toward more complex program structures, integrating mutually supportive elements. For ANHI, financial considerations will make it necessary that projects meeting the USAID criteria be combined with revenue generating activities which can contribute to cross subsidization. Municipalities seeking to replicate, albeit at a more manageable scale, the Tetouan experience will find it necessary to develop program frameworks incorporating private development of land to support the delivery of land and services to lower income groups.

Quite apart from their organizational complexity, a common feature shared by these integrative program structures is the intricate financial linkages among program components. Cost overruns or delays in any one component affect the financial soundness and economic performance of the whole program. Linking between financial analysis and economic analysis will ensure that cash flow is related to the flow of benefits. Sensitive project components affecting program performance should not be contingent on land regularization because of the legal and technical difficulties involved in setting a time frame for the process.

Technical assistance should continue to be directed at building up ANHI's technical and managerial capabilities. A special emphasis should be placed on the management of program structures integrating the activities of public and private sectors and on the design of financial packages linking and coordinating their respective investments.

Technical assistance should continue to help participating municipalities build up their institutional capacity to become more self-reliant and better manage public investment and land development within their administrative boundaries. Assistance should also be provided to promote public participation and the mobilization of community energies and resources in the project areas.

The formulation of new program activities should be based on a realistic assessment of the actual degree of central control over local authority in decision making. Decentralization and empowerment are slow processes that mandate the reformulation of institutional linkages and procedures. Future USAID shelter sector activities in Morocco should continue and expand the program's focus on institution building. It is the best guarantee of success in the achievement of USAID objectives, the constructiveness of its policy dialogue and the continuity of its program's impacts. Promoting public actions conducive to reinforcing decentralization policies and strengthening local managerial capabilities can be the most significant and lasting contribution made by the program.

# 2.0 PROGRAM OBJECTIVES AND PRIORITIES

## 2.1 Background[1]

The ongoing USAID shelter sector activities were first conceptualized in 1985 within a context of accelerating urbanization and massive rural urban migration sustained by the youth of the population and its high rate of natural increase. The urban population, growing at an annual rate of 4% to 5%, reached 11.7 million in 1990, roughly equivalent to Morocco's total population of 11.6 million in 1960. The bulk of this growth is concentrated in 14 cities.

The incapacity of the economy to absorb new entrants in the labor force led to rising unemployment and a growing expatriate work force. Since 1983, when structural adjustment programs were adopted, unemployment has been increasing at a rate of 4.2%. The devaluation of the currency and the progressive elimination of subsidies have led to sharp increases in the prices of food, housing and transport. The cost of living index is rising at an accelerated rate: 3.1% in 1989, 6.7% in 1990 and 10.2% in 1991. Inflation has picked up again and is estimated to be around 11%. To alleviate hardships on the poor, minimum wage levels were raised by 10% in 1990 and 15% in 1992.

However, 70% of the urban labor force is unskilled and half earn less than the minimum wage. In the construction sector, the largest employer of unskilled laborers, wages have been purposefully kept low to balance the increase in the price of materials. There is little doubt that unemployment is still rising. Unofficial estimates place the current rate at around 30%, approximately twice the official figure for 1989. The European labor market which had absorbed an increasing number of Moroccans from 1970 to 1985 is depressed and many expatriate workers are facing the prospect of imminent layoff.

Lagging infrastructure, escalating land values and shrinking affordability relegated limited income households to squatter settlements and peripheral under-serviced sprawl. In serviced areas, existing systems are obsolete and saturated and suffer badly from a lack of maintenance. Despite overextended networks, only 25% of urban households had adequate sanitation in 1989.

The situation in Tetouan was critical. Despite its location in a growth corridor, the city reported the second highest loss factor in the water supply system and a highly inadequate wastewater disposal system consisting of a combined sewerage and storm drainage network discharging untreated wastewater in Oued Martil.

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[1] This background information is based on statistics published by the Direction de la Statistique including recent information reported in "Etude de Conjoncture" and documentation provided by DGCL listed in the references

In the process of adjusting to administrative decentralization, the institutional framework for urban management suffered from overlapping functions and imbalances between responsibilities and means. Despite decentralization, local communities still rely on central transfers to cover 42% of their expenditures. The central government finances close to half the cost of infrastructure (13% directly through central agencies and 35% indirectly through grants to municipalities).

The expansion of local authority in matters of urban development did not benefit from technical assistance or adjustments in legal mechanisms and financial means to enable them to plan and manage growth. Policies affecting the delivery of buildable land and the management of infrastructure became increasingly unsustainable as the burden of the subsidies mounted and public expenditures were curtailed as a result of structural adjustment.

Formal private sector involvement has been limited to villas and lucrative investment in apartment buildings while public sector production could not meet the needs of limited income households. The creation of ANHI in 1984 and SNEC in 1987 reinvigorated the production of low priced serviced lots which when fully developed provide housing for 1.5 to 2.5 households per lot. Total production in the 1985-1990 period reached 234,000 lots, a record level but still far short of demand, let alone need.

High land development standards, applicable even to subdivisions intended for lower income groups, resulted in costly layouts and wasteful land consumption patterns. Despite the creation of ANHI, land delivery could not be expanded further under prevailing policies and funding levels. The depletion of state land reserves deprived the public agencies of their traditional source of low cost land. The rapid increase in land values, sustained by the infusion of local capital and expatriate remittances into real estate, has pushed private land prices to prohibitively high levels.

Despite the growth of informal settlements and the concomitant decline in bidonvilles, living conditions in modest residential zones have deteriorated due to the mounting pressure on the existing stock of low cost housing and its densification.

Lack of resources, legal weakness and cumbersome approval procedures have limited the usefulness of existing instruments to manage urban growth. Tetouan's Urban Devlopment Master Plan took 5 years to complete and was obsolete by the time it was completed in 1985. Few of its recommended action plans were implemented. A dynamic provincial capital like Taza cannot plan its growth with reference to a static obsolete document dating back to the early 1980s and Larache has no approved plans yet.

It is clear that policies have to be changed. The remedial and managerial capabilities of local communities have to be built up if they are to assume and adequately discharge the responsibilities devolved to them under decentralization. New mechanisms and new sources of

revenue have to be found. Most importantly a dynamic private sector needs to be integrated in the framework for management of urban development and the production of housing for low income families.

## 2.2 Priority Area for Program Involvement

The urban programs initiated by USAID seek to improve the living conditions of lower income groups, promote their economic development and arrest the degradation of the urban environment. To achieve these objectives, the programs focus on four priority areas.

**Rationalizing the Land Delivery System and Regularizing Informal Land Development**

This is achieved by:

a) Increasing the production of affordable housing and building lots for lower income groups;

b) Creating mechanisms for the sustained production of serviced sites; and

c) Establishing a framework for the regularization of informal land development to help contain the spread of wasteful and environmentally unsound urbanization.

**Institutionalizing Sound Administrative and Fiscal Practices in Infrastructure Management and Finance, and the Delivery of Urban Services**

This is achieved by:

a) Increasing the financial leverage achieved by investment of public resources at the national and local levels (ANHI and Tetouan Municipality);

b) Promoting efficient and sustainable public investment strategies; and

c) Improving cost recovery mechanisms.

**Widening the Scope of Private Participation in the Shelter Sector By Increasing the Production of Affordable Building Plots and Expanding the Role of Private Developers of Low Cost Housing**

This is achieved by:

a) Mobilizing private domestic savings and expatriate remittances for investment in housing and economic activities;

b) Inducing private developers to participate in the financing of infrastructure to urbanize new zones; and

c) Providing a framework for the integration of private initiatives as a key component of shelter sector policy.

**Reinforcing Decentralization By Strengthening Local Managerial Capabilities and Enhancing Local Revenue Generation Potential**

This is achieved by:

a) Strengthening decentralized structures of governance and supporting participatory processes and elected decision-making bodies;

b) Developing local institutions and human resources supported by technical assistance;

c) Building up the ability of municipalities to undertake infrastructure investments, direct urbanization processes and shape the pattern of urban growth;

d) Broadening the tax base and improving tax collection at the local level (Tetouan Municipality); and

e) Contributing to employment generation and supporting the development of private economic activities, formal and informal.

## 2.3 Internal Consistency

Despite the diversity of activities, internal coherence is demonstrated by the convergence of strategic objectives and achievements under the following major themes reflecting current agency priorities:

a) Promote changes in institutional policies conducive to creating an enabling environment for expanded private sector participation in the shelter sector.

b) Demonstrate means of actively promoting private sector activities, formal and informal.

c) Increase production of affordable housing and access to land for low income groups.

d) Contribute to improved living conditions of low income groups.

e) Support democratic institutions and public participation in governance.

Program components organized in accordance with evaluation criteria, selected to reflect Agency priorities and the program's own strategic objectives, are listed in Table 2-1. Qualitative and quantitative assessments demonstrate the extent to which stated program objectives are being met while taking into account the initiation of the programs in 1986. The review also highlights the program's contribution to Agency objectives and the significance of its current and potential impacts, in order to facilitate the monitoring of indicators documenting systemic change.

## Table 2-1 Impact Categories

| - Program components | - Management of urban infrastructure investment | - Improved awareness among different actors | - Housing credit policies for limited income groups | - Finance and management of sanitation services | - Private sector participation in land development process | - Demonstration aspects for other urban agencies | - Other impacts |
|---|---|---|---|---|---|---|---|
| - Upgrading | - Regularize and expand the real estate tax base<br>- Organization and implementation of complex projects | - Relating charges to benefits received<br>- Improving liveability of housing<br>- Increase in real estate values | - Means of overcoming legal bottlenecks and the inadequacies of existing instruments | - Increase in real estate values and expansion of local revenue collection | - Improvement of housing stock<br>- Recovery of infrastructure costs | - Indirectly through the Directorate of Local Communities<br>- Limitating imposed by magnitude of funds involved | |
| - Serviced Sites | - Cost recovery<br>- Cross subsidy<br>- Elimination of subdization | - Visibility and quality of product<br>- Benefits of legal development | - Negotiations by the municipality to reach more flexible terms for access to credit within project area | - Integration of land developmentprocess in local community finances | - Expansion of housing stock<br>- Recovery of on-site infrastructure costs | - Integration of different projects within a balanced and financially sound framework<br>- New approaches relevant to the ERAC agencies | - Procedure to promote the development of land plots |
| - Public/private partnership zone (ZAC) | - Distribution of investments and charges | - Highlighting comparative costs and risks of land development | - Defining procedures for the financial organization of complex programs | - Finance to buyers through the various developers | - Public private partnership integrating the current occupants of the site | - Issues of particular interest to central administrations Housing, Urbanism, Local communities | |
| - Off-site works | - Methods of financing and cost recovery<br>- Rationalizing access to FEC credit | - Immediate benefit to municipality and long term benefit to local development | | - Integration of off-site infrastructure in urban development project<br>- Redefining the geographic level for cost recovery | - Financing exacted from land developers in the serviced sector | - Increased awareness of FEC<br>- Change in approach of concern to municipalities | |
| - Technical Assistance<br>- Tetouan Municipality<br>- ANHI | - Control of management of urban development<br>- Improvement of financial management capability<br>- Building up technical capabilities<br>- Building up institutional capacity | - Formulation of new approaches<br>- Support to changes in direction | | | - Formulation, design, and packaging of integrated projects | - Building up capacity to replicate pilot programs and manage decentralized implementation | |

## 3.0 REVIEW METHODOLOGY

This review differs from conventional ex post facto evaluations in that USAID shelter sector activities in Morocco are ongoing and their full impacts are not yet realized. The review is structured to reflect the dynamics of the overall program as well as its different components. Quantitative and qualitative indicators are developed to assess:

- The extent to which program activities are meeting their stated objectives by documenting achievements to date, identifying constraints on performance and projecting the expected outcome upon reaching full maturity.

- The extent to which program activities contribute to Agency objectives and priorities.

### 3.1 Qualitative Assessment

The qualitative assessments trace the impact of policy dialogue activities to document movement toward the desired policy objectives. Indicators of achievement listed in order of significance are the following:

a) Enactment of legislation indicative of policy shift.

b) Improvements in administrative practices at the central and local level.

c) Changes in institutional organization or modes of operation directly and indirectly prompted by specific program components.

d) Sharpened perceptions and understanding of sector issues.

e) Expressed willingness to address complex and sensitive problem areas impeding progress toward stated objectives.

The institutional impact assessment was undertaken by Mona Serageldin based on the evolution of program activities documented by Driss Benjelloun. His report, entitled "Conception et evolution des programmes d'habitat de l'USAID du Maroc" is summarized in Section 4.0. The assessment drew extensively on interviews with officials in concerned central administrations, Tetouan province and municipality, and program officers from specialized agencies (FEC, ANHI, USAID). The interviews were carried out by Mona Serageldin and Driss Benjelloun in January 1992. They have provided critical inputs in the assessment of institutional impacts and achievements in the ongoing policy dialogue.

## 3.2 Quantitative Assessment

The economic impact assessment was undertaken by Mona Serageldin. The methodology developed to measure the quantitative impacts of ongoing project activities takes into consideration the period of time needed for them to reach their full development potential. Based on the experience of previous projects in Morocco, 8 to 10 years are needed for a new development to reach full maturity.

Performance to date is documented through field surveys carried out in November-December 1991 at three different locations: the ANHI projects at Taza and Larache and the upgraded areas of Dersa in Tetouan by F. Navez Bouchanine. Her report, entitled "Evaluation socio economique des programmes de recasement et restructuration" is an integral component of the review. A summary of the findings is given in Annex 3. Data obtained from these detailed surveys is used to derive parameters for use in the quantification of indicators to measure the economic impacts of the programs and their performance in terms of returns on the resources allocated to current activities.

Alternative development scenarios are derived from the actual experience of project activities which have matured sufficiently for their impacts to be evident and measurable. Future impacts of ongoing activities are projected by applying parameters derived from field surveys to prospective development scenarios. A computer model developed by the Unit for Housing and Urbanization at Harvard University Graduate School of Design was used in this analysis.

Quantifiable indicators of achievement are the following:

a) Employment generation by public works and buildings, construction, support services and building materials production, and tertiary sector activities.

b) Private investment in buildings and micro-enterprises.

c) Leverage ratio.

d) Economic rate of return and net present value of project activities.

e) Municipal tax revenue growth.

f) Affordability and production of serviced plots.

Preparatory work undertaken in support of the review consisted of two studies to provide pertinent background information at the macro and micro level. The first, entitled "Analyse du secteur de l'habitat au Maroc 1980-1991" was undertaken by A. Lehzam. The study documented the performance of the shelter sector over the past decade focusing on the 1985-

1991 period. It identified changes which have affected the sector and traced the nature of public and private investments in housing and the apportionment of public investments between the central and local levels. The second study, entitled "Les projects d'habitat financés par l'USAID et la proliferation des activitiés informelles" was undertaken by M. Salahedine. It investigated the nature of informal activities which typically develop in conjunction with urban projects.

The research activities undertaken as part of the review have focused on the economic and institutional impacts of program activities that are less well documented than their physical and social impacts.

## 4.0 INCEPTION AND DEVELOPMENT OF PROGRAM ACTIVITIES

This section summarizes the information contained in the report prepared by Mr. Driss Benjelloun on the inception and development of USAID's urban shelter sector program in Morocco. The detailed report is presented in a separate volume entitled "Evaluation des Programmes d'Habitat de U.S.A.I.D. au Maroc: Conception et Evolution des Programmes".

### 4.1 Initial Objectives

Unlike previous housing interventions that were targeted specifically toward rehousing bidonvilles residents, sites and services projects, and the construction of social housing, current programs assisted by USAID are an integral part of policies promoting the decentralization of administrative responsibilities in the delivery of public services. Intervention is aimed at larger informal housing sites lacking public services and community facilities, and their improvement is based upon an active participation of both local authorities and the private sector. Specific objectives incorporated in the project paper were the following:

a) Support the government's policy to address the proliferation of under-serviced informal housing development.

b) Increase the supply of serviced lots and dwellings that are affordable to limited income households.

c) Assist the environmental protection initiatives of local governments.

d) Develop institutional structures capable of replicating the program's approach.

e) Assist the government and its agencies in their effort to increase private sector participation in the production of serviced sites and housing.

f) Assist the government in its effort to improve the ability of local governments to construct economically, manage urban infrastructure and recover costs.

g) Institute efficient and equitable property registration mechanisms to regularize tenure in informal settlements.

The initial translation of these objectives into an operational framework focused on an institutional restructuring of various public and semi-public agencies in Tetouan in order to manage efficiently the financing of a complex project and avoid unnecessary administrative delays and conflicts. Each agency was assigned a well defined role:

a) The Tetouan Municipality was given overall responsibility for the project which included capital investment, cost recovery, and operation and maintenance of the new infrastructure. Program funds are channeled through the Municipal Investment Bank (FEC). Infrastructure construction responsibilities are shared between the municipality and the Water and Electrical Company (RDE) which is responsible for the construction of on- and off-site water and electrical networks.

b) The FEC acts as the fiduciary agent between the USAID Housing Guaranty Program and the municipality and is responsible for the overall financial management of the loan.

c) As a result of its expertise, ANHI acts as the project's planner, coordinator and technical manager.

Coordination between these four agencies and other ministries and agencies is assured by the Ministry of the Interior's Directorate of Local Governments (DGCL) at the national level and by the provincial governor at the local level. The USAID/Rabat Housing and Development Office is responsible for monitoring the flow of private American funds guaranteed by AID and the progress of program implementation. The financial structure of the Tetouan program is outlined in Figure 4-1.

## 4.2 Development of HG-001 (Tetouan)

### 4.2.1 Project Description

The project is comprised of the following 4 major components to be carried out over 5 years:

a) The upgrading of 7,500 lots occupied by 9,500 households on 140 hectares in Dersa and Semsa I.

b) The development of a 240 hectare public/private partnership development zone (ZAC).

c) The development by the municipality of 60 hectares of serviced lots to be sold to limited income households to cross-subsidize the upgrading component and forestall further informal development in the area.

d) The construction of off-site infrastructure.

b) **Financing** - Three types of constraints could affect project financing if they do arise.

(1) Delays in generating sufficient funds in a timely manner from the project's cross-subsidy component, which is currently the main source of prefinancing.

(2) The inability of the Municipality to recover rising costs in the upgrading area.

(3) The capacity of the Tetouan Municipality to borrow the funds necessary to complete the off-site public improvements and the ZAC's infrastructure.

Any convergence of these constraints may jeopardize a project cash flow that has become dependent on cross-subsidy funds (44.5% of programmed expenses) as well as on FEC loans (36%) and Municipal transfers (12%). Neither funds recovered from upgrading activities nor by the ZAC have so far contributed significantly to the project budget. It should be noted also that the Municipal contribution has risen by some 27% over its original share while the USAID housing loan guarantee has remained stable. The delay of off-site infrastructure implies that supplementary funds will be required to complete the project since it is highly unlikely that the Municipality's borrowing capacity could cover the additional funds needed.

c) **Cost Recovery** - While no problems are anticipated in the serviced sites zone, cost recovery in the upgrading component is another matter altogether. This is troublesome insofar as upgrading accounts for more than half of project construction costs and most of its financing costs, while the bulk of cross-subsidies have been utilized to finance carrying charges. As a result, the average contribution of individual households in the upgrading sites will have to increase from the 1988 estimate of Dh 16,850 to at least Dh 28,850. It is most unlikely that this amount could ever be collected.

## 4.3 Development of HG-003 (ANHI)

### 4.3.1 Objectives and Approach

The inability of the private sector to provide a sufficient number of serviced lots at a cost affordable to moderate income households has been one of the major bottlenecks of the housing sector. In addition to its slum clearance mandate ANHI, since its creation in 1984, has been involved in the development of affordable serviced lots by identifying sites, mobilizing the resources of beneficiaries, providing for cross subsidization through cost recovery and coordinating and supervising the necessary technical studies. Nearly 60 projects are in various stages of completion, amounting to an investment of $206 million for 54,000 low cost serviced lots. The majority of these lots are designated for the relocation of households formerly living in bidonvilles. In order to lessen the program's reliance on central budget allocations and shorten project implementation time, ANHI needs to expand its resource generation potential and reduce its costs by accelerating the production of market rate subdivisions and increasing

the affordability of its serviced lots to limited income groups. In order to do so, the institutional, financial and technical capabilities of the agency need to be strengthened. It is expected that the HG-003 program initiated in 1990 will:

a) Increase the production of serviced lots affordable to households whose income is below the median.

b) Increase the participation of the private sector in the production of legal subdivisions and low cost housing.

c) Reinforce the financial and managerial capabilities of ANHI in order to consolidate its catalytic role in the production of serviced lots.

To boost the agency's financial resources, USAID first provided a $10 million housing guarantee loan to be utilized directly by ANHI in the annual production of an estimated 2,500 serviced lots, 75% of which are to be allocated to below median income households. ANHI's rehousing activities are specifically excluded from the program. An $800,000 grant was provided for technical assistance and training to improve staff qualifications and managerial techniques and finance the technical studies necessary to carry out its expanded responsibilities.

### 4.3.2 Project Description

Funding for technical studies and construction was to be made available following the joint selection of project areas by ANHI and USAID/Morocco. Sites to be purchased and improved by ANHI were to cover 60 hectares for 2,500 lots with an average area plot of 90 m². The intent is to encourage ANHI to increase density in its projects by raising the ratio of saleable land to total land to 50% from the 40% to 45% presently used. This is to be achieved by decreasing the percentage of larger single-family lots and the area allocated to circulation and public uses, and favoring the construction of multi-family structures.

