

41798
UNCLASSIFIED

INTERNATIONAL DEVELOPMENT

COOPERATION AGENCY

AGENCY FOR INTERNATIONAL DEVELOPMENT

Washington, D.C. 20523

PROJECT PAPER

MOROCCO: Tetouan Urban Development
(608-HG-001)

UNCLASSIFIED

PROJECT DATA SHEET

1. TRANSACTION CODE

A = Add
C = Change
D = Delete

Amendment Number
ORIGINAL

DOCUMENT CODE
3

2. COUNTRY/ENTITY MOROCCO

3. PROJECT NUMBER

608-HG-001

4. BUREAU/OFFICE

A/NE

03

5. PROJECT TITLE (maximum 40 characters)

TETOUAN URBAN DEVELOPMENT

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

MM DD YY
1 | 2 | 3 | 0 | 9 | 0 |

7. ESTIMATED DATE OF OBLIGATION (Under "B" below, enter 1, 2, 3, or 4)

(GUARANTY AUTHORITY THIS AMENDMENT)

A. Initial FY 85

B. Quarter

C. Final FY 90

8. COSTS (\$000 OR EQUIVALENT \$1 =)

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	()	()	()	()	()	()
(Loan)	()	()	()	()	()	()
Other U.S.						
1. HOUSING GUARANTY				7,400	17,600	25,000
2. (HG)						
Host Country GOM & BENEFICIARIES		3,960	3,960		22,100	22,100
Other Donor(s)						
TOTALS		3,960	3,960	7,400	39,700	47,100

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) HG	720		862		-		25,000		25,000
(2)									
(3)									
(4)									
TOTALS									

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

861

852

11. SECONDARY PURPOSE CODE

723

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code

BU

B. Amount

25,000

13. PROJECT PURPOSE (maximum 480 characters)

A) TO UPGRADE A CLANDESTINE SETTLEMENT, AND PREVENT ITS SPREAD IN A MAJOR MOROCCAN SECONDARY CITY AND, B) TO DEVELOP A MODEL OF A COMPREHENSIVE APPROACH TO URBAN DEVELOPMENT AND SHELTER FINANCE FOR LOW-INCOME FAMILIES.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY
1 | 2 | 8 | 6 | 1 | 2 | 8 | 8 | 1 | 2 | 9 | 0 |

15. SOURCE/ORIGIN OF GOODS AND SERVICES

000 941 Local Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a page PP Amendment)

AMEND TO INCLUDE COMPREHENSIVE SHELTER AND URBAN DEVELOPMENT PROGRAMS IN MOROCCO FOR LOW INCOME HOUSEHOLDS.

17. APPROVED BY

Signature

Robert Chase

Title

DIRECTOR, USAID/MOROCCO

SEP 26 1985

Date Signed

MM DD YY
09 | 26 | 85

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY

ACRONYMS

AHNI	Agence Nationale de lutte contre l'Habitat Insalubre National Upgrading Agency
CDG	Caisse de Dépôt et de Gestion Deposit and Investment Management Trust
CIH	Crédit Immobilier et Hôtelier Housing and Hotel Loan Bank
DRH	Délégation Régionale de l'Habitat Regional Housing Delegation
ERAC	Etablissement Régional d'Aménagement et de Construction Regional Land Development and Construction Company
FEC	Fonds d'Equipement Communal Community Infrastructure Fund
FNAET	Fonds National d'Habitat et d'Equipement de Terrains National Fund for Land Development
GOM	Government of Morocco
HG	Housing Guaranty
IBRD	International Bank for Reconstruction and Development
MOF	Ministère des Finances Ministry of Finance
MOH	Ministère de l'Habitat Ministry of Housing
MOI	Ministère de l'Intérieur, Ministry of Interior
ONEP	Office National de l'Eau Potable National Drinking Water Agency
PIP	Project Implementation Plan
RDE	Régie Autonome Intercommunale de Distribution d'Eau et d'électricité de la province de Tetouan Regional Public Utility Agency
MUN	Municipality of Tetouan

Exchange rate as of mid-1985: US\$ 1.00 = DH 10

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I SUMMARY

A. Brief Project Description

1. Rationale

The project purposes are: a) to upgrade a clandestine settlement, and prevent its spread, in a Major Moroccan secondary city and b) to develop a model of a comprehensive approach to urban development and shelter finance for low-income families, by bringing together a number of agencies at both central and local levels. The financing plan, which is the key to the project, will be the responsibility of the Caisse de Dépôt et de Gestion (CDG) through its subsidiary the Fonds d'Équipement Communale (FEC). If successful, this approach will be applied in other cities of Morocco for similar urban development projects.

2. Background

The rapid growth of Morocco's urban centers has been accompanied by the inability of the formal housing sector to meet the shelter needs of low income families. This situation has resulted in the growth of two types of informal housing: bidonvilles and clandestine neighborhoods. Bidonvilles are crowded neighborhoods of shacks or similar rudimentary shelters. Clandestine settlements, in contrast, are unplanned, unregulated (i.e. lacking formal authorizations, permits and formal land titles) neighborhoods of more substantial dwellings, often concrete structures of two or more storeys. Both types of neighborhoods lack utilities and other infrastructure and community facilities. Both serve the needs of low income groups, though residents of clandestine housing have apparently been more willing to invest their scarce resources in housing.

The Government of Morocco (GOM) has identified regularization of clandestine housing as its top priority due to the rapidity and extent of its growth. Because the dwellings themselves are normally of standard quality, addressing the problems of clandestine neighborhoods is much more directed at the whole spectrum of urban development issues than at housing, per se. If the GOM is to be able to deal with the housing needs of its population, particularly those of low and moderate income, whether housed in bidonvilles, clandestine neighborhoods or elsewhere, it must find ways to regain public control over urban development such that private investment in the sector is encouraged.

The current HG-001 project, originally cast as a relatively simple upgrading of the Dersa/Samsa neighborhood of Tetouan, has evolved into the first comprehensive effort to do this. Its approach is innovative in the ways in which it will bring public and private sector resources to bear on a major clandestine area. If successful, this approach will be the model to be applied in other cities of Morocco¹.

The original upgrading component is now one of three major components, the second being a sites and services project on adjacent land, and the third, a Zone d'Aménagement Concerté (ZAC) project. The latter two components are seen as a means of preventing future spread of clandestine housing and are also important for the mobilization of private investment which is essential to the financial viability of the entire HG-001 project. Two further aspects of the project are essential to its success: an off-site sewerage project and a technical assistance component.

¹ The key to the success of Tetouan and future application is the FEC, a subsidiary of the Caisse de Dépôt et de Gestion, which, as the financial intermediary in the project, is the agency principally responsible for its financing (see details in Section III B 2). As borrower of project funds, the FEC assumes the responsibilities and risks of loan repayment to the GOM and, consequently, project viability.

3. Project Components

a. the institutional component

The institutional component is structured to provide financial and technical management by two central organizations, the FEC and the ANHI, respectively, who collaborate to work in consort with municipal governments. This structure will ensure replicability of urban development and shelter financing schemes for low income families through the national scope of the FEC and ANHI whilst reinforcing cost recovery through the municipal government.

b. the upgrading component

This component consists of upgrading two adjacent settlements: Dersa and Samsa, with 54,000 inhabitants. The Dersa/Samsa site contains 9,500 households in homes on land that is either publicly owned or has been acquired from private owners without cadastral survey. The HC loan will finance the provision of infrastructure works to upgrade the site: a primary road system; completion of the water supply and electricity network; storm water and sewerage system; provision of municipal services; and legal tenure for all homeowners in the Dersa/Samsa neighborhoods. Project costs will be recovered through downpayments and a monthly assessment fee to be collected through the utility billing process. Beneficiaries will benefit from cross-subsidies from profits from the sale of lots in the sites and services component and from the improvement charges made to owners of land in the Z.A.C. component.

c. sites and services component

The Samsa II area, covering 130 hectares (of which 70 hectares are privately owned), will be developed into serviced lots over a five year period. The development of this zone will include provision of primary, secondary and tertiary infrastructure. It will be subdivided into low and middle income plots, commercial and apartment building sites. The HG loan financing will finance the development of 4,000 low income housing type lots which will meet shelter demands of this group through the next decade. The sale of land for villas, apartments and commercial facilities at close to market prices will allow for important cross subsidies to be made to the upgrading component of the project.

d. the Zone d'Aménagement Concerté (ZAC) component

This project component includes 70 hectares of privately owned and partially developed land located in the Samsa neighborhood. The site will have primary infrastructure installed. The total investment cost will be borne by the current land owners.

e. off-site infrastructure and equipment

The project proposes to construct two primary sewerage/storm water collectors and a sewage treatment plant for the city of Tetouar. Based upon the number of project beneficiaries concerned, the HG loan will finance up to 25 percent of the total cost of these activities. In addition HG loan funds will be used for the purchase of equipment necessary to provide municipal services to the project sites.

f. technical assistance

In combination with this program, USAID/Rabat will provide grant funding to assist the municipality of Tetouan to improve its ability to deliver municipal services, provide land registration to project beneficiaries, increase the rate of general revenue collections and improve its overall financial management and to the FEC for financial management.

B. Borrower

The Ministry of Finance (MOF) of the GOM will borrow dollars from U.S. lenders but the Fonds d'Equipement Communale (FEC), a subsidiary of the Caisse de Dépôt et de Gestion (CDG), will borrow dirhams from the MOF and will be responsible for repayment to the MOF of the dirham loan. (For details on these financial arrangements, see Section VI.A. Financial Analysis).

C. Project Financing

The total cost of the project is estimated to be \$47.10 million.

Costs to be financed by the HG-001 loan are as follows:

upgrading	\$ 11.52 million
sites and services	4.76 million
off-site sewerage	2.00 million
capitalization of interest	6.73 million
TOTAL	25.01 million

The Government of Morocco and project beneficiaries will finance approximately \$23.10 million in project costs.

D. Sector Goal and Project Purposes

The sector goal is to improve the shelter conditions in urban areas of Morocco for low income households. Progress toward this goal will be made by the achievement of the project purposes which are: a) to upgrade a clandestine settlement, and prevent its spread, in a major Moroccan secondary city, and b) to develop a model of a comprehensive approach to urban development and shelter finance low-income families.

- Support GOM policies which are aimed at addressing the problem of the proliferation of clandestine settlements;
- Increase the availability of affordable shelter for low income families;
- Create an institutional structure capable of implementing similar projects in other urban areas;
- Support GOM efforts to strengthen local government's ability to deliver services to residents on a cost effective basis;
- Increase capacity of Municipality to guide their own urban development;
- Mobilize private sector resources to better meet housing demand.

E. Project Design Team

H. Birnholz, Team Leader, RHUDO
R. Adams, PSC, RHUDO/Rabat
U. Ernst, PSC, USAID/Rabat (Economist)
D. Tsitsos, PSC, USAID/Rabat
D. Coleman, Consultant (Financial Analyst)
G. Erbach, Consultant (Shelter Specialist)
W. Vander Borcht, Consultant (Engineer)

F. USAID/Rabat Project Review Committee

R. Chase, Mission Director
C. Johnson, Deputy Director
W. Rhodes, Program Officer
J. Giusti, Acting Program Officer
M. Matthews, Controller
A. Williams, Regional Legal Advisor

G. Project Paper Approval

Authority to approve the project paper in the field has been delegated to USAID/Rabat Mission Director by State Cable 153969. (See Appendix D).

H. Recommendation of Project Design Team and Project Review Committee

The Project Design Team and Project Review Committee recommend that, subject to the terms and conditions of the Project Authorization (see Annex B), an amendment of the \$25 million Morocco Housing Guarantee Program Project 608-HG-001 be approved as herein described.

FIGURE I-1

(a)

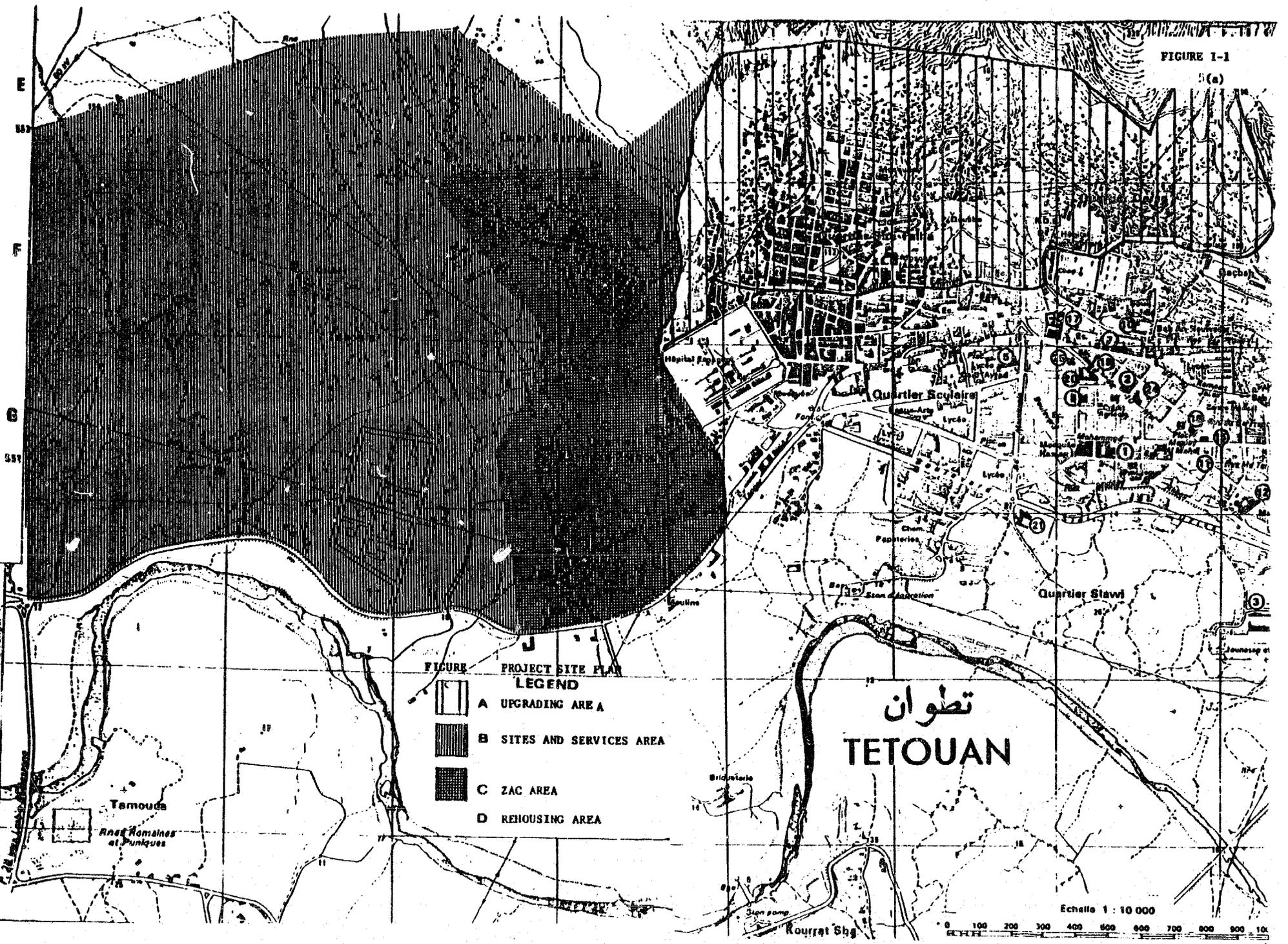


FIGURE PROJECT SITE PLAN LEGEND

-  A UPGRADING AREA A
-  B SITES AND SERVICES AREA
-  C ZAC AREA
-  D REHOUSING AREA

تطوان
TETOUAN

Echelle 1 : 10 000

0 100 200 300 400 500 600 700 800 900 1000

II. PROJECT RATIONALE AND BACKGROUND

A. Project Rationale

1. Evolution of the HG-001 project

a. rationale for a revised Project Paper

This revised Project Paper supports a GOM request to amend the HG-001 Authorization replacing the original Ben M'sik Upgrading Project by the Tetouan Upgrading Project. As noted in the Discussion Paper "Proposed Amendment and Morocco 608-HG-001 Program Design", the HG-001 was authorized for \$25 million in 1979 to support the Ben M'sik bidonville upgrading project in Casablanca. No borrowings occurred however, and in the beginning of 1982 the GOM suddenly changed the orientation of this project from that of on-site upgrading to relocating the majority of the inhabitants to another site. While this fundamental project change was primarily due to very specific considerations related to the Ben M'sik situation, it did cause AID to withdraw its support for the project. USAID did agree however, to maintain the authorization and to consider amending it to finance another appropriate upgrading project at the proper time.

The Tetouan project was included in the 1981-1985 Five-Year Development Plan and was one of the sub-projects in the original HG-002 Project Identification Document approved by AID/W in January of 1981. It was later deleted from the final Project Paper, however, when the amount of the HG-002 authorization was substantially reduced.

Technical aspects and studies of the project were continued by the Ministry of Housing, however, over the next four years. Both AID and the GOM maintained interest in the project because of the significant housing problems involved and the high priority the GOM was placing on solving the clandestine housing crisis. GOM requested HG-002 financial assistance in designing the upgrading project, and AID funded short-term technical assistance to the project under the Low Income Shelter Project (608-0156).

The GOM has now requested HG financing to undertake an expanded project which has become a comprehensive urban development program which includes the upgrading of the major clandestine housing area in Tetouan. The financing of the upgrading effort involves an innovative blending of beneficiary payments and cross-subsidies from other project components to ensure affordability for the lowest income beneficiaries. The cross-subsidies will be generated by the sale of serviced plots at market prices in a sites and services project component. This component, by servicing currently vacant land adjacent to the upgrading site, will be the major means of preventing further clandestine growth in the area. Provision is also made for cross subsidies to low income beneficiaries in the sites and services subproject. Finally, a zone for private development adjacent to these two housing areas will generate additional revenues for cross-subsidies. A related off-site sewage system will lead to the eventual resolution of city-wide sanitation problems. (See Section III B for a detailed project description).

This integrated approach to the urban development problems caused by the clandestine housing phenomenon will not only immediately benefit the low income residents of Dersa in Tetouan, but will provide the GOM with a tool for upgrading other clandestine settlements and preventing their new growth. The Tetouan experience will be a critical test for the comprehensive urban development strategy proposed in this project paper. It will also support specific World Bank Morocco Finance Sector Structural Adjustment Recommendations that seek to stimulate domestic resource mobilization through construction activities and to strengthen the role of existing financial intermediaries in the urban development process.

b. GOM efforts in neighborhood upgrading and USAID support

GOM and USAID have supported the upgrading of other low income neighborhoods. In accordance with the 1981-1985 Five Year Development Plan, the GOM, with World Bank financing, upgraded large-scale bidonville areas in Rabat, Meknes and Kenitra. With budget financing, the GOM has upgraded smaller bidonvilles in a number of cities as well. AID supported GOM upgrading projects through HG-002 financing and by providing long and short term technical assistance to the Ministry of Housing and Regional Development (MHAT). These efforts included the development of more viable housing policies and support of the USAID financed HG-002 implementation.

Technical aspects and studies of the proposed Tetouan project have been under development by the Ministry of Housing for the last four years. During this period the GOM has requested USAID HG-002 financial assistance in preparing the project design. Direct short term technical assistance to the project was provided by an AID-funded advisor under USAID/Morocco's Low Income Shelter Project (608-0156).

c. development of the Tetouan Project

The primary focus of the Tetouan Project is the upgrading of the major clandestine housing settlement located on the Dersa mountain immediately above and adjacent to the city center.

Since the project was originally conceived, it has grown from the simple upgrading of a large clandestine settlement as described in the Five Year Plan to a project which addresses some of the larger urban development problems facing Morocco. In addition to the upgrading component, which is designed to relieve some of the adverse conditions characteristic of clandestine settlements (See also Section II B. Project Background), the project also takes on the tasks of (1) preventing the growth of clandestine housing, and (2) stimulating private investment in the housing sector, and (3) encouraging major financial institutions to participate in urban development.

The development of the project began with the 1966 Zone Development Plan for the Dersa settlement. It was not implemented, and improvements in the neighborhood were made part of the 1981-1985 Five Year Plan. Inclusion of the Dersa project in the Plan increased awareness of and interest in it. This helped to sensitize different city departments to the need to coordinate services to deal with the problems in the neighborhood.

Other planning activities which served to help formulate development plans for the neighborhood were a 1981 100% household survey and issuance of a report thereon and the completion of the Tetouan Master Plan in 1984, which described upgrading plans for Dersa.

The GOM, seeing the rapidity with which clandestine housing was growing in Morocco, (see Section II.B.2.) expanded the upgrading planned in Tetouan to encompass prevention of future growth by the provision of serviced lots to accommodate expected demand.

The final component of the new Dersa project - private sector investment- was a response to limited public sector resources and to overall GOM policy redirection. This private sector component is not only a critical element in the success of the Tetouan project, it is also crucial to replication of the Tetouan approach in other areas of Morocco and is the focus of currently evolving policies of the GOM. The Ministries of Housing and Interior, both of which play important roles in the HG-001 project, have both placed a high priority on stimulation of private sector activity in housing and urban development as a means of increasing resources available to address public policy issues.

2. AID program strategy

a. Policy Reform

The GOM has taken initiatives to institute an important policy reform - the proposed delegation of authority and model regulations enabling municipal governments to generate and use municipal revenues to pay for sewerage collection and treatment systems. The project will seek to apply this, as yet untested, legislation. A second policy reform, that of mobilization of private sector resources (internal cross-subsidies) benefit low income families in urban development is built into the project.

b. project consistency with Government plans

The HG-001 project represents the GOM's first comprehensive undertaking to address clandestine settlements and to attempt the large scale delivery of serviced lots affordable to low income families. The project, while directed at solving the severe housing and infrastructure problems in the Tetouan clandestine settlement, presents the opportunity to develop a means by which municipalities can regain physical and administrative control of urban development while increasing private sector investment in their cities' development. By bringing together the institutions and organizations needed to accomplish the goals of HG-001 in Tetouan, the project will serve as a model for upgrading and preventing clandestine settlements elsewhere in Morocco. This aspect of the project directly addresses what the GOM has designated as their highest priority housing problem. Improving the capacity of the municipal government to recover investment costs and generate revenues furthers GOM objectives in decentralizing government activity.

c. relationship to the CDSS and other AID urban activities

The proposed HG project provides an opportunity for AID to respond to high GOM priorities: regularization and prevention of clandestine housing and improvements in urban development and management while furthering AID policy priorities in the urban sector.

HG-001 will reinforce the policy dialogue of HG-002 in the areas of affordability and cost recovery and will promote the GOM's institutional capabilities to design and implement national urban development programs. It will increase the value of existing housing while increasing private sector investment in both existing and new housing and urban development. The proposed HG will be the first effort to assist the GOM in designing and implementing a large scale urbanization program which addresses both existing clandestine housing conditions and the housing demands of low income families on a sustainable and cost effective basis.

Other USAID/RHUDO urban activities include the Morocco Urban Development Assessment, which identifies the HG program as a key element of USAID's larger strategy for dealing with urbanization problems in Morocco. The Morocco UDA also highlighted the need for USAID and RHUDO to expand the urban development dialogue with the Ministry of Interior. The recent transfer of certain urban planning functions from the Ministry of Housing to the Ministry of the Interior (MOI), indicates the important role that the MOI will play in addressing urban related issues in Morocco. Both RHUDO and USAID view this HG project as a key opportunity to expand support to MOI efforts to develop a long range strategy to address urban issues.

The FY 86 CDSS submitted in January 1984 identified the potential of HG resources to support USAID efforts to develop an urban sector strategy. USAID is currently completing a comparative analysis of master plans for major secondary cities in Morocco to help define the scope of needs in the urban sector which USAID might assist in addressing.

3. Coordination with other donors

The other major donor active in the shelter sector in Morocco has been the IBRD. Loans have included financing for three major upgrading projects: Rabat, Meknes, Kenitra, and financing a line of credit to the FEC to finance municipal projects within the FEC's eligibility criteria. The HG project will further promote IBRD urban development objectives particularly with regard to cost recovery and in support of FEC.

In its 1984 Financial Sector Report, the World Bank recommended that the CDG, through the FEC, take on a greater role in urban investment. The HG-001 project advances this recommendation by not only making the FEC the borrower of funds for an upgrading project but also leveraging thereby the investment of FEC's own funds in a larger and more comprehensive urban development project.

Finally IBRD is currently financing technical assistance to the Ministry of Housing and the FEC to assist in the preparation of the prefeasibility studies for the upgrading of 5 clandestine neighborhoods that will be considered for financing through the next IBRD loan. The structure of this program has not yet been clearly defined; however, the IBRD plans to address the clandestine housing upgrading effort in a manner similar to the proposed HG-001 approach. The borrower of the funds will be the FEC, which will on-lend to the municipalities concerned, with cost recovery through assessment taxes. The role of ANHI, the nature of the sites and services component and exact amount of the loan are yet to be determined. USAID will coordinate its activities in the sector to ensure that objectives being pursued by AID and IBRD continue to be mutually supportive.

Two other important donors in the sector are the Islamic Development Bank and the European Economic Community (EEC). Both are financing the upgrading of large clandestine neighborhoods in the Rabat-Salé area. The FEC is borrowing on concessionary terms but is recovering costs through the utility companies and municipalities at full market rates.

B. Project Background

1. Urbanization in Morocco and Tetouan

a. population growth

Morocco's population has been growing at a steady rate of almost 3% since the country gained its independence in 1956.

In 1977, for example, Morocco was estimated to have 17.3 million inhabitants of which 6.9 million lived in urban areas. In 1980, the overall population rose to 19.5 million people of whom 41 percent or 8 million now lived in urban areas. At the time of the national census in 1982, 8.7 million persons or almost 43 percent of the total population of 20.4 million were considered urbanized.

Morocco is in fact one of the most urbanized countries in Africa. Its urban population is estimated to have increased 15 times since the beginning of the century. A comparison of more recent intercensal data shows that urban growth rates averaged 4.4 percent over the period 1971-1982, compared with 2.6 percent for the overall population growth rate and 1.4 percent for the rural population during the same period. The proportion of the total population considered to be urban grew from 29 percent in 1960 to 35 percent in 1972 and most recently to 43 percent in 1982. Natural growth accounted for about 60 percent of this increase, while in-migration from rural areas was responsible for the rest.

Current rates of urbanization are expected to continue in the near future and the urban population will probably reach 15 million inhabitants or 50 percent of the total population by the end of the 1980's. At the end of the century, a 60/40 split between urban and rural populations is projected.

b. economic growth

The economic impact of Morocco's present urbanization process has generally been positive. Increased productivity resulting from rural migration to urban areas has significantly contributed to the rise in the gross national product and to a greater economic role for urban areas. Statistics show as well that 42.7 percent of the total population, a proportion approximately equivalent to the urban population, now contributes in excess of 65% to gross domestic product formation.

Income in urban areas is also at least 30 percent higher than that of rural areas and growing about twice as fast. Thus in spite of higher prices in urban areas and uneven distribution of wealth, the majority of urban dwellers are able to maintain higher consumption and living standards than their rural counterparts, not to mention benefiting from the greater accessibility to social and cultural services that city living provides.

c. impact of population growth on spatial development

In terms of spatial development, this urbanization process has involved not only the preeminent centers of Casablanca and Rabat/Salé but also the entire urban structure of the country. Morocco has succeeded in maintaining a substantial and well balanced network of small and medium sized cities outside the concentrated Casablanca - Kenitra corridor. In 1982 for example, there were 13 cities with populations of 100,000 or more and a total of 26 cities with more than 50,000 inhabitants. Some 6.5 million people or 75 percent of the urban total lived in these 26 cities.

The recently completed Urban Development Assessment concluded that Morocco possessed an almost "classic" hierarchy of urban centers. While Casablanca had an official 1982 population of 2.1 million persons as the primate center, this amounted to only 25 percent of the total urban population. The 26 most important urban centers were arrayed as follows:

<u>Number of cities</u>	<u>Population size</u>
1	1 - 3 million
1	500,000 - 1 million
5	200,000 - 500,000
6	100,000 - 200,000
13	50,000 - 100,000

Even though the preponderant pattern of urban development is to be found along the coasts, major urban centers are located throughout those parts of the country where settlement, both urban and rural, is most extensive.