The award of a clear land title would permit the beneficiaries to apply for credit financing. The purchase of lots would also make them eligible for ANHI's technical assistance during construction. Project implementation was expected to start immediately. A 3-year launching phase was programmed to complete the construction of infrastructure works and the first batch of lots were to be delivered in year four.

Even though initial construction is expected to take place on sites already owned by ANHI, the agency has been assigned the responsibility to acquire the land necessary for future projects. In order to do so, ANHI will establish land sale prices at a level sufficient to sustain an on-going acquisition program in the face of high rates of appreciation in land values while

still ensuring the affordability of serviced lots to the target population. In addition, ANHI has agreed to:

a) Undertake one or more pilot projects to integrate the private sector in its operations by selling serviced tracts of land to local developers willing to subdivide it into affordable housing lots.

b) Sponsor projects in conjunction with municipalities and private land owners who would contribute land to be serviced by ANHI.

c) Assist the purchaser of a serviced lot to obtain housing credit financing by providing the necessary land titles and modulating development standards to satisfy the norms used by financing institutions.

d) Review current development and housing construction standards and undertake the necessary technical studies to minimize the production cost of serviced land and maintain its affordability to the target population. To this end, ANHI will formulate cooperative relationships with other government and specialized agencies involved in land and housing development.

Housing guarantee loan funds are channeled to ANHI directly by the Ministry of Finance. Disbursements are tied to the fulfillment of production targets. Cash calls are approved by USAID and fund deposited by MOF in ANHI's account. In order to ensure steady cash flow and maximize cost recovery, ANHI required project beneficiaries to settle the sale price in three installments.

a) A down payment of 40% of the purchase price at the start of site improvement work.

b) A second payment of 30% upon completion of 50% of public works, 12 months later.

c) A final payment of 30% at the time title to the plot is transferred to the beneficiary.

Cross subsidization is ensured by limiting serviced lots to 75% of the net useable land area and allocating another 15% to commercial and mixed uses, sold at the going market rate. The remaining 10% of the land is reserved for community facilities.

### 4.3.3 Status of Current Activities

ANHI's activities have expanded rapidly since the finalization of the HG-003 Project Paper in late 1987. By late 1991:

a) The number of projects in various phases of implementation had grown to 59 from 47 in late 1987.

b) A dwindling proportion, currently standing at 10% of these projects deal exclusively with bidonvilles, while 90% consist of serviced subdivisions which include a relocation component.

c) The average number of lots being improved has risen from 5,700 in 1986-87 to nearly 10,000 in 1989-91.

d) The total value of ANHI investments rose from MDh 1,750 in late 1987 to MDh 3,500 in late 1991.

e) While ANHI had only been directly responsible for two projects in late 1987, it is now in charge of 20 projects. This number is rising due to the depletion of public land reserves and the curtailment of land acquisition by MOH as a result of growing budgetary difficulties.

It is clear that ANHI has been able to increase it activities dramatically as well as redirect them from the rehousing of bidonvilles residents to the production of a significant number of serviced sites. Given that, in 1990 alone, it was able to deliver 5,130 lots as opposed to the 15,540 lots it had produced from 1984 to 1989, it was apparent that the agency would not encounter difficulties in fulfilling the production quota prescribed by HG-003.

Given the growing demand for serviced lots and ANHI's demonstrated ability to undertake upgrading and serviced sites projects, the terms of HG-003 were modified in April 1991 raising the total credit provided under the program to $20 million and $1.3 million for the grant. Annual production quotas were raised to 4000 serviced lots on 100 hectares of improved land.

### 4.3.4 Scope of Projected Activities

ANHI proposes to add seven new projects to its current pipeline in Meknes, Al Jadida, Azrou, Agadir, Oujda, Temara and Tangiers. Totaling 317 hectares to be developed in 5 years, they will provide 3,218 low cost building plots, and 7,264 affordable plots. The estimated cost is on the order of $94.8 million, of which 35% is allocated to land acquisition and the regularization of titles, 7% to technical studies, 50% to site improvements including the delineation of lots, and 8% to management and other overhead costs.

With site improvement costs varying between Dh 458 and Dh 586 per square meter, the average net sale price of serviced land, based on the agreed upon cross subsidy formula, will range as follows: Dh 234 for low cost housing, Dh 708 for affordable housing, Dh 1,069 for apartment buildings, and Dh 1,223 for commercial lots. Land sales are expected to yield a total of MDh 951 against anticipated project costs of MDh 759. Building on experience acquired in Tetouan, ANHI is expected to increase its direct responsibilities as project manager while strengthening its collaboration with municipalities.

## 4.4 Technical Assistance and Training

### 4.4.1 Tetouan Urban Development Program

The technical assistance grant (608-0194) of $800,000 provided by USAID, supplemented by an estimated "in-kind" contribution of $267,000 by the Moroccan government, is intended to:

a) Improve the technical capacities of the public agencies participating in HG-001, particularly the Tetouan Municipality as executing agency.

b) Address actual or potential bottlenecks in the program's implementation.

c) Enable the replication of the Tetouan project experience by both central and local government agencies.

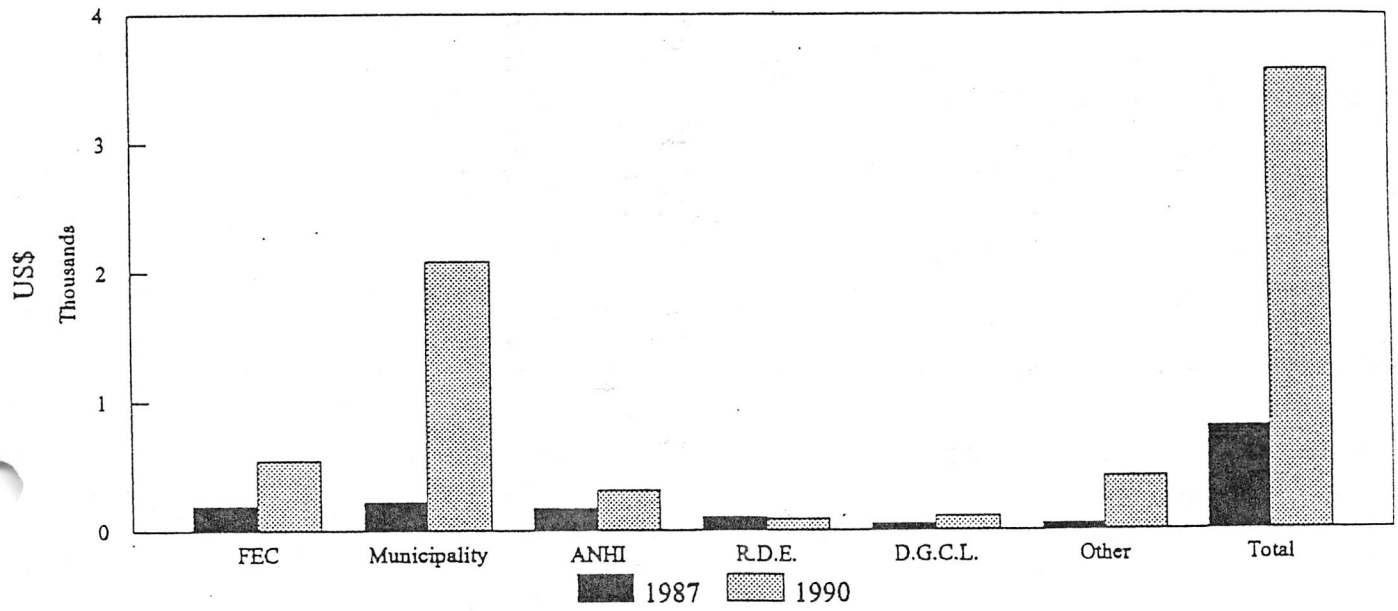
A combination of technical assistance, training and technology transfers was to improve urban management practices and create institutional frameworks to further the implementation of recently adopted policy reforms aimed at mobilizing private sector funds for urban development, increasing local revenues, decentralizing budgetary procedures, and improving coordination among public agencies responsible for urban projects. All agencies participating in HG-001 are eligible for technical assistance: Tetouan Municipality, ANHI, RDE, FEC, and DGCL.

The technical assistance component was focussed on institutional and financial management, land registration, local taxation, budgetary procedures, and cost recovery for municipal services. Local and american experts engaged in technical assistance contracts were expected to train their public sector counterparts. In addition, USAID environmental assessment procedures were to be included in the sewage collection and treatment component of the Tetouan project.

Training programs were intended to: introduce microcomputer technology in the normal activities of the Municipality, ANHI, RDE, FEC, and DGCL; provide in country training to municipal and RDE staff. Equipment to be provided to the Municipality, ANHI, DGCL, FEC and, at a later stage, RDE includes microcomputers and software: spreadsheets, word processors, geographic information systems and data base management systems.

Given the obvious need for technical assistance and training, the grant has been progressively increased to $3,564,000 of which 59% went to Tetouan Municipality, 15% to FEC, 9% to ANHI, 3% to DGCL, 2% to RDE and 12% to various other agencies (Figure 4.4). In July 1992 it was raised to $5,240,000.

Figure 4-4
Allocation of Technical Assistance Among Participating Agencies
(608-0194)




Source D. Benjelloun, "Evaluation des programmes de USAID au Maroc", p.51

Over $2.0 million of grants monies have been allocated to the Municipality of which slightly over 50% were spent on technical assistance and training, 9% on equipment, and 41% on environmental impact studies. The principal expenditures were:

a) A major feasibility study of the ZAC undertaken jointly by PADCO and moroccan counterparts, including a financial analysis.

b) Consultant studies ranging from short term investigations to more ambitious efforts to improve urban management procedures, including the reorganization of institutional structures undertaken jointly by R.T.I. and Moroccan counterparts.

c) The rationalization of long term cost recovery, based on a computerized data base and billing system. A GIS land management system (hardware and software) has been purchased and training should start in 1992.

d) The development of computerized data base management systems to enhance municipal revenues by improving the collection of taxes, improve the efficiency of local budgetary procedures, and institute capital programming and budgeting.

e) The organization of a regional seminar on financial analysis for municipal officials.

In addition, several issues pertaining to environmental quality were investigated, including the management of municipal waste water and the privatization of refuse collection.

### 4.4.2 ANHI Program

A technical assistance grant (608-0200) of $1.3 million provided by USAID is intended to strengthen ANHI's technical capacities to allow it to discharge the increased responsibilities it has to assume under the HG-003 program.

a) **Computerization Program** - Local and American consultants have been engaged to assist ANHI in the computerization of its activities. In the short-term, equipment and software is being acquired to address pressing needs; it is intended that the bulk of ANHI's data requirements and planning and management activities will be computerized in the longer-term.

b) **Project Planning and Management** - The acquisition of a computerized system (hardware and software) will permit ANHI to concurrently plan and manage the increased project load that it is being called upon to undertake.

c) **Financial Management** - Specialized software is to be provided to permit the computerization of general accounting tasks and financial planning and monitoring of projects, including the billing of recoverable components.

In addition, starting in 1992, the newly created ANHI Studies and Communications Center will receive the assistance necessary to undertake a series of specific studies that will help the agency fulfill its expanded mandate. The following topics have already been identified:

a) **Development Standards** - Scheduled for 1992-93, this study will evaluate and revise, as necessary, the development and construction standards used in both upgrading and serviced sites projects in order to lower production costs while maintaining the quality of the built environment.

b) **Public/Private Sector Collaboration** - In accordance with one of the program's key objectives, ANHI will explore ways to increase the participation of private developers, particularly smaller firms, in its activities. Seminars and workshops will bring together public sector professionals and members of the Moroccan Association of Real Estate Developers to review local and foreign experiences and initiate a creative dialogue.

c) **Housing Financing** - Current financial mechanisms accessible to moderate income households will be evaluated and means will be identified to increase the pool of credit available to this target group.

d) **Under-Serviced Housing** - The systematic documentation of the socioeconomic characteristics and living conditions of limited income families living in under-serviced housing will allow ANHI to better formulate policies that will address their needs. To be launched in 1992, this study will initiate the creation of a data base to be used by the soon to be created ANHI Urban Observatory.

e) **Inventory of Buildable Sites** - Procedures will be established to accumulate a data base, targeted toward selected cities, that will provide information on the quantity, location and price of land suitable for ANHI projects.

f) **Self-Built Housing** - A review of the housing construction process adopted by beneficiaries of ANHI projects is expected to identify means by which the participation of small scale developers and builders can be encouraged.

g) **Impact of Projects on Local Development** - A series of studies of both direct and indirect impacts of ANHI projects in the municipalities in which they are located will permit the coordination of public investment programs to better respond to the needs of privately financed development induced by public programs.

Finally, annual round tables were initiated in November 1991 to bring together public officials responsible for urban development and housing. Three themes were selected for discussion: preventing of the growth of under-serviced settlements; financing upgrading and housing projects; and, improving collaboration between the public and private sectors in the production of affordable housing.

# 5.0 INSTITUTIONAL IMPACT

This section synthesizes the analysis of factual information, field documentation, and comments made by public officials to present a focused discussion of the program's Institutional Impact.

The interviews were carried out by Mona Serageldin and Driss Benjelloun in January 1992. Without exception, the officials gave generously of their time. Their attitudes reflected a wide appreciation of the program's accomplishment to date and an optimistic view of prospective achievements. They offered thoughtful comments, and valuable insights; constructive suggestions and proposals regarding potential complementary activities. Any reservations expressed about an aspect of the program were presented in a spirit of cooperation with a clear intent of raising issues of concern that need to be looked into in order to counteract potentially adverse impacts. Constraints on program implementation were discussed and constructive suggestions made to overcome current bottlenecks.

## 5.1 The Tetouan Urban Development Program

### 5.1.1 Program Structure

The Tetouan Urban Development program was designed along guidelines developed in the late 70's and early 80's emphasizing an integrated rather than a sectoral approach to urban issues. It followed on the experiences and mixed results of an earlier generation of World Bank sponsored projects in Rabat, Meknes and Kenitra. It shares similarities in design with these projects but diverges from them in its approach to implementation.

The program is characterized by an ambitious scale of intervention, an integrated investment strategy, a city wide framework for project management and an important institutional development objective affecting the different agencies involved in urban development. It represents a marked shift in the government's housing practices and is helping to reorient national policy to focus on land and infrastructure as the bottlenecks constraining the performance of the shelter sector.

The officials interviewed view the program as a pilot demonstrating the viability of innovative approaches to shelter and urban development. Those who view the project as having intended policy objectives are supportive of the directions it is seeking to reinforce. With few exceptions, reservations voiced are not directed at program activities and achievements. Rather they point to an unfulfilled potential to institute more profound changes by having overlooked opportunities which could have been integrated early on in the program structure.

understand the situation, and do not blame FEC for its insistence on following the rules to the letter. Rather, it is the rigidity of FEC's monitoring style, which runs counter to the custom of debating and resolving issues through informal discussions, that has alienated the program's technical and managerial teams. The technical teams resent what they perceive to be undue interference by FEC in technical matters in which the agency has no expertise. The management teams resent the cumulative delays and accumulating interest charges which contribute to program cost escalation and complicate cost recovery.

Should FEC establish a more congenial working relationship with the field teams and adopt a cooperative stance in its interpretation of its monitoring role, it would go a long way toward eliminating friction. Avoiding unnecessary paperwork and bureaucratic red tape would contribute to accelerating the pace of work progress.

Despite the rigidities inherent in municipal financial management of program activities at this juncture in Morocco's decentralization process, the selection of this option is sound. It reaffirms USAID's priorities and its commitment to the support of decentralized participatory structures of governance. It has opened up opportunities for a constructive policy dialogue with MOI and MOF to address regulatory impediments affecting municipal management of local projects.

## 5.2 ANHI Program

The effectiveness of ANHI as an agency is substantiated by its record since it was first established in 1985. Its primary mandate was not an easy one. The eradication of bidonvilles and the rehousing of their inhabitants on new serviced sites without government subsidies required the agency to structure an approach combining resettlement with land development in order to cross subsidize the target group. The proportion of the Moroccan population living in bidonvilles dropped from 13.7% reported in the 1982 census to 7.8% recorded in the special survey of 1989 to an estimated 6.7% in 1992. In the process, ANHI has acquired experience and developed a capacity to deliver serviced land to individual households and developers. USAID has recognized the potential of this young and dynamic agency, its readiness to adopt innovative concepts and methods, and its capacity to handle an expanded program accelerating land delivery to lower income groups.

HG-003 provides a line of credit in support of ANHI's land development program, but is not tied to specific project locations. Projects can qualify if they meet the program's criteria discussed in Section 4.3.2. This flexible approach avoids the pitfalls which can gridlock a program when difficulties in regularizing titles and completing land transactions can stall project implementation at a selected site.

### 5.2.1 Financial Management

ANHI obtains the HG funds directly from MOF at a fixed rate of 11% and is responsible for the financial management of the loan. MOF assumes the risk of fluctuation in interest rates. Only three agencies are involved in managerial decisions and procedural matters: ANHI, MOH and MOF. The straightforwardness of this organizational framework contrasts with the complexity of the Tetouan Program.

Reliance on central budget allocations which in a prolonged economic recession tend to display unpredictable fluctuations, had inhibited the development of a long term operational strategy. HG funds have replaced state funds as seed capital to launch projects. The terms under which HG loans are granted and the assurance of continuity over a reasonable time horizon have enabled ANHI to develop a pipeline of projects which will progressively boost annual production from 5000 to 15,000 building plots in four phases as shown in Table 5-3. At that rate and with 75% of the production targeted at limited income groups, the Agency would have a significant impact on the land delivery process and could eventually play a role in urban land markets.

The need to cross subsidize serviced sites intended for lower income groups dictated to ANHI an integrated approach to project design and higher land consumption patterns to provide for marketable parcels. The depletion of public land reserves is forcing ANHI to acquire privately owned land at the going market rate which is over 10 times the price of state lands ceded to public agencies on concessionary terms. The dramatic appreciation of land values since the mid 1970's is forcing ANHI to locate projects on the urban periphery which require more expensive off-site infrastructure. Land and off-site infrastructure are precisely the two project components that ANHI has to pre-finance before it can start collecting advances from beneficiaries. ANHI needs to build up working capital that can be recycled to launch new operations. The agency estimates that to sustain annual production at a level of 12,000 to 15,000 plots, it will need MDh 500 to MDh 600.

### 5.2.2 The Impact of the Tetouan Urban Development Program on ANHI

USAID is actively encouraging ANHI to establish working arrangements with municipalities to implement projects on their behalf and provide them with technical assistance. Seven projects with two municipalities have been initiated since 1988. They accounted for 15% of ANHI's program in 1990. ANHI is meeting USAID's decentralization objectives by building up the technical and managerial capabilities needed to enable the agency to establish efficient branch offices. Through the Tetouan Urban Development Program, ANHI has developed a capacity to work with municipal officials, elected councilors and area residents. It can capitalize on the reputation it enjoys among local officials to replicate the cooperative experience with interested municipalities. However, the special rapport that the ANHI team in Tetouan has actually established with the local team and the municipal council goes well beyond the technical assistance agreement spelled out in the program. The ANHI team has

## TABLE 5-3

## ANHI PRODUCTION PHASES

| Project | ANHI | ANHI | ANHI | ANHI |
|---|---|---|---|---|
| Location | Phase I | Phase II | Phase III | Phase IV |
| Area Ha | 187.8 | 87.7 | 420.9 | 107 |
| **Rehousing** | | | | |
| Number of Lots | 2798 | 650 | 4626 | 1100 |
| Area Ha | 22.3 | 4.7 | 36.3 | 9.02 |
| **Low Cost** | | | | |
| Number of Lots | 1573 | 2072 | 7437 | 2800 |
| Area Ha | 17.0 | 22.1 | 87.1 | 31.1 |
| **Commercial Ground Floor** | | | | |
| Number of Lots | 946 | 0 | 0 | 0 |
| Area Ha | 9.8 | 0.0 | 0.0 | 0.0 |
| **Villas** | | | | |
| Number of Lots | 664 | 399 | 1042 | 300 |
| Area Ha | 19.3 | 9.7 | 27.1 | 7.6 |
| **Apartments** | | | | |
| Number of Lots | 129 | 12 | 285 | 120 |
| Area Ha | 4.6 | 0.4 | 10.3 | 4.656 |
| **Commercial** | | | | |
| Number of Lots | 36 | 19 | 116 | 11 |
| Area Ha | 3.1 | 0.5 | 4.4 | 1.2 |
| **Commercial/Industrial Zone** | | | | |
| Number of Lots | 8 | 0 | 361 | 0 |
| Area Ha | 3.9 | 0.0 | 9.0 | 0.0 |

Source: ANHI

learned to handle the process of explaining technical issues to non technicians and gain their confidence. The creation of a counterpart municipal team has dissipated tensions and enabled a cooperative relationship to develop. The newly established local environmental team heralds the implementation of one of USAID's priority objectives. It also demonstrates the smooth functioning of a maturing institutional structure which can widen the scope of its activity through capacity building and without experiencing disruptive tensions and dislocations.

### 5.2.3 The Impact of the ANHI Program

The flexibility of HG-003 will enable ANHI to function smoothly at a scale of operation which can have an impact on urban land markets in secondary cities. By agreeing to refinance seven projects already underway which meet the program's criteria, USAID has effectively pump primed the program by a major injection of funds that ANHI can use as instant working capital instead of having to build it up slowly.

ANHI had been using its central budget allocations as bridge financing to launch the construction of infrastructure and cover the cross subsidy component until the money can be recovered from beneficiary payments and the sale of "market rate" plots. It could not start on a project until adequate prefinancing had been secured from beneficiary advances. Project location in outlying zones led ANHI to hold on to the market rate lots until the development had taken off in order for the appreciation in the value of the land to reach the level needed to cover the cost of servicing the site. The delay in recovering the balance due on committed funds constrained its ability to expand operations. In the face of declining budget allocations it could either cut back on activity or try to dispose prematurely of market rate lots.

With HG loan funds, ANHI can finally initiate a strategic land acquisition program designed to sustain the expansion of its operations. Increasing reliance on the acquisition of land in private ownership will result in a sharp increase in the costs of serviced plots from the current average of 450 Dh/m² to over 700 Dh/m². Cross subsidization of lots allocated to lower income households will have to be maintained. They are currently charged about 50% of the cost. It also implies setting up an efficient land delivery system for middle income groups to prevent politically motivated allocations, speculative escalation of land prices, voluntary turnover and the reemergence of underserviced settlements nearby.

The regulations governing land allocation and disposal in ANHI projects should be reexamined. Subsidized lots are allocated to the low income target group. The allocation of non subsidized parcels follows procedures set in an interministerial directive. The directive is obsolete and should be reconsidered. Under the directive, the parcels are allocated by a local commission to specified population groups (expatriate workers, military personnel, government employees etc.). Sales prices for the different categories of parcels (commercial, villas, apartment buildings, light industry etc.) are set by ANHI in order to balance the project's financial cash flow. The frame of reference is mainly project cost rather than market price of land. Since ANHI has been able to benefit from public land on concessionary terms

the prices it has been setting are well below market value. In Taza parcels for villas and apartment buildings are set at 490 Dh/m² and 750 Dh/m², respectively, when the going market rate is 800 Dh/m² and 2500 Dh/m². This ill advised strategy has deprived the agency of the ability to accumulate a working capital. More importantly, by failing to recapture the full appreciation in land value created by servicing, the return on public investment in infrastructure is artificially diminished. Auctioning off the lots at the appropriate time would yield substantially higher returns. By settling squatters in a planned regulatory layout consolidating and rationalizing tenure patterns, ANHI projects contribute to municipal finances. Projects cover off-site costs adding to the municipal assets and create potential revenue sources that the municipality can tap through taxation.

# 6.0 ECONOMIC IMPACT

The economic analysis assessed the performance of the Tetouan project and ANHI from three different perspectives: employment generation, mobilization of private resources and contribution to the Moroccan economy. The first indicator is the number and type of jobs created. The second, using a leverage ratio, highlights the amount of private investment generated relative to the amount of public investment. The third attempts to quantify the net present value (NPV) of the stream of net benefits generated by each project activity and measure its economic rate of return (EIRR). The following diagram (Figure 6-1) outlines the employment generation and financial cash flow traced in the impact assessment.

## 6.1 Methodology

Baseline data used in the analysis is adjusted to 1990 dirhems and reported values are in real terms, net of inflation. The analysis was carried out on the premise that relative prices would remain constant through the end of 2004. The sensitivity analysis, covers the possibility that changes would increase costs beyond the original estimates.

The selected time frame for the analysis 1997-2004 reflects the programmed construction of public works and the time required for development by the private sector to reach its full potential. The development scenarios are derived from actual field observations in the city of Taza where ANHI has been active since 1985. The rate and level of valorization of serviced land delivered in each of the 5 projects completed by ANHI was recorded in 1990 as part of an evaluation of the Taza experience undertaken for ANHI. The projects (shown on Figure 6-2) are Saada completed in 1984, Koucha in 1986, Al Qods 1 in 1987, Massira 2 in 1988 and finally Al Qods 2, which was funded through HG-003 and completed in 1989. The field survey of Al Wafae in Larache, the second ANHI project reviewed in this report, provided a comparative field observation since infrastructure was also started in 1987 and completed in 1989. Beneficiaries started to settle on the two sites in 1990. It is expected that individual plot holders will have fully developed their land by 2004. In Tetouan, infrastructure works began in 1989 and at this time are presumed to be completed by 1997 inclusive of off-site works and the ZAC. Full development potential would not be reached until 2004. Obviously, some buildings would not be completed by 2004, but it is expected that the large majority, over 90% even in the ZAC, will have been built. Therefore, the choice of 2004 over a later date will not significantly alter the economic evaluation.

The rate of building up of the serviced sites zone during the 1990-2004 time span will follow the same development profile as other ANHI projects. In the ZAC, buildings are allowed to reach the height of 4 stories as is the case in similarly located developments in Tetouan. It would be economically irrational for ZAC landowners to accept lower levels of return on their fully serviced land, for which they are paying plot charges, than the ones they would have been

Figure 6-1 Economic Impacts
Employment Generation and Financial Cash Flows

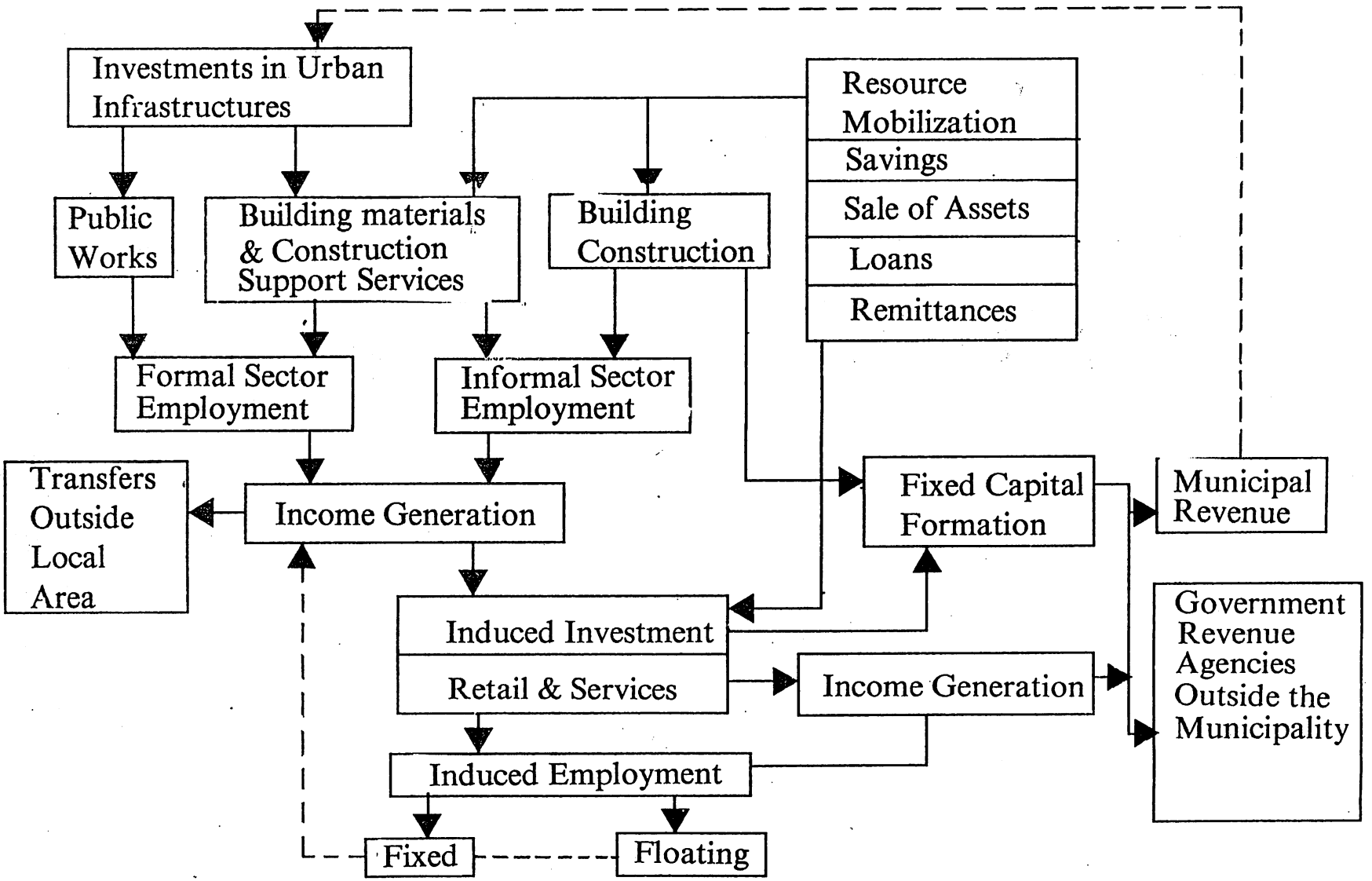
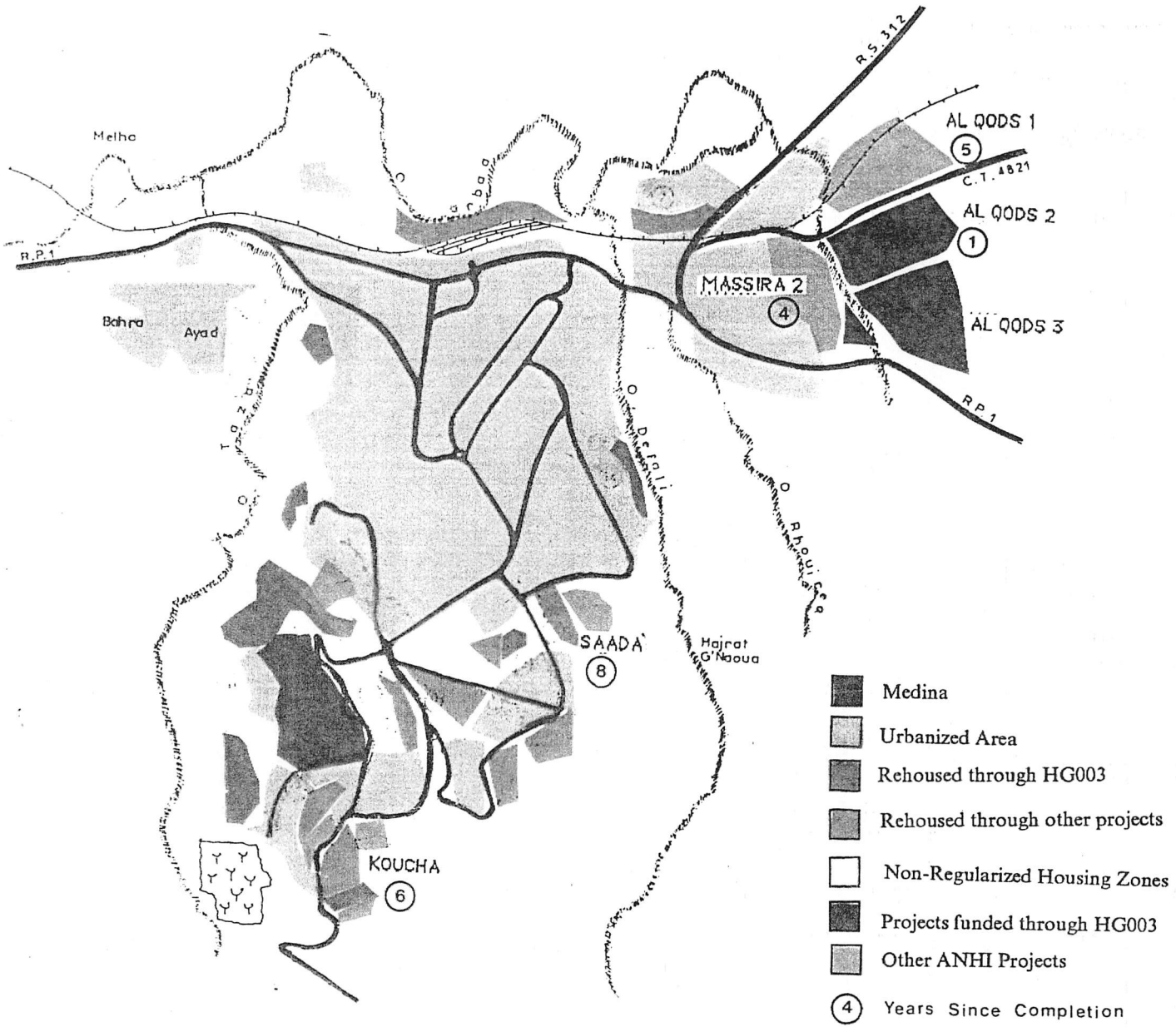
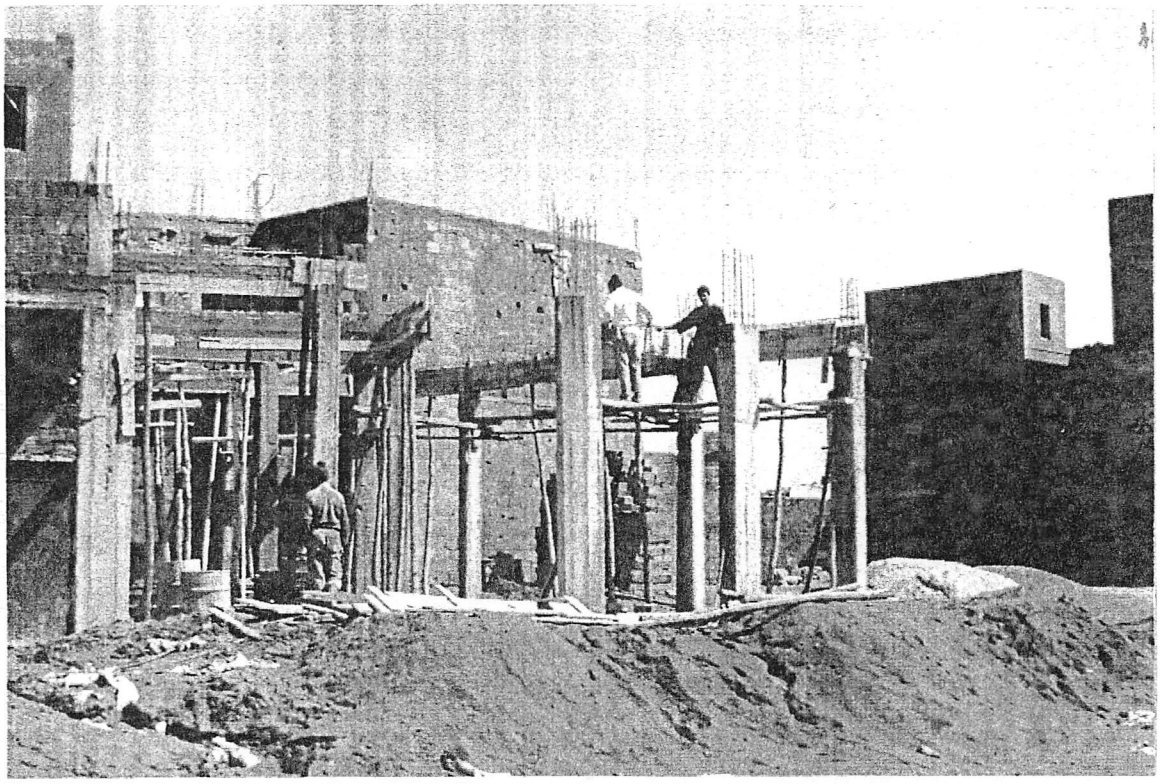


Figure 6-2 City of Taza, Location of ANHI Projects





Larache, Construction Activity

Dersa, Commercial Activities Fronting on Vehicular Road

able to derive in the absence of the program. In Dersa-Semsa, a likely development scenario is delineated based on the changes recorded between the 1986 baseline survey and the situation documented in December 1991.

## 6.2 Employment Generation

The employment generated by the programs can be grouped in 5 different categories:

a) Jobs in the formal construction sector created by the public works contracts and private construction of larger villas and apartment buildings.

b) Jobs in the informal construction sector created through incremental construction activities by beneficiaries in the serviced sites area and property owners in ZAC and through spot redevelopment.

c) Jobs in the construction support services purchased by building contractors and the production of building materials utilized in the infrastructure works and the formal and informal building activities.

d) Jobs in micro-enterprises which are established on the sites either in the ground floor of buildings fronting on major roads or in the designated commercial areas.

e) Jobs induced by expenditures on the purchase of goods and services by workers who found employment through the program. This is the category where significant leakage outside the project area would occur, particularly in the ANHI projects.

The quantification of employment relies on statistics for production and remuneration per worker reported in the 1984/85 survey of the construction sector (which covered both formal and informal activities) and the 1988 survey of micro enterprises. The statistics were updated to 1991 in accordance with the C.P.I.

### 6.2.1 Direct Employment in the Construction Sector

The construction sector employs a large number of unskilled workers and casual day laborers. It has typically absorbed an important proportion of rural migrants in the urban centers. These manpower characteristics and the traditional pattern of learning the trade through the apprentice system account for wages in the sector trailing the increase in the consumer price index and the minimum wage levels.

The formal construction sector is characterized by its heavy dependence on public works and the widespread use of subcontracting to smaller firms offering specialized services. Permanent employees represent 70% of the work force while 30% are casual workers. Following a decade

of vigorous growth, the sector has suffered, since 1983, from the curtailment of government contracts as a result of structural adjustment programs. The sector's intermediate consumption structure generates employment in building material production and construction support services. For the categories of public works required by ANHI and Tetouan project activities, the indirect employment generated is estimated at 20 to 25% of direct employment.

The informal construction sector comprises two distinct subsectors:

a) Localized micro-enterprises which operated from a shop or a workshop. They account for about 25% of the manpower working in informal building activities. Half the businesses employ one or two persons: a skilled worker and the business owner with or without an assistant or apprentice. The emergence of this subsector coincided with the massive injection of capital into real estate in the mid-1970s and the spread of informal settlements in the peri-urban fringe. According to 1984/85 survey of the construction sector, 57% of the micro-enterprises surveyed were established post 1972. Purchases of building materials, equipment and services give rise to indirect employment estimated at 10 to 12% of direct employment.

b) The second subsector which accounts for 75% of the manpower working in informal building activities, consists of skilled craftsmen, apprentices and unskilled casual laborers without a fixed locale. They operate through job networks in their respective trades, or social networks in the case of casual day laborers. Purchases of materials and equipment by skilled craftsmen are estimated to generate indirect employment amounting to less than 10% of direct employment. The majority (65%) are masons followed by electricians (16%) and painters (8%). The predominance of this subsector arises from the characteristics of the construction sector in general, and its repercussions at the micro level. The bulk of the investments in assets are dedicated to production and transport equipment with little left for investment in land and buildings.

Interviews with informal construction crews active on the Taza and Larache project sites show that about half are skilled craftsmen who learned their trade on the job, 20% are young apprentices and the remainder casual day laborers. The majority are residents of the locality and about 20% are beneficiaries to whom plots have been allocated. Typically they work on a sequence of jobs, moving about on the site picking up new jobs as households incrementally build up their lots.

### 6.2.2 Indirect and Induced Employment in Micro-Enterprises

Despite having to pay for plot charges and finance the construction of their dwellings, 40% of the households experienced an improvement in their income. In Tetouan, the average number of wage earners per household grew from 1.6 in 1985 to 1.95 in 1991 while incomes rose by

20 to 40%. In Larache, households report an average of 1.3 wage earners and an increase in income of over 1000 Dh/month.

As a result of the infrastructure provided, households have gained access to new or better jobs which they were unable to reach due to the inaccessibility of the marginal areas where they lived. Field interviews documented a 20% increase in the economically active population of Dersa, 30% in Larache and 10% in Taza with a concomitant decline in the dependency ratio. In ANHI projects where economic activity is slow to develop on the sites due to their location on the urban periphery, new entrants in the labor force work in construction or find employment elsewhere in the city. In Dersa, micro enterprises already exist and are growing in number, providing new opportunities on the site. Proximity to the medina and the modern city center offers access to a broad range of work opportunities there. Employment of beneficiaries outside the project area is contributing to the increase in household income reported in the surveys. It is not included in the analysis because of the lack of data and specific parameters on which to base estimates.

Micro enterprises are subdivided into three categories having different characteristics with respect to investment and employment. Workshops employ on the average 2.8 workers, retail stores 1.3 and shops providing services 1.5. Marginal peddling and street vending are not included; the dearth of solid data on these activities preclude the possibility of projecting their occurrence in the different project areas.

The employment figures given in Table 6-1 represent jobs generated by the program expressed in man-years to account for less than full-time employment. As noted earlier, impacts extend beyond the project area. Over the 1990-2004 period, ANHI Phase I projects would generate close to 30,000 man years of work and Tetouan over 40,000, the bulk of which would be in the Dersa-Semsa and ZAC areas. Given the manpower characteristics of the construction and micro enterprise activities concerned, the employment generated will have a ratio of 2 to 3 between skilled and unskilled workers. If current patterns prevail, 70% to 90% of construction workers will be residents of the locality.

## 6.3 Mobilization of Private Resources for Investment in Housing, Infrastructure and Micro-Enterprises

The private sector response to activities supported by the program is impressive. Households benefitting from project activities have all mobilized savings to invest in their properties. In Dersa where infrastructure works began in 1989, 70% of the households have invested in additions, rehabilitation and repairs; 75% have connected to utilities; 10% have added a rental unit, and 5% have created a shop in their ground floor. The average investment per household is Dh 17,000. In Larache, former bidonville residents are investing Dh 43,000 to Dh 73,000 in their new houses in addition to paying their plot charges of Dh 10,500. In Taza households are investing on the average over Dh 100,000 in their buildings.