Consequently, Morocco has a number of important urban centers which are experiencing rapid urban growth, among them Tetouan. These cities are also the targets of GOM efforts to decentralize, both geographically and administratively, and provide opportunities for urban investment by both public and private sectors. Their growth is key to Morocco's overall economic growth, as emphasized in the UDA.

d. population growth in Tetouan

Tetouan grew from 81,000 inhabitants in 1952 to 101,000 in 1960, to 139,105 in 1971 and to 198,655 according to the census in 1982. The intercensal population growth between 1971 and 1982 was 59,550. This amounted to a 42.5% increase or a corresponding annual increase of 3.29 percent. Tetouan's population has therefore more than doubled since Independence in 1956. Projections for the city's future growth indicate that a high rate of growth will continue and that the population will once again double before the end of the century.

In terms of spatial development, this rapid urbanization has continued the densification of population in the old Spanish city and medina, while provoking the proliferation of clandestine housing areas around their periphery. (See Section 2.a below)

Rapid urbanization has exacted a considerable toll in terms of wear and tear on the existing urban physical environment and the overloading of utility services. Their eventual improvement and/or extension have become more complicated. Moreover, traditional medinas continue to suffer severe overcrowding and excessive overloading of their already inadequate infrastructure systems.

The scope and scale of the problem has strained the administrative and financial capacities of the municipalities. While needs for infrastructure maintenance, repair, replacement, and extension have grown, municipalities have not had the resources to deal with those needs. Consequently, considerable opportunities exist to build up management capabilities at the municipal level, particularly in the context of capital investment in infrastructure improvements.

2. Recent housing trends: Morocco and Tetouan

a. emergence of clandestine housing areas

Since the late 1970's however, the most evident physical sign of rapid urbanization has been the proliferation of clandestine housing areas on the edges of Morocco's major cities. As noted previously, clandestine housing is the unplanned and unregulated construction of urban dwellings. Often no building permits or authorizations, titles, etc. are obtained. The structures themselves are permanent, not temporary, and are often quite substantial, constructed of standard building materials and sometimes having more than one story. Often they are built by or under the supervision of, owners themselves. The most consistent characteristic of clandestine settlements, however, is the lack of utilities, services, infrastructure, and community facilities.

The clandestine phenomenon is the direct result of the inability of both public and private sector to deliver either housing or serviced land for housing development, forcing households to find their own solutions aided by land speculation and an informal housing industry. The households are often former bidonville (slum area) residents who have managed to put aside enough funds to construct more substantial residences. In general, their incomes tend to be lower than the urban average, but there is considerable variation, according to the World Bank. In spite of limited income and resources, they tend to be households who place a high priority on housing and are willing to invest in it what resources they have. Clandestine housing areas are thus a very clear expression of the desire by more economically mobile low and middle income families to become homeowners. In general, land used for clandestine housing is privately owned and sold at top prices to eventual inhabitants through the notary system*.

* Similar to many other Islamic countries, Morocco's land tenure situation is characterized by a dual system: a modern though only partially applied central cadastre and a traditional titling system in which land title is conferred through a simple land transaction document underwritten by two traditional notaries public called "adouls".

By 1982, approximately 1 million people or about 12 percent of the urban population lived in clandestine housing areas. Almost three-quarters of these inhabitants (700,000 people), were distributed among the 12 largest urban centers. Of this clandestine housing population, 71 percent lived on land located inside the urban perimeter while 29 percent lived outside these administrative boundaries.

b. the need for financing in providing services to clandestine housing areas

As clandestine housing areas continue to grow, the gap between the capital investment required to upgrade (service) these settlements and the public resources allocated to infrastructure development will increase. Based on an estimated land development cost of 950,000 dirhams per hectare, and allowing for the fact that some communities are already supplied with infrastructure, a World Bank study indicated that the total cost just to upgrade existing settlements could be as high as 1.7 billion dirhams at 1983 prices. With significantly reduced standards, it may be possible to lower this figure to 1.2 billion dirhams. Nevertheless, both estimates are quite substantial when compared with the total annual central government investment in municipal infrastructure and services. This amount was found by the World Bank to average only about 380 million dirhams annually, of which an even smaller amount goes into the improvement of clandestine housing areas.

Meanwhile, the cost of installing primary infrastructure accelerates considerably as clandestine settlements are becoming more densely populated.

c. the housing situation in Tetouan

According to surveys done during the formulation of the Tetouan Master Plan in 1981, almost 93 percent of the housing units in the city were built in local materials of brick and/or stone. While 28 percent of older traditional houses in the medina had been built of rammed earth, this type of construction has ceased to exist in any new housing since 1971. The same surveys showed that almost 75 percent of bidonville housing was also built out of solid materials, with only 16 percent, or a total of 73 housing units, built out of scavenged or temporary materials.

The better-than-average quality of housing construction in Tetouan can be directly attributed to be availability of good local building materials and skills. There are, for example, 17 brick-making factories and several quarries around the city. For this reason Tetouan's housing problems are more related to the accessibility of land and infrastructure than to any drastic need to improve or change the quality of housing construction.

The large number of clandestine housing units which have been built in the last few years, clearly shows that housing demand has been significantly greater than the capacity of the city to provide legal, planned and serviced land on which to build.

Already in 1981 for example, 38.2 percent of Tetouan families lived in clandestine or unregulated housing build without permits or connections to the city's infrastructure systems, compared to 24.7 percent who were living in regulated and serviced low income subdivisions.

The Master Plan of Tetouan further determined that a relatively good idea of the growth of clandestine housing could be obtained by comparing the number of building construction permits with the actual number of occupancy permits issued over the same period of time. These two permits, one prior to construction and the other after, are the principal legal tools that the Municipality uses to control housing construction and related urban growth. Builders may obtain permits for clandestine housing construction, but rarely do the same for the occupancy permit since the building ultimately constructed is less likely than non-clandestine construction to conform to the original plan.

In order to obtain the building permit (which also serves as formal authorization to connect to the existing sewer system), the housebuilder must submit a written request to the Municipality accompanied by proof of title to the land, plot authorization, copies of building plans, evidence of payment of taxes and other required supporting documentation.

As noted above, two separate land registration systems exist in Tetouan: the "khalifian" or notarized system used during the Spanish protectorate and the French-introduced cadastral system. Because of the complexity of this situation and the slowness of the cadastral system (leading people to turn to the traditional system) the Municipality has been flexible in recognizing ownership based on either system.

In order to qualify for a plot authorization, any plot purchased after 1961 is supposed to be part of an approved and serviced subdivision conforming to standards outlined in the dahir of 1953. Nevertheless, there are several exceptions to this procedure in the case of clandestine housing in Tetouan. First of all, deeds drawn up by local notaries identify plots in clandestine housing areas as "agricultural land", even though they are often located in the center of the city. This stroke of a pen eliminates all requirements that the subdivision conform to the zone development plan and that infrastructure already be in place. The lack of street names and house numbers in clandestine areas adds to the confusion in trying to identify actual plots.

Once building construction is completed, official procedures call for an inspection of the house by a commission from the Municipality to verify that actual building construction followed the original plan and permit. Once this verification has been made, an occupancy permit is issued which allows the houseowner to connect to the water and electricity networks.

For clandestine areas such as Dersa however, the Municipality has been issuing individual authorizations to connect to water and electrical networks based solely on the presentation of a simple sketch plan of the house. Because of this, the Regie utility company has in fact made a large number of water and electricity connections in Dersa and Samsa during the last year. The trade-off with the residents has been that they join together to put in tertiary infrastructure, such as small sewer pipes, walks and stairs at their

own expense. The situation in Dersa, however, is that there is no primary or secondary sewer system to which to connect the tertiary, resulting in severe waste disposal problems.

d. new housing units built between 1971 and 1981

The Tetouan Master Plan estimated that the number of housing units in the city increased by 10,600 during the 10 year period between 1971 and 1981. Of these, an estimated 8,450 units or about 80 percent of the total consisted of new construction while the rest included add-on units to existing buildings. Only about half of these new units were authorized via building permits.

During this same period, public sector institutions including the Ministry of Housing and ERAC provided 1,829 new housing units or about 20 percent of the total. This compares with about 30 percent provided by the formal private sector. About 50 percent of new housing growth has been accomplished by clandestine housing.

3. Constraints to the provision of shelter

The public and private housing sectors face important constraints on the delivery of adequate and affordable housing to low-income families.

a. public sector

Constraints on the public sector include:

- The sensitivity of government sponsored housing programs to general economic conditions and their secondary place within national development issues and priorities. In times of austerity, any reduction in government investment has an immediate negative impact on the production of low-cost shelter;
- The chronic underfunding of housing programs due to high housing subsidy levels and general lack of any clear mandate or procedures for cost recovery. Little relationship has developed between housing programs of potential financial viability and corresponding budgetary allocations;
- The lengthy and complex procedures required in government land acquisition and its transfer between government agencies;
- The high cost of housing construction due in part to higher standards for publicly produced housing, but primarily to inflated prices resulting from poor project execution and delays in payment to constructors.

b. private sector

The private sector also faces very important constraints in providing shelter. These include:

- The negative results of land speculation including high land prices, large sized tracts and limited options for private sector development

by low and middle income families. Since only developed "rural" land can officially be subdivided and included in the cadastral survey, large speculative landowners simply divide their "rural" land into several tracts which they sell under notary act to smaller landowners. The new owners in turn subdivide these tracts into plots which are again sold under notary act to owner/builders. These individuals build their own house on the ground floor and then contract out and manage the construction of pre-sold apartment units on the upper floors. Given high residential land prices and large land tracts, this clandestine approach is the only one which brings the size and costs of housing into a range affordable to lower income families;

- The difficulty of coordinating private land development with the expansion of infrastructure networks. Considerable planning and financial difficulties are faced by local governments and utility companies in extending primary and secondary infrastructure to potential areas of low income housing in a timely fashion. Rapid growth of these areas means that small scale subdivisions cannot easily be serviced;
- The inability of existing administrative procedures to keep pace with rapid urban growth. Approvals for titling and subdividing land, as well as for building construction and house occupancy each take several months. Because of these long delays the procedures are ignored or circumvented by the population; Absence of licensed and/or experienced small scale land developers or even speculative homebuilders who could develop small scale projects;
- Lack of sufficient credit availability for either developers or individual builders of low income housing.

III. PROJECT DESCRIPTION

A. Sector Goal and Project Purpose

The sector goal of this project is to improve the shelter conditions of low income households in urban areas of Morocco. Progress toward this goal will be made by achieving the project's purposes which are: a) to upgrade a clandestine settlement and prevent its spread, in a major Moroccan secondary city, and b) to develop a model of a comprehensive approach to urban development and shelter finance for low-income families. Such a demonstration will:

- Support GOM policies which are aimed at addressing the problem of the proliferation of clandestine settlements;
- Increase the availability of affordable shelter solutions for low income families;
- Support initiatives to provide critical environmental services to major urban centers;
- Create an institutional structure capable of implementing similar projects in other urban areas;
- Support GOM efforts to strengthen local governments ability to deliver services to residents on a cost effective basis;
- Support existing financial institutions and intermediaries that will strengthen private capital market initiatives in the shelter section.

B. Detailed Project Description

1. The project and its components

The project is the first Government sponsored project whose objective is the large-scale improvement of clandestine housing conditions in a major city through a comprehensive approach. The project consists of five complementary and mutually reinforcing components designed not only to improve living conditions in a very extensive clandestine neighborhood adjacent to the city's center, but also to provide serviced land to individual housebuilders and private developers within a planned development in an immediately adjacent area. The project also finances at least the first phases of the construction of an overall sanitation system which will enable the city to resolve extensive wastewater and drainage problems. Key to the private development aspect of the project is the financing to be provided by the CDG through its subsidiary, the FEC. This role of the FEC, recommended by the World Bank in its Financial Sector Report, will extend its urban investment activity and increase its involvement in the sector beyond the implementation of this particular project.

The comprehensive urban development approach will be attempted for the first time in the Dersa/Samsa neighborhood of Tetouan in Northern Morocco. The Dersa neighborhood is the target of the upgrading component, and the Samsa neighborhood is divided into Samsa I and Samsa II: Samsa I is included in the Dersa upgrading component and also contains the ZAC component and Samsa II contains the sites and services component.

The proposed project consists of five major components plus technical assistance which are described in the following sections.

a. institutional component

The institutional component of the project is designed to develop and improve an administrative structure capable of addressing the issues and administering to urban development and shelter finance for low-income households.

The institutions at the national level who are most prepared to cope with these issues and problems and who can ensure replicability, are the FEC and ANHI, the one a banking institution, the other a technical organization. It is expected that these two institutions, working together, will provide the expertise and services that are complementary to any municipal government, that working together the two central institutions can complement any municipal government according to its particular administrative strengths and weaknesses, and administer to urban development needs.

In this structure, administrative responsibilities are clearly divided: the FEC is responsible for financial management, and the ANHI for technical management. The Municipalities is responsible for cost recovery, and for operations and maintenance, in part through their internal structures and in part through the regies. The institutional structure and the agreements which incorporate it are described in Section 2.

Initially, and in the case of the Tetouan application of this institutional approach, technical assistance will be provided to the FEC, the ANHI, and the Municipality of Tetouan.

b. upgrading component

The site for this component is about 70 hectares in size and includes the existing clandestine neighborhood at Dersa and Samsa I. Approximately 9500 households inhabit the site on an estimated 7500 plots, of which about 4200 are privately owned. As many as 3300 plots have been occupied on land owned by the municipality.

The project site will be upgraded to supply all dwellings with water, electricity and sewerage. Primary rights-of-way will be cleared and all streets will be paved. Storm drainage will be provided. A system of solid waste collection will be set-up and maintained.

Infrastructure works necessary to upgrade the site include:

- A primary road system for the entire site;
- Completion of the water supply network, with connection to about 700 parcels in Dersa and 800 in Samsa I;
- Completion of the sewerage network, including primary and secondary network;
- Offsite sewerage connections hooking up to the municipal collector and sewage treatment facility;
- Completion of the electrical supply network including approximately 1300 house connections;

- Offsite reservoir sufficient to supply the existing population.

The primary road system will displace approximately 270 families who will be rehoused in the sites and services project.

Costs will be recovered by:

- User fees for sewer, water and electricity connections;
- A project betterment assessment added to utility user charges;
- A title registry assessment;
- Municipal real estate taxes to cover the pro-rated costs of offsite infrastructure.

c. Zone d'Aménagement Concerté (ZAC)

This component of the project includes approximately 70 hectares of privately owned and partially developed land located in the southern part of Samsa I and the adjoining neighborhood of Khandaq Zarbouh. The site is immediately adjacent to the upgrading areas and already has an increasing number of clandestine houses being built on the site. Several small dispersed groupings of these units exist in the area which will be incorporated into the eventual site plans. The ANHI will provide planning assistance to landowners to encourage them to respect planning guidelines and to stop future clandestine housing on the site.

The development of this zone will follow an established French approach involving joint public/private planning and financing. A detailed development plan will be developed specifically for the site and approved by the municipality. Primary infrastructure will be installed by the project and the costs billed directly to landowners in a proportional manner based on the size of their land. The site is zoned for high density low income housing.

The development costs are expected to be recovered by lump sum or up-front payments to the municipality from property owners. In addition to offsite infrastructure, landowners will receive formal title to their land and technical assistance in the preparation of necessary plans and documents to allow them to formally subdivide their land and seek financial assistance. Short term loans to private developers for secondary and tertiary infrastructure and for construction related to low income housing projects can be obtained from CIH. The public investment in the zone will open the door to private investments from various sources, with the FEC or other financing mechanisms providing the means. The success of this approach will depend upon market characteristics, which will be studied in the process of plan development.

Given that the majority of plots and housing units in the ZAC will be developed for low income families in accordance with the zone development plan, approximately 3,500 plots will be provided. This includes integrating the approximately 1,200 existing clandestine housing units which are currently in the ZAC area. No HG financing is contemplated for this activity.

Although HG financing is not currently planned for the ZAC component, and in the event of modification of the sites and services component financing may be reapportioned to the ZAC component to the extent that beneficiaries, of this component are within the target group.

e. sites and services component

An integral part of the overall project is the development of the zone known as Samsa II located immediately adjacent to the clandestine housing areas. Development of this area is essential to the success of the upgrading project in that it will prevent future clandestine growth of Dersa by providing officially sanctioned housing opportunities for low income families for the next 5 to 8 years. Profits from sales of plots will allow cross-subsidies to be made to the upgrading component of the project. The Samsa II area covers approximately 130 hectares of which 60 hectares are privately owned and another 8 hectares belong to the Ministry of Housing. The municipality, which currently owns the other 62 hectares, will purchase the area now under private ownership. Important to this component will be the provision of \$3.9 m in non-HG funds by the FEC for the purchase of land.

Virtually undeveloped at present, the area will be improved with primary, secondary and tertiary infrastructure, and afterwards subdivided and sold. Plots will be developed for low-cost houses, villas, apartments, commercial activities and public facilities.

Preliminary project design indicates that approximately 4000 serviced plots (350,000 m² of marketable area) will be developed for individual low income housing. Another 800 plots (100,00 m² of marketable area) for small villa-type units will be located at the lower end of the site adjacent to the main road. At the upper end of the site, a number of larger sized plots of approximately 400 m² each (150,000 m² of marketable area) will be sold to small private developers for the construction of walk-up apartment units. Finally, approximately 50,000 m² of marketable area will be auctioned off for commercial-type activities. The total marketable area of this project component is estimated to be 650,000 m² or about half its total site area. The 8 hectares of the site belonging to the Ministry of Housing will be used to rehouse families displaced by the upgrading of Dersa. A municipal slaughterhouse is already located on the site.

Because of steep slopes and the presence of two major ravines, about 20 hectares of the site cannot be developed. This leaves about 100 hectares to be actually developed. Thus, in order to obtain a residential marketable area of 600,000 m², or about 60 percent efficiency, the site plan will have to be very carefully designed.

The exact breakdown of plots to be sold for the various uses as described above will depend on market surveys, which will be an integral and important part of this project components. The studies will not only be essential to successful implementation of this project but will increase Morocco public sector capability to design financially viable investment projects as well as to work effectively with the Morocco private sector.

Preliminary cost estimates done by the Delegation of Tetouan and ANHI show a land development cost per hectare of \$130,000. This cost is somewhat higher than the general estimate used by the World Bank for Morocco (which is \$95,000 per hectare), but well within reason given the difficulties of the site. The average cost of marketable land would be around \$26/m².

The sale of land for villas, apartments and commercial activities at market prices (see Table G-5, Appendix G) will allow for important cross-subsidies to be made to the upgrading component of the project. These cross-subsidies will be used to help finance the cost of relocating families displaced from the Dersa upgrading project, to subsidize plot and infrastructure costs for the poorest families, and to reduce the contribution of the upgrading component of the project to off-site infrastructure costs. One option to be considered at a later date is the system of differential plot pricing within low-income plots themselves would allow additional modest cross-subsidies in order to reduce overall costs for lower income families.

Cost recovery will occur through a series of lump sum payments over a 2 to 3 year period leading to obtaining formal title to the plot. These costs will be recovered through the tax collection office of the municipality.

f. off-site sewerage subproject

Currently there is no sewerage treatment facility in Tetouan. Waste water is discharged into the Oued Martil, which has resulted in polluting water resources and has been the cause of the occasional discharge of wastewater into downtown Tetouan from Dersa during periods of heavy rainfall.

Off-site infrastructure consists of primary outfall collectors and lift stations, and sewerage treatment plant.

The project proposes to fund the construction of two major primary collectors, one on each side of the river. The majority of the funding will be provided by the FEC from non-HG resources. The length of the two collectors will vary according to the final location of the treatment plant, or between eight and twelve kilometers. Secondary collectors will be connected to the primary outfall collector and be equipped with an overflow structure at each point designed to relieve and depressurize the primary collectors. The overflow weirs will discharge directly into the river during peak flows.

The gradient of the primary collectors will be flat due to the level terrain, which decreases excavation costs, but will require the construction of up to three lift stations. The two collectors are parallel to the river. Accurate topographical surveys will determine the location of the lift stations which will be equipped with Archimedes screws on an inclined plane.

The Master Plan recommends a regional approach to the collection and treatment of all sanitary and industrial liquid waste and sewage so that the proposed system would be managed both operationally and financially by a central autonomous authority. The region includes the entire urbanized area of Tetouan and the two coastal beach resort towns, Martil and Fnideq. The total population which will be served by this facility varies with the seasons. The estimate summer peak population for the sewerage region is estimated at 500,000 by the year 2000.

Several different approaches and methods of treatment have been studied during the course of the Master Plan investigations. These include one or more of the following range of processes; oxydation lagoons, aerated lagoons, aerobic ponds in series with effluent into a ditch or directly in the river, activated sludge, etc.

Since the year 1976 there have been three separate locations (see map) for the plant proposed or investigated and reported on. Sites A and B have been described in the Master Plan (S.A.E.M. 1977) and the 1984 Master Plan proposed by Dar Al-Handasah. Site C is the result of additional considerations, primarily the fact that the treated effluent will be discharged in an abandoned irrigation canal which leads into the Sea at a point approximately 5 kilometers south of Martil in lieu of discharging into the Oued Martil.

Each of the sites has certain advantages and disadvantages; i.e., distance, proximity to built up areas, flood plain location, prevailing winds, etc.

Following is a brief descriptive of the three sites under consideration.

Site A. This site was proposed by the S.A.E.M. 1977 Master Plan. It is situated between Martil and Tetouan, immediately east of the existing industrial zone. The proposed treatment consists of sand and grit removal, oxydation lagoon with eventual aeration and discharge into a drainage ditch, then into the Oued Martil estuary.

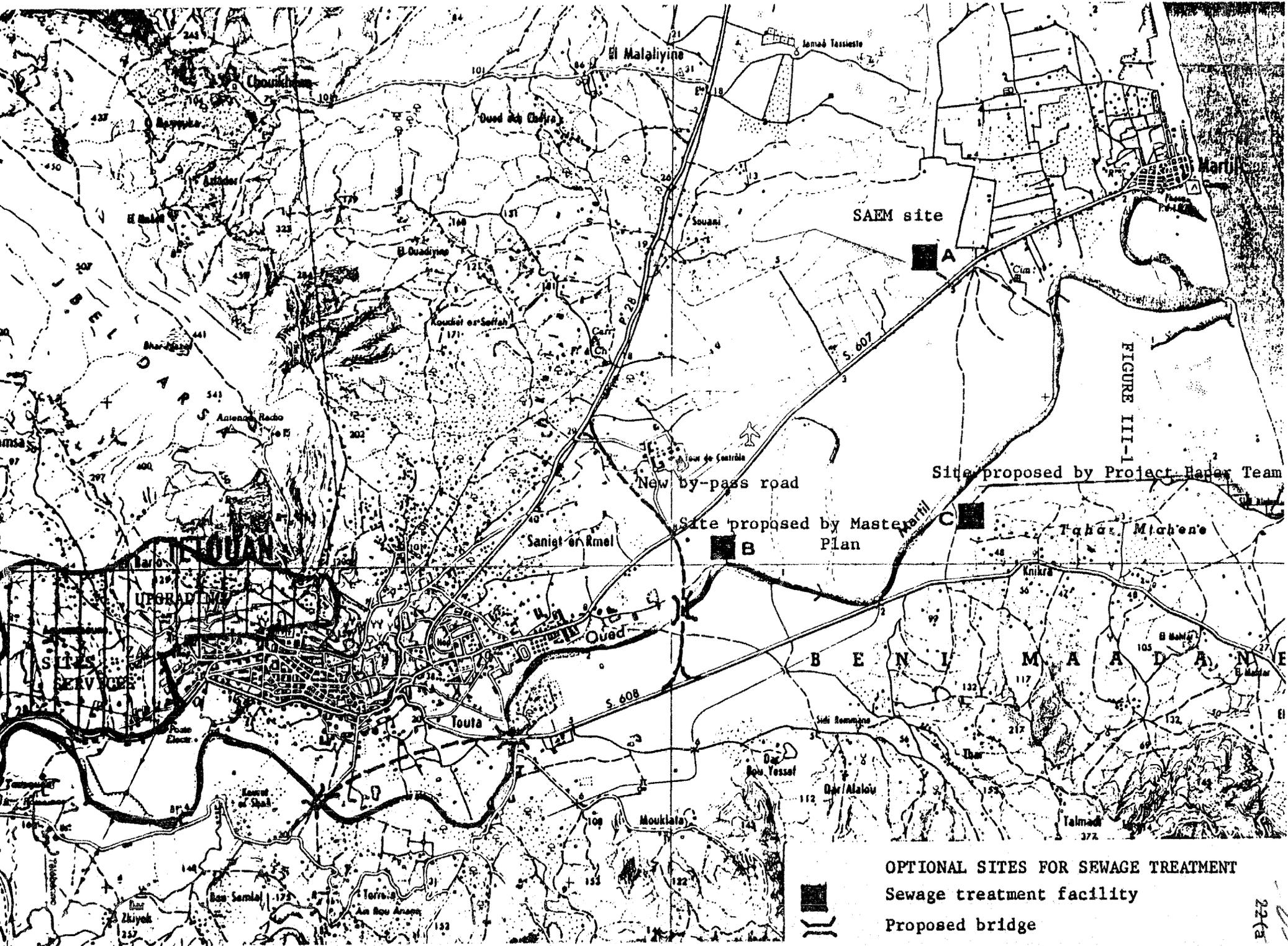
Site B. has been suggested by the 1984 Planners and would be directly adjacent to the future proposed by-pass road and the new bridge across the Oued Martil due south of airport complex. The treatment would consist of a complete primary and secondary treatment with options for tertiary treatment in 4 phases over a 15 to 20 year period.

Site C. This site is the most distant from either Tetouan or Martil. Situated along rural road S607 about half way between Tetouan and the sea. The initial approach is to install a screen and grit removal basins, parshall measuring flumes, oxydation lagoons in series (using abandoned clay pits) and final discharge into an existing irrigation ditch leading to a point about five kilometers south of the City of Martil.

All three of the above locations will have to be built on partial fill in order to bring structures and facilities above a 100 year flood stage and to have access roads sufficiently above seasonal flash flood conditions.

f. technical assistance component

Technical assistance will be needed over a three year period. The Technical Assistance Analysis is found in the Annex N of this paper. Final design of the technical assistance to be provided will be developed during more detailed collaboration with the Moroccan implementing agencies. The grant could include a mix of short term and long term project advisors, workshops and training exercises which focus on specific issues, and other training activities to be identified. Local government training programs currently being implemented by PRE/H in other programs will be reviewed for their appropriateness to this project.



ANHI will manage and supervise all technical and construction services for the Municipality of Tetouan as "maître d'ouvrage délégué". At the national level, the ANHI will be responsible for presenting the FEC with all documentation supporting the disbursement of funds. In addition ANHI will interface with the Ministry of Housing on policy guidelines for upgrading and provide feedback concerning their application to the Tetouan project. At the local level, ANHI will be responsible for establishing and maintaining an on-site office in charge of the actual execution of the project. This office will also assist and advise the Municipality on technical and cost recovery matters related to the project.

The RDE of Tetouan may be responsible for the technical studies related to sewerage and water systems and electricity supply networks, monitoring their installation and maintaining them once they are in place. By written agreement with the Municipality the RDE will be responsible for the recovery of monthly payments for the upgrading component.

The institutional model is comprised of; a banker (FEC), a developer (ANHI), and a "client" (MUN). These three entities are to be incorporated into the institutional model through the agreements described and listed below.

Figure III- shows interagency and beneficiary agreements that will be established for the project:

- The agreements and system of guarantees between USAID, MOF, the US lender, Bank of Morocco and the FEC are all standard to the HG program and GOM procedures;

FEC - MUN

- The FEC will sign a loan agreement with the Municipality and disbursements will be made either to ANHI's project account or to a special treasury account created for the Municipality through the Ministry of Finance;

MUN - ANHI

- The Municipality of Tetouan (MUN) will contract with ANHI making it responsible for the execution of the project as "maître d'ouvrage délégué"; (owner's delegated representative).

A&I and Construction Contracts

- ANHI and the Municipality will sign construction contracts and ANHI will either authorize or make payments to contractors; as will be determined in the design of implementation arrangements

MUN - Beneficiaires

- Beneficiaries will receive formal land titles and in the Upgrading Component, they will also be issued Occupancy Permits formally authorizing their housing situation. They will also sign cost recovery contracts which clearly define the services being provided and their obligations in making advance and monthly payments. Additional costs will be recovered through taxes.

The Implementation Agreement will require that all protocols and agreements between key agencies and entities will be included as conditions precedent to the first disbursement.

FIGURE..... INTERAGENCY AND BENEFICIARY AGREEMENTS

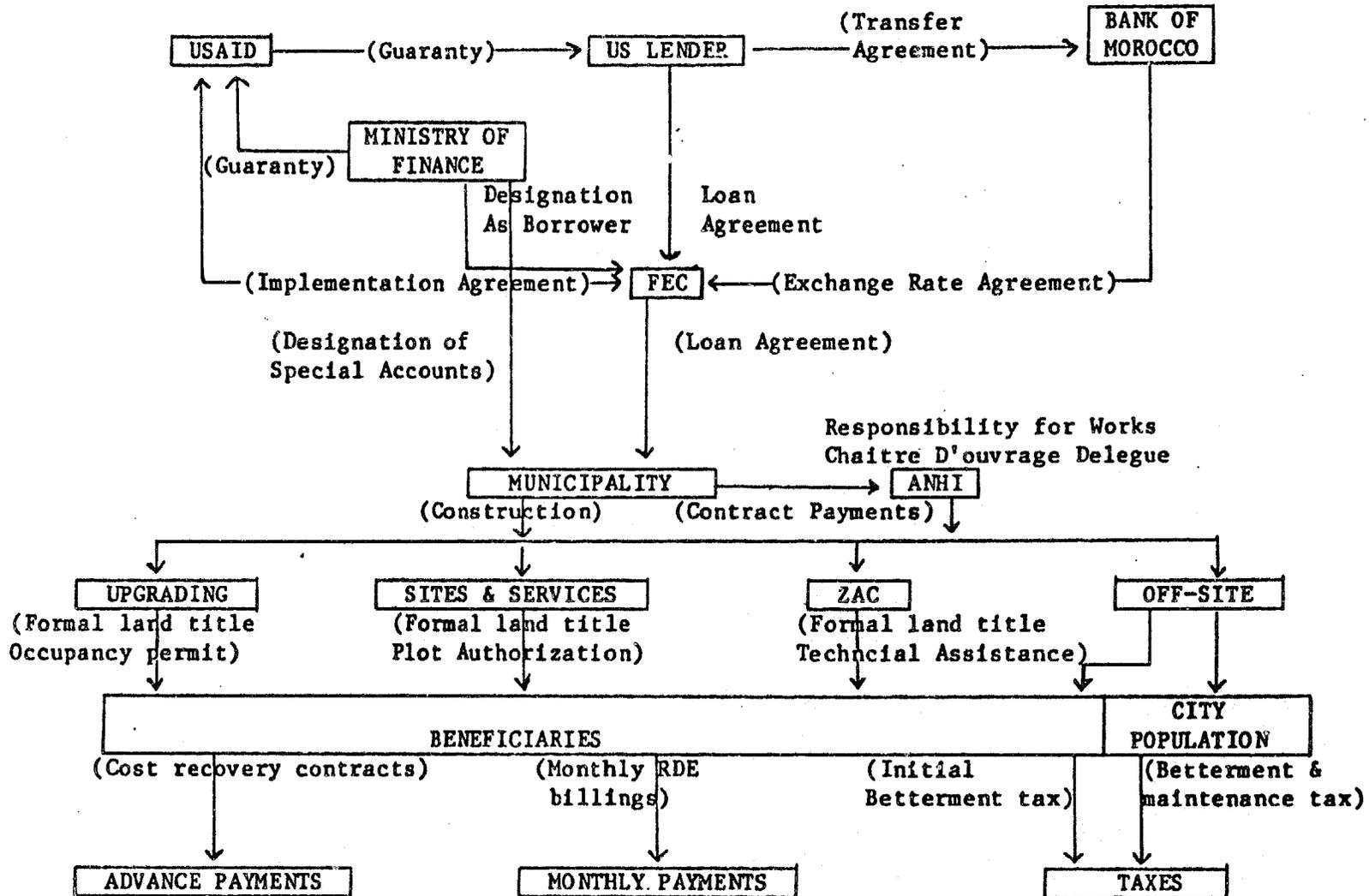


Table III-1 provides a breakdown of project activities and the agencies with primary and secondary responsibilities for their execution. ANHI, as *maître-de l'ouvrage délégué*, will have the major responsibility for project preparation and execution. Project cost recovery and operation and maintenance will be the responsibility of the Municipality and the RDE. The identified secondary agencies will collaborate in the accomplishment of these tasks.

The FEC will act as the financial intermediary in the project and ensure efficient use of loan proceeds and reflows.

3. Project inputs

Inputs to the project total \$48.1 million. As shown in Table III-2, the Tetouan municipal government is contributing land to the project, for both the upgrading and sites and services components. Its input is included as part of the beneficiaries' input in the table. The USAID grant will provide technical assistance to the municipality, as described in Section III.B.1.e. above. HG funds are the single largest input, but FEC funds provided from other non-HG financial resources are an important investment in the planned development. Apart from the components described above, the project will also purchase equipment needed for the infrastructure improvements, such as a trucks for waste collection. Not shown on the table is technical assistance in the form of engineering studies for which the Ministry of Housing has budgeted funds from the ongoing HG-002 loan.

4. Project outputs

Project outputs fall into two major categories (a) the quantifiable outputs of the project components and (b) the design and testing of an institutional model for addressing Morocco's overall clandestine housing problem.

Outputs for the former are more readily quantifiable:

- upgrading: - Completion of primary and secondary infrastructure;
 - Registry of approximately 7500 property titles;
 - Sale of approximately 3300 houselots;
 - Rehousing of approximately 270 displaced households.
- ZAC: - Provision of primary infrastructure to 70 hectares of privately-owned land to be developed and sold to individual purchasers.

- Sites and services:
- Completion of primary, secondary and tertiary infrastructure on a 130 hectare site;
 - Delivery of 4000 low income housing plots;
 - Sale of 10 ha of middle income villa sites;
 - Sale of 15 ha of apartment building sites;
 - Sale of 1.5 ha of commercial building sites;
 - Delivery of 3.5 ha for public services;

- Offsite sewerage:
- Provision of sewerage for city of Tetouan, including main collector, connections to existing outfalls and a sewerage treatment facility.

- Technical assistance:
- Provision of long term technical and short term technical assistance and training to the municipality of Tetouan ANHI and the FEC;

Private sector investment

- Financing for private development of land in the sites and services and privately owned ZAC components

- Municipal management
- Strengthened capabilities in project management, municipal finance and revenue collection administration.

Outputs of the institutional component of the project may be more difficult to identify and quantify but are potentially the most interesting and exciting parts of the project. The implementation of the project will bring together all the key actors in the public and private sectors for the purpose of providing legal housing.

Although the project itself is designed to strengthen the capabilities of the public institutions to perform their parts of the job, the relationships created and strengthened by virtue of their having to work together on the Tetouan situation itself may be the most important part of the project. It can be a model which other municipalities can adopt, in conjunction with central government agencies and private sector investors to undertake similar housing projects and, more important, to regain control over their own development. If successfully replicated, this model could be an important tool in provision of housing for low and moderate income households, even under conditions of limited public sector resources, since it addresses the administrative and institutional barriers to public sector delivery of land for private development.

Another important output will be the strengthening of the role of the FEC as financial intermediary, replacing budgetary financing of urban development projects.

TABLE III-1

RESPONSIBILITIES FOR PROJECT IMPLEMENTATION

	Primary Agency	Secondary Agencies
Project Finance		
Negotiate HG Loans	MOF	FEC
Negotiate FEC Loans	FEC/MOT	ANHI
Cost Recovery	MOT/RDE	ANHI
Contract Management	ANHI	RDE/MOT
Project Preparation		
Land use planning	ANHI	MUN
Land tenure situation	ANHI	CAD/CONS
Socioeconomic analysis	ANHI	CONS
Feasibility studies	ANHI	CONS
Preliminary plans	ANHI	MUN/RDE
Preliminary engineering	CONS	ANHI/RDE
Final project and bids	ANHI	RDE
Project Execution		
Registration and titles	MUN/CAD	ANHI
Land expropriation (inf)	MUN/LAND	ANHI
Street surfacing	ANHI/MUN	MUN
Sewerage facilities	ANHI/MUN	MUN/RDE
Water supply	ANHI	MUN/RDE
Power supply and streetlights	ANHI	MUN/RDE
Environmental protection	MUN/RES	ANHI
Project Cost Recovery		
Off-site infrastructure	MUN	RDE
Streets	MUN	RDE
Sewerage facilities	MUN	RDE
Water supply	RDE	MUN
Power supply and streetlights	RDE	MUN
Municipal equipment	MUN	
Coordination with other Ministries for Public facilities		
	GOV/SC	AHNI/MUN

Abbreviations

MUN	Municipality	ANHI	National Agency to Combat Substandard Housing
CAD	Cadastral survey		
RPE	Utility agency		
RES	Residents		
LAND	Land office		
CONS	Consultant firms		
OH	Regional Housing Office		
GOV	Provincial Governor		
SC	Steering Committee		

NOTE: The primary agency initiates and/or has responsibility for the activity. Secondary agencies are main collaborators in the activity.

TABLE III - 2

COST ESTIMATES (Millions of \$)Source of Financing

Project Component	FEC	HG	Beneficiaries	Total
Off-Site	3.92	1.30	-	5.22
Upgrading	-	11.52	3.75	15.27
Upgrading (ZAC)	-	-	1.03	1.03
Sites and Services	3.90	4.76	9.50	18.16
Equipment	-	.70	-	.70
Sub-total	7.82	18.28	14.28	41.38
Capitalized interest (HG)	-	6.72	-	6.72
Total	7.82	25.00	14.28	47.10

5. Project issues

a. NEAC guidance and issues

Following submission of the Discussion Paper on the Proposed Amendment to Morocco 608 - HG-001 Program Design, NEAC provided guidance on several key issues to be addressed and clarified with the GOM during the preparation of the Project Paper. These issues include: full project cost recovery, on-lending interest rates, public sector lending institutions and private sector development, project affordability, and debt service/risk analysis. A copy of the full cable response to AID/Washington is included in the Annex L. The summary response to these issues includes the following:

Issue: The principle of full recovery of project costs contains a detailed financial analysis which demonstrates the financial viability of the project. It shows that all capital costs attributable to the project will be fully recovered as follows:

- The costs of off-site improvements consisting of the sewage treatment plant and facilities which are not attributable to the Dersa/Samsa project area will be recovered through the imposition of municipal taxes to be paid by all the residents of Tetouan.

The costs of on-site improvements in Dersa/Samsa, that is, the upgrading component, the sites and services component and the ZAC, including the portion of the off-site improvement costs attributable to each of these components, will be recovered as follows:

- Beneficiaries of the upgrading component will pay a betterment assessment, in part through advance payments made during the project development phase, and in part through monthly payments added to utility bills over a 10-year payment period;
- For the sites and services component, prices of serviced lots purchased by the beneficiaries will reflect project costs. The purchase price will be paid in full through advance payments during the project development phase;
- For the ZAC component, the cost of primary infrastructure will be billed to land owners in a proportional manner based on the size of their land. This betterment assessment will be paid in full through advance payments during the project development phase.

No budgetary assistance from the GOM is anticipated for the financing of this project. Therefore, the GOM has agreed that all project costs are to be fully recovered.

Issue: The principle of non-subsidized interest rates.

The NEAC guidance cable outlined three aspects of the interest rate issue: (A) the financial viability of the project; (B) its economic viability if capital were priced at its economic value (opportunity cost); and (C) the real interest rate as determined by the effective rate of inflation.

The expected terms of the HG loan make the project financially viable with respect to the borrowing of project funds by the FEC. The project design assumes that the FEC will make loans to the municipality of Tetouan to fund the project at an interest rate of 10% for a 10-year period. FEC's current lending policy, effective January 1985, stipulates that all FEC loans to municipalities will carry a 10% interest rate.

Based on current U.S. capital market conditions, the expected terms of a HG loan will be a 12% fixed interest rate for a 30-year period, and a 10-year grace period on the principal. The project design also assumes a 3-year grace period on interest payments, which would be capitalized.

If the FEC as the recipient of local currency equivalents of HG loan funds for project financing is also granted the 10-year grace period on the principal, it would be able to generate additional interest income by reinvesting surpluses from loan repayments from the Municipality. A cashflow analysis shows that this additional interest income will be sufficient to cover the interest loss attributable to the difference between the 12-percent borrowing rate and the 10 percent on-lending rate and yield a positive net cashflow after the first few years. Projected cashflows for the first three years are negative, but sustainable by the FEC. The net present value of projected cashflows for the first ten years of the project is positive for the FEC (at a 15-percent discount rate).

The opportunity cost of capital for Morocco has been estimated in the 15 to 16-percent range which corresponds to the interest rate for mortgages for upper-class housing. The 10 percent on-lending rate lies below that value. However, the economic analysis in Section VII.C. suggests that non-monetized (or partially monetized) benefits from the project -employment, income generation, and resource mobilization- are substantial. The economic cost of lending below the opportunity cost of capital is judged to be justified by the expected economic benefits.

The NEAC guidance cable on expected inflation rates for contingency allowances in project cost estimates suggests an 8-percent rate for the current decade, and 5-percent for the first part of the 1990's. Under these assumptions, on-lending by the FEC would carry a positive real interest rate. Moreover, the 10-percent rate compares favorably with the 7-percent rate on the HG loan 002, demonstrating substantial progress in raising lending rates to more realistic levels.

The interest rates established for the project represent an important effort on the part of the GOM to reduce subsidies and to align interest rates with actual economic and financial costs.

ISSUE: The role of public sector lending institutions and encouragement private sector participation

Project funds from the HG loan will be channeled through the FEC, a parastatal municipal development bank. ANHI, a parastatal agency involved in low-income housing and upgrading, will be responsible to the Municipality of Tetouan for technical aspects of the project and its implementation. There are no private sector institutions with the mandate or experience to carry out these

activities for the type of project envisaged. Both the FEC and ANHI are involved in somewhat similar types of projects and can draw upon previous experience.

Private sector landowners/developers will participate directly in the project by developing the ZAC which is a major component of the project. They will pay for primary infrastructure which will allow them to further develop and subdivide their land. Financing for infrastructure and housing construction will be made available by the CIH to aid these developers. Beneficiaries will also be eligible for CIH mortgage loans. No direct loans to beneficiaries however are anticipated as part the HG project.

Project design involves the private sector to the maximum extent possible, given government responsibilities to provide primary infrastructure, serviced plots for low income families, and infrastructure for clandestine housing areas. The project is the first in Morocco to include the close coordination of infrastructure and housing investments between the public and private sectors.

ISSUE: The affordability of the different project components to the intended beneficiaries

Beneficiaries of the upgrading component will pay for infrastructure improvements and, in the case of those living on Municipal land, for the purchase of their plot. These charges will be established as a betterment assessment which will include an initial downpayment and monthly installments over a 10 year period. The current project design further assumes a cross-subsidy from the sale of serviced plots in the sites and services component. The monthly payments under these conditions are estimated as \$10.70 for beneficiaries who own their plot, and \$17.30 for those who are purchasing it. Under the assumption of another \$10 per month of housing expenses, and a ratio of 25% of monthly family income for housing expenses, a minimum income of \$83 or \$109, respectively, is necessary. The median family income in Tetouan has been estimated to be \$140 per month.

Sales of the serviced plots in the sites and services component will generate revenues in excess of development costs. The surplus will provide the funds to subsidize and thereby reduce the payments of beneficiaries of the upgrading component. No subsidies from the GOM will be required under this project.

The major proportion of residential area in the sites and services component will be subdivided into small sized plots designed to be affordable to families within the project target group. Beneficiaries will make three or four payments to purchase their plots. On completion of these payments, they will obtain formal land title which will enable them to seek mortgage financing for the construction of a housing unit. It is estimated that the construction cost of a minimum dwelling unit would be approximately \$2500. Given CIH lending terms of 8-percent, 15 years and 10-percent downpayment, monthly payments in this case would be affordable to families with incomes close to the median income.

The ZAC component will have development standards similar to those of the sites and services component. Therefore, a large number of the plots to be provided will also be affordable to the intended target group.

At this stage, initial design of the project is clearly based on concerns that the different components of the project be affordable to lower income families. As more detailed plans are developed, it should be possible to improve the affordability of certain elements of the project through mechanisms such as differential plot pricing.

ISSUE: Debt service risk analysis

The project design incorporates PRE/H recommendations (see Annex D) regarding the structuring of the HG loan to include a 3-year grace period on interest payments. Capitalizing the interest due in the first three years of the loan will delay the start of debt service until 1990. This arrangement will carry Morocco through the expected period of debt relief, after which time the country is projected to be able to service its debt.

b. Project design issues identified during the development of the project paper

Several other issues were identified and addressed during the development of the Project Paper. These include: institutional arrangements between participating agencies and financial management of the project; potential difficulties in acquiring privately owned land for the sites and services component of the project; risks involved in the timely cost recovery for three main project components through advance payments by beneficiaries; and the capacity of the Municipality to carry out its role in the project.

ISSUE: Efficient institutional arrangements between agencies

At the time that this Project Paper is being written, the following agencies will be involved with the Project: the Municipality of Tetouan, ANHI, FEC, the RDE of Tetouan, the Ministries of Interior, Finance, and Housing, and the Bank of Morocco.

The institutional framework and the interagency relationships now being established for the project will most likely set the precedent for the World Bank sponsored upgrading projects which will follow. The procedures are being completely developed and will be tested for the time. Of particular importance is developing a workable relationship between local and national organizations.

Through its provincial Governors, the GOM has established general steering committees for most of its activities in housing and urban development. It has also had relatively good experience in making use of this mechanism for large scale upgrading projects. The Steering Committee proposed in this Project Paper (Annex K) will allow key agencies involved in the project to more closely coordinate their efforts in light of actual project development.

Figure III-I indicates the agreements which would have to be made between different agencies at the start of the project. A Condition Precedent prior to the first HG borrowing would be proof that necessary agreements between institutions have been established.

ISSUE: Acquisition of privately owned land for the sites and services component of the project.

The private land in the sites and services component to be acquired by the Municipality lies directly above the ZAC area between the upgrading area and the land for sites and services owned by the Municipality. This land is in a very strategic position in regards to the development of the project. Thus, land acquisition procedures should be started at the earliest possible time. Given the location of this land and the imminent development planned around it, it is most likely that the owners will contest any price offered to them by the Municipality and will take the issue to court. If this happens, it could become an important source of delay to the project and have serious, negative impact on project cost recovery and phasing.

The GOM is aware of these potential land acquisition problems and is studying an alternative proposal which would include this 70 hectare area in the ZAC Component of the project. The Ministry of Housing has also undertaken a complete landownership study of the project area in order to determine the size of individual holdings and subsequently obtain more information on the landowners themselves. More knowledge of these potential project participants is necessary to determine the measure in which they are able and willing to participate in the development of the ZAC. Thus the final determination whether the privately owned land now considered as part of the sites and services component is to be developed as such or included in the ZAC will be based on the analysis of this study.

ISSUE: Cost recovery risks related to the timely collection of advance beneficiary payments

Early cost recovery from three major project components -upgrading, sites and services, and ZAC- is essential to maintaining a successful project cash-flow.

The recovery of development costs for serviced plots through staggered lump sum payments made during the period of construction has proven successful in Morocco for both low and middle income housing. The value of obtaining a plot on which to build a house is very important to Moroccan families who have traditionally been willing to pay significant amounts of money up-front to do so. Examples of the successful application of this approach include: low income urban core housing (Programme Social), small serviced plots on which beneficiaries can build three story apartment units under joint ownership (FNAET/HBM), and bidonville relocation projects (Ben M'Sik and Salé).

There should also be sufficient demand and interest within the defined target group to purchase plots initially offered in a first phase. Later however, a major conflict may develop if those who want and are able to pay for a plot fall outside the HG target group. In this case, does the Municipality sell the plot and recover its money, or does it wait until a qualified buyer presents himself? Guidelines on this issue and a reliable study of housing demand in Tetouan need to be established early in the project. The GOM will also implement the sites and services component in phases and will establish a waiting list of eligible beneficiaries which will help later project planning.

Advance payments from beneficiaries for the upgrading component of the project may be difficult to collect unless they are clearly related to the acquisition of a required document or action from the Municipality (occupancy permit, provisional land title, etc.) The payment can be expressed as a form of tax or fee. Previous experience in Morocco with this cost recovery approach indicates that these payments will be made provided that inhabitants have the resources and clearly understand what they are paying for and how to do it. A successful example has been the Montfleuri project in Fes. In regards to upgrading projects, the Municipality has the responsibility of dealing with the local population and can present cost recovery obligations in their best possible light.

Regardless of the method of cost recovery chosen for the upgrading component of the project, some families will not be able to meet their payments and will need to develop an alternative schedule. Some flexibility in individual cost recovery contracts will be allowed.

The cost recovery approach by lump sum advance payments for the ZAC is the least certain because it has never been tried before in Morocco. It may turn out for example, that the landowner cannot (or will not) pay the potentially large sum of money charged for primary infrastructure. He may also not be willing to undertake the financial debt and risks that developing his land may involve. The tactic that a landowner will have the choice of either developing his land or having it expropriated has not yet been applied or tested in Morocco. Thus there is a large risk that landowners in the ZAC area will simply speculate on their land.

In order to control the development that takes place, the ANHI will have to provide considerable assistance to landowner/developers in drawing up subdivision plans, arranging financing, etc.. Once the limits of existing landholdings have been determined, incentives for private land development can be established through the location of commercial and higher income residential areas on the site which can be sold at market rates and will provide greater profit to the landowner/developer.

To summarize, cost recovery by beneficiary advances appears to be a promising though not yet thoroughly tested approach. For this reason, the proposed project cash-flow has been developed to not be overly dependent on the availability of these funds for critical elements of project development.

ISSUE: Capacity of the municipality to undertake its project responsibilities

The present project will considerably increase the Municipality's workload and responsibilities within a relatively short period of time. For example, the Municipality now issues an average of 50 to 60 new building permits per month. Assuming that the inspection of existing clandestine housing and the authorization of new housing construction within the project alone will involve more than 15,000 housing units over a five year period, this would imply a monthly average of 250 building permits or a fivefold increase in workload. Better organization and more systematic approach to inspecting and "formalizing" existing clandestine housing construction will have to be developed. A similar situation exists in the determination of betterment assessments and taxes.

Like all Government agencies, the number of staff that the Municipality can hire is controlled by the Ministry of Finance. A very limited number of new positions are available on a yearly basis. Thus it is unlikely that the Municipality will be able to hire any large number of new staff to meet the specific needs of the project. However, the Municipality is willing to consider the hiring of new staff allotted to it to fill project needs.

Because of these hiring restrictions, the Municipality will mainly have to better organize itself in order to effectively manage the project. The project will be carefully monitored by RHUDO to see where management help will be needed and can be most effectively used.

IV. PROJECT COST ESTIMATE AND FINANCING PLAN

A. Project Cost Estimates

The total project cost is estimated to be U.S. \$47.10 million, of which \$41.38 million will be directed to development activities while the remaining \$6.72 million will be used to capitalize the interest due on the HG loan until mid 1990. Project development funds (\$41.38 million) will be used to support three main shelter projects, off-site sewerage treatment facilities and technical assistance. Sources of financing include the FEC, project beneficiaries, an AID grant and the HG loan. The Municipality of Tetouan will provide part of the total land area of the upgrading and sites and services components which will be sold to beneficiaries. Surplus income generated from other project components will be applied as cross-subsidies to reduce the payment burden on low income beneficiaries.

Cost estimates presented in the Project Paper take into account anticipated price increases to the end of the decade. The cost of borrowing the HG funds during the implementation stage of development is also calculated and included in these estimates. Table VI indicates the amounts and sources of financing for the different project components.

Amounts funded by HG may be reapportioned between the project components as may be necessary in the course of project development.

Off-site infrastructure The sewage treatment facilities are included as off-site improvements and will cost \$5.22 million. Of this amount, \$1.30 million is estimated as directly attributable to the residents of Dersa/Samsa and will be financed from HG loan. The remaining cost of \$3.92 million will benefit Tetouan residents in general, and will be financed through a loan from FEC.

Per NEAC guidance, project designers have included the use of \$6.72 million of the HG proceeds to capitalize interest payments on the loan until the expected recovery of the Moroccan economy.

Upgrading: The total cost of upgrading Dersa and a part of Samsa is estimated at \$15.27 million. Project beneficiaries, through advance payments to the municipality will contribute \$3.75 million. The HG loan will finance the remaining \$11.52 million.

ZAC: Providing primary infrastructure to the ZAC area will cost \$1.03 million. It is anticipated that these funds will be contributed entirely by the land owners benefit from the improvements.

Sites and Services: The total cost of this component is estimated at \$18.16 million. Beneficiary advance payments will provide for \$9.5 million, or approximately one-half of the total costs. The purchase of privately held land will cost another \$3.90 million, and will be financed by a FEC loan. Finally, the HG loan will provide the additional \$4.76 million to complete the financing package for infrastructure attributed to low income plots.

Equipment: \$0.7 million will be funded through the HG loan for the purchase of new municipal equipment such as garbage trucks etc.

B. HG Disbursements

The HG contribution for project development will reach \$18.27 million over the life of the project. HG funds will not be required during the initial year due to minimal project expense that year (\$3.95 million of a total project cost of \$41.38 million) and the availability of initial project funding from the FEC and the project beneficiaries. Subsequent HG disbursements will be relatively evenly distributed over the remaining four years of the five year project. They include \$4.11 million in the second year of the project, \$5.74 million with third year, \$4.76 million in the fourth year and \$3.67 million in the final year. The HG loan will provide approximately 44% of total project funds. Of the \$18.27 million in HG contribution, \$3.59 million will be provided for financial costs to be incurred during the life of the project, while the remaining \$14.68 million will be used to cover construction costs.

C. Cost Recovery and Reflows

1. Cost recovery

The project will be financed jointly by advance payments from project beneficiaries, and by FEC loans, part of which will derive from the HG loan. Project capital costs will be recovered through a combination of betterment assessments, local taxes and the sales of serviced lots in Samsa II.

Capital costs for the upgrading component will be recovered from the 7,500 direct project beneficiaries. Beneficiaries who own their lot will be assessed \$1,820 and non lot owners \$2,320. All beneficiaries will be expected to make a \$500 advance payment which will reduce the balance to be paid on the betterment assessment to \$1,320 and \$1,820, respectively. A cross subsidy of \$500 per beneficiary which is derived from the surplus on sales of serviced lots in Samsa II, will be applied, and will reduce further the outstanding balance of each assessment to \$820 and \$1,320. This amount will be collected from each beneficiary over a 10 year period through monthly assessments of \$10.70 and \$17.30. If the cross-subsidy is not applied, then the outstanding balance to be collected over the 10 year period will increase to \$1,320 and \$1,820, and will require monthly payments of \$17.30 and \$23.40.

TABLE III - 2

COST ESTIMATES (Millions of \$)Source of Financing

<u>Project Component</u>	<u>FEC</u>	<u>HG</u>	<u>Beneficiaries</u>	<u>TOTAL</u>
Off-site	3.92	1.30	-	5.22
Upgrading	-	11.52	3.75	15.27
Upgrading (ZAC)	-	-	1.03	1.03
Sites and Services	3.90	4.76	9.50	18.16
Equipment	-	.70	-	.70
Sub-total	7.82	18.28	14.28	40.38
Capitalized interest(HG)	-	6.72	-	6.72
TOTAL	7.82	25.00	14.28	47.10

NOTE: Amounts funded by HG may be re apportioned between the project components as may be necessary in the course of project development.

Cost recovery of the site and service component derives entirely through sale of lots to prospective homeowners, who will pay off the lots over a three year period in the form of advance payments. For purchasers of the lowest cost lots, the sales price will total \$1800, for an 80 m2 average sized lot sold at \$22.50/m2 (see Annex G, Table G-5). Costs associated with off-site improvements which are not recoverable directly from beneficiaries, will be recovered through general taxation of all residents of Tetouan.

2. Cross-subsidies

Gross sales proceeds from the site and services lots are expected to attain \$23.6 million. Total costs to develop the Samsa II project are estimated at \$18.4 million, which provides a profit of \$5.47 million. If each of the 7,500 beneficiaries in the upgrading area receives a \$500 cross-subsidy, the total cross subsidy requirement will be \$3.75 million. The \$5.47 million in sales profits will exceed the \$3.75 million in cross-subsidies. The remaining profit of \$1.7 million (\$5.47 million - \$3.75 million) is available for other uses, including assistance to very low income families in the upgrading area who cannot afford to pay all the assessed capital costs and costs of relocation of the 270 households displaced by the project.