## TABLE 6-1

## SUMMARY OF EMPLOYMENT GENERATED IN EACH SITE
(in million Dh)

| | Formal Construction | Informal Construction | Construction Support | Micro-Enterprise | Induced | Total | Total Previously Unemployed |
|---|---|---|---|---|---|---|---|
| **ANHI - Phase I** | 6,274 | 16,032 | 3,428 | 1,499 | 2,277 | 29,510 | 5,435 |
| - Taza | 247 | 2,622 | 356 | 555 | 313 | 4,093 | 985 |
| - Larache | 1,707 | 4,042 | 897 | 479 | 136 | 7,261 | 1,402 |
| **Tetouan - Whole Site** | 4,418 | 25,793 | 4,025 | 4,229 | 3,165 | 41,630 | 9,307 |
| - Prevention | 1,097 | 6,643 | 1,026 | 288 | 706 | 9,760 | 2,149 |
| - Upgrading Area | 2,645 | 8,603 | 1,650 | 3,428 | 1,465 | 17,791 | 3,730 |
| - ZAC | 675 | 10,546 | 1,349 | 512 | 995 | 14,077 | 3,428 |

### 6.3.1 Sources of the Funds Mobilized

The sources of the funds mobilized (shown in Table 6-2) are, in order of decreasing importance, accumulated savings, current income, assistance from family members particularly workers abroad, sale of assets and informal loans. These funds are all kept outside the formal financial markets, hoarded locally or invested abroad until such time as they are needed. To pay plot charges, beneficiaries in ANHI projects draw heavily on accumulated savings. There is a marked reluctance to seek loans for this purpose. To finance building construction, remaining savings are supplemented by family assistance and the sale of assets (rural property, jewelry, etc.) as needed in the incremental development process. Similar patterns occur in the financing of micro enterprises. Savings and pensions are dedicated to securing the premises in which the activity is to be housed. Sale of assets and family assistance are used for the purchase of equipment while current income and loans help provide working capital.

### 6.3.2 Foreign Exchange Contribution

The programs have opened up the two avenues which have attracted expatriate remittances: real estate and micro enterprises. In 1989, it was estimated that 72% of Moroccans working abroad transferred funds to invest in real estate which has absorbed 50% of total remittances. Investment in micro-enterprises, particularly in retail and transport services has increased as prospects of layoffs in Europe loom larger and high unemployment in Morocco make it necessary to secure a source of income before returning. Expatriate workers contribute about 5% of monthly expenditures but account for 25% of accumulated savings.

Households in both Tetouan and ANHI projects have relied on transfers from members working abroad to finance 20% to 25% of their investments in land purchase and building construction resulting in a non-negligible injection of foreign exchange in the economy. Furthermore, 12% to 15% of owners of new micro enterprises on the sites are returning expatriate workers investing their accumulated savings in housing and businesses. The inflow of foreign exchange is partially counterbalanced at the macro scale by the outflow attributable to the foreign exchange component of self-built housing whether on ANHI projects or Tetouan.

The building materials required for a typical house are computed so as to allow for incremental development and vertical expansion to a height of 2 to 3 floors. The structural system considered is the popular reinforced concrete frame with cement block or fired brick walls. Based on a typical floor plan for a 100 $m^2$ dwelling on a 120$m^2$ lot the consumption of cement, reinforcement bars and lumber inclusive of waste factors are calculated for each of the following components: foundations, superstructure, roof slabs and walls. To these basic materials are added paints, tiles, pipes, electrical and sanitary fixtures. The foreign exchange

## TABLE 6-2A

## SOURCES OF FINANCE

| Percentage of Resources | TAZA | | LARACHE (Rehousing Zone Only) | |
|---|---|---|---|---|
| | Land | Building | Land | Building |
| **ANHI PROJECTS** | | | | |
| Accumulated Savings | 67 | 42 | 54 | 29 |
| Wage Earning | 4 | 15 | 0 | 16 |
| Family Assistance/Person | 13 | 17 | 27 | 29 |
| Formal Loans | 3 | 8 | 11 | 0 |
| Sales of Assets | 11 | 18 | 0 | 10 |
| Miscellaneous | 2 | 0 | 8 | 16 |

## TABLE 6-2B

| Percentage of Resources | Premises | Materials and Equipment | Working Capital |
|---|---|---|---|
| **TETOUAN MICRO-ENTERPRISES** | | | |
| Accumulated Savings | 35 | 50 | 29 |
| Family Asst. & Misc. | 0 | 18 | 6 |
| Pensions | 55 | 0 | 0 |
| Sales of Assets | 0 | 11 | 12 |
| Add'l Informal Activity | 10 | 21 | 34 |
| Loans from Suppliers | 0 | 0 | 19 |

Source: F. Navez Bouchanine, "Evaluation socio-economique des Programmes".

component is derived from the ratio of imports to local production in 1990 prorated by 20% to account for the foreign exchange component of inputs in the manufacturing process, mainly energy. Depending on the quality of the finishes, the foreign exchange component of self built housing would range from 16% to 22%.

### 6.3.3 Quantification of Private Investment

#### a) Investment in Land and Buildings

Plot changes represent the private investment in land attributable to the project. Similarly, charges levied on ZAC property owners to cover their share of infrastructure costs are credited to investment in land. It is of course assumed that charges will be collected and costs recovered. Should this fail to materialize the estimated leverage ratios would change dramatically.

Investment in buildings takes into consideration patterns of incremental development prevailing in the project areas. Based on the responses of homeowners regarding their actual expenditures at different stages in the construction process in the building of low cost housing, it is possible to construct a matrix relating construction cost to each of the following 8 different stages:

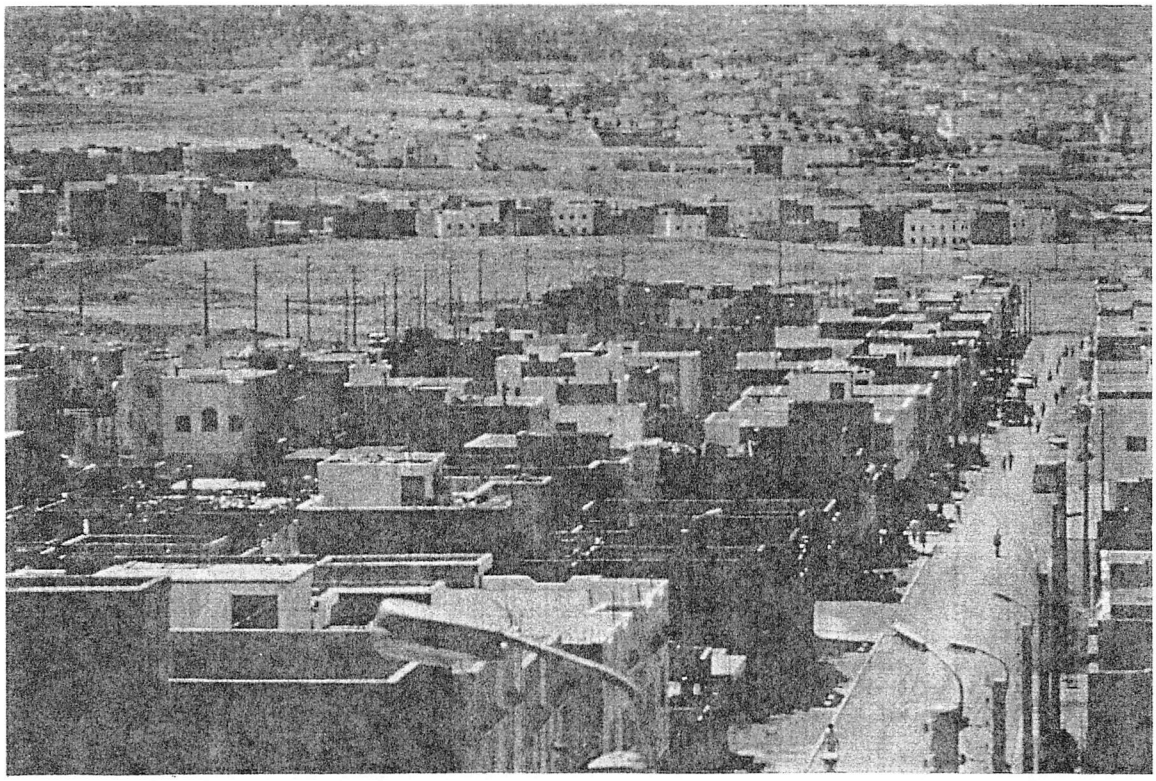
(1) Fencing in the plot
(2) House connections (water and electricity)
(3) Foundations
(4) Ground Floor
(5) 2nd Floor
(6) 3rd Floor
(7) 4th Floor
(8) Shops on the ground floor.

No provision is made for the progressive development of villas, apartment buildings and shops in the commercial zones. The recorded evolution of the Taza projects is used as the template to project the site development process in ANHI projects and the Tetouan serviced sites. Subdivision and construction activities in the ZAC are assumed to follow a similar pattern but the rate of development is higher, land coverage more intense and buildings taller.

#### b) Investment in Micro-Enterprises

For each of the three categories of micro-enterprises (workshops, retail and services) the breakdown of investment reported in the 1988 survey of micro-enterprises is used to derive investment on materials, equipment and other assets, exclusive of the land and

Larache, Vehicular Avenue



Taza, Main Commercial Street

building component previously accounted for. This amount is applied to businesses on commercial lots as well as in the ground floors of existing buildings.

c) **Leverage Ratio**

The leverage ratios (shown on Figure 6-3) highlight the magnitude of the private investment generated relative to the amount of public investment. The high ratios recorded by the program demonstrates that once the infrastructure is in place, the private sector finds it profitable to invest without any need for government subsidies.

The leverage ratios achieved by the ANHI projects are significant, 6.1 to 7.6 for Taza and Larache, respectively. The ratio is lowest for Oued Fez, due to the relatively high cost of land acquisition, yielding an overall ratio of 5.6 for Phase I ANHI program.

The lower value of 4.5 computed for the serviced sites area in Tetouan reflects its low cost-efficiency relative to ANHI projects. The ratio is highest for the ZAC where it would reach 14.5 because of private sector sharing in financing infrastructure costs. The performance of the ZAC is crucial to the performance of the whole program which is handicapped by the inability of the serviced sites to counterbalance the high cost of infrastructure in Dersa-Semsa. The leverage ratio for the upgrading component is 3.0. Detailed employment and investment tables are given in Annex 4.

## 6.4 The Impact of Infrastructure on the Development of Micro-Enterprises

The Micro-Enterprises surveyed identified cheap premises and good vehicular access as the crucial factors determining locational choice and ensuring economic viability. Start-up difficulties compounded by the recessionary economic climate, is forcing them to reduce operating margins to their minimum sustainable levels. Survival hinges on the affordability of carrying charges. The expenses incurred for rent and the transport of materials, equipment and merchandise account for 35% of operating costs for retail and 10% for services. The impetus and support for the development of informal activities injected in a site by the location of a vehicular road leads to the conversion of ground floor street frontage to commercial use. When difficult terrain or remote location constrain accessibility, the construction of a paved road expands the trading area and makes for lower costs and more reliable deliveries. It increases the spectrum of goods traded, allowing small scale activities to develop and prosper.

Micro-enterprises expanding their scale of operation create more jobs than newly established ones which employ 1 to 1.5 persons, inclusive of unremunerated family members. Food-related industries are the first to be established and the first to expand. They tend to remain the predominant source of employment and income generation in informal settlements, varying from small restaurants and cafes to marginal street vending. Services develop when population build up reaches levels sufficient to support these activities.

Figure 6-3a Leverage Ratios, ANHI

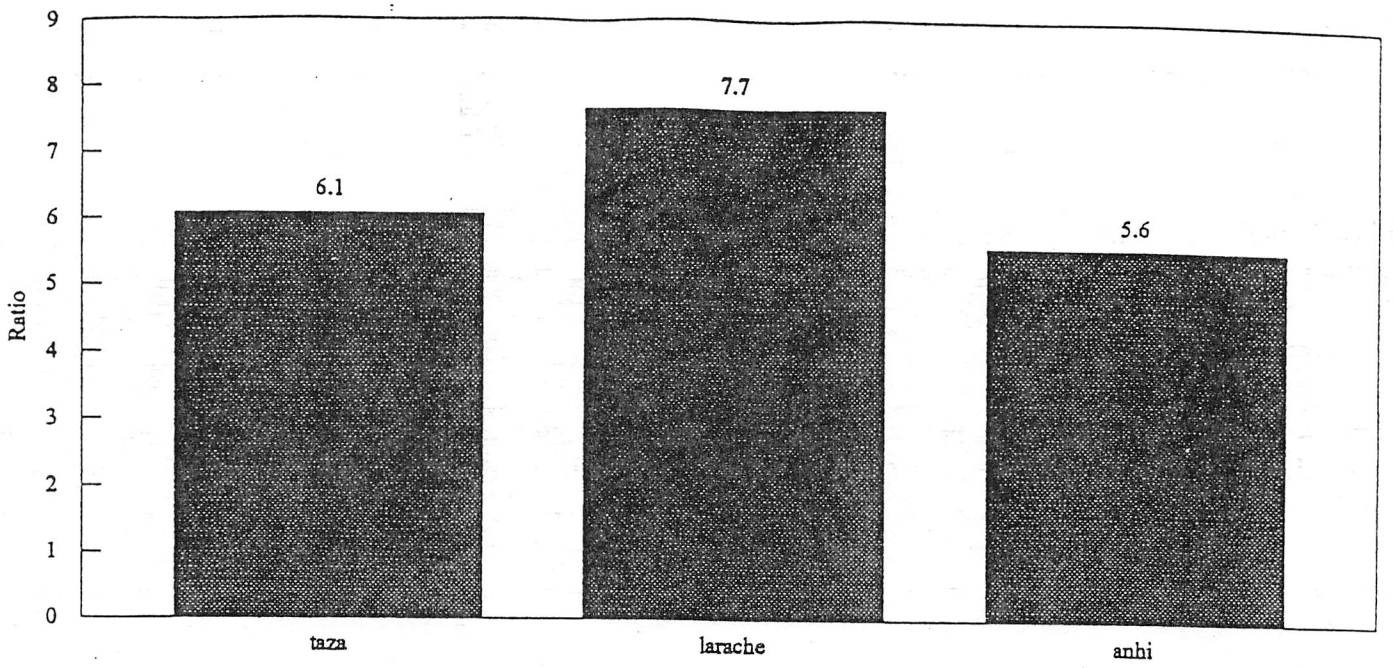
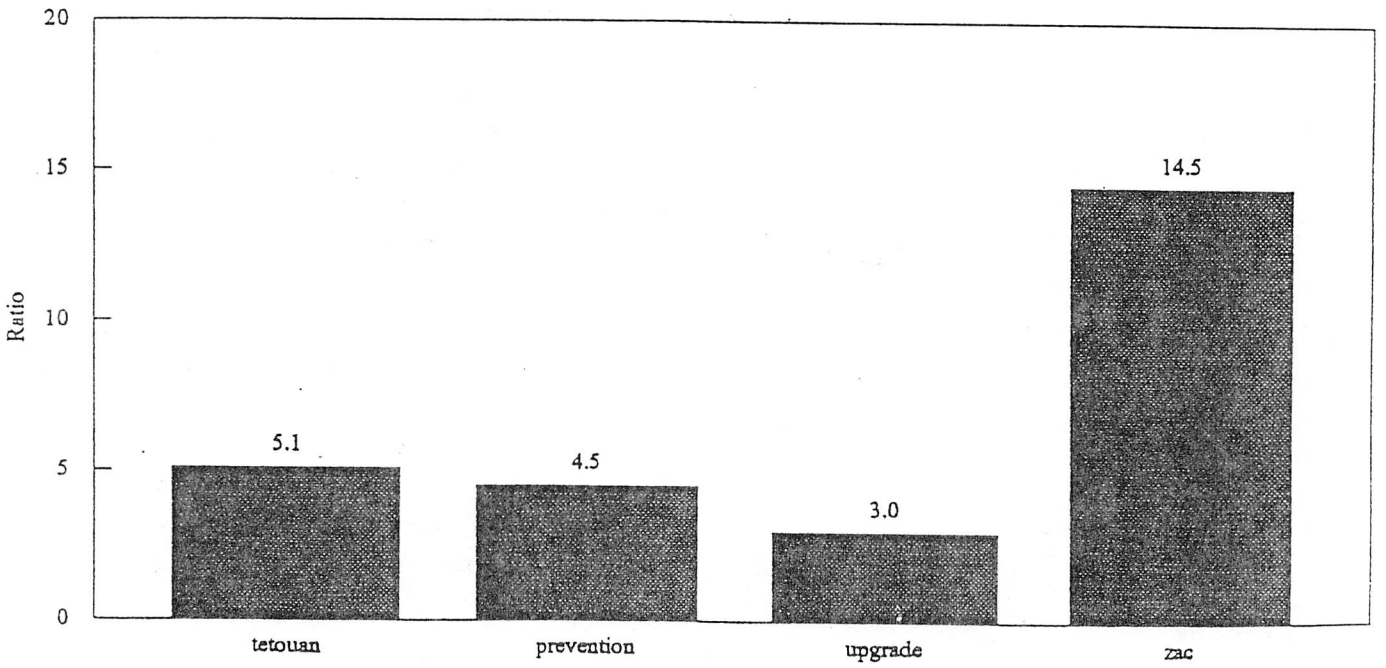



Figure 6-3b Leverage Ratios, Tetouan



The development of workshops, which on the average employ 2.8 persons, is less predictable because of the special character of each site and the specific operating requirements of each industry or craft. Location is dictated by the availability of infrastructure, which enables workshops to obtain the raw materials they need and provides access to markets. Since raw materials account for close to 90% of operating expenditures at the micro level, the importance of good access cannot be overestimated.

## 6.5 Constraints on the Development of Micro-Enterprises

### 6.5.1 ANHI Projects

Approximately 50% of the commercial lots are developed in Qods 1 at Taza (Figure 6-4). The rate of development has accelerated with 46% of the activities established in 1991. The majority (68%) are food related. Business owners net from Dh 1,000 to over Dh 3,000 per month and rents range from Dh 400 to Dh 1,000 per month. Operational activities in the project area identified the major constraints on their development to be the following:

a) The limited disposable income available to households currently stretching their budgets to the limit to pay plot charges and finance construction.

b) The remoteness of Qods and Massira projects located at a distance from existing residential areas and the city center.

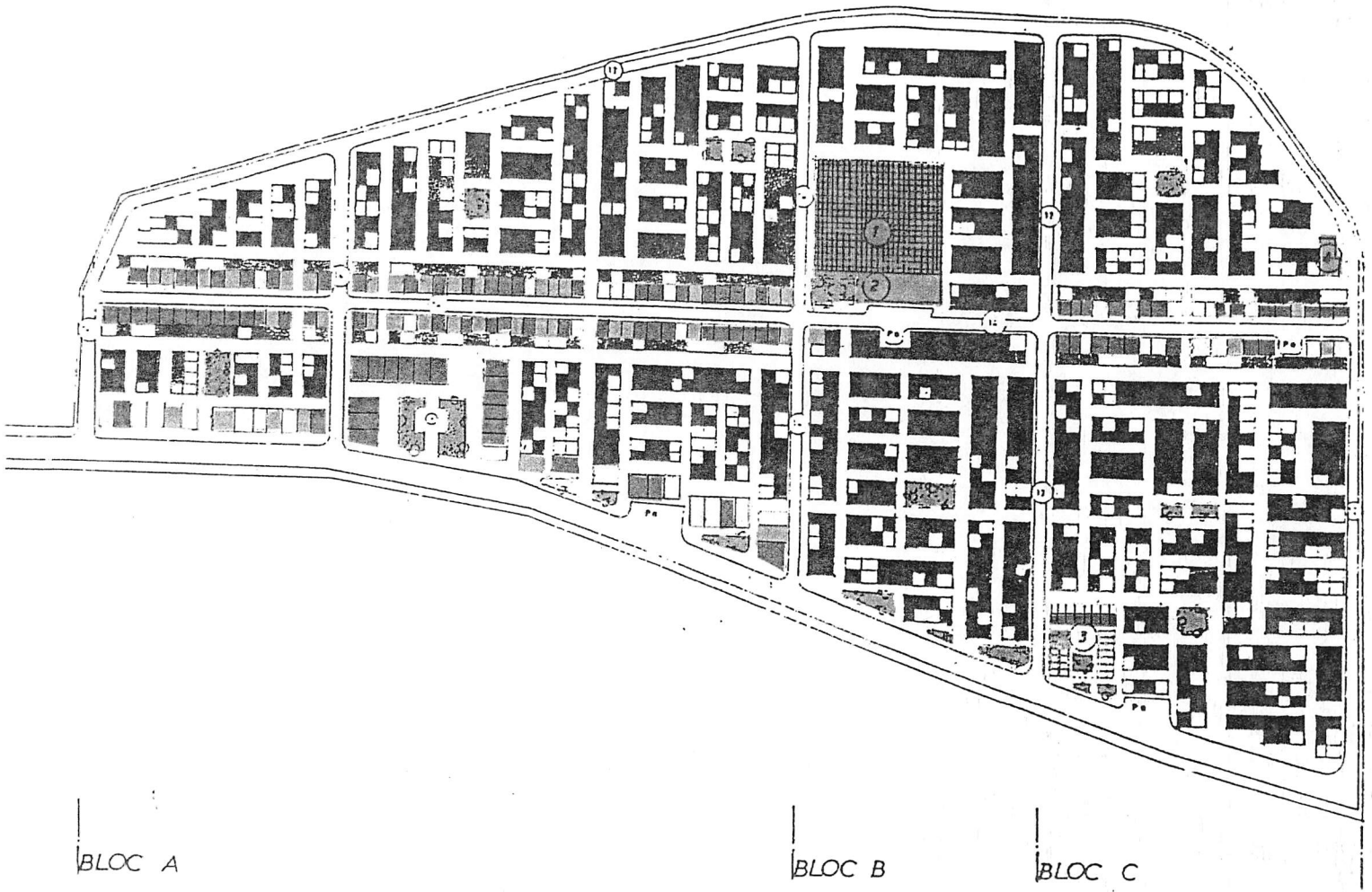
c) The slow population build-up on the sites which severely limits the market for services and retail other than food-related stores, such as clothing, shoes and hardware.