3. Reflows

On the basis of current capital markets the GOM on behalf of the FEC could expect to contract a HG loan at a 12 percent interest rate for 30 years, with a 10 year grace period on principal payment. In turn, the FEC will loan these funds to the municipality at 10 percent for 10 years. Although the FEC is charging a lower interest rate than its cost of money, the shorter term (10 years vs 30 years), permits the FEC to roll-over the repayments from beneficiaries to finance other activities. The cash flow to FEC from the HG loan proceeds will be positive throughout the life of the project. Nevertheless, the net income to FEC during the first three years of the project will be negative due to the interest rate differential. By investing the net cash from its lending operations at an anticipated interest rate of 10 percent, the FEC will earn sufficient interest income to begin to offset the loss incurred during the initial years. By the fourth year, total income will exceed total expenses, and by the following year, FEC will operate in the black. It is expected that the reflows from this project will equal about 24 percent of the HG loan, which will permit an additional \$4.4 million to be invested in this project or similar projects.

V. IMPLEMENTATION AND MONITORING PLAN

A. Project Implementation Plan

It is anticipated that all project expenditures for on-site infrastructure will occur during a five year period. Expenditures for off-site infrastructure, including the construction of the sewage treatment plant, are projected over a three year period. Due to institutional requirements and other exogenous factors outside the control of the project however, it is likely that work on the sewage treatment plant will in fact be spread out over a longer period.

The HG funded portions of the project will occur between the 2nd and 5th year of project implementation.

Figure V-1 is an illustrative example of project planning and the time that will be required to implement the different components of the project. Time is expressed in the number of months beginning with the signing of the Implementation Agreement. AID funded technical assistance is scheduled to begin early in the project in order to assist the GOM in the establishment of the Project Unit, in setting up management procedures and organization for this unit, and in determining initial baseline data.

Figure V-1
PROJECT IMPLEMENTATION SCHEDULE

Description	0	12	24	36	48	60
Project Framework						
Signing agreements between agencies						
Creation of special accounts						
Technical assistance						
Coordinated Work Plan						
Upgrading project						
Technical studies						
Plans, approvals and contracts						
Community relations						
Relocation						
Infrastructure works						
Plot limits and costs						
Cost recovery						
Legalization of housing						
Assistance in tertiary infrastructure						
Community facilities construction						
Sites and Services						
Land acquisition						
Plans, approvals and contracts						
Infrastructure work						
Plot allocation and sales						
Cost recovery						
Community facilities						
Assistance in housing construction						
ZAC						
Contacts with land owners						
Plans, approvals and contracts						
Infrastructure works						
Plot definitions and costing						
Cost recovery						
Assistance to private developers						
Off site infrastructure						
Technical studies						
Plans, approvals, contracts						
Infrastructure works						
Sewage treatment plant						
Cost recovery						
Evaluations						
Baseline Survey						
Formatic Evaluations						
Mid-Term						
Final Impact Evaluation						
AID-COM Agreements						
Implementation Agreement						
Loan Agreement-Inv.Selection						
-Loan Agreement						
-Disbursement						

B. Monitoring Plan

Project monitoring on a daily basis will be the responsibility of the ANHI. This agency will be organized and staffed in a way to make project monitoring and coordination one of its major ongoing functions. Particular attention will be paid to keeping project costs within budget and the range of affordability, coordination between project components concerning financing and implementation, and coordinate with the Municipality.

Monitoring of financial aspects of the project will be done on a monthly basis according to standard Moroccan administrative procedures and included in the Project Implementation Plan (PIP) as required (similar to HG-002 procedures).

The Special Evaluations undertaken jointly by ANHI and USAID will provide additional information and insights about the project which will help in making decisions to keep it on course.

Additional detailed information relevant to the monitoring of the project will be included in the Project Implementation Plan. It will include items such as: scheduling, design standards, costs, affordability and cost recovery, and a variety of applicable implementation monitoring procedures.

RHUDO/NE will further meet its project monitoring responsibilities by assigning a direct hire staff member to USAID/Rabat. He will be assisted by the RHUDO's PSC Housing and Urban Development Advisor currently based in Rabat.

C. Procurement/Contracting Plan

Contracting and Procurement procedures of the Moroccan government were described and presented to USAID for review in October 1983 as part of the Conditions Precedents for the HG-002 Project. These procedures are regulated by Government Decree No. 2-76-479 of October 1976 and relate to both work and material contracts. Almost all large scale contracts are let by competitive bid. They may be awarded to the lowest bidder or to the most qualified bidder with justification. Certain contracts are also awarded through open competition or by direct negotiation. All contracts must be countersigned by the Ministry of Finance.

As Maitre de l'Ouvrage Délégué for the Municipality, ANHI will prepare, let, and manage all contracts for preliminary studies, A & E studies, and infrastructure works to be done under the project.

D. Evaluation Plan

The Tetouan Upgrading Project is the first undertaking by the Government of Morocco based on a comprehensive approach to urban development and low income housing. Many of the techniques and approaches applied during the execution of this project, as well as the success or failure of its implementation, will have strong implications for future housing and urban development policies. They may also be immediately replicable to similar projects co-funded by the Government and the World Bank.

Subsequent to amendment of the authorization and prior to signing the Implementation Agreement USAID/RHUDO will carry out a baseline survey financed with PD&S funds. USAID/RHUDO intends to carry out a final impact evaluation at the end of the project against the baseline data, (with TA funds) to measure the projects' achievement of its objectives.

In order to maximize the value of the project both to the Government of Morocco and to AID and its housing and urban development program, an effective evaluation plan is essential. Because of the innovative approach of the project and the demands on the institutions involved, the project design places primary responsibility for implementation of the evaluation plan on the side of AID, most likely through its funding of the technical assistance component, although, close cooperation with, and participation of, the ANHI are essential.

The Program Implementation Agreement (IA) between the GOM and AID will require the establishment of an Evaluation Program for the project. Required Project Evaluations will focus on the following:

- a. Evaluation of progress toward the attainment of project objectives;
- b. Identification and analysis of special areas of concern or constraints related to the attainment of project objectives;
- c. Recommendations on how to overcome problems identified or on other means of improvement.

Three types of evaluation are proposed: formative, special and joint project evaluations.

A. Formative Evaluations:

As in all HG Projects, the Implementation Agreement (IA) will require the initial development and continual updating of a Project Implementation Plan (PIP). The exact format of the PIP will be agreed upon during negotiations on the Project Implementation Agreement. Prior to RHUDO approval of each disbursement, an updated version of the PIP will be presented for its review during which time the PIP can be made to more closely reflect actual implementation progress. This also allows targeted objectives to be revised for the next disbursement as necessary.

As part of this evaluation process, AID/RHUDO additionally develops routine reviews and summaries of all on-going project activities concerning the status of each of the targeted outputs, the degree of completion that has been achieved, as well as a statement of any problems and/or constraints to the achievement of objectives. The revised PIP can also include proposals on how such problems/constraints can be resolved and coupled with supporting documentation and project monitoring information it can become a form of progress report.

Normally, RHUDO/NE fields consultants to assist in these formative evaluations.

B. Special Evaluations

During the negotiations on the Project Implementation Agreement a series of special evaluations to take place during the life of the project will be agreed upon by the GOM and AID/RHUDO. The result of these special evaluations will be a document dealing with important project issues and/or experiences.

For example, one of the most important special evaluations will be that dealing with the actual effects of the project on the beneficiaries involved. As is clear from the project paper, a number of assumptions have had to be made regarding ability and willingness of beneficiaries to pay for cuts of the upgrading component, availability of assistance for relocatees, effectiveness of cost recovery mechanisms, socio-economic characteristics of the beneficiary population, etc. In order to test these assumptions and to assess the impact of the project on the target population, the project design must incorporate evaluation measures from the earliest phases. A data base of beneficiary characteristics before the project begins will be assembled.

One approach to establishing the baseline data might be as follows:

- use aerial photos, existing utility company maps and records, existing surveys, tax records as available to make a preliminary assessment of project area characteristics;
- Use the above information to design a sample survey and draw a sample of 200-300 households, possibly stratified by house site, presence of utility hook-ups, or other indicators that appear suggestive of common characteristics. Carry out "before" household survey and analyze results;
- Based on above results, construct typologies of various households in beneficiary population and select 50 representative households to follow throughout the project. Prepare case study at end of project;
- Conduct housing market analysis for Tetouan as a whole to place project in context and provide opportunity for comparisons;
- Conduct an "after" survey of the 200-300 beneficiary households in the sample.
- Prepare report on impacts of project on beneficiary population.

Items which would be of interest in the household survey include (but are not limited to):

- existence of utility connection
- place of residence
- place of work
- tenure (owner-renter)

- sources of income
- levels of income
- household expenditures
- household composition
- future plans for housing
- education levels
- previous residence - location and length
- length of time in current residence

Other special evaluations could cover such topics as:

- evaluation of the evolution of municipal services and management due to the project;
- review of measures taken to legalize "clandestine" plots and housing construction and suggestions for improved administrative procedures;
- analysis of the effectiveness of cost recovery techniques and the application of cross-subsidies;
- analysis of environmental and sanitation improvements;
- and review of training experiences.

Some of these special evaluations will be undertaken by ANHI with assistance from REUDO; others such as the before-after survey will probably require AID-funded consultant assistance, as agreed upon with ANHI.

C. Joint Project Evaluation

At least once during the life of the Project as well as at the time of its completion, the RHUDO, GOM and the implementing agencies will undertake a detailed Joint Project Evaluation. Such an evaluation will review the entire project to date and will specifically focus on the impact of the HG loan on improvements in the target population's living conditions and the increased availability of adequate and affordable low income shelter, on improvements in project financing and in municipal management and tax collection, and on improvements in sanitation and environmental issues. The evaluation will also focus on quantitative measurements of performance. Some illustrative indicators of project success for the upgrading project could include:

- Number of units fully connected to water and electricity.
- Number of plots/housing units fully legalized.
- Number of families paying for services.
- Number of families registered on Municipality tax rolls.
- Proportion of tertiary path and sewer networks completed and maintained by population.

For the sites and services component these indicators could include:

- Number of plots developed and sold.
- Number of housing units under construction.
- Number of families paying for plots; level of payments and amount of cost recovery.

Number of loans for housing.
Level of cross-subsidy made to upgrading project.

For the ZAC, indicators could include:

Amount of cost recovery from private landowner/developers.
Number of plots/housing units under construction and/or sold.
Number and amount of loans contracted by private landowners/developers.

For the project as a whole:

Assessment of Project effectiveness in achieving objectives.
Degree to which approach has been or will be replicated in other municipalities.
Growth rates of clandestine housing in Tetouan
Amount of private sector, non-HG related activity in Tetouan housing market.
Performance of FEC as financing institution.
Growth in capabilities of ANHI.
Effectiveness of training and technical assistance provided.

Clearly, a number of the joint evaluation indicators will also be addressed by the various special evaluations, and the final evaluation plan will be designed to minimize survey burdens on beneficiaries, municipalities, and other project participants.

For the off-site infrastructure:

Number of meters in place of large collectors.
Status of sewage treatment plant.

VI PROJECT ANALYSES

A. Financial analysis

1. Financial planning

The HG loan of \$25 million will provide financing for \$18.28 million of project costs plus \$6.72 million to capitalize interest payments. Of the total HG funds allocated for capital costs (which is equal to 44 percent of project costs), \$11.52 million will be directed to financing the upgrading of Dersa and Samsa I. Another \$4.62 million will be used to finance the site and services component, while \$1.3 million is allocated to financing off-site improvements which can be charged directly to the project. Finally, an additional \$700,000 will be used to assist the municipality of Tetouan in the procurement of equipment and technical assistance. Amounts funded by HG may be reapportioned between the project components as may be necessary in the course of project development.

Beneficiary advance payments, which are the second largest source of financing after the HG, will contribute 44 percent of project financing or \$14.28 million. In the upgrading component, each beneficiary will contribute \$500, which will generate \$3.75 million in advance payments. Property owners benefiting from urban improvements associated with the ZAC component will contribute \$1.03 million, while the beneficiaries of the site and services component will make advance payments totaling \$9.5 million.

The FEC will make a loan from its own resources to finance an additional \$7.82 million in project costs, equal to 19 percent of total project costs, which will be used to finance most of the off-site improvements (\$3.92 million) and the purchase of privately held land in the Samsa II site (\$3.90 million). The remaining financial source (\$1 million) will consist of an AID grant to fund a number of technical assistance activities.

The project is expected to be implemented over a five year period. Project phasing will be programmed to maximize use of beneficiary down payments and the FEC loan and thereby minimize financial carrying charges on the HG loan resources to the benefit of the FEC. Approximately 10 percent of all funds will be used in the first year, and does not require any drawdown of HG funds. In the second and third years \$23.21 million will be drawdown, representing 56 percent of project financing and during the remaining two years, \$14.21 million will be disbursed, accounting for 34 percent of financing.

2. Financial arrangements:

While the lending rate for the HG loan will be determined at the time of contract negotiation, it was assumed that the rate for this loan will be at a fixed interest rate of 12 percent, for 30 years, and a grace period on principal payments of 10 years. The FEC will receive the loan in dirhams through the Ministry of Finance, which will receive the dollars and assume the foreign exchange risk. FEC will lend dirhams to the Municipality of Tetouan at a 10 percent interest rate for 10 years, regardless of the source of its funds. FEC may provide a three year grace period on principal and interest on its internally generated funds only.

Interest payments on the HG loan will be capitalized until mid-1990, based on the expected disbursement schedule (see table G - 3 of Annex G). The amount of the HG loan reserved to make interest payments during the initial four years will total \$6.72 million, of which about \$900,000 is a contingent reserve in the event the disbursement schedule speeds up or project costs rise.

3. Cost recovery aspects

Project cash flow for the HG loan is positive (See Table G - 4, Annex G). This positive flow results from the differential between the longer term, 10 year interest only HG loan, and the shorter term, full amortization FEC loan to the Municipality. Currently the cost of capital for the present mix of FEC internal funds is approximately 7 percent, which is 3 points lower than the expected interest rate on the loan to Municipality, with the spread covering its operating costs.

The higher interest on the HG loan, 12 percent vs 10 percent on the FEC loan, produces a negative 2 percent spread. Nevertheless, investment of the proceeds from the positive cash flow will generate sufficient income to off-set the loss from the negative interest rate spread. The resulting loss over the first three years will be off-set by a gain in the fourth year, and from the fifth year onward, FEC operates in the black under the HG program. Reinvestment of the reflows is crucial to maintaining the financial feasibility of the HG loan in particular and the project in general.

4. Interest rate considerations

Borrowing rates increased by 2 percent on the average on April 1, 1985. The cost of capital for CIH and other financial institutions today ranges from 12 to 13 percent for medium and long-term bonds, which is the same range in which a fixed rate HG loan might be contracted today. Lending rates for housing mortgages offered by CIH are 16 percent for properties with a value in excess of \$50,000. CIH borrowers with lower valued properties may pay as little as 8 percent, due to a GOM interest rate buydown for lower and middle income families. Municipalities obtain loans from FEC at a 10 percent interest rate, which is the same rate expected under this project, while the Ministry of Housing is providing 7 percent loans under the HG-002 program, which is significantly lower than the rate proposed under this project.

Real interest rates for housing finance and housing mortgages as related to the rate of inflation have been fluctuating over the past few years. In 1984, the real interest rate for CIH borrowings was minus 1 percent, while in 1985 it is expected to be plus 1 percent. The real interest rate on CIH loans has almost always been positive, with the rate expected to rise to 4 percent this year.

The affordability analyses for the major project components are calculated differently. In the upgrading component, beneficiaries make an initial DH 5,000 advance payment, receive another DH 5,000 as a cross-subsidy, and finance the remainder of the betterment assessment through monthly payments over a 10 year period. Since most of these families have financed the construction of their homes without the benefit of credit, this monthly payment is assumed to be the largest housing-related charge against their incomes. However allowance has also been made for payment of taxes, utilities and maintenance.

For beneficiaries of the sites and services project, the serviced plot will be purchased with a series of lump-sum payments over the implementation phase of the project, at the end of which time the purchaser receives title to the plot. At that point, the purchaser may obtain credit to build a home on the serviced lot.

In the ZAC project private land owners will finance the offsite servicing of their project site and will then either develop the site or sell it off to other private developers. The ZAC site has been zoned for small plot size development (low income housing). The financial terms for construction of a basic core unit to the ultimate beneficiary should be similar to those on the sites and services component.

1. The upgrading component

The project has been designed to maintain as low a level of shelter expenses per household as possible given the site layout and expense of infrastructure. Project designers have taken into account that families have already invested substantial amounts into the construction of their homes and therefore should not be expected to have large sums of capital available to reimburse project investments. Expenses have been minimized by limiting infrastructure improvements for the upgrading project to primary and secondary services. Tertiary service is to be provided by the beneficiaries themselves.

The project design requires that each beneficiary make an advance payment of 5000 DH which the Municipality will use as part of the project financing. The 5000 DH amount was determined to be a reasonable amount of cash that beneficiaries could mobilize in a relatively short period of time based upon three factors: a) 5000 DH in most cases represents less than 10% of the total value of their existing shelter; b) lump sum downpayments have been successfully applied and worked in other upgrading projects in Morocco (Douar Doum-Rabat; Ben M'Sik Casablanca); c) estimates in the Master Plan that households with a monthly income of DH 1000 in 1981 could mobilize approximately DH 4000 a year over a three-year period to purchase land.

The amount of the balance of the betterment assessment depends on whether the beneficiary is a property owner or not. If a property owner, the assumption is that he has paid for the lot, and therefore his assessment will be DH 5,000 less than that of a non-owner, who by his participation in the upgrading effort, will eventually become a property owner. After the advance payment, the balance on each betterment assessment will be either DH 8,160 or DH 13,160. If no cross-subsidy is provided, the monthly payment will be DH 173 or DH 234 (at a 10% interest rate for 10 years). Added to that is an estimated average of DH 100 per month for other housing-related expenses such as utilities, taxes and maintenance. This amount is based on Schéma Directeur figures from 1981 and adjusted upward to 1985 amounts. Assuming households can afford a maximum of 25% of their reported monthly income for all housing-related expenses, these estimates indicate households must have minimum incomes of DH 1100, for those who already own their property, and DH 1336, for those who must purchase it.

If a cross-subsidy of DH 5,000 to each beneficiary is provided as expected, then the monthly payments including the DH 100 for other housing expenses are reduced to DH 207 and DH 273, which are affordable to families earning DH 828 and DH 1092 monthly, respectively.* At all of these monthly payment rates, the project is affordable to beneficiaries below the median income for Tetouan as a whole, estimated at DH 1400 in 1985 based on Master Plan figures for 1981 incomes.

2. The sites and services component

The project design of the Sites and Services component will result in the creation of approximately 4000 80 m² plots which will be directed towards meeting the demand of lower income families. Project designers were careful to limit the size of the plots in order to discourage competition from higher income groups for whom 200 m² lots will be made available. At 225 DH/m² (\$22.50) the 80 m² serviced plots will cost 18000 DH (\$1800). According to the Master Plan for Tetouan in 1981 unserviced plots in clandestine neighborhoods cost as much as 250 DH/m² (\$25.00). Fully serviced plots were selling for 400 to 500 DH/m² (\$40.00 - \$50.00). Beneficiaries who purchase the plots will make three annual payments of 6000 DH (\$600) each over a three-year period. Experience to date with the FNAET program and the Core Housing Program in Tetouan demonstrate the ability and willingness of low income families to make lump sum downpayments for the eventual acquisition of a serviced plot or core housing unit. The Municipality of Tetouan will carefully screen applications for purchase of serviced plots in order to ensure that the incomes of potential purchasers fall within the target group for which this project component is intended, i.e., below the median income for Tetouan as a whole.

Beneficiaries of the site and services component would gain title to their lot once the final advance is paid and the title recorded. They would then be eligible to secure a loan to finance the construction of a dwelling unit, probably with financing from CIH.** A basic dwelling unit of 35 m² would

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For those families able to mobilize the full amount to be recovered, the Municipality may propose the option of their making one lump sum payment. cost in the DH 25,000 range, and based on CIH loan terms for this type and cost of unit (8%, 15 years, 10% down payment), the monthly payment would be approximately DH 300. Families with incomes of DH 1,200 (below the median income of Tetouan) could afford a loan of this nature. This assumption is supported by findings of the Master Plan of Tetouan which states that families in the 1000-1500 DH monthly income category can allocate about 24% of their monthly revenue to shelter-related payments (exclusive of the secondary sources of available capital).

* The project design includes the additional use of revenues generated from the sites and services subproject to subsidize payments made by beneficiaries whose monthly income does not permit them to meet the proposed repayment schedule. It is estimated that less than 10% of the families will be in this category.

** In 1983 the World Bank opened up a \$51 million line of credit with the CIH (Crédit Immobilier et Hôtelier) to provide financing for private and para-statal developers interested in building low income housing. Strict criteria for the program were established which included four categories of housing units. These were: core housing, shell housing, small completed units, and apartments or multi-family units. Eligible plot sizes for individual units ranged from 65m² to a maximum of 100 m². Built up area per unit ranged from approximately 35 m² to 75 m². In addition, eligible costs per m² and sales prices are fixed and adjusted yearly according to the cost of living index. The maximum sales price for the most complete unit is now around \$10,000. As of 1985, about half the line of credit had been used with most loans having been made to ERAC's and para-statal developers. CIH also provides mortgage lending to the beneficiaries of these projects.

3. ZAC

The privately held land that will be given access to services is zoned for low income housing use. It is assumed that private landowners and developers will sell their lots at market prices to families whose incomes are in the median income range. Because the availability of affordable serviced land has been a prime factor in the growth of the clandestine sector, it is assumed that serviced tracts of land will find a demand in the market. The ANHI will monitor the ZAC development to insure that standards applied to site development meet the design criteria established by the CIH in order to qualify for construction/mortgage financing. As stated earlier, CIH financing terms for a basic core unit would be affordable for families below the median income.

C. Economic and Debt Risk Analysis

1. Overview and summary

The proposed project to be financed in large part through the HG loan represents an attractive economic opportunity. While the empirical evidence pertaining to Morocco itself is scant, what we know about housing investments in developing countries in general and the Moroccan situation in particular suggests that the proposed projects will yield significant net economic benefits in five major areas:

- (1) employment and income effects are likely to be important, both overall and in their distributional impacts,
- (2) as designed, the project financing arrangements are not only consistent with, but contribute directly to the financial sector and other economic policy reforms now underway,
- (3) the project will contribute to resource mobilization by encouraging investments in the area by residents,
- (4) the HG loan represents an important source of foreign exchange during a period of acute need,
- (5) the project will contribute directly to Morocco's regional development objectives by supporting development in one of the country's less developed regions.

Properly managed, the project can have a positive impact beyond the shelter sector.

2. Employment and income effects

With respect to employment and income, economic analysis customarily distinguishes between the short-term impacts of the construction itself, and the long-term impacts of improved shelter. Much of the attention has focused on the immediate consequences of the investment, rather than on economic benefits flowing from higher-quality housing services.

With respect to construction, the available evidence for developing countries suggests a number of conclusions. Most importantly, housing construction appears to create more jobs per dollar invested than, say, manufacturing. Moreover, a higher percentage of the jobs created is for unskilled labor. Construction has often provided the entry-level jobs for migrants from the countryside to the cities.

Housing investment also appears to have an income multiplier that is typically above the average for all types of investment. Empirical estimates of the multiplier for a number of developing countries place its value at roughly two. Both the high labor intensity of construction and its low import content contribute to the size of the multiplier.

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These general conclusions are likely to hold for Morocco. The country's construction industry has been in decline since the late 1970's. In fact, stimulation of this industry has been declared one of the major objectives of economic policy for Morocco. The current slump is likely to have generated some excess capacity - which should allow for the exploitation of the employment and income generating potential without leading to any inflationary pressures.

The design of the project should also encourage private sector development, particularly among small and medium-size enterprises. These enterprises tend to be involved in disproportionate numbers in any construction activity, particularly low-income housing construction and upgrading.

Long-term employment and income effects from improved shelter in the Tetouan project are more difficult to assess. Generally, studies have found some - albeit generally weak - impacts of this nature. In the case of the proposed project, sanitary improvements for both residents of the project area and residents currently affected by improper disposal of sewage are likely to contribute to better health and possibly higher productivity.

With respect to long-term employment and income effects, the major element is likely to be commercial development that forms an integral part of the project design. In addition, the project will result in significant improvements in the esthetic appearance of the city and its environment as well as its carrying capacity, both preconditions for an expansion of tourist traffic. The project could therefore contribute to increased employment and income associated with increased tourism.

3. Financial sector reform and related issues

The project design incorporates several principles that relate both to the financial sector reform currently underway and to other aspects of economic policy reform. The application of these principles can contribute significantly to the progress of these reforms. Several areas can be identified.

(1) The financial arrangements for the proposed project emphasize the principal of pricing capital as close as possible to its "true" economic cost. Although other criteria may militate against that principle in specific cases, its very acceptance constitutes a departure from past practice of providing subsidies through lower pricing with little regard for the impacts of such hidden subsidies on the efficiency of resource allocation. The project clearly pertains only to a very small segment of the financial sector; even so, the signal value can be significant. Moreover, the project will contribute tangibly to the development of institutional infrastructures and standard mechanisms for cost recovery that can be applied to similar tasks.

(2) The project design also emphasizes the importance of adequate cost recovery mechanisms and continuing financial viability. Such an emphasis has been sadly lacking in public investment planning and public service provision in Morocco - mostly with reference to widespread poverty and the prohibitive transaction costs of recovering costs. By building cost recovery mechanisms into the design, the project will demonstrate the importance as well as the feasibility of such mechanisms. Again, the precise economic value of such a demonstration is difficult or even impossible to assess, it should not be neglected in the appraisal of the project, though.

4. Resource mobilization

The project incorporates the principle of resident involvement in construction and financing. This factor will contribute to the mobilization of savings for the residents of the project area. Its impact will be enhanced by the clarification of legal claims and titles that form part of the project. By reducing the risk, it will encourage additional investment by residents. Preliminary estimates of the magnitude of resident investments in the area suggest a "multiplier" effect in the order of 10 - for every dirham of public investment, residents will invest 9 dirhams in final constructed units.

This mobilization of resources represents an important contribution to the structural adjustment efforts. Domestic resource mobilization figures high on the list of policy priorities agreed upon by the GOM and the World Bank.

5. Foreign exchange benefits

The HG loan for the proposed project represents a potentially important source of foreign exchange for the Government of Morocco, at least on the margin, during a period of stabilization and structural adjustment. As foreseen in the current design, much of this loan will be drawn down during a difficult period characterized by debt rescheduling and extreme shortages of foreign exchange. As suggested in the debt risk analysis, repayment of this loan will commence only after Morocco should have weathered the storm and will have improved its debt service capacity significantly.

The likely terms for the HG loan make it an attractive source of foreign exchange. By combining commercial and concessional elements, the loan is consistent with GOM targets for new debt. The longer terms negotiated for HG loans also mean a lower and later debt service impact.

6. Regional development implications

The Government of Morocco is committed to a policy of reducing regional disparities. Tetouan forms part of a region of the country that is generally considered to fall below the national average in terms of various indicators of economic and social well-being. Employment and income effects as well as the development of relevant institutional capabilities for Tetouan and its hinterland should therefore contribute to the GOM's regional development goals.

7. Debt Risk Analysis

Morocco is currently going through a difficult period of stabilization and structural adjustment. Ambitious public investment programs in the second half of the 1970's, a continuing drought since then, and the country's dependence on imported oil have contributed to a swelling current account deficit. To finance the foreign exchange gap, Morocco has relied heavily on external borrowing. Increasingly, it turned to private lenders. This trend, together with generally worsening financial conditions worldwide, meant that average loan conditions have hardened considerably. In 1984, total disbursed debt surpassed total GDP (amounting to some 108 percent of GDP). Unable to sustain the debt service, Morocco sought and received a rescheduling of its external debt for the period 1983 - 1984. The GOM has requested a further rescheduling of official and commercial debt due in 1985 and 1986.

In 1983, Morocco also negotiated an IMF Stand-By Arrangement providing SDR 300 million for an 18-month period. Negotiations have been virtually completed with the IMF for another Stand-By Arrangement through early 1987, for an amount of SDR 225 million. In fact, Morocco is now one of the major borrowers from the IMF, ranking fifth in terms of its use of IMF credit as a percentage of its quota.

The project financing arrangements are designed to soften the debt servicing impact of the loan in the early years of the program. Specifically, the design assumes a grace period for the repayment of the principal of ten years, and a grace period of three years for any interest payments - for which successful precedents exist. The grace period on interest payments implies that interest due will be capitalized, thus the full amount of the loan will not be available for project financing, since some of the total debt will be capitalized interest.

Reliance on a grace period for interest payments would delay the beginning of debt servicing on this loan until mid-1990. Any concrete assessment of the debt risk for the proposed HG loan therefore revolves around the issue of whether Morocco will be able to handle its debt service at that time without difficulty. Some indicators help in making this assessment.

First, Morocco's export potential is promising. While it has been barely tested, largely because of policies favoring import substitution, the country's entrepreneurial talent and a well-educated labor force provide a basis for optimism. Preliminary indications are that Morocco's economy has responded positively to the policy changes designed to promote exports. A major new USAID initiative will provide support to increased exports through export credit insurance and other financial services for exporters (Project 608-0189). At the same time, improvements in agricultural performance should be expected to keep imports from rising at historical rates.

Second, Morocco has shown a degree of resoluteness in dealing with the current crisis that differs favorably from patterns in earlier crises. While problems remain, the GOM has served notice that it intends to stay the course. Under these conditions, the government should be able to put its financial house in order and establish the basis for effective debt service capabilities for the next decade.

Third, the assistance provided as well as the conditions imposed by the IMF and the World Bank have begun to contribute to a more efficient economy and economic policy system. Consequently, current projections now indicate a relative debt service burden for the beginning of the 1990's about equal to the current one after debt relief. In other words, by the beginning of the next decade, the country is projected to be able to service its debt without difficulty. At that point, the relatively small amount of the payment on the HG loan should not pose any problems.

(See Section III.B.5 for a response to the issue raised by the NEAC on structuring disbursements under the HG loan.)

D. Social Soundness Analysis

1. The informal housing phenomenon:

In the last 15 years Morocco has experienced rapid urbanization, with almost 43% (8.4 million persons) of the total population now living in urban areas. The delivery of authorized shelter has lagged far behind, resulting in the continued existence of areas called bidonvilles and the more recent and rapid development of informal housing settlements referred to as "Zones d'Habitat Clandestin". Clandestine housing in Morocco is different from bidonvilles in that the latter consists of dense, unserviced neighborhoods of low quality, rudimentary shelter, while the former are made of more conventional building materials and of higher quality and spatial standards.

Both types of housing serve the needs of low income groups, with clandestine housing residents having devoted more of their financial resources to housing than bidonville residents.

The 1983 World Bank Morocco Informal Sector Housing Study identified five basic elements that typify most clandestine neighborhoods:

- Absence of formal authorizations for land development and individual housing construction;
- Inadequate provision of physical and social infrastructure;
- Prevalence of owner-built construction processes, with housing development occurring in phases;
- Lack of a registered title to the land, which nevertheless generally belongs to homeowners (through sales using traditional contracts);
- Median household income 40% lower than the urban median.

The main reason for the development of informal housing has been the size and speed of urbanization in Morocco. The specific form it has taken results from an inadequate supply of serviced land interacting with a dynamic response by land speculators and the informal sector to meet the demand for low-income housing.

In 1961 Dersa/Samsa, a part of the project area, already had 1,500 households. By 1971 this figure had doubled to 3,000 households and 5,766 by the time of the 1981 census. In 1984 an estimated 9,500 households lived in the area with a total population of 54,000 inhabitants. Average household size was 5.7 persons.

The majority of the residents built their houses in durable and solid construction materials. The exception is a small cluster of 400 bidonville units with 2,500 inhabitants located on one hectare of land. These houses are constructed of scraps of zinc on wood frames with little evidence of improvement.

Under the proposed project this site would be fully serviced and costs charged to the land owner as in the ZAC. The owner has agreed to sell the lots back to the current residents who will then be able to improve their houses.

2. Description of the economic situation of the Dersa/Samsa neighborhood:

The Project design takes into consideration a number of observations and conclusions which were a result of a survey undertaken by MHAT in Dersa in 1981, a sample survey in Samsa in 1984 and the 1982 Tetouan Master Plan (SDAU).

a. income and expenditures:

Estimates of household income distribution for Dersa/Samsa are based on the 1981 survey data. Table VI-1 presents estimates of 1985 household income distribution. Constructed from the 1981 MHAT survey this table assumes that household incomes increased at 8% per year (less than estimated inflation rates) and that the relative differences between decile groups did not change over the 81-85 period.

TABLE VI-1

Estimated Percentage of Dersa Households in Selected Income
Categories (1985) (exclusive of secondary income sources)

<u>Monthly Income</u>	<u>Estimated Percentage of Households</u>
DH 420 or under	10%
DH 550 or under	20%
DH 628 or under	30%
DH 696 or under	40%
DH 837 or under	50%
DH 977 or under	60%
DH 1256 or under	70%
DH 1814 or under	80%
DH 4000 or under	90%
DH 6000 or under	100%

The median income in Dersa was 837 (DH) per month in 1985. This is considerably below the estimated median monthly income in 1985 for Tetouan of 1,400 DH exclusive of secondary income.

Other evidence indicates there is substantial underreporting of income and high degrees of inaccuracy in virtually all "official" figures. For example, estimated values of existing homes in Dersa are in the DH 50,000 - 80,000 range. An examination of rates of home building construction in Tetouan over the 1971-1981 decade reveals rates far greater than reported incomes could be expected to support.

Further, the history of other housing projects requiring substantial advance payments from low income beneficiaries indicates actual payments greater than what might have been expected from households with incomes as reported: in the DRHAT core housing program in Sama/Tetouan beneficiaries made advances of DH 5000; for the FNAET program, beneficiaries made 4-6 payments of DH 3000-DH3500 during an average two year period of servicing the lots. In the World Bank financed upgrading project at Douar Doum in Rabat large lump sum advances for land purchase were made by beneficiaries.

The affordability analysis, found in Section VI.B of this paper, concludes that the project proposed will be affordable to low income beneficiaries. The project design, however, also recognizes that some proportion of beneficiaries will be unable to afford even minimal payments. Therefore, provision will be made to use proceeds from the sale of serviced lots in other project components to reduce monthly payments to a level affordable to those families.

To the extent that the project is financially and economically sound, its social soundness is also evidenced, since the project to be minimally acceptable must be able to demonstrate potential improvements in the living conditions of the target population.

b. employment:

Eighty-eight percent of households are supported by a male head of household and 12 percent by a female head of household. The survey results showed a very low unemployment rate of 7.5 percent. There is also reported to be a high rate of undeclared employment. Thirty-one percent are day and unskilled laborers. Of importance to this project is the large proportion of residents who are employed in the construction sector. The proposed subproject activities will provide employment opportunities and facilitate the individual home improvement activities that will result from this project.

3. Project design response

a. community development

Several factors will facilitate the community development and participation components of the project. The 1981 DHRAT Dersa survey indicated that 90% of the community residents indicated a preference to remain in place as opposed to relocate as a result of project activities.

The Dersa neighborhood has an owner occupancy rate over 40% higher than the city of Tetouan (72% vs. 51%) and the level of investment indicated by the quality of the housing stock argues that a strong sense of commitment to the neighborhood exists. The project is intended to respond to the basic shelter needs of the community, improve public services, remove health hazards and provide clear title to plan and house, as such beneficiaries are expected to support project efforts.

The municipality of Tetouan, which is administered by elected officials from the community, will be responsible for informing and interacting with the project beneficiaries to ensure that appropriate design criteria are applied and that community residents are involved in the project. A key factor to insuring community involvement and acceptance of the project and thereby facilitating collection of downpayment and assessment fees is the fact that the Municipality of Tetouan which knows the project beneficiaries is ultimately responsible for recovery of project investments in order to service their debt with the FEC.

b. housing relocation

Even the minimum infrastructure development proposed will require displacement of approximately 270 households. Project design includes an input value for dismantled houses (the full market value of the demolished home) which will be applied towards the value of the replacement unit. The replacement units will be made available in the Sites and Services area; an effort will be made to create serviced lots in Dersa when possible. For tenants who are displaced because of project works, profits from the sale of units in the Sites and Services component will be applied to assist these families finance the purchase of serviced lots.

c. social benefits

- 1) **Employment:** Project residents will be encouraged to participate in the employment opportunities created by the project. The infrastructure works and house construction activities will provide new employment opportunities for resident laborers. Likewise the development of the commercial zone in the Sites and Services Zone will directly and indirectly contribute to employment generation in the district after the project is completed.
- 2) **Health Benefits:** The present health hazards caused by the discharge of debris from Dersa into the town, the pollution of the Oued Martil by the discharge of untreated sewage from Tetouan and the risk of contaminating ground water resources will be reduced by the provision of a sewage treatment system for the entire city of Tetouan. In addition

E. Administrative Analysis

1. Introduction

The national objectives of the Morocco Urban Development and Shelter Financing Program on the one hand, and the tasks of implementation at the local level on the other, together with the technical needs of municipal projects, require a combination of managerial functions, personnel, and statutory powers that are not found in any single institution in Morocco. The broader objectives concerning overall improvement of urban habitat in Morocco and the replicability of viable projects can best be addressed by institutions of national scope. Notwithstanding this, individual project implementation as well as the means and authority for cost recovery are best controlled by municipal government and agencies acting at the local level. Thus, any urban development project in Morocco having national scope must rely on institutions, at both national and local levels.

The most logical institutions at the national and local level to administer the program are the MOF (Ministry of Finance) and the Municipality of Tetouan. Neither institution has however, the technical capability to plan and administer a large scale urban development project. Furthermore if the MOF were to pass through to or on-lend funds to the Municipality of Tetouan, the financial reflows would accrue only at a local level and would not be available to serve the national objective of the program. Funding by the MOF normally takes place through budgetized government finance, whereby funds are allocated to Ministries concerned as part of their investment budgets. Budgetized finance has proven cumbersome as a means of financing urban development projects in Morocco.

2. Municipal Development Fund FEC

In order to finance municipal urban infrastructure projects, the GOM created a special financial institution, the FEC (Municipal Development Bank). The FEC has been designated as the borrower for the Tetouan upgrading project for the following reasons:

- It is the GOM designated national institution to lend to Municipal Governments for infrastructure improvements.
- It can reinvest project reflows and thereby serve the broader objective of overall improvement of urban housing.
- It supports the objectives IBRD Financial Sector Study which seek to expand and strengthen the role of existing financial institutions for urban development activities. The FEC will borrow, on-lend and reinvest reflows.

The technical management of FEC will be concentrated on its statutory obligation to review and approve construction contracts. FEC will on-lend to the Municipality of Tetouan in amounts required for the timely execution of the project. The ANHI will be responsible for the management of engineering and construction.

The FEC was established by law No. 1-59-169 dated June 13, 1959, as a public institution having financial autonomy and the authority to borrow money under the GOM's guarantee. The FEC existed as a division of the CDG until 1980 when it was upgraded to the status of a department. The FEC is funded with discounts from the CDG, rediscounts from the Central Bank, government budget subsidies and local borrowings (bonds) guaranteed by the GOM.

The CDG is responsible for overall administration of the FEC. The Director of the FEC reports to the General Director of the CDG through the CDG's General Secretary.

The staff totals 25 people, including 14 professionals. Ten of the 14 make up four project appraisal teams, each composed of an economist, one technical aide and one half-time engineer. The other four staff members comprise an accounting and monitoring unit. By mid-1986 the FEC is expected to have an annual investment budget of \$50 million increasing at the rate of approximately 20 percent per year. The sectoral distribution of these projects will be 25 percent for sewerage, 22 percent for water supply, 22 percent for revenue producing facilities (such as slaughterhouses and markets), 14 percent for electrification, and the balance for urban development projects. The regional distribution is scheduled to be 35 percent to rural communes, 38 percent to urban communes, and 27 percent to utility authorities.

The FEC now has approximately one hundred projects, with a total investment of \$120 million. The Tetouan project would therefore represent an increase of 20 percent in their portfolio over a five year period. An increase in staff will be needed to manage this additional workload, the levels and terms of which will be determined during Implementation Agreement negotiations.

The Ministry of Finance will negotiate all HG loans, the proceeds of which will be on-lent in Dirhams to the Municipality by the FEC. Reflows from loans to the Municipality, in excess of HG repayment obligations, will be reinvested by the FEC.

Project funds loaned to the Municipality will be paid out for engineering services and construction upon certification by ANHI, as the Municipality's delegated representative.

This proposed institutional arrangement will support AID's objectives of expanding the role of existing financial organizations in Morocco in urban development and to create an institutional structure that is capable of financing viable and replicable programs and projects.

3. The National Agency to combat Substandard Housing-ANHI

The management of the technical aspects of the project from physical planning through construction, requires expertise that is not normally found in-house within a Municipal government. The RDE has some of these skills, but only in regard to water supply and electrification, and not in comprehensive urban development, which requires the management of a broader scope of activities.

The performance of these services by a national organization is the best way to achieve the program objective of replicability. The ANHI (National Agency to combat Substandard Housing) was founded as GOM's instrument for packaging urban development services. Since this Agency has the necessary statutory powers, and is staffed with the ablest of Morocco's urban development technicians it has been designated as the project developer. The ANHI will be responsible for all technical management of the project, including planning and design, ordering and supervising engineering services, management of construction services, and coordination between the FEC and Municipality of Tetouan.

The ANHI, will be the delegated representative of the Municipality and will be responsible for the following tasks:

- preparation of all terms of reference and conditions of all contracts for feasibility studies, design, and engineering services;
- supervision, and appraisal of all the above studies on behalf the Municipality;
- preparation of terms of reference and conditions of all contracts for all construction works for the project;
- supervision and of the above works on behalf of Municipality;
- certification of payments for all project contracts of every kind.

4. The Municipality of Tetouan (MOT)

The Municipality of Tetouan is the third institution in the projects' administrative structure, being the owner of a large portion of the development site as well as the responsible authority for project cost recovery.

The Municipality will borrow project funds from FEC and will appoint the ANHI as its representative for development operations as Maitre de l'Ouvrage Délégué. The ANHI will manage a special project account on behalf of the municipality, through which all of the project's contract funds will flow (beneficiary payments and other recovered costs will be deposited to and paid from a second account controlled by the Municipality).

F. Technical Analysis

1. Site characteristics

The site for the upgrading component of the Project is characterized by street grades more or less level in the east-west direction, but varying to extremely steep gradients of between 14 percent and 33 percent in the north-south down slope direction.

Surface soils to an average depth of one and a half meters are sandy limestone, gravelly clays or sandy clays. During the rainy season silt is washed away from the upper slopes of the area clogging existing downstream facilities, channels, culverts and catchbasins in the older better equipped areas of the city. Permeability of the area is low due to hard surfaces, roofs, paved areas and the compacted nature of soils in public areas.

In addition a form of micro-climate exists in the project area. Strong, prevailing westerly winds which normally occur during heavy rain storms, are generally more intense and destructive on the slopes of Dersa mountain than on the other side of the valley.

Several studies have attempted to correlate stormwater runoff data and quantities for the area under review. In reality, due to the concentrated quantities and high velocities of this runoff, combined with the impermeable slopes, a phenomenon of "sheet flow" frequently occurs which carries all loose debris down the mountainside, undermines trees and structures and weakens foundations.

The sites for the upgrading and ZAC components of the project are generally treeless and undulating land crisscrossed by dry gullies and rocky ravines.

2. Density and land use

The population of the upgrading component of the Project is now estimated to be 54,000 inhabitants. Because of varying site conditions and steep slopes, the population density varies considerably across the site and ranges from 660 inhabitants per hectare in the areas of highest concentration to an average of 350 inhabitants per hectare.

The number of housing units per hectare in the upgrading is 58, while in parts of the ZAC it is 15 units per hectare. There are virtually no housing units built on the sites and services part of the Project.

3. Existing and proposed infrastructure

The only practical access to the upgrading area is the Boulevard Abdelkarim Khattabi. Existing streets, alleys, trails and footpaths vary in width between 1 and 4 meters. Some additional stairways will be required due to extreme slopes. Most houses are between 30 and 50 meters away from a street accessible to minor traffic.

The proposed new street grid consists of a double loop and the widening and grading of two additional north-south connection access feeders to the double loop. The finished surface of this road will consist of concrete. The alignment of the street will also require that certain sections be cut and filled, with structural retaining walls in fieldstone masonry and reinforced concrete. Approximately 270 households will be affected by the widening of the roads and may lose all or part of their housing units.

The existing tertiary sanitary drainage system in the upgrading component of the project consists of small diameter unreinforced concrete pipes, partially buried or incorporated in the narrow concrete sidewalks. For the most part it is a semi-private system maintained by the users and property owners directly affected.

A secondary network of pipes consists of diameters between 40 and 80 cm. and were partially constructed by the Municipality. These pipe diameters are not properly sized for the number of tertiary pipes connected to them. The proposed secondary system improvements will incorporate additional larger diameter reinforced concrete pipes which will be installed parallel to the existing ones in order to decongest the informal portion of the network. These will include seven secondary collectors of 80 to 100 cm in diameter.

The primary collector is partially in place and consists of a large capacity ovoid reinforced concrete culvert. Two new primary collectors will be constructed in the alignment of the ravines. The result of these additions will be that open drainage will be enclosed and the surrounding grade could be partially filled in with rock excavation from the tertiary and secondary systems. The existing refuse piles could also be used as fill and covered with composted materials and earth to create clean open space.

About 60 percent of the dwellings in the Upgrading area are connected to water by the RDE which, under the project, expects to install additional pipes and a storage reservoir for 7000 m³.

Street lighting is very sporadic and will have to be entirely renewed. A medium tension transmission line will be removed to another location. For the majority of dwellings, electric service has already been provided and meters have been installed.

The proposed development for the sites and services and ZAC components of the Project includes a road network which generally follows existing trails and roads. It is the path of least resistance method and may have some merit at first glance. Nevertheless, during the implementation of the project, several variations and schemes will have to be developed, compared and evaluated in order to optimize all components.

The proposed primary sewerage system for this area consists of one ovoid shaped large diameter collector to be built in place as a reinforced concrete structure. The secondary collectors consist of pipe diameters varying between 80 and 100 cm. The tertiary are 60 cm. diameter.

Water and electricity lines will be installed by the RDE as part of the project.

4. Housing

Housing in the upgrading area is predominantly owner-built. Approximately 54 percent of these clandestine housing units are built by qualified labor under the direction and management of the homeowner himself. In this case, the owner is responsible for supervision of the work, the purchase of building materials and the direct payment of the workers. The rest are constructed by contractors or the residents themselves.

The principal materials and methods of construction used in clandestine housing are very similar to those employed in other low-income housing neighborhoods throughout the city. This includes stone foundations, reinforced concrete structures and baked brick walls with both interior and exterior plastering. Roof and floor slabs are made of thin reinforced concrete laid over shallow brick vaults supported by steel I beams spaced at 1.5 meter intervals.

The built up area of an average size clandestine housing unit is between 75 and 80 m². Almost 93% of these units include standard squat toilets, while 88% have enclosed kitchens and 28% have exterior courtyard space. Approximately 64% of the housing units have upper floors with 17% having three or more floors.

During the course of the project, these clandestine housing units will be inspected by the Municipality in regards to their structural safety and health standards. Recommendations for their improvement will be made to the owners if necessary. Upon passing inspection, Occupancy Permits will be issued which will formalize the construction.

G. Environmental Analysis

The City of Tetouan is situated in the northernmost province of Morocco. It is not only the administrative center of this region but, due to its geographical location, it also benefits from the commercial, financial, agricultural and touristic impact from a rapidly urbanizing coastal strip along the Mediterranean Sea stretching from the City of Fnideq in the north to the City of Martil in the south, a distance of about 30 kilometers.

Tetouan is located nine kilometers inland from where the Oued Martil river enters the Mediterranean Sea. Approximately 65% of the city's residential areas are built along the southern slopes and terraces of the Djebel Dersa mountain. This is also the site of the proposed project.

1. Topography of the upgrading area

The lowest average elevation of the upgrading area is 64 meters located at a point where the invert of the drainage culvert of the ravine called Khandaq Zarbough crosses under the main east-west access road to the Dersa neighborhood. The highest average ground elevation is 240 meter and occurs along the northern boundary of the area. Street grades throughout the site are more or less level in the east-west orientation, but vary to extremely steep gradients of between 14% and 33% in the north-south down slope orientation. Access ways in this direction require stairways and hairpin curves which follow the natural rock and outcrop escarpments.

Permeability of this part of the site is low due to the hard surfaces, roofs, concreted areas, asphaltic alleys and roads as well as to the compacted nature of the soils in the public areas accessible to constant traffic of all kinds.

2. Topography of the Sites and Services and ZAC area

Land surface features in this part of the site consist of broadening undulating to steep rocky and arid terrain interspersed with many deeply eroding gullies (thatways) and man made ditches. There are three relatively flat or slightly sloping terraces, one of which includes an 8 hectare parcel of land belonging to the Ministry of Housing which will include the rehousing units from the upgrading project.

The lowest average elevation is 14 meters above sea level. The highest average elevation is 124 meters along the northern boundary of the area.

3. Geology

The entire zone is composed of fissured karst with altered limestone outcroppings. The surface soils to a depth of one and a half meter are sandy limestone, gravelly clays or sandy clays with fines content (i.e. sand dust particles less than 80 microns) of between 15% and 28%. The environmental consequences of these large percentages of fines in unpaved and densely populated built up areas are:

- In the dry and windy season fines mixed and polluted with organic matter, human and animal feces, garbage, sewage, etc. are the cause of endemic outbreaks of enteritis, diarrhea, meningitis and broncheal diseases
- During the rainy season silt (i.e. fines mixed with organic matter) is washed away from the upper slopes of the area clogging existing downstream facilities, channels, culverts and catchbasins in the city center.

Seismic activity records of the Tetouan province and the peninsula indicate that the entire zone is subject to potential tectonic movement. In Morocco the area north and west of the Atlas mountain ranges has been for the most part classified as a moderate earthquake zone. This zone includes almost all major urban areas, the City of Tetouan included. Building codes include structural design criteria and considerations for limiting damage.

4. Hydrography

The city of Tetouan is traversed by the Oued Martil river which drains approximately 1220 square kilometers of the surrounding mountainous and slightly forested region. Several large man made water catchment reservoirs exist or are being developed. These will contribute to extensive existing and future irrigation schemes, soil conservation projects and primary water supply resources for the expanding needs of the region.

The Oued Martil river at its narrowest normal river bed section within the city limits is about 35 meter wide, with vertical embankments on the scour side of up to six meters in height, an indication of the sediment transport capacity of the river during flood stage. An alluvial sloping terrace exists on both sides of the river channel and measures between 220 and 700 meters in width. The alluvial silt is the source of material for local brick and pottery factories. Large agricultural plots in this area produce a variety of foodcrops for the local markets.

The river, when in flood stage, is estimated to reach an elevation of up to 10 meters at the existing bridge along rural roads 608. Due to land reclamation and the filling in of the river terraces the velocity of the stream is increased. Debris, trees, etc., can be seen lodging in the deck and railings of the existing bridge which is in the process of being undermined.

5. Rainfall and climate

Recordings over a recent fifteen year period indicate that total yearly rainfall in Tetouan is above the national average. The average is 650 millimeters with a maximum of 1300 millimeters and a minimum of 400 millimeters. Prevailing strong westerly winds occurring during an intense storm are usually more destructive on the slopes of Djebel Dersa mountain than on the other side of the valley. This has prompted local Dersa residents to build houses in solid materials, to protect masonry foundations and to cover as much as economically feasible the more erodable surfaces of open space areas with either concrete, asphalt or hand placed rock revetments.

Due to the ongoing deforestation uphill from the district and the existence of remaining large areas of steep slopes in excess of 33% however, large amounts of soil, silt, brush, mud and rocks are flowing or carried into the city center during each major rainstorm, blocking roads and sidewalks and plugging culverts and catchbasins.

This phenomena is of great concern to the city, and several studies have been made to correlate stormwater runoff data and quantities for the area under review. Simulated time, intensity, gradient and absorption factors were used in order to predict quantities at a given point of intersection of major streets or at a culvert crossing.

Due to concentrated water quantities, high velocities of the current, and the steep impermeable slopes, a phenomenon of sheet flow occurs which carries all loose debris, undermines trees and structures, weakens building foundations, etc. The existing stormdrain collection system with catchbasins and culverts has proved inadequate under these conditions. Part of the upgrading effort will be to develop elements in the tertiary system eg. steps, directional flow structures etc. to retard and limit sheet flow under worst conditions.

The nature of the upgrading project will require additional means of action in order to alleviate the problems of flooding and health hazards. These will include the progressive development and maintenance of tertiary infrastructure by the residents themselves. Community participation and mutual assistance ties developed during the installation of the tertiary infrastructure will need to be maintained and strengthened.

The City of Tetouan has an existing storm sewer drainage system dating from the Spanish Protectorate. This system discharges directly into the Oued Martil river by means of several large and an unknown number of small effluent structures. Since its inception there have been an untold number of cross connections with private sanitary sewers which in fact make it a combined system. The Master Plan for Tetouan recommends as a long term solution the gradual disconnection of these sanitary outlets and their integration into proposed separate sanitary sewer system.

The long term objective for the City of Tetouan is to have two separate systems, a storm sewer system discharging directly into the Oued Martil and a sanitary sewer system together with treatment facilities for residential and industrial liquid waste. The large investments which are required over several decades in order to finance such major infrastructure programs constitute a constraint which cannot be resolved at this time. The city's strategy therefore is to build a unitary system to handle sewage using overflow weirs for periods of heavy rains and runoffs. This approach allows the eventual construction of a parallel system in the future without losing present investment costs.

The primary source of water for the region is the Nakhla dam with a capacity of 8 million cubic meters and a delivery capacity of 3 m³/second. Due to the gradual silting of the storage reservoir there is a marked reduction of yield which will only be solved after the completion of the proposed Ben Kariche storage reservoir and dam with a projected storage capacity of 80 million m³.

In their annual report for 1984, the Regie shows water consumption for the City of Tetouan of 8 million m³ for residential and industrial users. The actual total water production for 1984 was 13 million m³. The difference includes amounts lost to leaks, municipal use for street cleaning, public fountains, and water which is requested for use by the Hydraulic Service Agency and other Governmental authorities.

A new modern water treatment plant is scheduled to replace the existing facilities located near Torreta. These are just sufficient for the current demand except during drought conditions when public taps on the high level service areas are temporarily closed off.

Water quality is considered to be acceptable based on a recent quality sampling program at nine different points in the system. Chlorine residual was found to be 0.2 mg/liter which is within the acceptable norms.

The existing system is being modernized on the basis of the national interconnected grid requirements. Old overloaded city distribution lines and transformers are gradually being replaced to provide for future demand and to upgrade street lighting.

The impact of the Dersa - Samsa load demand will not significantly affect the system. In the meantime new high voltage transmission lines are being installed, and it is reported that there will be an excess capacity for about ten years.

VII. CONDITIONS AND CONVENANTS**A. Conditions**

1. Statement of terms and conditions of the relevant agreements between the FEC, Ministry of Finance and/or Bank of Morocco insuring the timely disbursement and use of Housing Guaranty loan funds (eg. exchange rate risk; grace period etc.).

2. Written assurance by the FEC that they will provide counterpart financing needed to complete the proposed project on schedule.

3. Evidence that agreements have been established between the ANHI, FEC, Municipality of Tetouan and the RDE defining project authorities and responsibilities.

4. Statement on programming procedures including a description of FEC review of procedures for disbursing funds to the Municipality.

5. Creation of special accounts needed to implement the project.

6. Evidence that legal steps have been initiated to acquire all land needed for the project.

7. Development of a project delivery plan.

8. Evidence that the key agencies have the management resources sufficient to implement the project.

B. Convenants

A covenant will be established with the GOM affirming that the GOM will maintain project infrastructure in operational condition.

INFO COPY

ACTION: PROG DUE: 08/21
INFO : DIR, D/DIR, CHRON, RF.

4-1118

Monsieur Robert CHASE
DIRECTEUR DE L'USAID
137, Avenue Allal Ben Abdallah
R A B A T

OBJET/ Financement du projet de développement urbain
de Tetouan DERSA-SAMSA.-

Monsieur le Directeur,

Faisant suite aux diverses réunions et notamment celle en date du 7 Août 1985 tenue au Ministère de l'Intérieur sous la présidence de Monsieur Driss TOULALI, Directeur des Collectivités locales, j'ai l'honneur de vous adresser, par la présente, une demande de financement au moyen des prêts HI (Housing Investment Guarantees) pour réaliser le projet DERSA-SAMSA à TETOUAN.

Les discussions et séances de travail concernant la structure du projet et son montage technico-financier se poursuivent toujours au Ministère de l'Intérieur.

Les résultats de ces travaux vous seront communiqués incessamment.