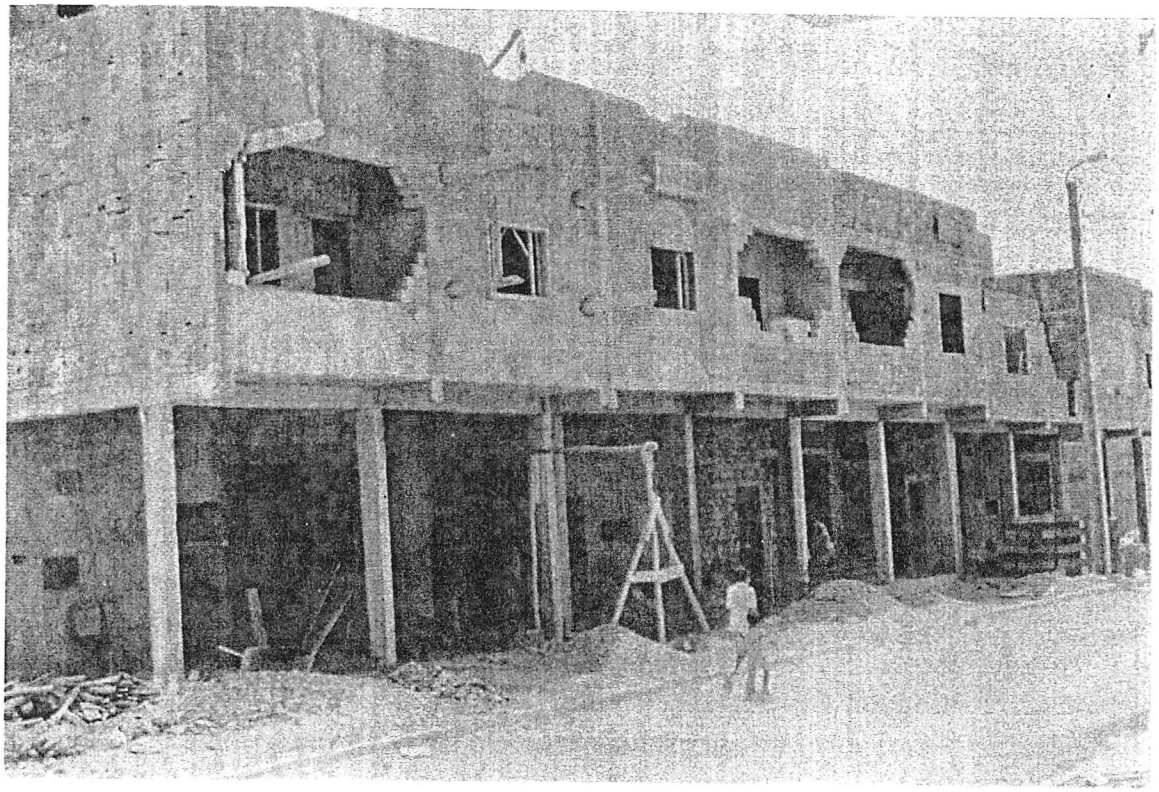
d) Competition from the medina stores which offer a wide selection of merchandise attracting shoppers from the project area.

Households on their part deplore the regulations which prohibit them from creating income generating activities in their building. Investment in premises (land and buildings) represents no more than 20% of the total investment of typical micro-enterprises engaged in retail and service activities. This amount increases to 46% in the case of workshops.

Counterproductive zoning clauses restrict the development of commercial activities to specific location in a new subdivision; a restriction that ends up multiplying the seed capital required to establish a micro business by a factor of 2 to 3 and carrying charges by 5 to 6. In Taza, owners reported that they invested around Dh 8,500 to establish a store in the ground floor of a building as compared to the Dh 20,000 to Dh 40,000 required to build a shop on a commercial lot.

Figure 6-4 City of T , Al-Qods 1 Project





Taza, Low Cost Housing with Commercial Ground Floor

Dersa, Vertical Expansion of Buildings with Ground Floor Micro-Enterprises

Households in Taza and Larache claim that they simply cannot afford to purchase and build on the projects' commercial lots despite their being priced below their real market value. In Larache, despite the lack of basic convenience stores on the site, only those residents who had an operational business in the former bidonville were granted a variance to open a store in their building. Incomes being lower than Taza, development has not yet materialized in the designated commercial zone. Yet 40% of the residents said they would open a shop in their building if they were allowed to.

A quick survey of an older shopping arcade in the Amal project in Bouznika, displayed a disconcerting pattern of vacancies. Two-thirds of the stores were built complete with metal doors, but vacant. The municipality does not issue permits to operate an activity until all charges due on the purchase of the lot are fully paid. More creative individuals with access to support social networks, have entered into partnerships with business associates whereby one partner provides the locale, the other the working capital, with both sharing in the profit.

Well located serviced sites can and should become incubators of micro-enterprises. The bulk of the activities which emerge are new businesses. Some are expanding and others are relocating to the site, attracted by the availability of support infrastructure. In Taza, despite the outlying location of the project area, new activities account for 77% of operating businesses, relocatees for 20% and expansions for 5%.

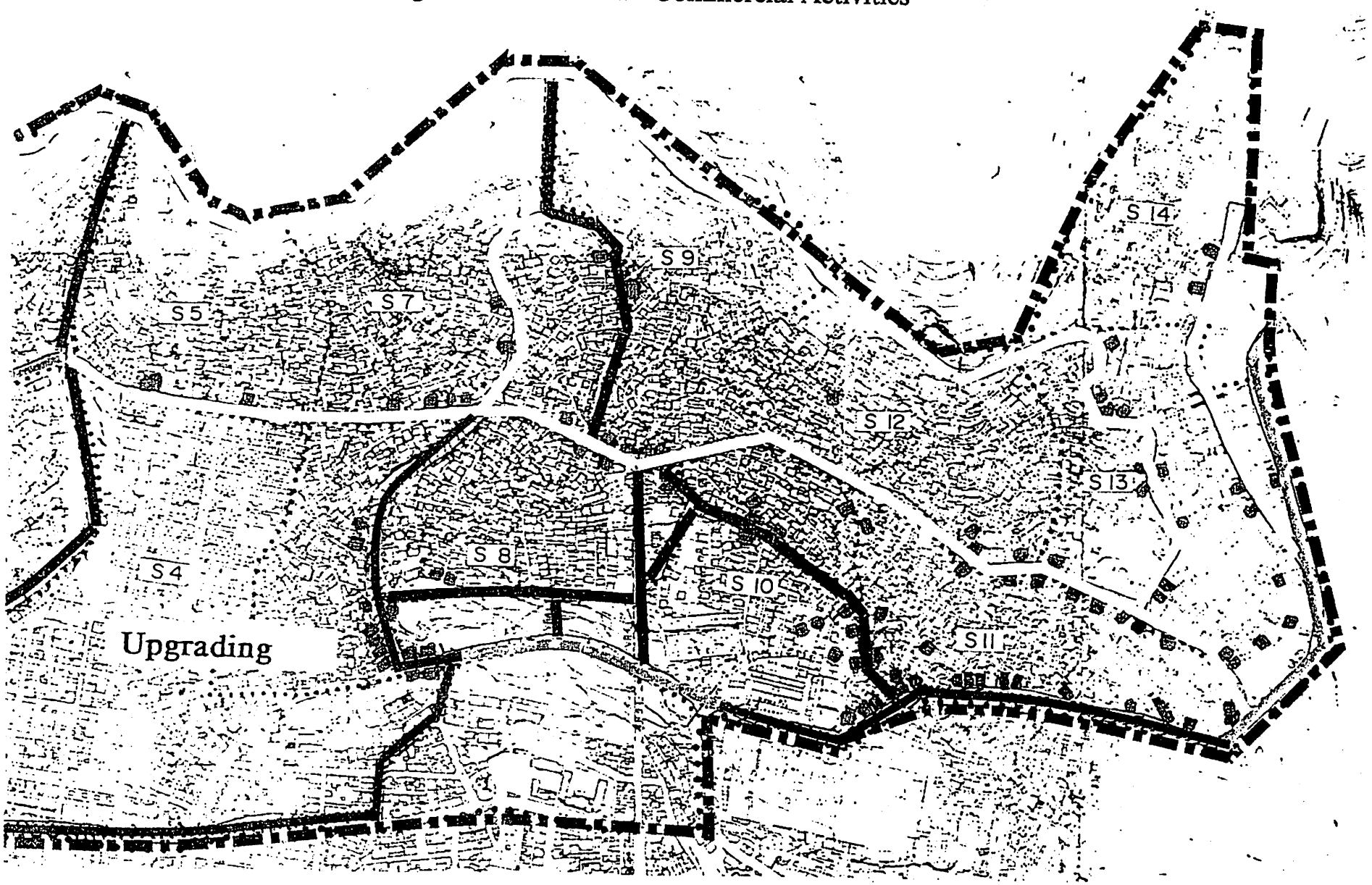
Regulatory controls which depress the potential economic performance of planned urban developments, including ANHI projects, serviced sites developed by Tetouan Municipality and private subdivisions where they are enforced should be eliminated.

### 6.5.2 Dersa-Semsa

Of the activities operating on the Dersa site, 64% were established after the start of the project and the rate of development has tended to accelerate. The majority (75%) are food related stores and the remainder are services and crafts. They are all located on the ground floor of buildings (Figure 6-5). Business owners report net receipts of Dh 1,000 to Dh 1,500/month and rentals added Dh 250 to Dh 300 to the incomes of property owners. These micro businesses have generated 1.5 jobs/business on average and, to date, have provided employment for 300 to 350 people. Despite their micro scale, 20% do employ paid apprentices. Furthermore, the overwhelming majority are newly established enterprises.

Business owners identified the major constraints on their activity as the physical characteristics of the site, problems of access and difficulties in transporting materials and merchandise. Some are apprehensive about the future, fearing the combined impact of the deepening recession, the low income of the population, and the erosion of their profit margins. They are

Figure 6-5 Dersa - Commercial Activities



concerned that the district will remain a marginalized pocket of poverty within Tetouan's expanding urban fabric, incapable of sustaining the development of their business. These fears are of course unfounded since infrastructure upgrading invariably triggers a process of improvement. Some rate their situation as precarious and worry they might have to give up the business and seek alternative sources of work. These pessimists are in the minority.

The majority share an optimistic view of the future. Paved roads, street lighting and upgraded infrastructure, better security and services will remove existing constraints on development. Interestingly, shop owners, particularly grocers, complain of growing competition from newcomers to the district who have started their own businesses. On their part, few households located on the alleyways off the main roads are considering opening up shops on the premises. Factors inhibiting this option are difficult access due to narrow alleyways and steep grades, lack of space to accommodate the activity and lack of seed capital at this time.

## 6.6 Cost Benefit Analysis

Cost-benefit analysis reflects the true resource costs used and the true benefits that accrue to the Moroccan economy as a result of program activities. For the purposes of this analysis, the statistical data must be adjusted in order to:

a) Remove taxes and subsidies which represent transfers from one segment of the population to another: no resources are used, nor benefits created to the economy as a whole.

b) Adjust prices to reflect the value of their real costs. The adjustments made are based on the following underlying assumptions. The program is assumed to have no influence on the market price of traded goods including all the materials used at each project site; and the exchange rate is assumed to reflect the opportunity cost of foreign exchange in Morocco. This is supported by the recent exchange rate management of the dirhem, the relative absence of a black market for French francs and dollars, and the lack of significant capital controls.

The result of these assumptions is that the market price used for each input, once adjusted for taxes and subsidies, is a relatively good estimate of the inputs' economic cost. The price of reinforcement bars products in Morocco are not that different from US prices, adjusting for taxes and transportation. The only product for which this might not hold is cement. Though there is no explicit subsidy to cement producers, they may receive their energy inputs at subsidized prices. Moreover, one would expect that Morocco would be a low-cost producer of cement, especially the lower grades that are used in informal building activities. In the absence of accurate information on inputs used by the cement industry, no adjustments to the cement's market price were made. However the sensitivity analysis does assess the impact of potential increases in costs on the program's performance.

Expenditures on public works are disaggregated into the following 5 categories:

(1) Earthworks
(2) Roads
(3) Water & Sewerage
(4) Electrical Networks
(5) Building Construction

The structure of consumption of building materials for each category reported in the distribution of intermediate consumption in the 1984/1985 survey of the construction sector is used to derive the range of inputs included in the analysis. There are also marked differences in the consumption of building material between formal and informal building construction in terms of interior and exterior finishes, hardware, plumbing, mechanical and electrical supplies and equipment. Only significant inputs are taken into consideration.

### 6.6.1 Costs

The costs of the project are composed of infrastructure, buildings, equipment and maintenance.

1) Infrastructure expenditures are derived from project documents. These are adjusted to remove the tax component, including the value added tax. The phasing of infrastructure construction (3 years) is based on actual performance in ANHI sites. In Tetouan the current programmed completion date of 1994 is somewhat optimistic and a revised date of 1997 is used instead.

2) Building costs continue to occur throughout the life of the project, in accordance with the phasing of construction derived from the Taza surveys. Unit construction costs for different types of buildings and various stages in the incremental development process are used.

3) The average investment in equipment of micro enterprises for the three categories of establishments found in the project sites (workshops, retail and services) reported in the 1988 survey of micro-enterprises is used.

4) Maintenance costs are determined on the basis of a schedule, akin to a depreciation schedule, applied to the value of installed infrastructure and buildings. The schedule is 1% for the first five years, 2% for the second five years, 3% for the third five years and 4% thereafter.

### 6.6.2 Benefits - Land and Buildings

The bulk of the benefits generated by the programs arise from the increase in economic activity and opportunity they create. It is impossible within the time and budget constraints of this review to gather information on or measure all these gains. However, a theoretically sound and measurable proxy for the benefits is the increase in property values attributable to the project, since this increase reflects the current and prospective economic value of the property's development potential.

Measures of benefits are either based on imputed rental values or the increase in property values brought about by servicing the site. The first indicator is the one more commonly used. However, in this case the lack of reliable data regarding assessed values from which imputed rents could be derived make it difficult to compute imputed rents and quite complex to adjust their value in response to demand pressure in a situation of housing shortage and economic recession.

Data on the evolution of land prices in selected cities, information on the sale and resale of plots in Taza covered in the evaluation study, data on land prices in fringe zones compiled by ANHI and detailed information on prices and costs of land and buildings gathered in the field surveys provided a solid statistical base for the computation of property values. To use property values as the indicator of economic benefits requires the disaggregation of projected increases into the following three components.

1) The rise in the value of unserviced land resulting from the dynamics of the local real estate market and the severity of the shortage of buildable land in the locality. This appreciation is due to urbanization pressures and is unrelated to the program.

2) The rise in the value of serviced land as a result of the infrastructure provided by the program.

3) The value of improvements added by property owners.

The incremental value attributed to the program is computed as the difference between the value of serviced land in the project area and unserviced land in the vicinity plus the value of the improvements on the land.

Servicing the land leads to a one time jump in price followed by a progressive increase at a rate higher than unserviced land because of the sustained pressure of demand. Land is valued at market rates, not the rates charged by government agencies. Cross subsidies are transfers from one segment of the population to another and are disregarded. Documentation of land values over the 1985-1991 period at various locations indicates that servicing the land doubles its value. Thereafter real values increase at an annual rate of approximately 12%. Over the same period, the increase in the value of unserviced land is around 67% that of serviced land.

Existing buildings are valued 10% higher than their real building costs. They increase in value at about 1% in real terms, assuming proper maintenance.

The liquidation value of the equipment of commercial enterprises is the only remaining asset that needs to be accounted for at the end of the project life. The initial investment value is reduced through a straight line depreciation over ten years.

Two categories of benefits which have an effect on property values are implicitly included:

1) Benefits arising from land regularization in Tetouan because of the unpredictable time that the process might take. Since the right to use or transfer the property in informal settlements, which condition its economic value is largely unaffected by registration, its impact on prices is limited.

2) Benefits arising from improved health as a result of better sanitation although their impact on the selected indicators is small.

### 6.6.3 Benefits - Employment

Only the employment which is generated by the program is included as a benefit. Therefore jobs that are filled by workers displaced from previous employment are excluded. It is assumed that in the absence of the programs, jobs in the formal construction sector and related construction support services would have been available elsewhere. The survey of informal construction activity and micro enterprises in Tetouan, Taza and Larache found that 31% of the workers were previously unemployed. Consequently, it is assumed that 31% of the employment generated in these sectors is attributable to the project. No adjustment is made for possible differences in productivity of the previously employed workers.

## 6.7 Results of the Analysis

Table 6-3 summarizes the results of the economic analysis. The three sites documented in detail by the field survey show positive net present value, using a 4.5% discount rate, the approximate real interest rate. Moreover, the EIRR is above 10% for all sites except for the serviced site zone in Tetouan where it is around 9%. The 9% to 10% range represents a reasonable estimate for the social discount rate applicable to urban projects in Morocco. The larger scale of Dersa-Semsa and the ZAC results in higher NPV values. For both NPV and EIRR, the incidence of costs and benefits do not affect the analysis, only their value does.

The overall performance of the Tetouan program will depend on the share of major sewerage works allocated to the project, and the proportion of private investment attributed to the project in the settlements of Dersa-Semsa and the ZAC. For the purpose of this analysis, it is assumed that by the time the project is completed, 75% of the new benefits in the upgraded settlements and 40% in ZAC would be attributable to the project.

## TABLE 6-3

## SUMMARY OF ECONOMIC INDICATORS FOR EACH SITE
(in million Dh)

| | Employment | Leverage Ratio | NPV Dh (000) | EIRR (%) |
|---|---|---|---|---|
| **ANHI - Phase I** | 29,632 | 5.60 | 721,913 | 10.02 |
| - Taza | 4,093 | 6.08 | 99,337 | 10.50 |
| - Larache | 7,724 | 7.66 | 163,357 | 10.23 |
| **Tetouan - Whole Site** | 41,630 | 5.09 | 1,667,372 | 11.85 |
| - Prevention | 9,761 | 4.52 | 231,189 | 9.01 |
| - Upgrading Area | 17,792 | 3.01 | 755,643 | 12.20 |
| - ZAC | 14,077 | 14.52 | 680,539 | 13.44 |

Additional considerations arise for sites that are already inhabited. In Dersa-Semsa, development activity will occur independently, proceed at is own pace and level off when an economic intensity of use is reached irrespective of whether the area is serviced or not. In the ZAC, land in private ownership is now located between a new development and an upgraded area. Land values are bound to increase rather sharply prompting owners to develop. The more the provision of infrastructure falls behind schedule, the less the benefits attributable to the project. Although delays would not necessarily render the projects economically inviable, it would nevertheless significantly reduce their net benefits.

The ANHI sites show excellent results given that they are totally new developments. It is expected that the economic indicators would be lower than on sites where economic activity already exists. In new sites, the costs of servicing are substantially lower, but economic activity is slow to evolve. In other words, the constraint of lack of infrastructure is felt more keenly in areas were people already live. The results also indicate that Taza and Larache are slightly better performers than the average ANHI Phase I sites.

### 6.7.1 Sensitivity Analysis

The sensitivity analysis helps overcome the difficulty in properly assessing the economic prices of all the material used. If costs increase or benefits fall and the original results remain positive, then the projects' activities are making a contribution to the economy irrespective of the accuracy of the adjustments. The results of four alternative scenarios are shown in Table 6-4. These scenarios affect only the NPV and EIRR because of the symmetric way they affect public and private expenditures. The 4 scenarios are:

a) Costs are increased by 10%.
b) Costs are increased by 20%;
c) The real annual appreciation of serviced land is reduced from 12% to 9%. The appreciation of unserviced land remains 67% that of serviced land.
d) Costs and benefits are both decreased by 15%.

In Tetouan, only in the serviced sites zone would the EIRR fall below 9%, the lower limit for the real social cost of capital for this type of urban program. The third scenario which reduces the growth of property values, causes problems for the ANHI program: Taza and Larache still yield a real rate of return of around 8% but the ANHI Phase I group perform less well at 7.65%.

All the projects show remarkable robustness to changes in costs. Clearly, the lack of infrastructure is a critical constraint on economic growth. The performance of all project activities is far more sensitive to changes in the appreciation of property values than to

## TABLE 6-4

### SENSITIVITY ANALYSIS
(in Million Dh)

| | Costs Up By 10% | | Costs Up By 20% | | Benefits Down By 25% | | Costs & Benefits Down By 15% | |
|---|---|---|---|---|---|---|---|---|
| | NPV | EIRR | NPV | EIRR | NPV | EIRR | NPV | EIRR |
| **ANHI - Phase I** | 705,482 | 9.70 | 689,052 | 9.40 | 355,160 | 7.65 | 495,116 | 8.94 |
| - Taza | 95,017 | 9.95 | 90,697 | 9.45 | 52,008 | 8.13 | 73,391 | 9.82 |
| - Larache | 156,591 | 9.70 | 149,824 | 9.239 | 86,174 | 7.96 | 115,582 | 9.42 |
| **Tetouan - Whole Site** | 1,631,724 | 11.65 | 1,596,075 | 11.44 | 928,337 | 9.22 | 1,209,202 | 10.45 |
| - Prevention | 224,634 | 8.86 | 218,080 | 8.719 | 79,580 | 6.30 | 138,957 | 7.52 |
| - Upgrading Area | 739,064 | 11.95 | 722,485 | 11.71 | 468,116 | 9.93 | 564,443 | 10.99 |
| - ZAC | 668,025 | 13.24 | 655,511 | 13.04 | 380,641 | 10.34 | 500,803 | 11.83 |

changes in costs. This would occur if the pace of development in the ANHI projects is slower than projected in the event of further delays in the implementation of public works in Tetouan. In particular, the performance of the ZAC would be eroded by the loss of land to unplanned sprawl.

The final scenario examined whether the economic performance of the projects would suffer if implementation were delayed due to budget cutbacks. It is assumed that even with cost reductions of 10% to 15% a project completion slippage of 3 to 4 years, will entail a reduction in benefits of about 15%. The results clearly show the adverse impact of inadequate or delayed funding. This outcome is driven by the critical fact that the lack of infrastructure is a constraint on growth and income generation. Anything that delays or inhibits the removal of this constraint will reduce the program's net economic benefits.

The results of the economic analysis are summarized in the following Figures.

Figure 6-6a Economic Indicators - ANHI

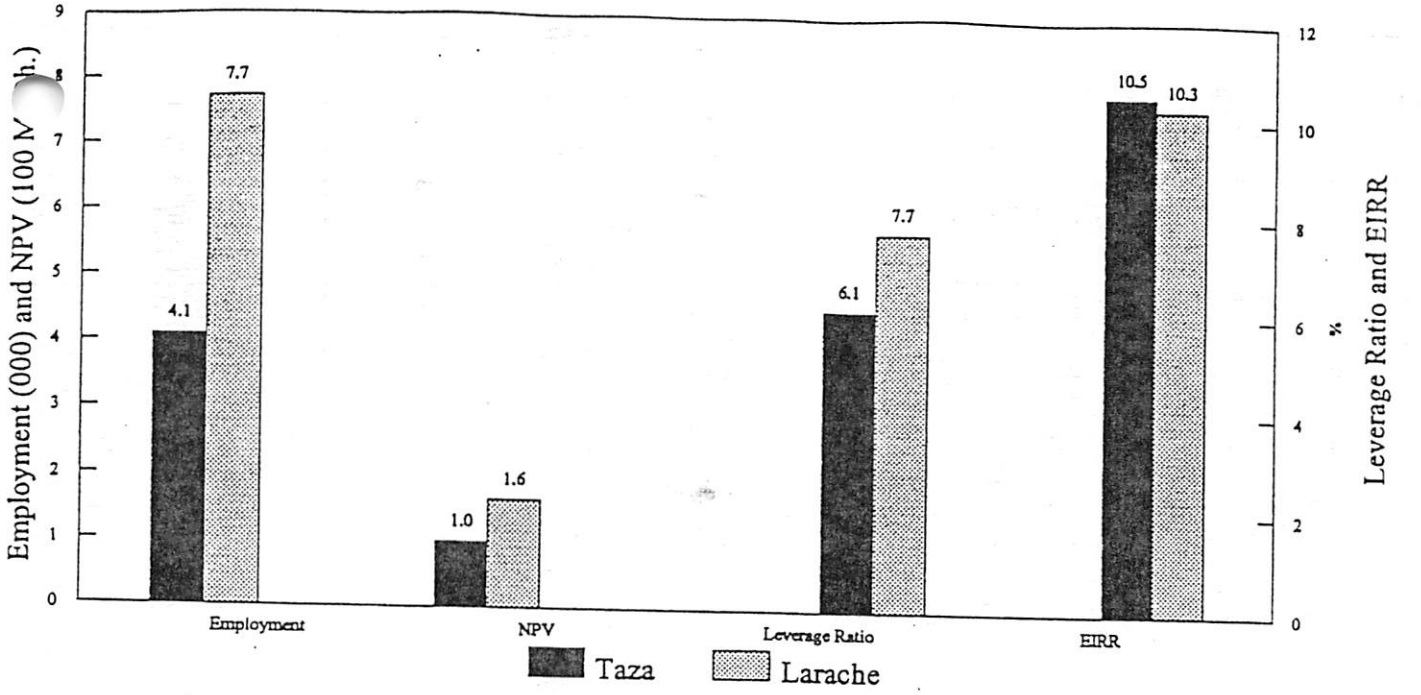



Figure 6-6b Employment - ANHI

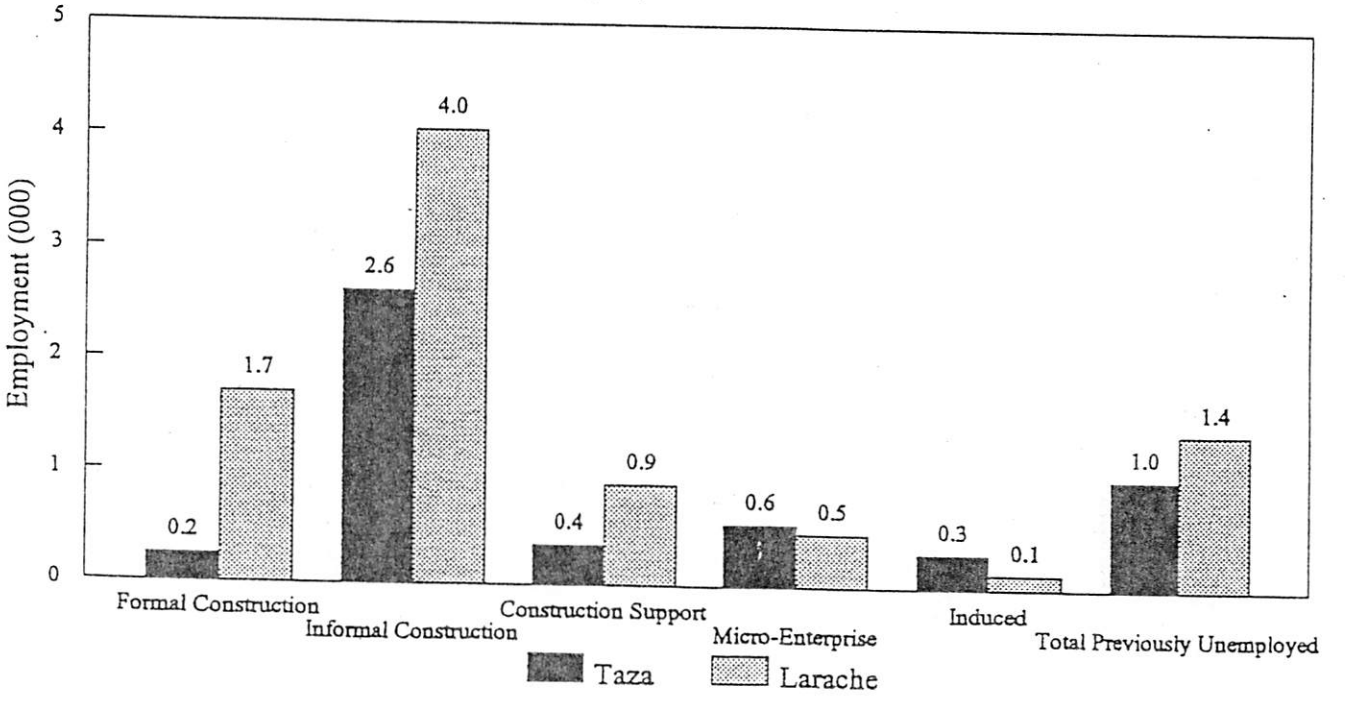


Figure 6-7a Economic Indicators - Tetouan

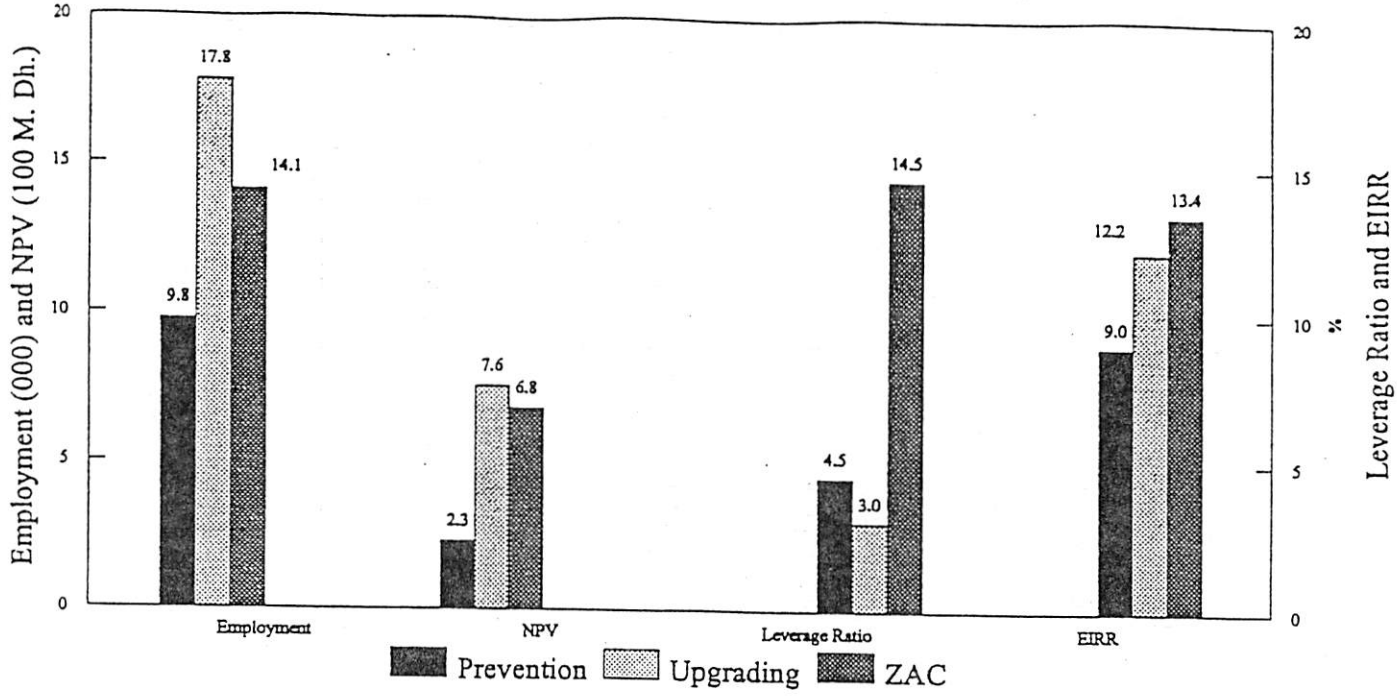



Figure 6-7b Employment - Tetouan

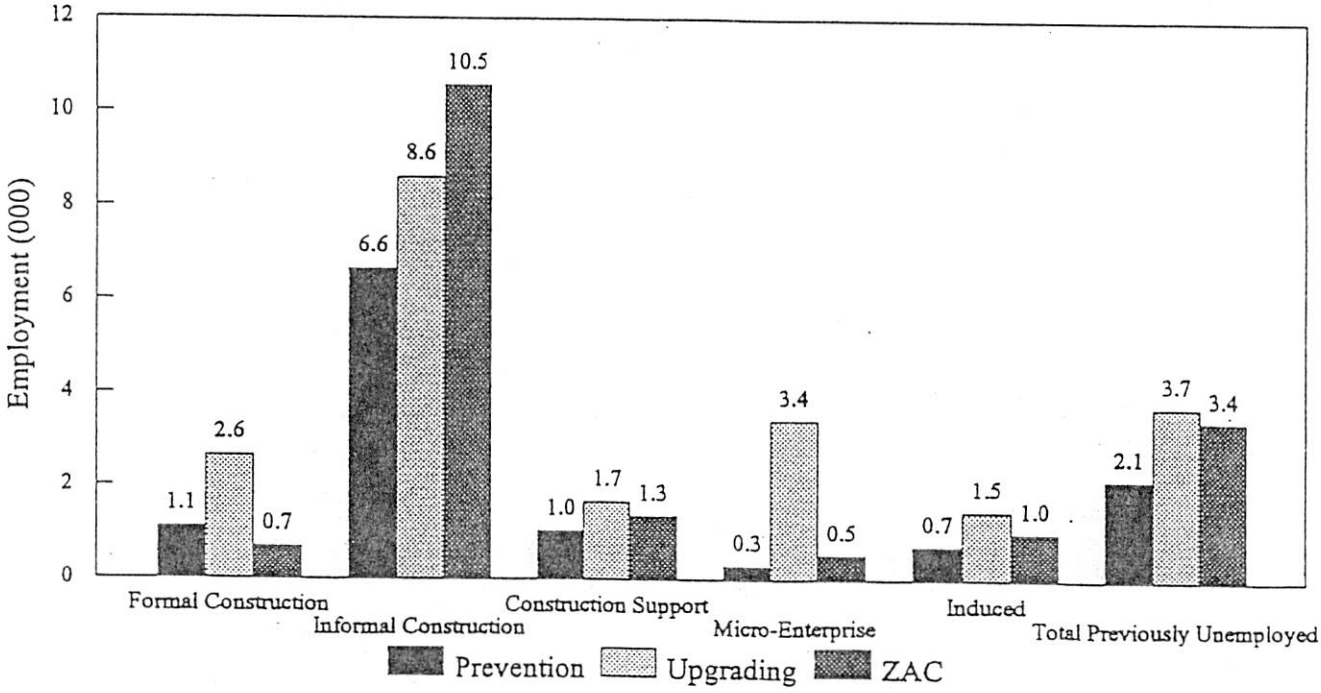


Figure 6-8a Sensitivity Analysis (NPV) - ANHI

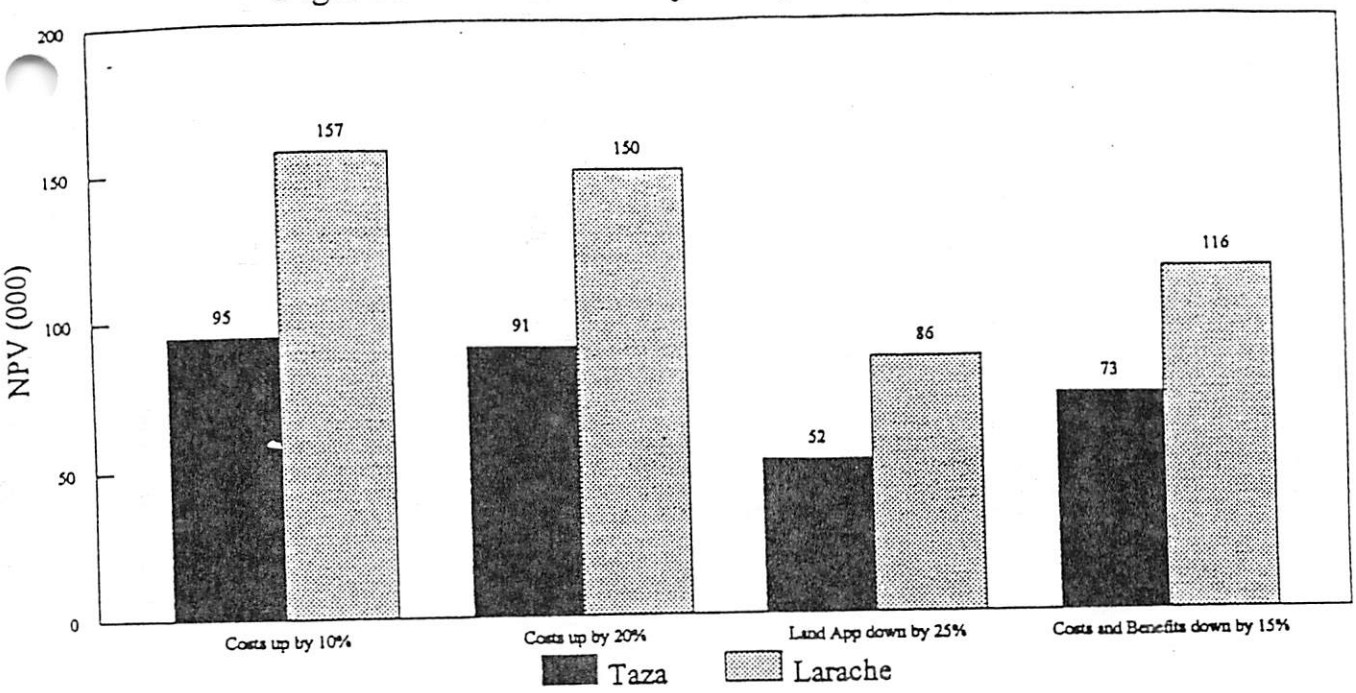



Figure 6-8b Sensitivity Analysis (EIRR)- ANHI

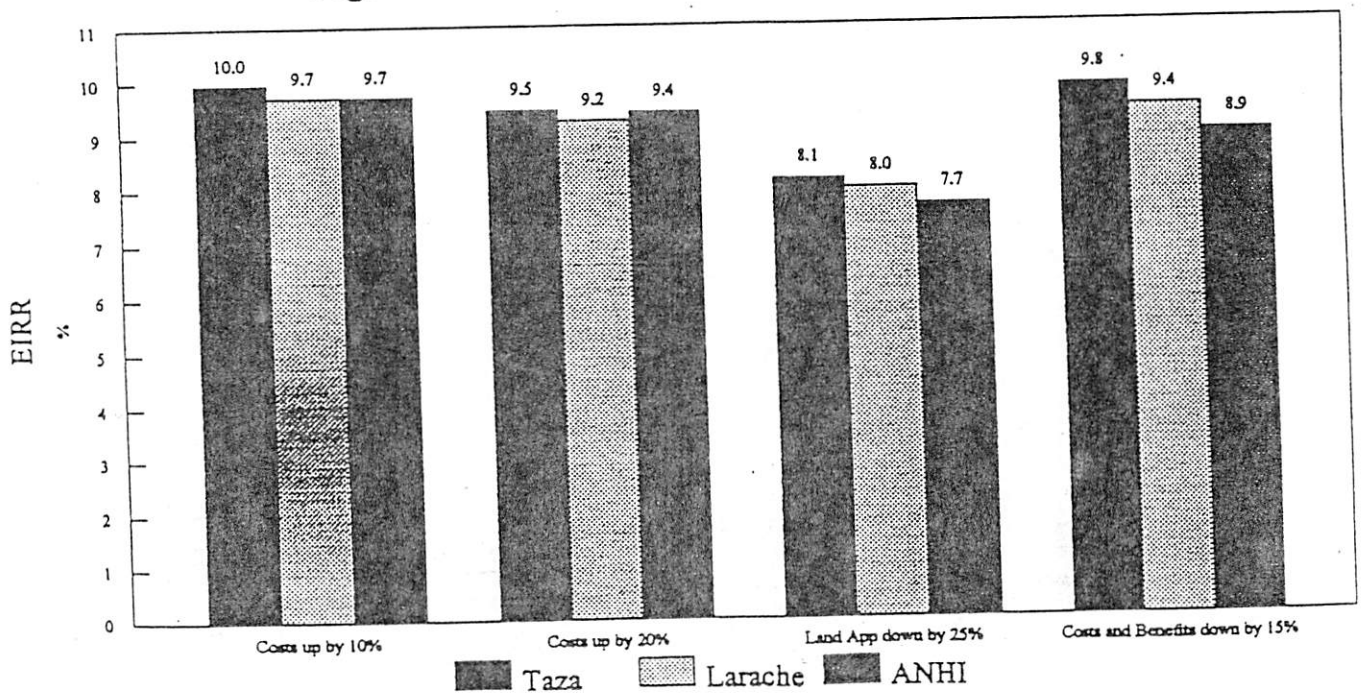


Figure 6-9a Sensitivity Analysis (NPV) - Tetouan

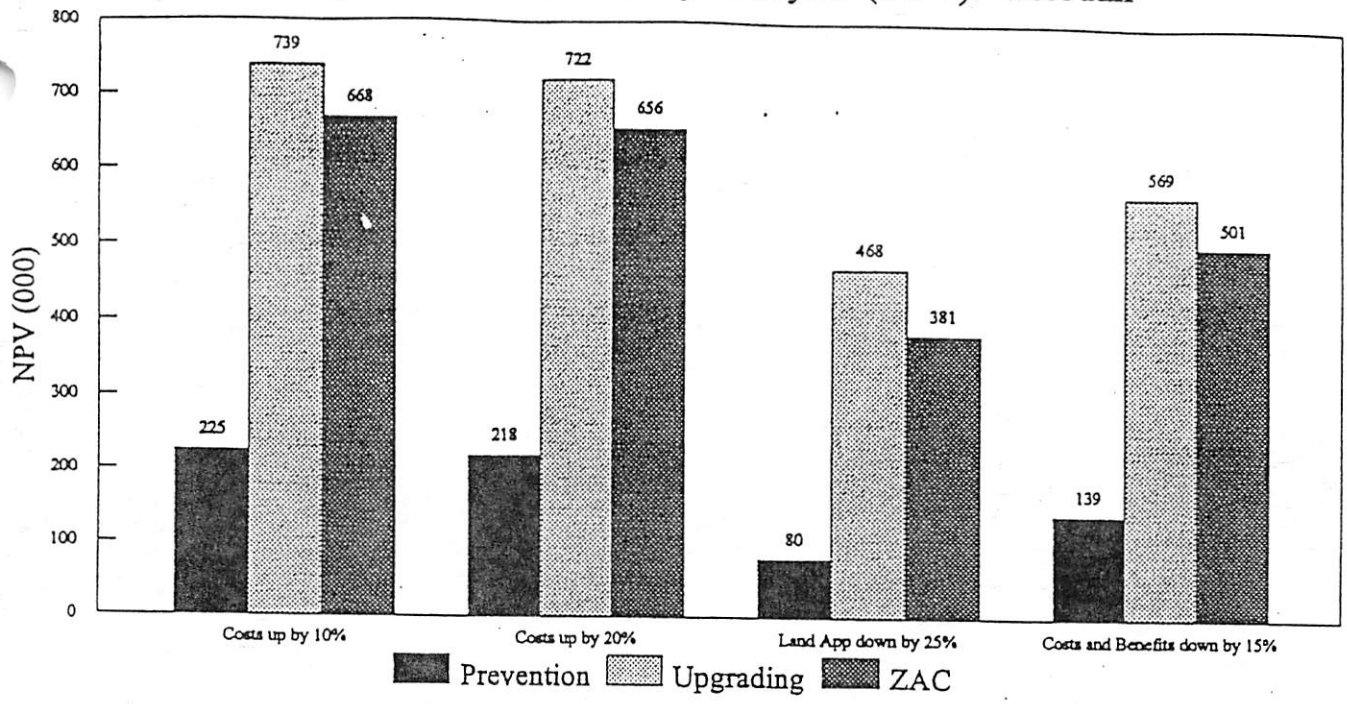
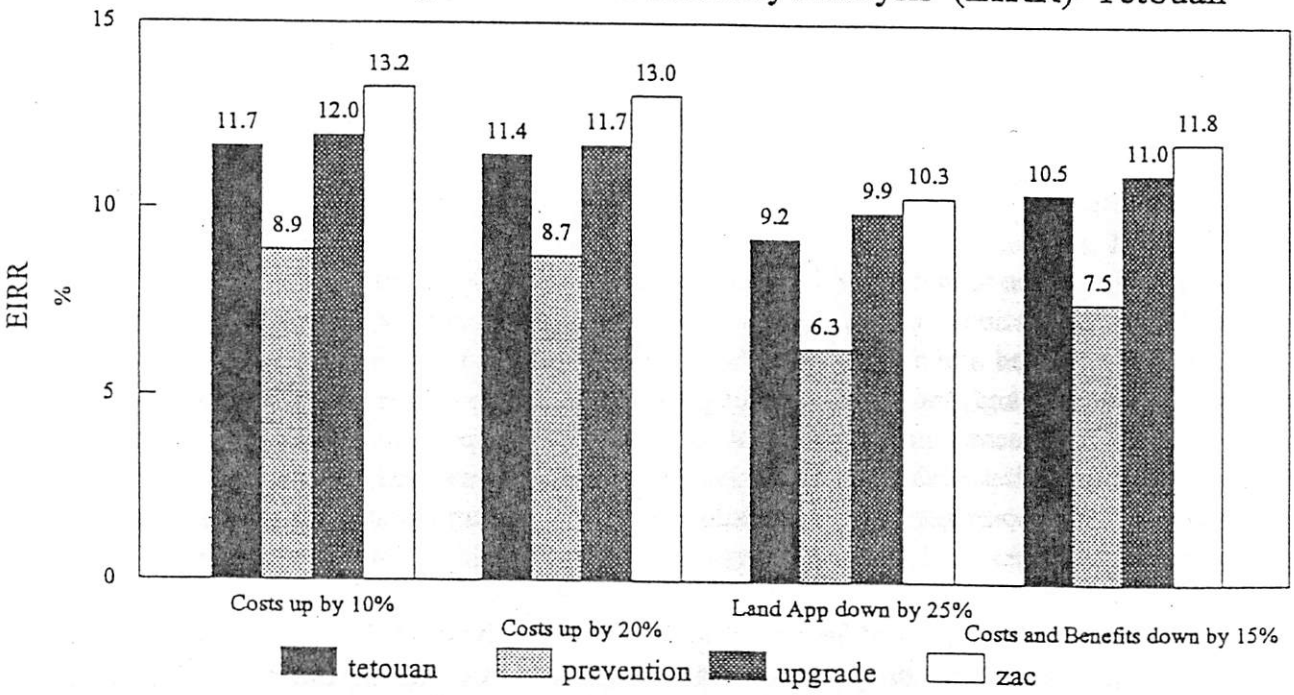



Figure 6-9b Sensitivity Analysis (EIRR)- Tetouan



# 7.0 CONSTRAINTS ON PROGRAM PERFORMANCE

## 7.1 Land Related Issues

### 7.1.1 Land Acquisition and the Transfer of Titles

Land transactions and the transfer and registration of titles is complicated by the coexistence of parallel systems of legal tenure for private property allowing the formal registration of titles and the customary holding and transfer of property rights by private contract. The fragmentation of ownerships, the diversity of joint tenure arrangements and the distinctions between ownership and possession have created a complex system of primary and subsidiary rights.

There are no less than 10 different categories of land in public ownership governed by different regulations and managed by three ministries: Finance, Interior, Agriculture and Agrarian Reform. Domain land (state, provincial and communal) account for 20% of the public land stock and constitute a reserve that is being rapidly depleted. The special status of collective and Guich lands under MOI's supervision and the particular nature of Habous property add to the cumbersome procedures for the transfer of land among public agencies.

Public agencies can launch projects through a special decree for the temporary acquisition of property which allows the agency to use the public rights of way delineated in the project plans while the land acquisition procedures and the plan approval process are proceeding. Urban projects have to be cleared by the Department of Urban Planning in MOI and approved by the municipality which will take over the project upon completion.

### 7.1.2 Land Regularization

Complex tenure patterns and cumbersome regularization procedures have impeded headway on title registrations in Dersa-Semsa. Ambiguities surround unregistered titles which can be legal if notarized and attested to by witnesses, yet are not recognized by credit institutions. The rights to own land, build houses, rent premises, enter into cooperative partnerships and tenancy agreements and otherwise use or transfer the property remains largely unaffected by the regularization of titles. Registration protects the holder from challenges to his rights in court but it also subjects him to taxation. This added security should be reflected in higher property values.

The residents of Dersa and Semsa do not regard themselves as "bidonvillois". The income spread encountered in the settlement and the quality of the buildings support this view, and are socially desirable features. Residents do not feel that their situation is precarious. Quite to the contrary, they consider their tenure rights to be secure with or without the registration of titles. Short of outright acquisition by eminent domain and resale to beneficiaries, land

regularization is a complex, difficult, and time consuming process. Program elements contingent on land regularization can be jeopardized by long delays.

The "Conservation Fonciere" (DCFTT), under the Ministry of Agriculture and Agrarian Reform, is the only agency legally authorized to survey properties, identify property owners and establish records. At this stage, the role of the municipality is limited to requesting DCFTT to speed up procedures and offering to assist in the listing of properties and the identification of property owners. Issues of legal liability have, to date, prevented DCFTT from accepting outside assistance or streamlining its time consuming survey procedures.

In theory once the registers listing the property owners and describing the properties in Dersa-Semsa and the ZAC zone are established, cost recovery should proceed unhindered. Direct collection by the agency undertaking the works should avoid the impediments constraining the process but will depend on the political will of the municipal authorities to pursue evaders and enforce penalties. A similar situation pertains in relation to the collection of real estate taxes.

## 7.2 Cost Recovery

### 7.2.1 Current Situation

In contrast to its innovative approach to project management, the Tetouan program's cost recovery strategy followed the conventional pattern of earlier upgrading experiences, despite their dismal record. Recovery of the capital investment relied on the assessment of charges on land holdings. Property owners are responsible for the payment of these charges, but can pass this liability onto tenants.

Authorities view charges in upgrading areas as similar to the plot charges in sites and services projects, but beneficiaries view them quite differently. In new subdivisions, land prices are expected to absorb site improvement costs, as is the case in ANHI projects. Beneficiaries, eager to accede to land ownership, the most prized of all assets, are willing to pay the charges and stretch their affordability to the limit to obtain a clear title to a land parcel. In existing informal settlements like Dersa, where some inhabitants can be legally considered squatters, since they have located on those portions of the site owned by the municipality or the State, residents differentiate between land tenure which they have already acquired by purchase from a private owner or by prescription and charges for the infrastructure services provided by the upgrading program. Linking between land regularization and the assessment confuses the issue and complicates the recovery process.

Beneficiaries in ANHI projects have to make a down payment of 40% and two installments of 30% each payable to the agency during construction of the site improvements. After full

payment is made, they receive from ANHI an administrative certificate enabling them to start building while public works are still being completed. When the subdivision is duly registered, they receive sales contracts transferring to them the title to the plot.

In the upgrading areas the assessment of charges is made upon the completion of regularization procedures which will determine the location, dimensions, frontage, access, and other relevant characteristics of each plot on which charges for cost recovery and valuation for real estate taxation are assessed. The delivery of a clear land title is made contingent on the payment of charges. The inability to initiate cost recovery at the time of service delivery undermines the concept. It is difficult to induce people to pay for a service they have enjoyed for free for a number of years. When over 5 years have elapsed the relationship of charges to benefits becomes increasingly tenuous. Different options for cost recovery in the upgrading areas in Tetouan are under consideration.