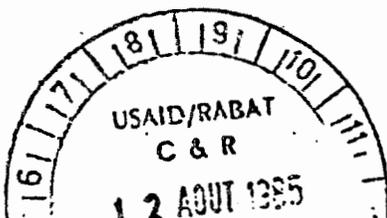
Par ailleurs, je suis persuadé, Monsieur le Directeur, que votre aimable contribution et la coopération très efficace de vos collaborateurs permettront de concrétiser, avec nous, les objectifs que ce projet vise à réaliser.

Dans l'espoir que nos liens se renforcent davantage dans l'avenir, vous prie d'agréer, Monsieur le Directeur, l'expression de mes sentiments les meilleurs.-

Best Available Copy

Le Ministre Délégué
auprès du Premier Ministre
Chargé des Affaires Économiques

Signé : Moulay Zine ZAHIDI



ANNEX B

Action Memorandum to the Director of USAID/RABAT dated September 26, 1985.

Project Authorization Amendment dated September 26, 1985.

Original Project Authorization dated September September 28, 1979.

Original Project Authorization dated October 5, 1979.

ACTION MEMORANDUM TO THE MISSION DIRECTOR

FROM: William S. Rhodes, Program Officer *WSRhodes*

SUBJECT: Approval of Revised Project Paper and Amendment of Guaranty Authorizations, 608-HG-001

PROBLEM:

Your approval of the revised Project Paper and amendment of the guaranty authorizations are required in order to make HG funding available for the Tetouan Upgrading Project. Guaranty authorizations in the amount of \$25 million were issued by AID/W in 1979 to finance the Ben M'Sik Shelter Upgrading project. The Mission withdrew its support of this project in 1982 because of changes made by the GOM that significantly altered its character from that approved by AID. The GOM has now requested that the HG-001 authorizations be used to finance the Tetouan upgrading project in development of a program to improve GOM's capacity to design and implement urban development and shelter financing for low-income families.

DISCUSSION:

The HG-001 was authorized for \$25 million in 1979 to support the Ben M'Sik bidonville upgrading project in Casablanca. No borrowings occurred, however, and in the beginning of 1982 the GOM suddenly changed the orientation of this project from that of on-site upgrading to relocating the majority of the inhabitants on another site. While this fundamental project change was primarily due to very specific considerations related to the Ben M'Sik situation, it did cause AID to withdraw its support for the project at that time. USAID did agree, however, to maintain the authorization and to consider amending it to finance another appropriate upgrading project at the proper time. The project in Tetouan was considered to be the most likely possibility.

The Tetouan Upgrading Project is included in the current Five Year Development Plan and was one of the sub-projects in the original HG-002 Project Identification Document approved by AID/W in January of 1981. It was later deleted from the final Project Paper however, when the amount of the HG-002 authorization was substantially reduced.

Technical aspects and studies of the project have been under development by the Ministry of Housing for the last four years. During this period the GOM has requested USAID HG-002 financial assistance in preparing the project design. Direct short term technical assistance to the project was provided by an AID-funded advisor under USAID/Morocco's Low-Income Shelter Project (608-0156).

The GOM subsequently requested that the HG-001 authorization be amended to provide for an AID sponsored Housing Guarantee Program in Tetouan, addressing the problem of urban development and shelter finance for the urban poor primarily in coping with clandestine urban settlements.

A discussion paper, written in lieu of a PID, was reviewed and approved by the Mission on March 19, 1985. Following the NEAC review of the discussion paper on April 9, 1985 for the proposed amendment to the Morocco Tetouan Upgrading project 608-HG-001, AID/W approved the HG-001 Project and authorization in the field, contingent upon the resolution of the following policy issues (State 15369):

- Cost Recovery
- Interest Rates
- Public Sector Lending Institutions
- Affordability
- Debt Servicing and Risk Analysis

The NEAC's issues were addressed in Rabat 7570 to the satisfaction of AID/W. These issues and other design issues are summarized in the revised Project Paper (pages 33-36). State 269559 authorized the Mission to proceed with the amendment of the HG-001 authorization, subject to the issuance of a negative environmental determination. The Bureau Environmental Coordinator gave this determination in STATE 285919 dated September 18, 1985.

The Mission Review Committee met on August 6, 1985 to discuss the first draft of the amended project paper. Subsequently, the Project Paper was further revised, incorporating the suggestions of the review committee. On September 10, 1985 the Mission Review Committee met to discuss the final draft. The MRC recommended that subject to certain final changes in the text, the revised Project Paper be approved and that the guaranty authorizations be amended. These final changes have been made. Minutes of the MRC meeting are attached.

RECOMMENDATIONS:

1. That you approve the revised Project Paper by signing the face sheet.
2. That you amend the guaranty authorizations by signing the Amendment document, providing HG financing of \$25 million, for the Tetouan Upgrading project.

AMENDMENT TO HOUSING GUARANTY AUTHORIZATIONS
PROJECT 608-HG-001

- Authorization dated September 28, 1979, in the amount of fifteen million dollars.
- Authorization dated October 5, 1979, in the amount of ten million dollars.

Pursuant to the authority vested in the Assistant Administrator, Agency for International Development, by the Foreign Assistance Act of 1981, as amended (FAA), and the delegations of authority issued to me by State No. 104544, April 1985, I hereby amend the authorizations attached hereto, dated September 28, 1979 and October 5, 1979, by deleting the second and third sentences of each.



Robert C. Chase
Director, USAID, Rabat
September 26, 1985

SEP 26 1985

GUARANTY AUTHORIZATIONPROJECT 608-HG-001

Provided From: Housing Guaranty Authority

For : The Government of Morocco

Pursuant to the authority vested in the Assistant Administrator, Agency for International Development, by the Foreign Assistance Act of 1961, as amended (FAA), and the delegations of authority issued thereunder, I hereby authorize the issuance of guaranties pursuant to Section 222 of the FAA of not to exceed fifteen million dollars (\$15,000,000) in face amount, assuring against losses (of not to exceed one hundred percent (100%) of loan investment and interest) with respect to loans by eligible U.S. investors (Investor) acceptable to A.I.D. made to finance housing projects in Morocco. This guaranty will assist in financing the housing program of the Government of Morocco for low income households primarily in the squatter area bidonville of Ben M'Sik in Casablanca. Activities to be financed hereunder shall include upgrading, credits for home improvements, core housing, related community services and facilities, employment generation, institution building of the Ministry of Housing and preparation of studies lending to future shelter efforts. This guaranty shall be subject to the following terms and conditions:

1. Term of Guaranty: The loans shall extend for a period of up to thirty years (30) from the date of disbursement and may include a grace period of up to ten years on repayment of principal. The guaranty of the loans shall extend for a period beginning with the first disbursement of the loans and shall continue until such time as the Investor has been paid in full pursuant to the terms of the loans.
2. Interest Rate: The rate of interest payable to the Investor pursuant to the loans shall not exceed the allowable rate of interest prescribed pursuant to Section 223(f) of the FAA and shall be consistent with rates of interest generally available for similar types of loans made in the long term U.S. capital markets.
3. Government of Morocco Guaranty: The Government of Morocco shall provide for a full faith and credit guaranty to indemnify A.I.D. against all losses arising by virtue of A.I.D.'s guaranty to the Investor or from non-payment of the guaranty fee.

- 4. Fee: The fee of the United States shall be payable in dollars and shall be one-half percent (1/2%) per annum of the outstanding guaranteed amount of the loans plus a fixed amount equal to one percent (1%) of the amount of the loans authorized or any part thereof, to be paid as A.I.D. may determine upon disbursement of the loans.
- 5. Project Delivery Plan: The Government of Morocco and A.I.D. shall sign an Implementation Agreement which requires A.I.D. approval of a Project Delivery Plan prior to the first disbursement. The Project Delivery Plan shall show projected construction activity or other uses of the Loan over the duration of the implementation period. This plan shall be prepared by the Government of Morocco with the assistance of A.I.D., and shall reflect the anticipated time, costs, and financing of the Project or subproject in accordance with the guidelines provided by A.I.D.
- 6. Other Terms and Conditions: The guaranty shall be subject to such other terms and conditions as A.I.D. may deem necessary.

Joseph C. Wheeler

 Joseph C. Wheeler

Sept 28, 1979

 Date

Clearances:

DAA/NE:AWHITE _____ Date _____
 GC/NE:JMULIEN *JM* Date 9/28/79
 NE/NENA:MHUNTINGTON *MH* Date 9/28/79
 NE/DP:BLANGMAID *BL* Date 9/28
 NE/PD:SATAUBENBLATT *SA* Date 9/28/79
 DS/H:DMcVOY (draft) _____ Date _____
 DS/H:WNCOODSON (draft) _____ Date _____
 GC/H:MGKITAY _____ Date _____
 FM/LD:ASMITH *AS* Date 9/26/79
 GC/H:MGKITAY/DS/H:LDENNISON: *LD* 9/17/79 lrb:09/17/79

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

GUARANTY AUTHORIZATION

PROJECT 608-HG-001

Provided From: Housing Guaranty Authority

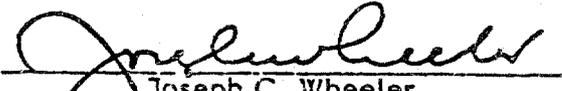
For : The Government of Morocco

Pursuant to the authority vested in the Assistant Administrator, Agency for International Development, by the Foreign Assistance Act of 1961, as amended (FAA), and the delegations of authority issued thereunder, I hereby authorize the issuance of guaranties pursuant to Section 222 of the FAA of not to exceed ten million dollars (\$10,000,000) in face amount, assuring against losses (of not to exceed one hundred percent (100%) of loan investment and interest) with respect to loans by eligible U.S. investors (Investor) acceptable to A.I.D. made to finance housing projects in Morocco. [This guaranty will assist in financing the housing program of the Government of Morocco for low income households primarily in the squatter area bidonville of Ben M'Sik in Casablanca. Activities to be financed hereunder shall include upgrading, credits for home improvements, core housing, related community services and facilities, employment generation, institution building of the Ministry of Housing and preparation of studies lending to future shelter efforts.] This guaranty shall be subject to the following terms and conditions:

1. Term of Guaranty: The loans shall extend for a period of up to thirty years (30) from the date of disbursement and may include a grace period of up to ten years on repayment of principal. The guaranty of the loans shall extend for a period beginning with the first disbursement of the loans and shall continue until such time as the Investor has been paid in full pursuant to the terms of the loans.
2. Interest Rate: The rate of interest payable to the Investor pursuant to the loans shall not exceed the allowable rate of interest prescribed pursuant to Section 223(f) of the FAA and shall be consistent with rates of interest generally available for similar types of loans made in the long term U.S. capital markets.
3. Government of Morocco Guaranty: The Government of Morocco shall provide for a full faith and credit guaranty to indemnify A.I.D. against all losses arising by virtue of A.I.D.'s guaranty to the Investor or from non-payment of the guaranty fee.

- 2 -

4. **Fee:** The fee of the United States shall be payable in dollars and shall be one-half percent (1/2%) per annum of the outstanding guaranteed amount of the loans plus a fixed amount equal to one percent (1%) of the amount of the loans authorized or any part thereof, to be paid as A.I.D. may determine upon disbursement of the loans.
5. **Project Delivery Plan:** The Government of Morocco and A.I.D. shall sign an Implementation Agreement which requires A.I.D. approval of a Project Delivery Plan prior to the first disbursement. The Project Delivery Plan shall show projected construction activity or other uses of the Loan over the duration of the implementation period. This plan shall be prepared by the Government of Morocco with the assistance of A.I.D., and shall reflect the anticipated time, costs, and financing of the Project or subproject in accordance with the guidelines provided by A.I.D.
6. **Other Terms and Conditions:** The guaranty shall be subject to such other terms and conditions as A.I.D. may deem necessary.



 Joseph C. Wheeler
 October 5, 1979

 Date

Clearances:

DAA/NE:AWHITE A Date 10-4-79

GC/NE:JMullen JEW Date 10/2/79

NE/NENA:MHuntington mm Date 10/2/79

NE/DP:BLangmaid B Date _____

NE/PD:SATaubenblatt KSM Date 10/2

DS/H:DMicVoy DM Date 10/2

DS/H:WNGoodson W Date _____

GC/H:MGKitay _____ Date _____

FM/LD:ASmith AS Date 10/2/79

GC/H:MGKITAY/DS/H:LDENNISON:ikb:09/17/79

ANNEX C

THE HOUSING GUARANTY PROGRAM

STATUTORY CHECKLIST

MOROCCO

PROJECT NO. 608-HG-001 - As Amended

ANSWER YES OR NO PUT PP PAGE
REFERENCES AND/OR EXPLANATIONS
WHERE APPROPRIATE

General Criteria Under HG Statutory
Authority

Section 221(a)

Will the proposed project further one or
more of the following policy goals?

is intended to increase the
availability of domestic financing
by demonstrating to local
entrepreneurs and institutions that
providing low-cost housing is
financially viable;

Yes - Domestic financing with the
Sites and Services Project
through the FEC and mobilization
of beneficiary resources for home
construction and improvements.

is intended to assist in marshalling
resources for low-cost housing;

Yes - See resources in the areas of
upgrading and infrastructure

supports a pilot project for low-cost
shelter, or is intended to have a
maximum demonstration impact on local
institutions and national; and/or;

Yes - Sites and Services Project
Institutions: ANHI
FEC
M of Tetouan

is intended to have a long run goal to
develop domestic construction
capabilities and stimulate local
credit institutions to make available
domestic capital and other management
and technological resources required
for low-cost shelter programs and
policies:

Yes - Use of local contractors in
both the Sites and Services and
Upgrading components and credit
financing from the FEC for the
Municipality of Tetouan.

Section 222(a)

1. Will the issuance of this guaranty
cause the total face amount of
guaranties issued and outstanding at
this time to be in excess of _____ ?

No

2. Will the guaranty be issued prior to September 30, 1985? Yes

Section 222(b)

Will the proposed guaranty result in activities which emphasize:

- (1) projects providing improved home sites to poor families on which to build shelter and related services; or Yes - Serviced Sites and Upgrading
- (2) projects comprised of expandable core shelter units on serviced sites; or No - Families have this option after purchase of serviced site.
- (3) slum upgrading projects designed to conserve and improve existing shelter; or Yes - except where technically infeasible
- (4) shelter projects for low-income people designed for demonstration or institution building; or Yes - Institutions:
ANHI
FEC
- (5) community facilities and services in support of projects authorized under this section to improve the shelter occupied by the poor? Yes - Water, Sanitation Sewerage Service and Maintenance, Electricity

Section 222(c)

If the project requires the use or conservation of energy, was consideration given to the use of solar energy technologies, where economically or technically feasible? N/A

Section 223(a)

Will the A.I.D. guaranty fee be in an amount authorized by A.I.D. in accordance with its delegated powers? Yes

Section 223(f)

Is the maximum rate of interest allowable to the eligible U.S. Investor as prescribed by the Administrator not more than one percent (1%) above the current rate of interest applicable to housing mortgages insured by the Department of Housing and Urban Development? Yes

Section 223(h)

Will the Guaranty Agreement provide that no payment may be made under any guaranty issued for any loss arising out of fraud or misrepresentation for which the party seeking payment is responsible?

Yes

Section 223(j)

(1) Will the proposed Housing Guaranty be coordinated with and complementary to other development assistance in the host country?

Yes - IBRD

(2) Will the proposed Housing Guaranty demonstrate the feasibility of particular kinds of housing and other institutional arrangements?

Yes - Financial rollovers by FEC Sites and Services component cross-subsidy potential.

(3) Is the project designed and planned by A.I.D. so that at least 90 percent of the face value of the proposed guaranty will be for housing suitable for families below the median income, or below the median urban income for housing in urban areas, in the host country?

Yes - Upgrading and Sites and Services Component are targeted to low income families

(4) Will the issuance of this guaranty cause the face value of guaranties issued with respect to the host country to exceed \$25 million in any one fiscal year?

No - \$25 million FY 85

(5) Will the issuance of this guaranty cause the average face value of all housing guaranties issued in this fiscal year to exceed \$15 million?

No

Section 238(c)

Will the guaranty agreement provide that it will cover only lenders who are "eligible investors" within the meaning of this section of the statute at the time the guaranty is issued?

Yes

Criteria Under General Foreign Assistance Act Authority.

Section 620/620A

(1) Does the host country meet the general

criteria for country eligibility under the Foreign Assistance Act as set forth in the country eligibility checklist prepared at the beginning of each year?

Yes

(2) Is there any reason to believe that circumstances have changed in the host country so that it would now be ineligible under the country statutory checklist?

No - Current USAID country statutory checklist

ANNEX D

LIST OF CABLES

- RABAT	1928	28 FEB 85
- RABAT	2610	20 MAR 85
- STATE	153969	20 MAY 85
- RABAT	7570	13 AUG 85
- STATE	269559	31 AUG 85
- STATE	285919	18 SEPT 85

VZCZCRAI *
PP RUEHC RUEHTU
DE RUFHRA #1928/01 059 **
ZNR UUUUU ZZH

608-HG-001

INFO COPY

CLASS: UNCLASSIFIED
CHRG: AID 2/27/85
APPRV: DIR:RCHASE
DRFTD: OTP:ABIRNHOLZ:U
CLEAR: 1 RHUDO:RADAMS
2.OTP:GBRICKER
3.PROG:SRHODES
DISTR: AID AMB DCM
ECON CHRON

280739Z FEB 85
FM AMEMBASSY RABAT
TO RUEHC / SECSTATE WASHDC PRIORITY 8320
RUEHTU / AMEMBASSY TUNIS PRIORITY 9323
BT
UNCLAS SECTION 01 OF * RABAT 01928

AIDAC

SECSTATE FOR AA/NE W. ANTOINETTE FORD, PRE/H FOR DAA
PETER KIMM,
TUNIS FOR RHUDO

INFO: DIR, D/DIR, ~~OTF~~, PRO
CHRON, RF .

E.O. 12356:N/A
SUBJECT: MOROCCO TETOUAN NEIGHBORHOOD UPGRADING PROJECT

1. ON JANUARY 15, 1985 THE GOM'S DIRECTOR OF HOUSING IN THE MINISTRY OF HOUSING AND REGIONAL PLANNING (MHAT) MET WITH THE DIRECTOR OF USAID/MOROCCO TO REQUEST ON BEHALF OF MHAT THAT THE HG 001 GUARANTY AUTHORIZATION BE CONSIDERED BY USAID AS A MEANS OF FINANCING ITS TETOUAN UPGRADING PROJECT IN PLACE OF THE BEN M'SIK PROJECT IN CASABLANCA.

2. A TETOUAN UPGRADING PROJECT WAS APPROVED AT THE PID LEVEL ON JAN 22, 1981 (81 STATE 045197), AS PART OF A LARGER OVERALL PROGRAMMATIC TYPE HG LOAN TO THE MHAT. HOWEVER, THE HG-002 PROJECT PAPER AS APPROVED FOR \$17 MILLION IN SEPTEMBER 1981 DEFERRED CONSIDERATION OF THE TETOUAN PROJECT TO A LATER DATE IN ORDER TO PERMIT THE MINISTRY TO CONCENTRATE ITS EFFORTS ON GETTING THE SMALL BIDONVILLE AND CORE HOUSING PROGRAM UNDERWAY. SINCE 1981 RHUDO AND USAID HAVE MONITORED DEVELOPMENT OF MHAT PLANS FOR THE TETOUAN UPGRADING PROJECT. IN 1982 AN AID-FUNDED CONTRACT ADVISOR WAS ASSIGNED TO MHAT'S REGIONAL OFFICE IN TETOUAN FOR 8 MONTHS TO ADVISE ON THE PROJECT DESIGN PROCESS. AT THAT TIME THE MHAT WAS PROPOSING TO UPGRADE (WITH HG FUNDING) THE DERSA NEIGHBORHOOD, ONE OF TWO LARGE SLUM SETTLEMENTS IN TETOUAN. IN 1983 THE MHAT REGIONAL OFFICE COMPLETED A DRAFT PROJECT PROPOSAL FOR THE DERSA NEIGHBORHOOD. SUBSEQUENTLY, RHUDO SUGGESTED THAT THE MINISTRY PROVIDE MORE DETAILS OF CERTAIN PROJECT COMPONENTS, PARTICULARLY ISSUES INVOLVING FINANCIAL AND INSTITUTIONAL COORDINATION. A FORMAL REVIEW OF THIS PROJECT PROPOSAL WAS POSTPONED BY AID PENDING MHAT'S COMPLETION OF CONDITIONS PRECEDENT TO THE FIRST HG 002 BORROWING.

DURING THE PAST 18 MONTHS, FOLLOWING THE DEHSA PROJECT PREPARATION, THE MHAT REGIONAL OFFICE HAS PREPARED PLANS FOR THE UPGRADING OF THE ADJACENT NEIGHBORHOOD OF SAMSA. MHAT HAS DETERMINED THAT THE TWO SITES SHOULD BE DEALT WITH AS ONE LARGE UPGRADING PROJECT RECEIVING

FINANCING AND MONITORING SUPPORT FROM ONE DONOR AGENCY. SUBSTANTIAL REDUCTIONS IN THE TOTAL COST OF UPGRADING RESULT FROM THE SIMPLIFICATION OF DESIGN STANDARDS, REDUCTION OF PLANNED LEVEL OF DEMOLITION, TECHNICAL REDESIGN AND THE COMBINATION OF OFF-SITE INFRASTRUCTURE FOR BOTH NEIGHBORHOODS. RECENT PROJECT DOCUMENTS ESTIMATE TOTAL PROJECT COSTS NOT TO EXCEED \$25 M LEVEL AT TODAY'S EXCHANGE RATE (9.9 DH/\$). ON JAN 20, 1985, MHAT ADVISED RHUDO THAT THE MHAT HAS BUDGETED \$6 MILLION FOR USE IN DERSA/SAMSA THROUGH CY 86 FOR THE START UP OF THE PROJECT AND THAT \$1 MILLION HAS BEEN APPROVED BY THE FINANCE MINISTRY (MOF) FOR LAND ACQUISITION THIS CY.

3. IN THE MEANTIME, THE GOM HAS MADE ITS FIRST BORROWING OF \$4.8 MILLION AND HG-002 HAS BEGUN TO MOVE. A RECENT AID PROGRESS REPORT OF THE HG-002 PROGRAM INDICATES SUBSTANTIAL IMPROVEMENT IN MHAT'S ABILITY TO MANAGE ITS LOW-COST SHELTER PROGRAMS. THE MINISTRY HAS PROPOSED THAT THE AGENCY RESPONSIBLE FOR IMPLEMENTATION OF THE TETOUAN UPGRADING PROJECT BE THE NEW AND SEMI-AUTONOMOUS NATIONAL HOUSING UPGRADING AGENCY (ANCHI) WHICH HAS BEEN ESTABLISHED SPECIFICALLY TO CARRY OUT PROGRAMS OF LOW-COST UPGRADING OF SUB-STANDARD HOUSING. THIS AGENCY HAS RECRUITED A STAFF OF TOP PLANNERS, MANAGERS AND SHELTER TECHNICIANS IN MOROCCO. MHAT IS ANXIOUS TO MOVE FORWARD RAPIDLY WITH THIS COMBINED TETOUAN (DERSA/SAMSA) PROJECT AND BELIEVES THAT ANCHI CAN AVOID MANY ADMINISTRATIVE BOTTLENECKS BECAUSE OF ITS SEMI-AUTONOMOUS AUTHORITY AND STATUS.

4. USAID AND RHUDO BELIEVE THAT THE NE BUREAU AND PRE/H SHOULD ACCEPT THE MERITS OF THE TETOUAN UPGRADING PROJECT AS A REPLACEMENT FOR THE BEN M'SIK PROJECT AUTHORIZED EARLIER. THE TETOUAN PROJECT IS SIMILAR TO BEN M'SIK WITH RESPECT TO ITS SCALE, ITS HIGH GOM PRIORITY, ITS VISIBILITY AND ITS BENEFICIARY INCOME LEVELS. THE PROJECT ALSO DEMONSTRATES MHAT'S WILLINGNESS TO UNDERTAKE LARGE SCALE UPGRADING EFFORTS. THE FINANCING OF THIS PROJECT THROUGH AN AMENDMENT OF THE HG-001 AUTHORIZATION REPLACING BEN

M'SIK WITH TETOUAN WOULD NOT ONLY FURTHER AID'S HOUSING AND URBAN DEVELOPMENT OBJECTIVES IN MOROCCO, BUT WOULD ALSO STRENGTHEN USAID/RHUDO TIES WITH MHAAT AND OTHER URBAN DEVELOPMENT INSTITUTIONS IN MOROCCO.

5. IN LIGHT OF MHAAT DESIRE TO MOVE FORWARD QUICKLY WITH TETOUAN UPGRADING AND THE PROGRESS NOW BEING MADE UNDER HG-002 (SEE SEPTTEL), USAID/MOROCCO AND RHUDO/NE STRONGLY RECOMMEND NE AND PRE/H AGREEMENT IN PRINCIPLE TO THE IDEA OF AN AMENDMENT OF HG-001 TO PERMIT HG FINANCING OF THE PROJECT. RHUDO AND MISSION ARE PREPARING A REPORT, ON THE BASIS OF THE INFORMATION NOW AVAILABLE, DESCRIBING THE PROPOSED TETOUAN UPGRADING PROJECT AND SUPPORTING THIS RECOMMENDATION WITH ANALYSIS OF PROPOSED CHANGES IN THE PROJECT AND RELEVANT ISSUES. IF THIS PID-LIKE DOCUMENT IS APPROVED BY NE BUREAU AND PRE/H, RHUDO AND MISSION WOULD THEN PROCEED WITH A REVISED PROJECT PAPER TO SUPPORT AN AMENDMENT OF THE HG-001 AUTHORIZATION. REED

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UNCLAS SECTION 02 OF 02 RABAT 01928

21

(C) CONCERNING FIELD REVIEW AND APPROVAL OF THE FF, MISSION AND PRC/NEAC PROPOSE THAT THE EG-012 AUTHORIZATION BE AMENDED IN THE FIELD BY USAID MISSION DIRECTOR. THIS IS CONSISTENT WITH AGENCY AND BUREAU REPORTS TO FURTHER DECENTRALIZE AUTHORITIES TO THOSE COUNTRIES TO AND HOLD RESPONSIBLE FOR IMPLEMENTATION OF THE PROJECT/PROGRAM. IN THIS CASE, THE AUTHORIZATION AMENDMENT WOULD BE REVIEWED AND APPROVED BY THE USAID MISSION DIRECTOR, THE PRC/NEAC DIRECTOR, GC/EA AND THE REGIONAL LEGAL ADVISER, AMONG OTHERS. IF NEAC APPROVES THE AMENDMENT OF EG-012 AUTHORIZATION IN THE FIELD, THE RLI WILL WORK WITH GC/EA AND GC/EA TO PREPARE APPROPRIATE DELEGATION OF AUTHORITY.

3. MISSION AND PRC/NEAC WISE TO ADVISE THE BUREAUS THAT THE PROJECT DESIGN COMMITTEE IS CONCERNED WITH SALIENT POLICY ISSUES PERTAINING TO EG LOANS, INCLUDING MAXIMIZATION OF PRIVATE SECTOR PARTICIPATION, AFFORDABILITY OF UPGRADING SERVICES/ INFRASTRUCTURE, MEAN FOR EFFECTIVE COST RECOVERY MECHANISMS, MINIMIZATION OF INTEREST RATE SUBSIDIES, AND MAXIMIZATION OF INSTITUTIONAL DEVELOPMENT. THESE ISSUES ARE RAISED AND DISCUSSED IN THE DOCUMENT BEING SUBMITTED, WILL BE THOROUGHLY EXAMINED IN THE COMING DESIGN PHASE, AND WILL BE SPECIFICALLY ADDRESSED IN THE FF. CONDITIONS PRECEDENT TO EG BORROWING OR DISPURSEMENT COULD BE UTILIZED TO ASSURE PROGRESS IN THESE AREAS, IF APPROPRIATE AT THE TIME OF SIGNING AN IMPLEMENTATION AGREEMENT.