Households interviewed in December 1991 deplored the high cost of charges and the dent it will make in their budget. Disgruntled residents complain that they were not consulted regarding their willingness to pay for the services provided. They deplore the dearth of vehicular roads, the lack of public transportation, the inadequacy of street lighting and the insufficient number of police stations. The majority (80%) of resident complaints refer to having to pay for a service they would only want at a lower cost or feel they can do without as in the case of sewerage, having already invested in cesspits and/or septic tanks. They have no clear concept of the environmental consequences on the community and the city of the lack of a sewerage system. However, only 10% balk at the prospect of carrying a debt burden too heavy for their finances.

As documented in the surveys, property owners are already reaping the program's benefits in the form of additional income. They are recycling these revenues into investments, in new construction, rehabilitation, home improvements and micro enterprises. Current obligations often come dangerously close to outstripping their ability to pay. Households are basically unwilling to have to meet additional payments at this time. Now that the project has finally taken off on the ground, people may be more inclined to pay for tangible benefits they derive from infrastructure services. A good public information and education program may motivate the more civic minded to comply.

Tetouan municipality, ANHI and USAID do not share the same views as to the purpose and mechanisms of cost recovery. From the municipality's viewpoint, recovery is needed to repay the HG loan, through the FEC. It sees no compelling reason to initiate a politically sensitive process until the infrastructure is actually in place. Benefits from the service could entice people to pay and make enforcement more feasible. For ANHI, cost recovery is integral to

project finance and should be initiated on the basis of final cost estimates. USAID insists on cost recovery as a prerequisite to sound financial management and a guarantee of the program's replicability.

Complaints and marked reticence to comply is exerting pressure on municipal authorities to reexamine the question. The municipal council is particularly sensitive to the political repercussions of taxing a predominantly lower income population. It is reluctant to enforce collections or press for a resolution which might either compromise the municipality's successful completion of the project or dissipate political capital in an election year. Local authorities blame the delays in title registration for the inability to recover costs as scheduled. Other impediments cited included the recession, expatriate workers layoffs, and the loss of remittances which impose hardships on households in the project area. However, the financial implications of further delays in initiating cost recovery cannot be ignored. The added costs must be clarified, their consequences well understood and remedial action taken accordingly. The vulnerability of the cost recovery plan to escalating project costs and to the accumulating finance charges resulting from slippage in the scheduling of public works and delays in collections could jeopardize the financial performance of the project.

Following the completion of baseline surveys and preparatory studies in 1986/1987, the cost estimates for the Dersa-Semsa infrastructure upgrading were finalized in 1988. Technical difficulties and bureaucratic delays have forced successive upward revisions of program costs. As of December 1991, estimated cost had escalated by 22% over their 1988 levels. Cash flows can only be balanced by accepting an unrecoverable deficit of MDh 30 which the municipality must cover from alternative revenue sources or by holding unrealistic assumptions regarding the charges that can actually be collected from beneficiaries, over and beyond the amount set on the basis of the 1988 estimates and announced to the residents at that time. According to the latest cost estimates, property owners in Dersa-Semsa will be charged close to Dh 30,000/plot, a sum approximately equal to the reported annual income for the average household and representing savings accumulated over 5 or more years. If they have such a sum on hand, they might feel more inclined to invest it in the acquisition of another land parcel.

## 7.3 Real Estate Taxation and the Growth of Municipal Revenue

The Department of Taxation (DGI) under MOF, through the Service of Direct Taxes and Fees establishes tax rolls, computes assessed valuations, issues billings and collects taxes. Proceeds from the real estate taxes designated for local finance are credited to the account of the local community concerned.

Three factors contribute to depress the yield of real estate taxes:

- Lagging cadastral records and obsolete valuations resulting from the widening gap between the pace of urbanization and the pace of registration.

- Unstructured development on the urban fringe where partially serviced formal subdivisions awaiting the registration of parcels are interspersed with burgeoning informal settlements which have to be regularized and serviced before they can be subject to taxation.

- Assessment on the basis of rental valuation which fails to account for the full value of the land.

The transfer of the "taxe urbaine", the regular property tax to the central levels, limits the scope of local real estate tax revenue to the "taxe d'edilite", a tax levied on new buildings exempted from the "taxe urbaine" for a 5 year period.

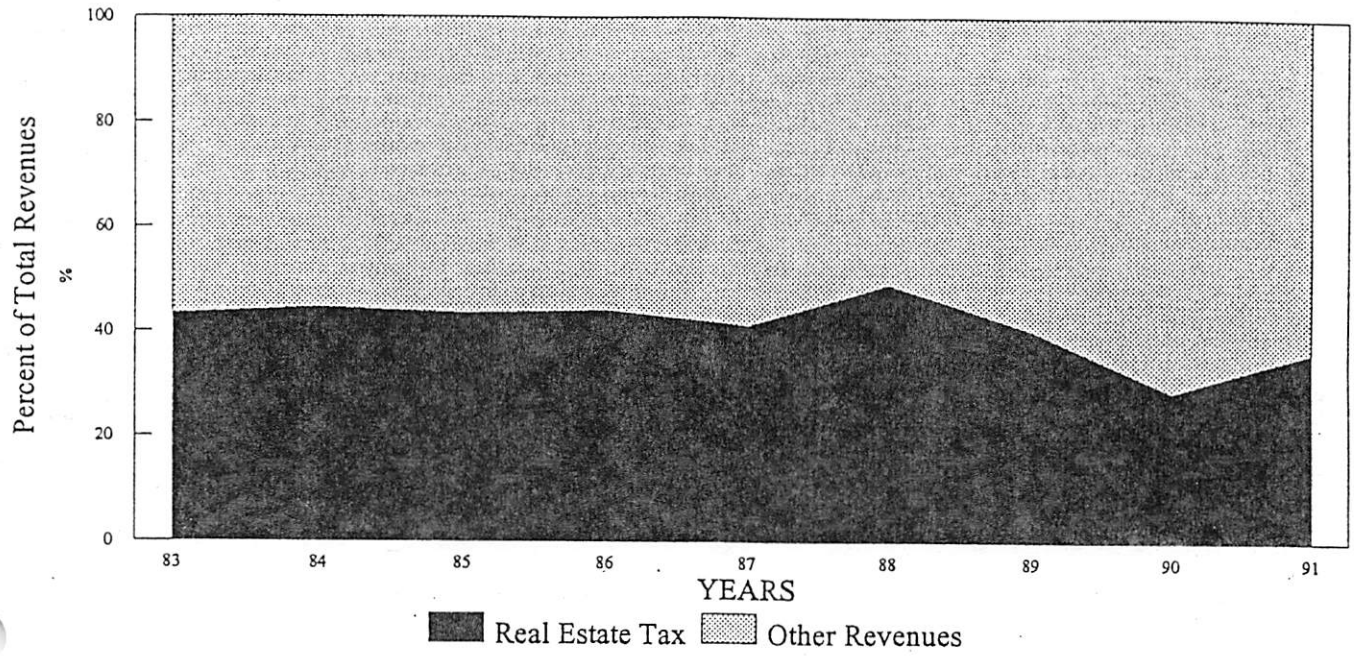
To enhance local self reliance, the program has sought to broaden the municipality's tax base and its revenue generation capacity by the introduction of new M.I.S. technology and technical assistance. Receipt from real estate taxes increased from MDh 9.7 in 1986 to MDh 24.3 in 1991 (shown on Figure 7-1). Detailed figures on revenue and expenditures for the capital and operating budgets of the past 3 years are given in Table 7-1 and 7-2. Between 1989 and 1991 local receipts from the "taxe urbaine" fell by 70% due to its transfer to the central level. The decline was partially offset by an increase of 14% in receipts from the "tax d'edilite" so that total receipts from real estate taxation fell only by 15%. Strengthening municipal technical and managerial capacities, and the computerization of data bases will contribute to the development of local fiscal resources.

The Tetouan program will eventually set up cadastral records identifying plot boundaries and ownerships and update property valuations, on which assessments are based. Central and local authorities could then collect tax revenue if they are able and willing to enforce collection. Widespread evasion points to laxity in enforcement. Politically motivated tolerance of evasion conflicts with efforts to shore up municipal finances by expanding the tax base.

### 7.3.1 Taxation and the Maintenance of Infrastructure

In theory, the yield of real estate taxes should cover the maintenance of streets, drains and alleyways for which the Municipality is responsible. Local officials worry that unless funds to adequately maintain the city's infrastructure are secured, lack of maintenance will lead to premature obsolescence and erode the benefits of public investments in urban infrastructure.

Figure 7-2 Distribution and Evolution of Tax Revenues in Tetouan



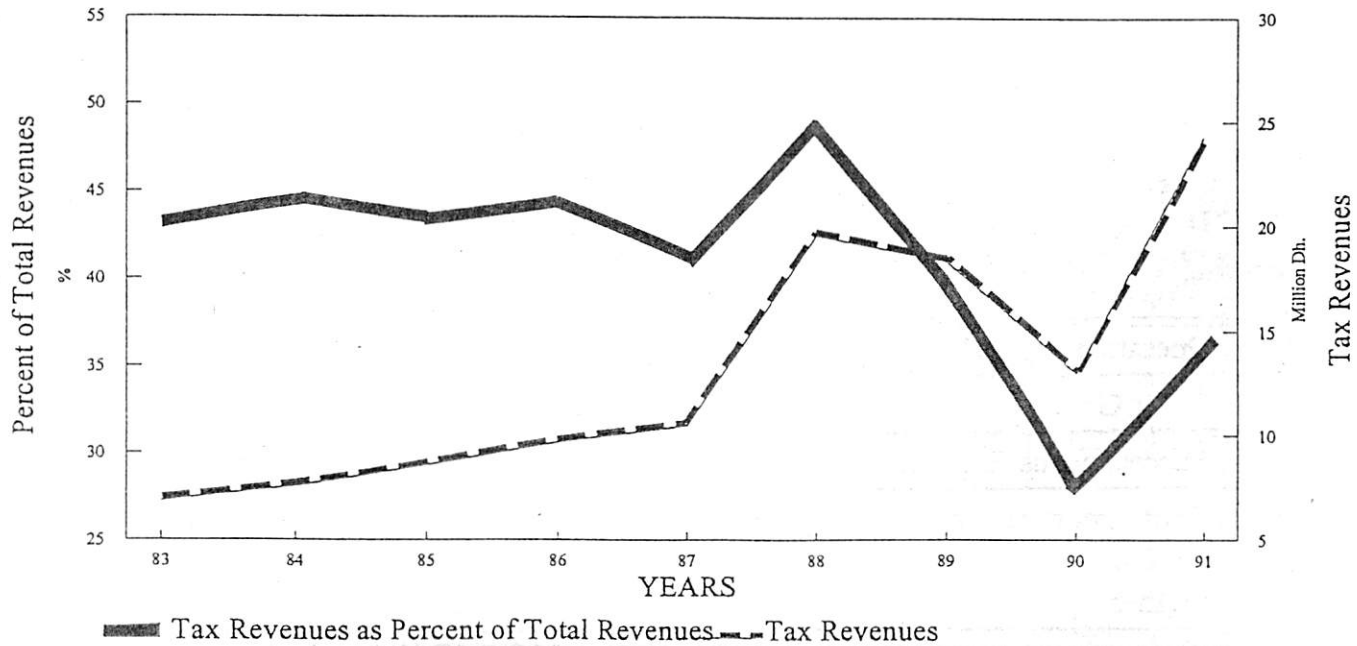
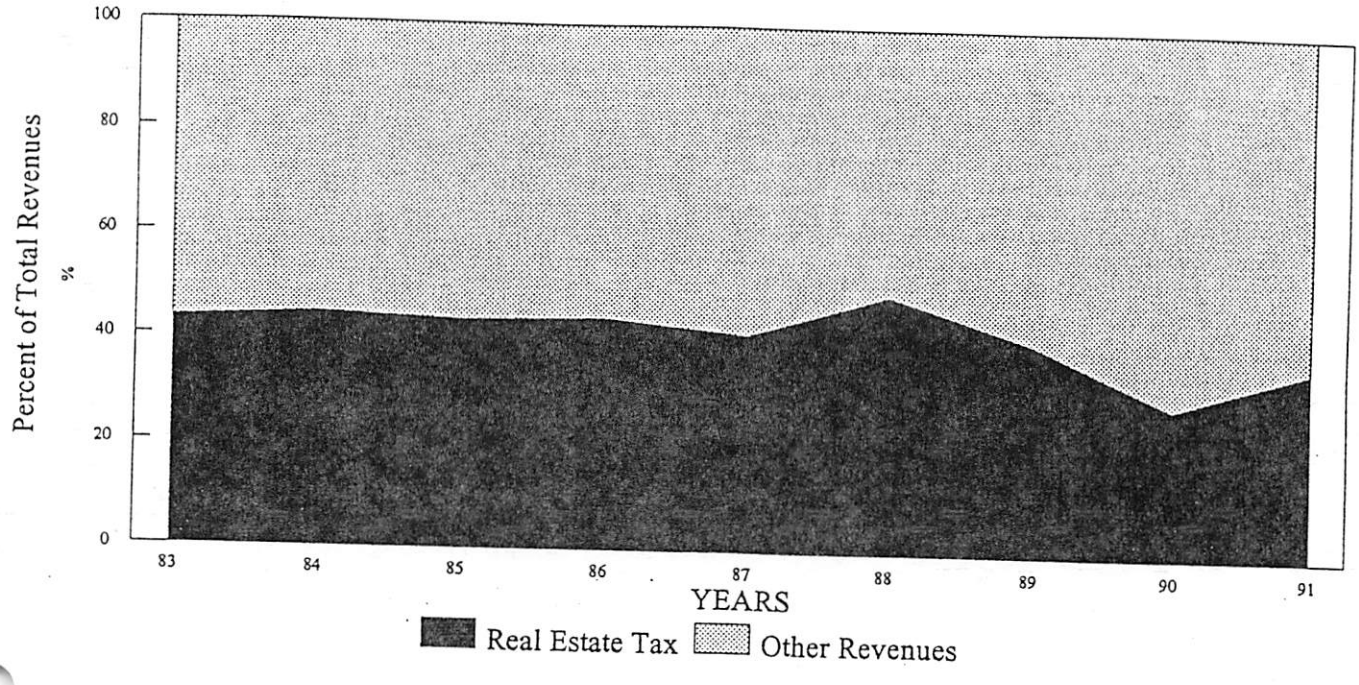
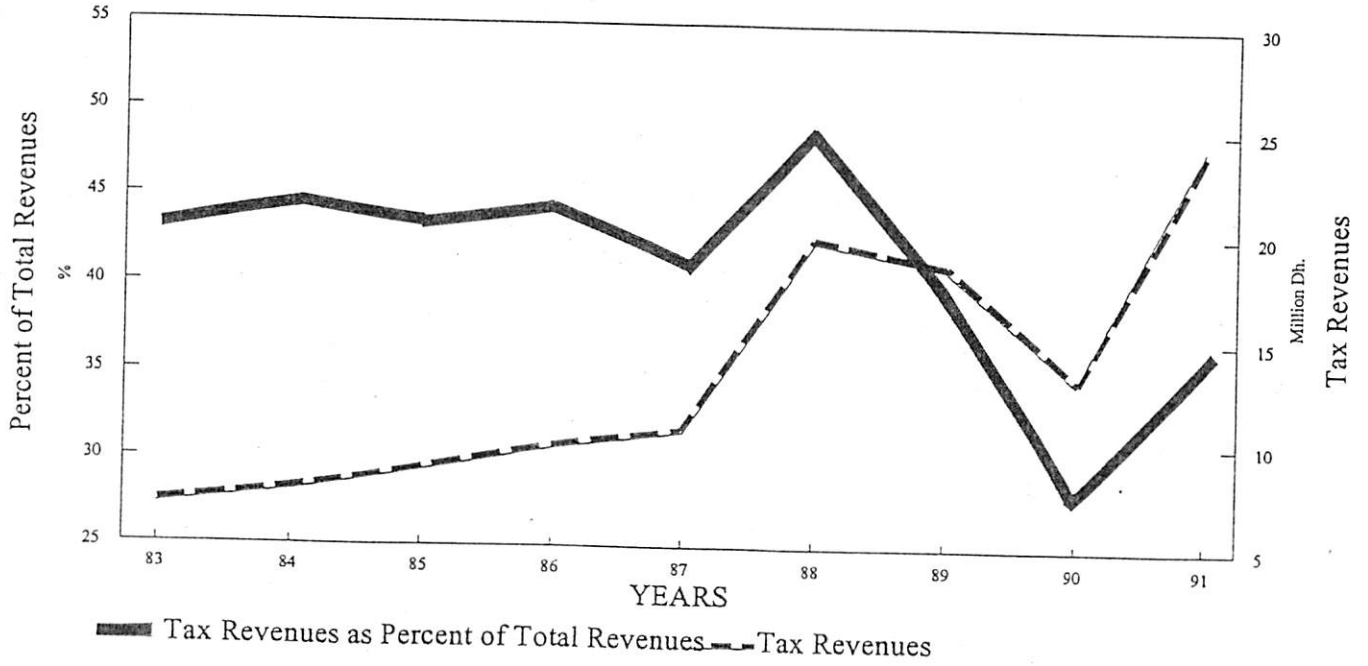



Figure 7-2 Distribution and Evolution of Tax Revenues in Tetouan



In the absence of supplemental resources, the quality of the maintenance that can be financed from the proceeds is inadequate to ensure the maintenance of the new assets, particularly in a high cost area such as Dersa, raising questions as to the sustainability of these expensive assets and the durability of upgrading benefits. The question of maintenance of the Dersa-Semsa infrastructure needs to be seriously addressed. Fragmented land ownership, narrow alleyways, steep slopes, and rocky terrain imply maintenance costs approximately twice as high as the city average. These costs have to be provided for in the municipal budget. The turnover of the "patente" tax on commercial establishments from the central to the local level will make an important contribution to municipal revenue that, together with market taxes, should be tapped for the maintenance of infrastructure which supports the development of commercial activities.

Strengthening local institutional capacity is the best guarantee to ensure adequate monitoring and maintenance of the physical infrastructure put in place through the program and the sustainability and performance of these assets.

# 8.0 RECOMMENDATIONS FOR ONGOING AND FUTURE PROGRAM ACTIVITIES

The recommendations presented in this section are derived primarily from the in-depth review of USAID ongoing urban shelter sector programs and the assessment of their institutional impacts and economic performance. Suggestions and proposals made by interviewed officials and pertinent to the objectives of the review have been integrated.

## 8.1 Issues Related to the Implementation of Ongoing Activities

Building upon their impressive achievements to date, the programs must overcome the new challenges to be faced in the coming 4 to 5 years (1992-1997). In Tetouan, the challenges currently faced arise from the high cost of servicing Dersa, the difficulties encountered in regularizing land tenure, the inability of the municipality to fully recover upgrading costs and delays in the completion of off-site improvements and the ZAC's infrastructure. For ANHI, the challenges are to increase economic performance in the face of rising land values and the depletion of public land reserves as well as finding formal credit at terms suited to the special needs of small scale private developers and individual homeowners.

**In Tetouan, it is important to avoid further delays in the scheduled provision of infrastructure.** To illustrate this point, two hypothetical scenarios were run on the computer model assuming delays of 3 and 6 years respectively beyond the present horizon of 1997 for the completion of infrastructure works. The results presented in Figure 8-1 highlight the decline in economic performance due to the rapid erosion of benefits from the ZAC. The EIRR would fall from the baseline level of 11.85 to 11.43 and 10.40 respectively. Even more striking is the dramatic decline of benefits, from a baseline NPV of MDh 1,667 to MDh 1,269 to a mere MDh 847. The analysis also underscores the added vulnerability of the program to the legal impediments hindering implementation of the ZAC's concept and difficulties encountered in regularizing land tenure. The performance of the upgrading component presented here optimistically assumes that plot charges will be collected as planned.

**The interlinkages between administrative, financial and technical matters in program management should be clarified.** The council needs to gain a better understanding of the impact of political decisions on program performance particularly as they affect the ZAC and the upgrading areas. On their part, the technical agencies have to learn to interact with the residents in the project areas and mobilize their energies to sustain popular confidence in the program in the face of delays.

Going beyond current activities, the Tetouan program should give serious consideration to the proposal for a small business zone submitted by the Municipality to DGCL since servicing this

Figure 8-1a Effect of Delay (NPV), Tetouan Sites

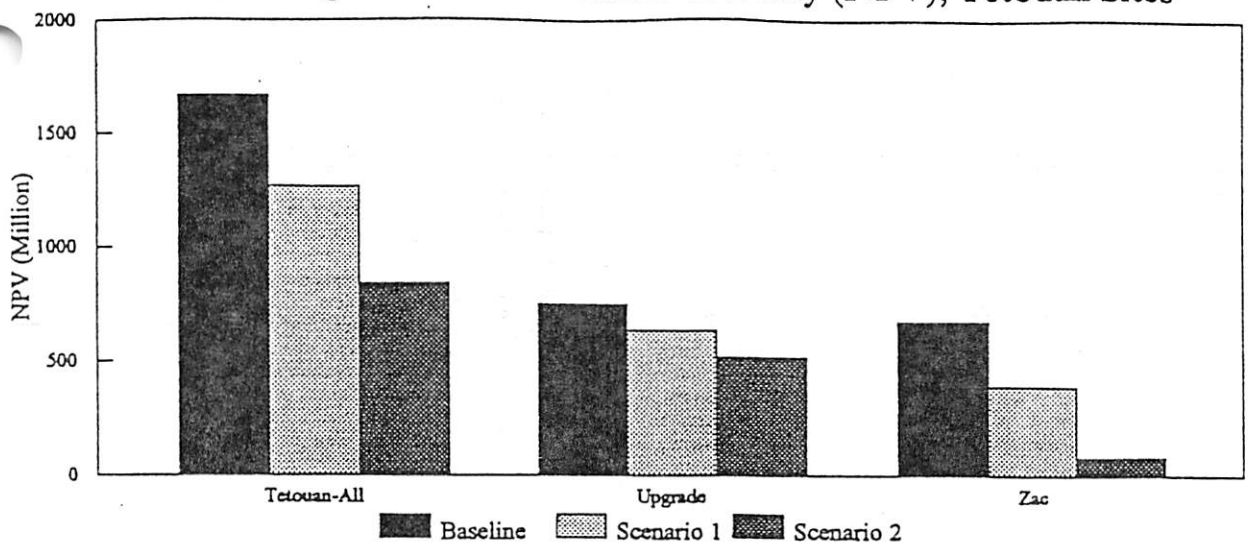
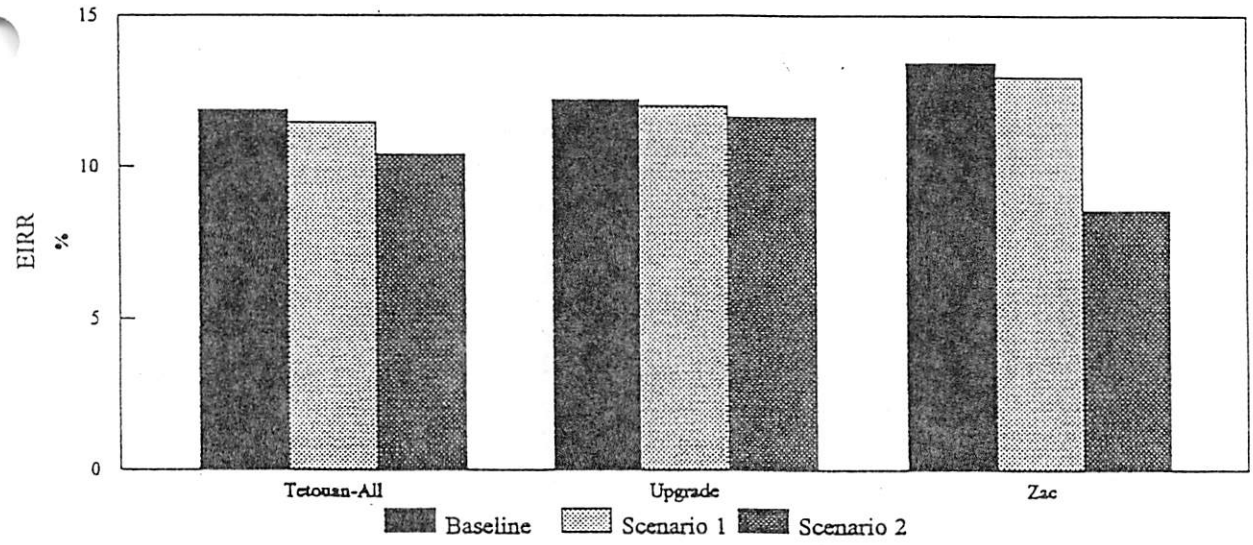



Figure 8-1b Effect of Delay (EIRR), Tetouan Sites



zone will have to be linked to the restructuring of the city's infrastructure and its new sewerage system.

**Carefully located program activities can become very effective mechanisms to guide urban growth and structure development.** Public officials at the central and local levels are enthusiastic about the ZAC concept which they view as a dynamic and flexible new mechanism, easily adapted to local conditions. **They are looking to the Tetouan ZAC to provide them with a workable model for public/private partnership in urban development.** Should further delays in the activation of the urban development bill occur, the municipality should seek to have its ZAC established by special decree. Conceptually the ZAC has the potential of becoming a significant long term contribution made by the program.

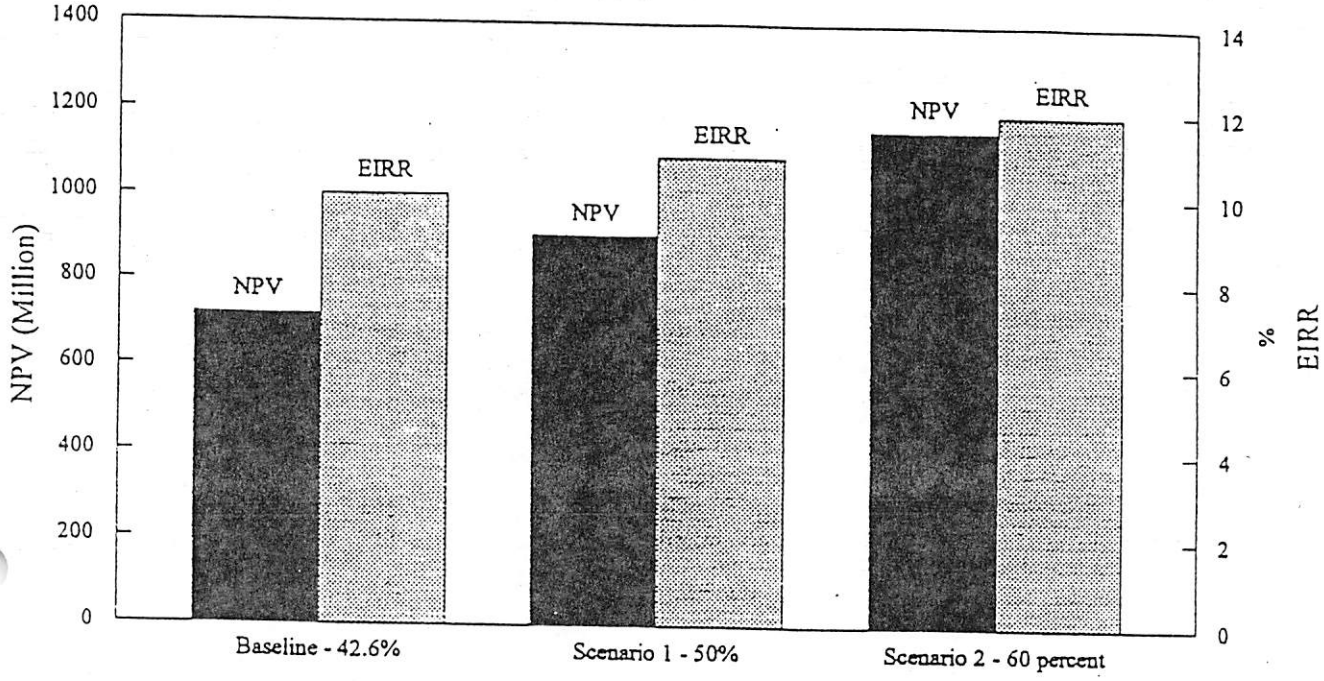
**ANHI should place high priority on working with responsible agencies to amend the regulatory framework which constrains the agency's performance and depresses returns on public investments in urban infrastructure.** Unrealistically high land development standards applying to subdivisions targeting lower and moderate income groups perpetuate wasteful land consumption patterns and erode project performance.

To illustrate this point, two hypothetical scenarios were run on the computer model assuming that land utilization ratios in ANHI projects would rise from the current baseline of 42% to the 50% level stipulated in HG-003 and to 60%, a reasonable target for affordable land plots. The results presented in Figure 8-2 highlight the dramatic improvement in the returns that would ensue: the EIRR would rise from a baseline level of 10.02 to 10.91 and 11.93, respectively, while the NPV would soar from MDh 720 to MDh 910 to MDh 1,150.

**The sustainability of increased production and delivery of affordable building plots hinges on the ability to increase the efficiency of land utilization and infrastructure investments.** This is the rationale underlying the HG003 program conditions which the government agreed to meet. ANHI can request and will in all likelihood be granted the variances it needs to meet these obligations. Capitalizing on this leverage, ANHI should request to test on an experimental basis lifting restrictions on the development of ground floor commercial activities in low cost housing zones. A pilot project would demonstrate the validity of assumptions and inferences from field surveys, regarding the contribution that flexible land development standards could make to the poorer segments of the population in letting them capitalize on opportunities to supplement their income and develop through self reliance.

The urban development bill presented to parliament in July 1991 constitutes an important step in establishing the enabling framework which USAID wants to promote. In as much as it provides for the creation of special zones where regulations are better adapted to the characteristics of the area and its development potential, and the needs of the target population and their financial resources, the bill would allow the generalization of innovative approaches and the replication of key features of the pilot project. By the same token it will

Figure 8-2 Effect of Changes on Land Utilization on NPV and EIRR, ANHI Phase 1



allow public investments in urban infrastructure to fulfill their economic potential. The importance of flexible approaches to land development for the activities of the private sector should not be underestimated. It is difficult to see how private landowners in the ZAC could ever be enticed to comply with formal regulations which would allow them a land utilization factor of 40% when 80% or more is the prevailing norm in informal developments. In the absence of more realistic standards, the private sector will continue to develop land informally despite the adverse environmental consequences of this haphazard and under serviced urbanization.

**The ANHI program offers unique opportunities to demonstrate alternative approaches which can shape future land policy. In structuring new projects ANHI should not loose sight of the longer term policy impacts of its activities.**

## 8.2 Issues to be Considered in the Formulation of Future Activities

Having encouraged Tetouan's elected municipal council to shoulder its statutory responsibilities and focus its interventions on major infrastructure which affects development, shelter and the environment, the program has managed to provide a model that other municipalities would like to emulate. Similarly, in supporting ANHI, the program has demonstrated that a stronger technical and managerial capability enables specialized agencies to redirect their activities and accept changes in their mode of operation. ANHI is and should strive to remain a model of dynamism and performance for other public agencies to emulate. Its eagerness to respond to USAID's program objectives should be tempered to avoid too rapid an increase in work load, overstretching scarce manpower resources.

**The prevailing characteristics and dynamics of urban land markets are working to reinforce trends toward more complex program structures, integrating mutually supportive elements.** In the case of ANHI, the decline in the number of bidonvilles and the spread of informal settlements will reshape the agency's approaches. Informal settlements cannot be razed and rebuilt but have instead to be serviced and regularized, a challenging task which ANHI has been studying. Furthermore, financial considerations will make it necessary that projects meeting the USAID criteria stipulated in HG-003 be combined with revenue generating activities which can contribute to cross subsidization. Municipalities seeking to replicate, albeit at a more manageable scale, the Tetouan experience will find it necessary to develop program frameworks incorporating private development of land to support the delivery of land and services to lower income groups.

Quite apart from their organizational complexity, **a common feature shared by these integrative program structures is the intricate financial linkages among program components. Cost overruns or delays in any one component affect the financial soundness and economic performance of the whole program.** Given the rigidities inherent in municipal financial management, it is important that the program's cash flow requirements be worked out to avoid jeopardizing returns. This is because cash flow problems are the most

frequent source of delays that progressively erode returns by delaying the flow of benefits. This is an aspect of project finance that is often overlooked in the scramble to find alternative sources of funds. Linking between financial analysis and economic analysis will ensure that cash flows are related to the flow of benefits.

**Sensitive project components affecting program performance should not be contingent on land regularization.** The legal and technical difficulties involved in fitting complex tenure patterns and customary arrangements to a uniform system of registration complicate procedures. Furthermore, the interplay among factors affecting title registration hinge on a subtle balance of incentives and disincentives underlying individual decisions and add to the difficulties involved in setting a time frame for the regularization process.

**Sites for project activities must be able to benefit from the dynamics of urban growth in order to reach their full economic potential.** These sites will be more attractive to private developers and make it easier to expand their role and in general widen the scope of private participation in the shelter sector. The strategy followed to date leading to the relegation of projects to outlying locations should be abandoned because of its adverse impact on economic development objectives. Remote sites can be bypassed by development for 10 or more years.

Municipal councils are responsible for the development of plans reflecting their vision of the future. Yet relating project activities to their wider urban context is difficult because plans when they exist at all, are obsolete and no longer reflect the existing situation let alone future prospects. Nevertheless, **site selection criteria for project activities should relate to a coherent vision of the city's future development as well as to USAID's policy dialogue objectives.**

Technical assistance should continue to be directed at building up ANHI's technical and managerial capabilities. A special emphasis should be placed on the management of program structures integrating the activities of public and private sectors and on the design of financial packages linking and coordinating their respective investments.

Technical assistance should continue to help participating municipalities build up their institutional capacity to become more self-reliant and better manage public investment land development and environmental issues within their administrative boundaries. Assistance should also be provided to promote public participation and the mobilization of community energies and resources in the project areas.

**The formulation of new program activities should be based on a realistic assessment of the actual degree of central control over local authority in decision making.** Decentralization and empowerment are slow processes that mandate the reformulation of institutional linkages and procedures. Decentralizing administrative frameworks characteristically display imbalances and ambiguities while bureaucratic procedures are

adapted to new interagency relationships. Dealing with the inherent rigidities which cannot be circumvented at this time is an integral part of program administration.

Most importantly future USAID shelter sector activities in Morocco should continue and expand the program's focus on institution building. It is the best guarantee of success in the achievement of USAID objectives, the constructiveness of its policy dialogue and the continuity of its program's impacts. Promoting public actions conducive to reinforcing decentralization policies and strengthening local managerial capabilities can be the most significant and lasting contribution made by the shelter sector program.