4. PLEASE ADVISE OF DATE OF PRC/NEAC MEETINGS AND TRANSMIT MAJOR ISSUES TO RABAT AND TUNIS FOR CONSIDERATION. RLEI

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UNCLASSIFIED

RABAT 2612

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ACTION AID5 INFO: AMB ECON/7

OFFICIAL FILE

VZCZGRA0343EHV559

608-HG-001

LOC: 156 754

21 MAY 85 0757

CN: 03085

CHRG: AID

DIST: AID

RR RUFERA

DE RUEHC #3969/01 1402034

ZNR UUUUU ZZH

R 202033Z MAY 85

FM SECSTATE WASHDC

TO RUFERA/AMEMBASSY RABAT 0012

INFO RUEHTU/AMEMBASSY TUNIS 5439

BT

UNCLAS SECTION 01 OF 02 STATE 153969

ACTION : OTP DUE : 05/29 .
INFO : DIR, D/DIR, CONT, PR
CHRON, RF .

AIDAC

TUNIS FOR RHUDD

E.O. 12356: N/A

Best Available Copy

TAGS:

SUBJECT: NEAC REPORTING CABLE - PROPOSED AMENDMENT TO
THE MOROCCO TETOUAN UPGRADING PROJECT 608-HG-001

REFERENCE: STATE 103764

1. THE NEAC MET ON APRIL 9 AND DISCUSSED THE PROPOSED REVISIONS TO THE SUBJECT HG.
2. THE MISSION'S PROPOSAL TO REVISE THE HG PROJECT WAS APPROVED SUBJECT TO THE RESOLUTION OF THE FOLLOWING ISSUES:
 3. COST RECOVERY - THE PROJECT SHOULD BE FINANCIALLY VIABLE; I.E., ALL COSTS, INCLUDING CAPITAL INVESTMENT COSTS, OPERATING COSTS, AND THE FULL COST CAPITAL, AS SET FORTH IN PARAGRAPE 4 BELOW, SHOULD BE RECOVERED. THE PP SHOULD HAVE A DETAILED FINANCIAL ANALYSIS THAT DEMONSTRATES THE PROJECT'S FINANCIAL VIABILITY. THE NEAC REAFFIRMED THAT USER FEES SHOULD BE UTILIZED TO THE MAXIMUM EXTENT POSSIBLE TO RECOVER COSTS. OPERATING COSTS FOR SERVICES (E.G., WATER AND SEWERAGE) AND CAPITAL INVESTMENT (PIPES, TREATMENT FACILITIES, ETC.) THAT CAN BE REASONABLY ALLOCATED TO SUCH SERVICES SHOULD BE RECOVERED BY USER FEES. ALL COSTS WHICH CANNOT BE SO ALLOCATED (E.G., TRUNK LINES, ROAD CONSTRUCTION AND MAINTENANCE) MAY BE RECOVERED BY PROPERTY TAXES OR OTHER MUNICIPAL TAXES.
 4. INTEREST RATES - COST OF CAPITAL. THE NEAC UNDERSTANDS THAT ANHI WILL RECEIVE FUNDS FROM THE GOM IN THE FORM OF A LOAN WHICH ANHI WILL USE TO FINANCE THE COST OF UPGRADING AND SITES AND SERVICES. ON-LENDING TO ANHI MUST REFLECT TERMS APPLIED IN MOROCCO'S CAPITAL MARKETS, INCLUDING CENTRAL BANK DISCOUNT RATE, SO AS TO ASSURE FULL COST RECOVERY BY GOM FROM ANHI. THE FINANCIAL ANALYSIS IN THE PP SHOULD INCLUDE FULL DETAILS ABOUT (A) THE TRANSFER OF FUNDS FROM GOM TO ANHI I.E. INTEREST RATES, REPAYMENT ARRANGEMENTS, WHETHER OR NOT THE LOAN TO ANHI WILL BE IN LOCAL OR HARD CURRENCY, ETC. AND (B) HOW ANHI WILL RECOVER COSTS. CURRENT AID POLICY

ACTION TA

No Action Necess:

Replied by: _____

Initials

REQUIRES THAT OUR LOANS TO PRIVATE BORROWERS BE AT THE PREVAILING FREE MARKET (UNSUBSIDIZED) RATE OF INTEREST, ASSUMING THAT REFLECTS THE OPPORTUNITY COST OF CAPITAL IN MOROCCO, IF POSSIBLE. IN ANY EVENT, THE INTEREST RATE MUST BE GREATER THAN THE ANTICIPATED RATE OF INFLATION.

5. PUBLIC SECTOR LENDING INSTITUTIONS - IT APPEARS THAT ANHI, NEWLY ESTABLISHED AS A PARASTATAL, WILL PROVIDE LOANS TO PRIVATE DEVELOPERS BUT WILL NOT BE LENDING TO THE ULTIMATE BENEFICIARY HOME BUYERS. IF SO, THE PP SHOULD TAKE INTO CONSIDERATION THE AGENCY'S POLICY AS STATED IN THE RECENTLY APPROVED POLICY PAPER OF PRIVATE ENTERPRISE DEVELOPMENT WHICH SAYS QUOTE A.I.D. RESOURCES SHOULD BE CRANNELED THROUGH THE PRIVATE SECTOR RATHER THAN THE PUBLIC SECTOR WHEN HOST GOVERNMENT CONDITIONS MAKE THIS POSSIBLE UNQUOTE AND QUOTE AID FUNDS PROVIDED TO FINANCIAL INSTITUTIONS SHOULD AVOID INTRODUCING GOVERNMENT MINISTRIES OR PARASTATALS INTO THE ON-LENDING APPROVAL PROCESS WHERE SUCH INVOLVEMENT DOES NOT NOW EXIST. FURTHERMORE, SUCH PROJECTS SHOULD SEEK TO EXTRACT GOVERNMENT MINISTRIES AND PARASTATALS FROM THE PROCESS IF THEY ARE NOW SO INVOLVED UNQUOTE. IN VIEW OF THE ABOVE, THE MISSION SHOULD EXPLORE THE FEASIBILITY OF PLACING RESPONSIBILITY FOR ANY ON-LENDING ACTIVITIES REQUIRED TO IMPLEMENT THIS PROJECT ON PRIVATE FINANCIAL INSTITUTIONS RATHER THAN ANHI. IF ANHI IS TO PLAY AN ON-LENDING ROLE, ANY INTEREST RATES CHARGED BY ANHI MUST BE SET AT A LEVEL WHICH WILL NOT RESULT IN UNFAIR COMPETITION EITHER WITH CIH OR PRIVATE SECTOR LENDERS.

6. AFFORDAIBILITY - THE COSTS TO THE BENEFICIARIES (I.E., HOUSING, HOME IMPROVEMENTS, USER FEES, RELATED TAXES) WILL HAVE TO BE CAREFULLY ASSESSED TO ENSURE THAT THE HOUSING AND SERVICES DEVELOPED AS A RESULT OF THIS PROJECT ARE AFFORDABLE BY THE TARGET GROUPS. DIFFERENT ANALYSES WILL BE REQUIRED FOR THE SITES WITH SERVICES AND THE UPGRADING SEGMENTS OF THE PROJECT. ASSUMPTIONS REGARDING THE COSTS OF THE HOUSING TO BE CONSTRUCTED ON SITES WITH SERVICES HAVE TO BE CONSIDERED IN THE AFFORDABILITY ANALYSIS OF THE SITES AND SERVICES COMPONENT AND COSTS, SUCH AS THOSE ENTAILED BY RELOCATING FAMILIES, WILL HAVE TO BE CONSIDERED IN THE UPGRADING COMPONENT.

BECAUSE THE INTEREST COSTS ON THE BORROWED FUNDS MUST BE RECOVERED BY ANHI THROUGH THE SALE OF THE SITES TO BE DEVELOPED AND THE SERVICES TO BE PROVIDED, THE IMPACT OF THE INTEREST RATES ON THE ULTIMATE TARGET GROUP OF HOME PURCHASERS SHOULD BE CAREFULLY ASSESSED IN THE PP. IF THE ANALYSIS INDICATES THAT FULL RECOVERY OF PROJECT

COSTS USING THE MARKET INTEREST RATE WOULD MAKE THE HOUSING SOLUTIONS UNAFFORDABLE BY THE TARGET GROUP(S) AND THE MISSION DECIDES THAT A SUBSIDY IS APPROPRIATE (ONCE IT HAS BETTER UNDERSTANDING OF THE TRADE-OFFS WHICH ARE IMPLICIT) THEN THE MISSION SHOULD PROVIDE A JUSTIFICATION FOR A SUBSIDY. ANY SUCH JUSTIFICATION SHOULD ANALYZE THE PROPOSED SUBSIDY IN TERMS OF ITS EFFECTS ON INTEREST RATES AND RELATE THESE TO WORLD BANK POLICY ON INTEREST RATES IN MOROCCO. IF A SUBSIDY IS CONSIDERED APPROPRIATE, MISSION SHOULD ADVISE AID/W AND REQUEST NEAC GUIDANCE ON THIS POLICY ISSUE PRIOR TO THE COMPLETION OF THE PP SO THE PROJECT MAY BE DESIGNED TO INCORPORATE THE NEAC GUIDANCE. HOWEVER, THE NEAC SPECIFICALLY APPROVED THE USE OF CROSS SUBSIDIES, IF THEY PROVE FEASIBLE.

7. DEBT SERVICING AND RISK ANALYSIS - THE PROPOSAL'S MACROECONOMIC ANALYSIS IDENTIFIED A RISK THAT THE HG LOAN SERVICING MIGHT BECOME INVOLVED IN DEBT RESCHEDULING WITHIN THE NEXT THREE YEARS UNLESS THE LOAN IS APPROPRIATELY STRUCTURED. THE NEAC SUGGESTED THIS CAN BE DONE BY PROVIDING A GRACE PERIOD ON THE PAYMENT OF INTEREST, DURING THE FIRST TWO OR THREE YEARS OF THE LIFE OF THE LOAN. SUCH A STRUCTURING WOULD REQUIRE THE CAPITALIZING OF INTEREST PAYMENTS WITHIN THE TOTAL HG FUNDS AUTHORIZED. SUCH ACTION WILL REDUCE COMMENSURATELY THE LOAN PROCEEDS AVAILABLE FOR PROJECT IMPLEMENTATION. STRUCTURING THE PROJECT TO LIMIT THE CASH NEEDS DURING THE EARLY YEARS OF THE PROJECT WOULD HELP MINIMIZE THE AMOUNT OF INTEREST WHICH WOULD HAVE TO BE CAPITALIZED AND ALSO LIMIT EXPOSURE ON DEBT SERVICE. AT THE NEAC'S

REQUEST, PRE/H IS IN THE PROCESS OF PREPARING AN ANALYSIS OF POSSIBLE LOAN STRUCTURES TO ENABLE THE NEAC TO PROVIDE POLICY GUIDANCE. WE EXPECT THIS TO BE COMPLETED WITHIN THE NEXT FEW WEEKS. WE WILL KEEP YOU ADVISED.

8. PARAGRAPH 4 THROUGH 7 RAISE POLICY ISSUES WHICH SHOULD BE RESOLVED PRIOR TO AMENDING THE AUTHORIZATION. WHILE THE MISSION MAY PROCEED TO DEVELOP THE PROJECT AMENDMENT, CONTINUED CABLE DIALOGUE WITH AID/W ON THESE ISSUES IS REQUESTED AS THE MISSION REACHES ITS CONCLUSIONS AND FINAL RECOMMENDATIONS. ACCORDINGLY, AID/W APPROVAL TO THE MISSION TO AMEND THE AUTHORIZATION IS CONTINGENT UPON SUCCESSFUL RESOLUTION OF THE ISSUES CITED. SHULTZ

BT
#3969

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PP RUFEC RUFHTU
LP RUFHRA #7574/V1 225 **
ZNP UUUUU 225
P 131329Z AUG 85
FM AMEMBASSY RABAT
TO RUEHC / SECSTATE WASHDC PRIORITY 1329
INFO RUFHTU / AMEMBASSY TUNIS PRIORITY 0961
BT
UNCLAS SECTION 01 OF * RAEAT 07570

608-HG-001

INFO COPY
CLASS: UNCLASSIFIED
CH-GR: AID 48/12/PS
APPRV: DIR RORASE
DRFTD: PROG:UFNST/S
2
CLEAR: 1.RHUDO:RADAM
2.PROG:JGIUST
3.D/D:CJOHNSO
DISTR: AID-5 CHARGE

AIDAC

FOR ANF/PD AND PRE/E, M. PITA
TUNIS FOR RHUDO AND DAA/ANE ROBERT BELL

INFO : DIR, D/DIR, PROG, RHUDO, CHRO
RF.

F.O. 12356: N/A

SUBJECT: PROPOSED AMENDMENT TO MOROCCO TETOUAN
UPGRADING PROJECT 608-HG-001

REF: STATE 153969

1. SUMMARY: DESIGN TEAM HAS SUBSTANTIALLY COMPLETED PROJECT REDESIGN AND USAID WILL SHORTLY BEGIN REVIEW OF AMENDED PP. THE DESIGN NOW INCORPORATES THE FOLLOWING MODIFICATIONS OF ARRANGEMENTS, IN RESPONSE TO NEAC GUIDANCE AND GOM'S CONCERNS: (A) MOST IMPORTANTLY, LOAN FUNDS FROM THE FEC, A GOVERNMENT-OWNED BANK SET UP IN 1959 TO MAKE LOANS TO MUNICIPALITIES FOR URBAN INFRASTRUCTURE INVESTMENTS, HAVE REPLACED GOM ON-LINE BUDGET CONTRIBUTIONS, AND (B) THE FEC, RATHER THAN ANHI (THE NATIONAL URBAN RENEWAL AGENCY FOR LOW-INCOME NEIGHBORHOODS AND COMMUNITIES), WILL BORROW PROJECT FUNDS (UNDER THE ASSUMPTION OF A 3-YEAR GRACE PERIOD ON INTEREST, PROJECT FUNDS EQUAL HG LOAN MINUS CAPITALIZED INTEREST) AND ON-LEND THEM TO THE TETOUAN MUNICIPALITY; ANHI WILL BE RESPONSIBLE FOR TECHNICAL MANAGEMENT.

TEAM HAS ADDRESSED ISSUES RAISED BY NEAC IN REFTL AND HAS ARRIVED AT FOLLOWING RESPONSES WHICH MISSION HAS REVIEWED AND SUPPORTS. TEAM BELIEVES THAT THESE RESPONSES ARE SATISFACTORY:

ISSUE NO. 1 -- COST RECOVERY: ALL PROJECT COSTS, INCLUDING FINANCING COSTS WILL BE RECOVERED. ISSUE NO.2 -- INTEREST RATES: (A) THE PROJECT IS FINANCIALLY FEASIBLE WITH THE FEC PAYING ESTIMATED U.S. MARKET RATE. REAL INTEREST RATES FOR ON-LENDING WILL BE POSITIVE, AND (B) GOM WILL ASSUME THE FOREIGN EXCHANGE RISK OF THE HG LOAN. ISSUE NO. 3 -- PUBLIC SECTOR LENDING; THE FEC WILL BE THE BORROWER AND WILL ON-LEND IN ACCORDANCE WITH ESTABLISHED PRACTICE. PRIVATE-SECTOR ALTERNATIVES DO NOT EXIST. LOANS TO BENEFICIARIES ARE NOT NOW CONTEMPLATED IN THE PROJECT DESIGN. ISSUE NO. 4 -- AFFORDABILITY: THE CURRENT PROJECT DESIGN INDICATES AFFORDABILITY OF PROJECT

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OUTPUTS FOR ALL INTENDED BENEFICIARIES. ISSUE NO. 1
-- DEBT SERVICE AND RISK: THE PROJECT FINANCIAL PLAN
INCORPORATES THE ASSUMPTION OF A THREE-YEAR GRACE
PERIOD ON INTEREST PAYMENTS (ALONG WITH A 10-YEAR
GRACE PERIOD ON REPAYMENT OF THE PRINCIPAL). INTEREST
DUE IN THE FIRST THREE YEARS WILL BE CAPITALIZED, SUCH
THAT THE GUARANTY AUTHORIZATION FOR \$25 MILLION WILL
COVER A PROJECT COST OF \$18.27 MILLION AND AN
ESTIMATED \$6.73 MILLION IN CAPITALIZED INTEREST. GOM,
RATHER THAN PROJECT, WILL BE RESPONSIBLE FOR
CAPITALIZED INTEREST PORTION OF LOAN. DEBT SERVICE ON
THE LOAN WOULD THEREFORE COMMENCE WHEN MOROCCO IS
EXPECTED TO HAVE OVERCOME CURRENT CRISIS.

ACCORDINGLY, REQUEST AND PROJECT ADVISORY COMMITTEE
CONCURRENCE TO PROCEED WITH PROJECT AMENDMENT FOR
WHICH AUTHORITY HAS ALREADY BEEN DELEGATED TO USAID
MOROCCO IN REFTEL. END SUMMARY.

2. DISCUSSION OF ISSUES

ISSUE NO. 1 -- COST RECOVERY:

THE AMENDED PP CONTAINS A DETAILED FINANCIAL ANALYSIS
WHICH DEMONSTRATES THE FINANCIAL VIABILITY OF THE
PROJECT. IT SHOWS THAT ALL CAPITAL COSTS ATTRIBUTABLE
TO THE PROJECT WILL BE FULLY RECOVERED AS FOLLOWS:

A. THE COSTS OF OFF-SITE IMPROVEMENTS CONSISTING OF
THE SEWAGE TREATMENT PLANT AND FACILITIES WHICH ARE
NOT ATTRIBUTABLE TO THE DERSA/SAMSA PROJECT AREA WILL
BE RECOVERED BY THE MUNICIPALITY THROUGH THE
IMPOSITION OF MUNICIPAL TAXES TO BE PAID BY ALL THE
RESIDENTS OF TETOUAN.

B. THE COSTS OF ON-SITE IMPROVEMENTS IN DERSA/SAMSA,
THAT IS, THE UPGRADING COMPONENT AND THE SITES &
SERVICES COMPONENT, INCLUDING THE PORTION OF THE
OFF-SITE IMPROVEMENTS COSTS ATTRIBUTABLE TO THE
PROJECT, WILL BE RECOVERED AS FOLLOWS:

(1) BENEFICIARIES OF THE UPGRADING COMPONENT WILL PAY
A BETTERMENT ASSESSMENT TAX, IN PART THROUGH ADVANCE

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PAYMENTS MADE DURING THE PROJECT DEVELOPMENT PHASE,
AND IN PART THROUGH MONTHLY PAYMENTS ADDED TO UTILITY
BILLS OVER A 14-YEAR PAYMENT PERIOD;

(2) FOR THE SITES & SERVICES COMPONENT, PRICES OF
SERVICED LOTS PURCHASED BY THE BENEFICIARIES WILL
REFLECT PROJECT COSTS. THE PURCHASE PRICE WILL BE
PAID IN FULL THROUGH ADVANCE PAYMENTS DURING THE
PROJECT DEVELOPMENT PHASE.

WE EMPHASIZE HERE THAT NO BUDGETARY ASSISTANCE FROM
THE GOM IS CONTEMPLATED UNDER THIS PROJECT.

(3) CONCLUSION: FULL COST RECOVERY IS ASSURED FOR THE
PROJECT.

ISSUE NO. 2 -- INTEREST RATES:

THE NEAC GUIDANCE CABLE OUTLINED THREE ASPECTS OF THE
INTEREST RATE ISSUE: (A) THE FINANCIAL VIABILITY OF
THE PROJECT; (B) ITS ECONOMIC VIABILITY IF CAPITAL
WERE PRICED AT ITS ECONOMIC VALUE (OPPORTUNITY COST);
AND (C) THE REAL INTEREST RATE AS DETERMINED BY THE
RELATIONSHIP BETWEEN THE NOMINAL RATE AND THE
EFFECTIVE RATE OF INFLATION.

A. THE EXPECTED TERMS OF THE HG LOAN MAKE THE PROJECT
FINANCIALLY VIABLE WITH RESPECT TO THE BORROWING OF
PROJECT FUNDS BY THE FEC. THE PROJECT DESIGN ASSUMES
THAT THE FEC WILL MAKE LOANS TO THE MUNICIPALITY OF
TETOUAN TO FUND THE PROJECT AT AN INTEREST RATE OF 10%
FOR A 10-YEAR PERIOD. FEC'S CURRENT LENDING POLICY
EFFECTIVE JANUARY 1985, STIPULATES THAT ALL FEC LOANS
TO MUNICIPALITIES WILL CARRY A 10% INTEREST RATE,
WHICH IS IN EFFECT THE PREVAILING INTEREST RATE FOR
THIS TYPE OF LOAN.

BASED ON CURRENT U.S. CAPITAL MARKET CONDITIONS, THE
EXPECTED TERMS OF A HG LOAN WILL BE A 12% FIXED
INTEREST RATE FOR A 30-YEAR PERIOD, AND A 10-YEAR
GRACE PERIOD ON THE PRINCIPAL. THE PROJECT DESIGN ALSO
ASSUMES A 3-YEAR GRACE PERIOD ON INTEREST PAYMENTS,
WHICH WOULD BE CAPITALIZED.

IF THE FEC AS THE BORROWER OF LOCAL CURRENCY
EQUIVALENTS OF THE PROJECT FUNDS COMPONENT OF THE HG
LOAN IS ALSO GRANTED THE 10-YEAR GRACE PERIOD ON THE
PRINCIPAL, IT WOULD BE ABLE TO GENERATE ADDITIONAL
INTEREST INCOME BY REINVESTING SURPLUSES DUE TO LOAN
REPAYMENTS FROM THE MUNICIPALITY. A CASHFLOW ANALYSIS
SHOWS THAT THIS ADDITIONAL INTEREST INCOME WILL BE
SUFFICIENT TO COVER THE INTEREST LOSS ATTRIBUTABLE TO
THE DIFFERENCE BETWEEN THE 12-PERCENT BORROWING RATE
AND THE 10-PERCENT ON-LENDING RATE AND YIELD A
POSITIVE NET CASHFLOW AFTER THE FIRST FEW YEARS.
PROJECTED CASHFLOWS FOR THE FIRST THREE YEARS ARE
NEGATIVE, BUT SUSTAINABLE BY THE FEC. THE NET PRESENT
VALUE OF PROJECTED CASHFLOWS FOR THE FIRST TEN YEARS
OF THE PROJECT IS POSITIVE FOR THE FEC (AT A

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15-PERCENT DISCOUNT RATE).

B. THE OPPORTUNITY COST OF CAPITAL FOR MOROCCO HAS BEEN ESTIMATED IN THE 15 TO 16-PERCENT RANGE (WHICH ALSO CORRESPONDS TO THE INTEREST RATE FOR MORTGAGES FOR UPPER-CLASS HOUSING). THE 12-PERCENT ON-LENDING RATE LIES BELOW THAT VALUE. HOWEVER, THE ECONOMIC ANALYSIS IN THE PP SUGGESTS THAT NON-MONETIZED (OR PARTIALLY MONETIZED) BENEFITS FROM THE PROJECT -- EMPLOYMENT, INCOME GENERATION, AND RESOURCE MOBILIZATION -- ARE SUBSTANTIAL. THE ECONOMIC COST OF LENDING BELOW THE OPPORTUNITY COST OF CAPITAL IS JUDGED TO BE JUSTIFIED BY THE EXPECTED ECONOMIC BENEFITS.

C. THE (NEAC) CURRENTLY VALID GUIDANCE CAGL ON EXPECTED INFLATION RATES FOR CONTINGENCY ALLOWANCES IN PROJECT COSTS ESTIMATES (STATE 120924) SUGGESTS AN 8-PERCENT RATE FOR THE CURRENT DECADE, AND 5 PERCENT FOR THE FIRST PART OF THE 1990'S. UNDER THESE ASSUMPTIONS, ON-LENDING BY THE FEC WOULD CARRY A POSITIVE REAL INTEREST RATE. MOREOVER, THE 12-PERCENT RATE COMPARES FAVORABLY WITH THE 7-PERCENT RATE ON THE

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RAISING LENDING RATES TO MORE REALISTIC LEVELS.

D. CONCLUSION: THE PROJECT IS FINANCIALLY AND ECONOMICALLY VIABLE AND MEETS INTEREST RATE GUIDELINES.

ISSUES NO. 3 -- PUBLIC SECTOR LENDING INSTITUTIONS:

A. PROJECT FUNDS FROM THE EG LOAN WILL BE CHANNELLED THROUGH THE FEC, A PARASTATAL MUNICIPAL DEVELOPMENT BANK, WITH ANHI PROVIDING TECHNICAL ASSISTANCE AND ADVICE TO THE MUNICIPALITY OF TETOUAN IN IMPLEMENTING THE PROJECT. THERE ARE NO PRIVATE SECTOR INSTITUTIONS WITH A MANDATE OR OPTION TO CARRY OUT THE TYPE OF PROJECT ENVISAGED. PRIVATE SECTOR DEVELOPERS WILL PARTICIPATE BY DEVELOPING ONE 70 HA. TRACT OF LAND. THEY WILL BENEFIT FROM PRIMARY INFRASTRUCTURE IMPROVEMENTS, WHICH THEY OR THE LANDOWNERS WILL PAY FOR. BOTH THE FEC AND ANHI ARE CURRENTLY INVOLVED IN SIMILAR PROJECTS; THE FEC IS PROVIDING FINANCING TO MUNICIPALITIES FOR URBAN INFRASTRUCTURE INVESTMENTS, WHILE ANHI IS FUNCTIONING AS THE A NATIONAL URBAN REHABILITATION AGENCY FOR LOW-INCOME NEIGHBORHOODS AND COMMUNITIES. THE PROJECT THEREFORE CAN DRAW ON THE EXPERIENCE OF THESE TWO INSTITUTIONS.

F. NO LOANS TO BENEFICIARIES ARE CONTEMPLATED UNDER THIS PROJECT. IN THE UPGRADING COMPONENT, A BETTERMENT ASSESSMENT TAX WILL BE CHARGED TO EACH BENEFICIARY, PART OF WHICH WILL BE COLLECTED AS AN ADVANCE PAYMENT DURING THE PROJECT DEVELOPMENT PHASE, WITH THE REMAINDER TO BE COLLECTED BY THE LOCAL UTILITY COMPANY AS A SURCHARGE TO MONTHLY BILLS OVER A 12-YEAR PERIOD. IN THE SITES AND SERVICES COMPONENT, THE BENEFICIARIES WILL MAKE LUMP SUM PAYMENTS DURING THE PROJECT DEVELOPMENT PHASE TO PURCHASE THE SERVICED SITES. ONCE THE LOT IS PURCHASED, THE OWNER MAY SEEK A CONSTRUCTION LOAN FROM A (PRIVATE OR PUBLIC) FINANCIAL INSTITUTION.

C. CONCLUSION: THE PROJECT DESIGN INVOLVES THE PRIVATE SECTOR TO THE MAXIMUM EXTENT FEASIBLE, GIVEN THE SHELTER SECTOR FRAMEWORK IN MOROCCO WHICH RESERVES KEY FUNCTIONS FOR PUBLIC OR PARASTATAL INSTITUTIONS.
ISSUE NO.4 -- AFFORDABILITY:

A. BENEFICIARIES OF THE UPGRADING COMPONENT WILL BE CHARGED A BETTERMENT ASSESSMENT TAX. THEY WILL MAKE AN INITIAL DOWNPAYMENT. THE CURRENT PROJECT DESIGN FURTHER ASSUMES A CROSS-SUBSIDY FROM THE SALE OF SERVICED LOTS IN THE SITES AND SERVICES COMPONENT EQUAL TO THE INITIAL DOWNPAYMENT. THE BALANCE OF THE ASSESSMENT WILL BE PAID IN MONTHLY INSTALLMENTS OVER A 12-YEAR PERIOD. THE MONTHLY PAYMENTS UNDER THESE CONDITIONS ARE ESTIMATED AS \$10.70 FOR BENEFICIARIES WHO OWN THEIR PLOT, AND \$17.30 FOR THOSE WHO ARE PURCHASING IT. UNDER THE ASSUMPTION OF ANOTHER \$10 PER MONTH OF HOUSING EXPENSES, AND A RATIO OF 25% OF

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MONTHLY FAMILY INCOME FOR HOUSING REVENUES, A MINIMUM
INCOME OF \$25 OR \$100, RESPECTIVELY, IF NECESSARY.
THE MEDIAN FAMILY INCOME IN THE AREA HAS BEEN ESTIMATED
AT \$127 PER MONTH.

B. SALES OF THE SERVICES LOTS IN THE SITES AND
SERVICES COMPONENT WILL GENERATE REVENUES IN EXCESS OF
DEVELOPMENT COSTS. THE SURPLUS WILL PROVIDE THE FUNDS
TO SUBSIDIZE AND THEREBY REDUCE THE PAYMENTS OF
BENEFICIARIES OF THE UPGRADING COMPONENT. NO
SUBSIDIES FROM THE GOM WILL BE REQUIRED UNDER THIS
PROJECT.

C. MEMBERS OF THE PROJECT TARGET GROUP WILL PURCHASE
THE SMALLER AND LOWEST-PRICED LOTS IN THE SITES AND
SERVICES COMPONENT. THEY WILL MAKE TERM PAYMENTS TO
PURCHASE THEIR LOTS. THEY WILL OBTAIN TITLE TO THE
LOT ON COMPLETION OF THESE PAYMENTS. WITH THE TITLE,
THEY ARE ELIGIBLE TO APPLY FOR A CONSTRUCTION-CUM-
MORTGAGE LOAN, PRESUMABLY FROM SOURCES SUCH AS THE
CIH. A MINIMUM DWELLING UNIT WOULD COST APPROXIMATELY
\$2,500 TO BUILD. GIVEN CIH (PUBLIC MORTGAGE
INSTITUTION) LENDING TERMS OF 8 PERCENT, 15 YEARS, AND

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A 1% PERCENT DOWNPAYMENT, MONTHLY PAYMENTS WOULD BE APPROXIMATELY \$30, WHICH WOULD BE AFFORDABLE TO FAMILIES WITH INCOMES CLOSE TO THE MEDIAN INCOME.

D. CONCLUSION: THE SHELTER SOLUTIONS WILL BE AFFORDABLE TO THE TARGET GROUPS, AND OBTAINING TITLE IS A POWERFUL INCENTIVE FOR OWNERS TO PARTICIPATE.
ISSUE NO. 5 -- DEBT SERVICE RISK ANALYSIS:

THE PROJECT DESIGN INCORPORATES PRE/H RECOMMENDATIONS REGARDING THE STRUCTURING OF THE PG LOAN TO INCLUDE A 3-YEAR GRACE PERIOD ON INTEREST PAYMENTS. CAPITALIZING THE INTEREST DUE IN THE FIRST THREE YEARS OF THE LOAN WILL DELAY THE START OF DEBT SERVICE UNTIL 1990. THIS ARRANGEMENT WILL CARRY MOROCCO THROUGH THE EXPECTED PERIOD OF DEBT RELIEF, AFTER WHICH TIME THE COUNTRY IS PROJECTED TO BE ABLE TO SERVICE ITS DEBT.

3. ACTIONS REQUESTED

REQUEST ANE PROJECT ADVISORY COMMITTEE CONCURRENCE TO PROCEED WITH THE PP AMENDMENT FOR WHICH AUTHORITY HAS ALREADY BEEN DELEGATED TO USAID MOROCCO. SIRPY

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RR RUFHRA
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R 310722Z AUG 85
FM SECSTATE WASHDC
TO AMEMBASSY RABAT 9975
BT
UNCLAS STATE 269559

608-HG-001

LOC: 283 723
31 AUG 85 0902
CN: 12074
CHRG: AID
DIST: AID

Prog/RHUB
ACTION : ~~09~~ DUE : 09/09 .
INFO : DIR, D/DIR, CONT, PROG
CHRON, RF , *OTF.*

AIDAC

E.O. 12356: N/A

TAGS:

SUBJECT: PROPOSED AMENDMENT TO MOROCCO TETOUAN
UPGRADING PROJECT 603-HG-001

REFERENCE: A., RABAT 7570 B. STATE 153969 C.
LINTNER MEMO DATED 06/19/85 D. DISCUSSION PAPER -
PROPOSED AMENDMENT TO MOROCCO PROGRAM DESIGN

1. REF A. SATISFACTORILY RESOLVES ISSUES RAISED AT
BUREAU REVIEW OF REF D. REPORTED IN REF B. MISSION
SHOULD PROCEED WITH PP DEVELOPMENT AND APPROVAL AS
OUTLINED IN REF A.

2. THE CAPITALIZATION OF INTEREST, FOR THE THREE YEARS
FOLLOWING EACH BORROWING, ASSISTS THE GOM TO OVERCOME
ITS CURRENT BALANCE OF PAYMENTS DIFFICULTIES AND
POSTPONES PAYMENTS UNTIL THE ANTICIPATED EFFECTS OF THE
CURRENT AUSTERITY AND ADJUSTMENT PROGRAM CAN BE FELT.
THE IMF PROGRAM IS DESIGNED TO ACHIEVE A SUSTAINABLE
EXTERNAL POSITION FOR MOROCCO BY 1988, AND LAY THE
FOUNDATION FOR A RESUMPTION OF SUSTAINABLE GROWTH OVER
THE MEDIUM TERM. SUCCESS OF THE PROGRAM DEPENDS ON
TIMELY AND VIGOROUS IMPLEMENTATION OF POLICY REFORMS.
EVEN IF SUCCESSFUL, THE IMF ANTICIPATES DEBT-SERVICE

RATIOS ON THE ORDER OF 45 PER CENT FOR THE 1988-91
PERIOD. THEREFORE, WE PRESUME THE MISSION WILL CONTINUE
TO MONITOR CLOSELY THE GOM'S FOREIGN EXCHANGE SITUATION
AND REPORT ANY SIGNIFICANT NEGATIVE DEVELOPMENTS WHICH
WOULD AFFECT THE GOM'S ABILITY TO SERVICE THE HG LOAN.
MOREOVER, WE RECOMMEND THAT NOTWITHSTANDING THE THREE
YEAR GRACE PERIOD NOW CONTEMPLATED, CAREFUL ANALYSIS BE
PERFORMED PRIOR TO EACH BORROWING UNDER THE HG.

3. ALTHOUGH ALL ISSUES RAISED IN REF B. HAVE BEEN
SATISFACTORILY RESOLVED, REF D. SUBMITTED BY THE MISSION
RAISES ENVIRONMENTAL ISSUES (SEE PAGE 16 SEE ALSO REF
C.). A NEGATIVE ENVIRONMENTAL DETERMINATION CAN NOT BE
ISSUED UNTIL THE CONCERNS RAISED ARE RESOLVED. PLEASE
ADVISE ON THE STATUS OF THE ENVIRONMENTAL ASPECTS OF THE
PROJECT.

4. SINCE ALL POLICY QUESTIONS HAVE BEEN RESOLVED,

ACTION TAKEN

No Action Necessary

Replied by: _____

Initials & D



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STATE 269559

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OO RUPHRA
DE RUEHC #5919 2610048
ZNR UUUUU ZZH
O 180049Z SEP 85
FM SECSTATE WASHDC
TO AMEMBASSY RABAT IMMEDIATE 0218
BT
UNCLAS STATE 285919

608-HG-001

LOC: 301 577
18 SEP 85 0638
CN: 14888
CHRG: AID
DIST: AID

ACTION & RHUDO DUE 09/19
INFO : DIR, D/DIR. PROG,
RF.

AIDAC TUNIS FOR RHUDO

E.O. 12356: N/A

TAGS:

SUBJECT: PROPOSED AMENDMENT TO MOROCCO TETOUAN
UPGRADING PROJECT (608-HG-001) - ENVIRONMENTAL CLEARANCE

REF: (A) RABAT 8318 (B) ENVIRONMENTAL ANALYSIS OF
PROPOSED PAPER (C) LINTNER MEMO 06/19/85

PLEASE PASS TO AID/RABAT, R. STRYKER, MISSION
ENVIRONMENTAL OFFICER; AID/RABAT, A. WILLIAMS, REGIONAL
LEGAL ADVISOR AND RHUDO/TUNIS, H. BERNHOLZ, PROJECT
OFFICER

1. AID/W WISHES TO ADVISE AID/RABAT AND RHUDO/TUNIS
THAT ANE/PD/ENV, STEPHEN F. LINTNER, ENVIRONMENTAL
COORDINATOR HAS REVIEWED MATERIALS CONCERNING
ENVIRONMENTAL ASPECTS OF THE PROPOSED AMENDMENT AND
FINDS THAT THEY FULFILL THE REQUIREMENTS OF 22 CFR 216,
AID ENVIRONMENTAL PROCEDURES.

2. MISSION AND RHUDO ARE REQUESTED TO ASSURE THAT
ENVIRONMENTAL ISSUES WILL BE INCLUDED AS ELEMENTS OF THE
MONITORING AND EVALUATION PLANS.

3. AID/W REQUESTS MISSION ADVISE WHEN PROJECT

AUTHORIZATION IS SIGNED. SHULTZ

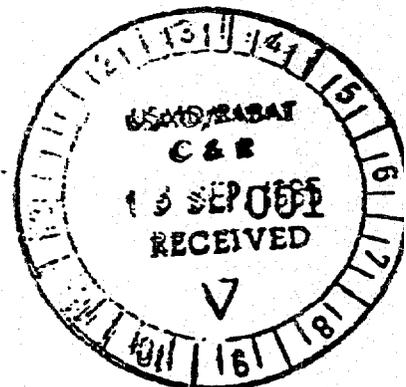
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ANNEX E
LOGICAL FRAMEWORK
TETOUAN UPGRADING PROJECT

I. Sector Goal	Measure of Goal Achievement	Means of Verification	Assumptions for Achieving Goal
Improvement of shelter conditions in urban areas of Morocco for low income families	Improvement in census housing indicators for urban areas	Comparison of 1982 and 1990 census data.	GOM continues to support program shelter goals with priority to low income groups
II. Purpose	End of Project Status	Means of Verification	Assumptions for Achieving Purpose
1. To upgrade a clandestine settlement, and prevent its spread, in a major Moroccan secondary city.	1. Increased availability of low income housing 2. Provision of critical environment services to major urban center	1. CDG/FEC and CIH records, USAID evaluation reports with reference to base-line surveys, and municipal records.	settlement, and prevent Moroccan secondary city. private sector in urban development process.
2. To develop a model of a comprehensive approach to urban development and shelter finance for low-income families.	3. Institutional structure capable of implementing similar projects in other urban areas 4. New initiatives by financial institutions to strengthen private sector activities in the housing sector 5. Reinforced GOM policies aimed at addressing clandestine settlement problems 6. Strengthened local government capabilities to deliver cost effective services		2. GOM continues to place high priority on addressing clandestine and low income housing problems 3. adequate public resources are available 4. agencies involved have authority and resources to hire and train competent staff 5. environmental concerns are addressed 6. market incentives exist for private sector involvement with municipality's shelter delivery process

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III. Project Outputs	Magnitude of Outputs	Means of Verification	Assumption for Achieving Outputs
A. <u>Upgrading</u>			
1. completion of infrastructure improvements: a. sewer b. water c. electricity and street lighting	1. completion of all services in an area of 90 hectares containing 7500 buildings and 9500 households	1. project records	1. beneficiary advances made 2. municipality/RDE carries out infrastructure work 3. funds from all project sources flow on schedule
2. registry of all titles of ownership	2. 7500 property titles	2. municipal cadastral records	4. improvement and continued functioning of municipal cadastral services
3. sale of municipal land to all existing building owners who do not now own their land	3. 3300 plots registered and sold	3. municipal records	5. occupants able and willing to pay for land title
B. <u>Sites and Services</u>			
1. provision of primary and secondary infrastructure to entire site a. water b. sewer c. electricity and street lighting d. roads and walkways	1. 4000 low income sites 2. 10 hectares of middle income villa sites 3. 15 hectares of apartment building sites 4. 1.5 hectares of commercial building sites	1. project records	1. reimbursable expenses under HG loan will match available financing 2. market demand exists for sites to be sold 3. targeted purchasers develop sites under purchase agreement
2. division of site into plots to be sold	5. 3.5 hectares of institutional sites		

Project Outputs (cont'd)	Magnitude of Outputs	Means of Verification	Assumption for Achieving Outputs
C. <u>ZAC</u>			
1. Supply of primary infrastructure to privately owned land	1. 70 hectares of private held land is serviced, developed by private owners and sold by them to low income households	1. project records	1. landowners willing to pay for infrastructure 2. landowners willing and able to develop land for target population
D. <u>Offsite Sewerage</u>			
1. Construction of 2 primary sewage/ stormwater collectors	1. Treatment of all wastewater and industrial effluents for 30 years	project records	1. GOM Policy reform is carried out, i.e; delegation of authority to MUN to generate and use tax revenues to pay for offsite sewerage. 2. Secondary and tertiary sytems are put in place.
2. Construction of sewage treatment plant			
E. <u>Technical Assistance</u>			
Increased capability of City of Tetouan to deal with clandestine settlements	1. Mix of technical assist- anceto improve municipal performance in project management, property registration, tax collection, and delivery of municipal services	1. project records	1. availability of counterparts 2. effectiveness of experts delivering T.A. 3. cooperation of municipal officials

IV. Project Inputs	Implementation Target	Means of Verification	Assumptions for Providing Input
A. HG Program Loan	U.S. \$18.27 million HG Loan 1. upgrading 2. sites and services 3. offsite sewerage 4. equipment	Records of USAID, FEC, Municipality of Tetouan, Ministries of Housing, Interior, and Finance	Housing Guaranty loan authorized
B. GOM contribution	U.S. \$7.0 million	same	GOM provides transfer of title for land
C. FEC loan	U.S. \$7.82 million	same	FEC loan resources available
D. Beneficiary Payments	U.S. \$14.3 million	project records	beneficiaries willing and able to provide
E. Technical Assistance	U.S. Grant FY 86-87.	project records	Grant funding available

ANNEX F

GOM SHELTER SECTOR POLICY

BRIEF HISTORY OF APPROACHES

During the first thirty years of the Protectorate and until the mid-1940's, very little was done by the colonial government to satisfy the housing needs of the Moroccan population. During this same period, two world wars and a world-wide depression encouraged the first important rural-urban migrations. In the absence of any "legal" housing possibilities available to these migrants, the first bidonvilles and significant instances of overcrowding in the medinas occurred.

In the late 1940's however, the colonial government began the first housing projects for low income Moroccans, primarily bidonville inhabitants, with the intention of relocating them to other areas of the cities.

Some of the housing approaches which were tried included "model" or "satellite" cities, "village centers" and in particular, the ubiquitous "trame Ecochard" based on a uniform 8 by 8 meter standard Moroccan housing unit, produced throughout urban and rural areas of the country. In spite of the construction of a significant number of housing units during this period, none of these early solutions were able to effectively "rehouse" bidonville dwellers, diminish the population pressures on existing bidonvilles or lead to the eventual control of urban growth. Shortly before Independence, the "sites and services" and self-help housing approaches were also briefly tried with a similar lack of success and continuity in application.

With Moroccan Independence in 1956, the new government not only inherited the urban and housing problems surrounding the ever growing bidonvilles, but also many of the same attitudes concerning preferred actions to be taken regarding the future of these neighborhoods. Thus, rehousing of bidonville inhabitants remained the basic thrust of government housing programs. The major difference however was a more serious attempt at creating projects with sufficiently reduced standards to conform to the economic means of bidonville families. Projects called "trames sanitaire ameliorée" and simply "trame sanitaire" were undertaken in which bidonville dwellers were offered minimally serviced plots as small as 35m² on which to relocate their old shacks. In spite of this minimum standards approach, these projects were not widespread enough to have the desired impact.

As rural-urban migration intensified, and little progress was made in reducing even the low-income housing deficit left over from the Protectorate period, the Government began to reassess its role and activities in the housing sector. Consequently, the 1973-77 Five Year Plan attempted establish a coherent housing policy which would serve as a guide through to the year 2000. This, was the first Development Plan to present a strategy of intervention in favor of housing on a large scale.

The major objectives of the Plan included an emphasis on urban housing, the establishment of target groups for the corresponding housing programs and a recognition that government subsidies would have to be significantly reduced.

Several programs included self-help housing and progressive infrastructure improvement schemes staged over a period of 5 to 15 years. Deteriorating economic conditions however, forced a premature abandonment of these ambitious programs and by the end of 1977 they were all grouped under the present "Programme Sociale" or urban core housing program. This program was viewed as one more effort to "battle against the bidonvilles" by relocating their inhabitants.

DEVELOPMENT OF THE UPGRADING APPROACH

Even though the Government still expressed hope that it would somehow be able to provide decent new housing for bidonville inhabitants, it was becoming more aware of its inability to do so. Towards the end of the 1960's there had already appeared some very first indications from the Ministry of Interior that a policy change in favor of bidonville upgrading might be more effective in the long-term and that at least some experiences should be attempted in this regard. These were not followed through however, and it was not until the late 1970's that the first manifestations of this change of view occurred in the programs of the then newly created Ministry of Housing and Regional Development.

Prodded by the prospects of significant financial and technical assistance from the World Bank and USAID and guided by a new Minister who was keenly interested in establishing more effective ways of dealing with the bidonville problem, the Ministry of Housing and Regional Development finally included the upgrading of several large-sized bidonvilles in its program elaborated in the 1978-1980 Three Year Plan. This new solution for the problems of large bidonvilles was to be tried first in Rabat, Casablanca, Meknes and Kenitra. Small and medium size bidonvilles were to be upgraded through a joint program between the Ministry of Housing and Regional Development and the National Work Force.

Apart from the provision of infrastructure, the main elements of upgrading policies at this time included the provision of title to improved land, building material loans, and attempts to improve the economic situation within the bidonville through job training and employment generation.

By the end of the first year of the present Five Year Plan, site work had started for the upgrading of 38 small and medium sized bidonvilles, the World Bank upgrading project at Douar Doum in Rabat was more than half completed, and bids were ready to be let for the first site works in the Ben M'Sik project in Casablanca. While this last upgrading project was eventually abandoned in favor of rehousing, the other projects were carried out more or less to completion. USAID and the Ministry of Housing also collaborated on the upgrading of 9 additional small and medium size bidonvilles under HG-002 financing.

APPLICATION OF THE UPGRADING APPROACH TO CLANDESTINE HOUSING

Until the late 1970's, land speculation, municipal control, the availability of very cheap housing in old city neighborhoods and bidonvilles, and the occasional offer by the government of a small number of subsidized housing units, effectively discouraged any significant private housing initiative or investment by low income families. About this time however, the situation drastically changed. Economically mobile families with major potential

resources to invest in housing improvement began to take matters into their own hands. Simply stated, they discovered that land purchased under notary act and buildings constructed in solid materials provided ample security of tenure to merit large personal investments. This type of housing is called "clandestine" because it is generally built without following the regular procedures for land titling or municipal approval. For this reason, neighborhoods of this type also often lack basic infrastructure and services.

Because clandestine neighborhoods have grown at a very rapid pace in most major cities, the GOM has realized that the only viable way of dealing with this problem is a well coordinated approach which combines the upgrading, and legalization of existing neighborhoods, with the timely provision of serviced plots to block their future growth and to meet future housing demand. The first large scale project based on this two-fold approach is that in Tetouan.

During the last few years, the GOM has been able to benefit from the considerable experience gained from a wide range of upgrading projects. Of particular value is the World Bank sponsored project in Rabat in which two of the upgraded neighborhoods were clandestine (Hajja and Maadid) and the Montfleuri project undertaken by the Delegation of Fez.

This latter project established a process of progressive legalization of the neighborhood in which free technical assistance was offered to private land subdividers, opportunities given to owners of clandestine houses to legalize their situation, and a local cooperative started to monitor the development of the neighborhood and collect funds for infrastructure investment.

RECENT POLICY DEVELOPMENTS

Because the government has traditionally focused its low income housing activities on the direct provision of housing units and/or serviced plots, it has been slow to develop more indirect policies and means of cooperation to complement private sector efforts. The recognition of the inadequacies of previous approaches and the chronic underfunding of government sponsored programs, have led decision makers to reevaluate past policies and to seek more effective approaches. Thus, in the late 1970's and early 1980's, the GOM steadily began to alter its shelter strategies.

In addition to bidonville and then clandestine neighborhood upgrading, the GOM undertook more positive policy directions involving land development, cost recovery and the encouragement of private sector housing development. To this end it has introduced measures:

- To improve the inventory and use of urban land through the creation of a the National Land Agency;
- To encourage cost recovery for government housing projects through the creation of a special revolving fund (FSH) for social housing;
- To increase resources available to municipalities for infrastructure development by expanding the activities of the FEC;
- And to encourage low-cost housing development by

private developers by offering them credit through CIH and by enacting tax laws more favorable to private housing investment.

In addition, the Ministry of Housing now views its own role as that of a catalyst to private housing development as opposed to the traditional approach of providing housing units itself. The Ministry is particularly interested in creating urban development zones (ZAC) which join public/private financing of large land development and include a large proportion of low-income housing units to be developed by the private sector. The Yetouan project will test the first application of this new approach in the ZAC component.

While these new policy initiatives will take some time to be successfully implemented and to gain political support, the most important institutional framework and policy directions are now in place. These should lead the government to a more constant and effective long term role in the housing sector.

ANNEX G

FINANCIAL ANALYSIS

1. Financial Planning

A. Financial resources

The total cost of the project is calculated at Dh 471 million, of which Dh 413.8 million will be used to finance the project, and the remaining US dollar equivalent of Dh 67.20 million will be reserved to capitalize the interest payments due on the HG loan until mid-1990. The project will be financed from four sources, as described below.

The major source of funding, providing approximately 44% of project development funds, is the HG program. HG funds will be used to finance all the project components save one, servicing the ZAC. Of the DH 182.72 million in HG funds, Dh 115.15 million will be directed to upgrading DERSA and SAMSA I, providing approximately 75 per cent of all funding for that component. HG funds will also be used to fund infrastructure costs associated with the Sites and Services component in SAMSA II, although the HG share is relatively small, only 26 percent. Another Dh 13 million in HG funds will be used to finance off-site improvements, namely those sewage treatment plant and facilities that are attributable to the DERSA/SAMSA project. The HG contribution is based on the calculation of the population of the project area as a percentage of the total population of Tetouan benefiting from the facilities. Finally, Dh 1.5 million will be used for technical assistance to the city of Tetouan, and another Dh 5.5 million allocated to purchase needed municipal equipment associated with project use. (See Table G-1)

TABLE G - 1

FINANCIAL PROGRAM
(millions of DH)

Project Component	FEC Loan	HG Loan	Beneficiary- advances	Total
Off-sites	39.20	13.00	-	52.20
Upgrading	-	115.15	37.50	152.65
Servicing (ZAC)	-	-	10.28	10.28
Sites and Services	39.00	47.57	95.00	181.57
Technical Assistance	-	1.50	-	1.50
<u>Equipment</u>	-	<u>5.50</u>	-	<u>5.50</u>
SUBTOTALS	78.20	182.72	142.78	403.70
Capitalized Interest on HG loan				<u>67.20</u>
TOTAL				470.90

The second largest source of financing will be derived from beneficiary contributions, estimated at Dh 142.78 million, or 34.5 percent of total project costs. Project beneficiaries will make advance payments to fund the upgrading component, the ZAC, and the Sites and Services component. In the DERSA/SAMSA I upgrading component, each project beneficiary will make a Dh 5,000 advance payment to the project. With a total estimate of 7,500 beneficiaries, this payment will add up to Dh 37.5 million, which is equal to almost 25 percent of all costs for this particular component. It is expected that these payments will be one time payments and will be collected in such a manner as to provide up-front financing of the infrastructure works associated with the upgrading. Property owners benefiting from the ZAC servicing component will contribute Dh 10.28 million to the project, which also must be collected during the implementation phase. As noted in the body of the PP, if another source of funding is found, these ZAC costs will be funded from that source, with the properly owners making reimbursement for the costs when applying for building permits.

Beneficiary payments totaling Dh 95 million, or approximately 66 percent of all beneficiary payments, will be directed to financing the Sites and Services component. The 95 Dh million in beneficiary payments will be equivalent to the total sales price of low income (patio) lots and villa lots, and will be paid in by the purchasers during the implementation phase of the project. These payments will be used to fund overall development of SAMSA II.

The third supplier of financial resources for this project is the FEC, which plans to finance two components of the project which cannot be financed by AID, and which would also be difficult to finance from beneficiary contributions. Dh 39.2 million will be used to complete the financing of the sewage treatment plant and facilities for the inhabitants of Tetouan who do not live in DERSA/SAMSA. The remaining Dh 39 million will be used to purchase privately owned land in Samsa II needed to develop the Site and Services component.

B. Time Phasing by Source and Application of Funds

The project is expected to be implemented over a five year period. Phasing will be programmed to maximize use of beneficiary advance payments and the non HG FEC loan, thereby minimizing financial carrying charges. Table G-2 is based on the assumption that funds will be made available (the sources) at the same rate of disbursement as the funds that are used (the applications). Concurrent disbursements of sources and uses is, of course, an ideal situation, and may be difficult to achieve. Nevertheless it is assumed that, in all probability, the HG funds will be drawn down in four loans or tranches, and the dirhams made available to the borrower (FEC) almost immediately. Since mortgages will not be originated under this project, bills must be presented to justify a draw down from escrow or a separate loan, as the case may be. No HG advance is contemplated.

FEC funds are expected to be available to on-lend from its own resources as needed to purchase land and finance the sewage treatment facilities. Beneficiary advances will be made to a special banking or municipal account in Tetouan, which will be controlled by the City (or ANHI), and can be used to finance construction of the upgrading and Sites and Services components.

The project contemplates using slightly less than 10 percent of total project funds during the first year, some of which will be used to fund studies as well as to purchase land for the Sites and Services project. Years two and three combine for Dh 232.08 million in project disbursements, or 56 percent of project costs, while the remaining two years, Dh 142.10 million is spent, accounting for 34 percent of project expenditures.

TABLE G - 2

Source and Application of Program Funds
(millions of Dh's)

<u>Sources:</u>	Total	<u>Years</u>				
		1	2	3	4	5
FEC Loan	78.20	21.20	40.40	16.70	-	-
HG Loan 1)	182.72	-	41.10	57.37	47.60	3.67
Beneficiary advances	<u>142.78</u>	<u>15.40</u>	<u>29.60</u>	<u>39.96</u>	<u>30.00</u>	<u>27.82</u>
Total Sources	403.70	36.50	111.10	113.98	77.60	64.52
<u>Applications:</u>						
-Off-sites	52.20	1.10	33.00	18.10	-	-
-Programs						
. Upgrading	152.65	13.40	44.10	45.10	25.00	25.05
. Servicing (ZAC)	10.28	.50	3.00	6.78	-	-
. Sites and Services	181.57	21.00	30.50	38.00	52.60	39.47
. Equipment	<u>5.50</u>	<u>-</u>	<u>-</u>	<u>5.50</u>	<u>-</u>	<u>-</u>
Total Applications	403.70	36.50	111.10	113.96	77.60	64.52

1/ Excludes funds to capitalize HG interest payments.

2. Financial arrangements

A. Lending Rates

In order to make financial calculations for project costs and payments, assumptions have to be made with respect to the cost of money, particularly the HG loan. While the previous HG loan (608-HG-002) was obtained at a variable interest rate, which may also be the choice for future HG loans, it was decided to take a more conservative stance and apply a fixed interest rate. Therefore, based on current capital markets, an interest rate of 12 percent annually for 30 years, with a 10 year grace period, was assumed for the proposed HG loan. Based on conversations with Ministry of Finance officials, it was concluded that FEC would be the borrower through the Ministry of Finance, who would receive the US Dollars and provide the dirham equivalent for FEC's use at the same rate and conditions. The GOM would assume the exchange risk, while FEC would repay the MOF in dirhams which would cover dollar payments to the U.S. investor.

In turn, FEC would make the HG loan proceeds as well as its own internally generated funds available to the project at a lending rate of 10 percent for a 10 year period. No grace period would be applied to the FEC loans, since the payment period of 10 years is too short to justify that action. However, FEC may apply a grace period on both principal and interest payments on the portion of the project financed from its own resources, most likely for three years after each drawn down. The loan payments will then be tacked on to the end of the loan, which means that the time span will be 13 years, with repayments occurring during the last ten years, after the grace period expires.

B. Exchange Rate Risk Considerations

While the GOM will assume the exchange risk, the volatility of currencies, in this case the dirham with respect to the dollar, would continue to cause concern. The GOM is seriously contemplating establishing on Foreign Exchange Risk Fund, which could be established by contributions equal to 1 percent of the value of every foreign loan. If this program is activated, then the HG loan proceeds would be reduced by one percent, however, exchange risk would be hedged.

C. Capitalizing HG Interest Payments

This project assumes that of the \$25 million in HG authorization, only \$18.27 million will be available for project financing, while \$6.73 million will be reserved to capitalize interest due the three years following each disbursement. Given that HG funds will not be required until the second year of project development, and assuming that the project will not start until next year, the earliest possible date for a HG drawdown is assumed to be January, 1987. Table G-3 shows the results when interest rates of the HG loan are capitalized over the three year period after January, 1987, assuming four drawdowns for four consecutive years. The first debt payment would be in July, 1990, by which time Morocco's economic situation is expected to have improved. The table also shows that given the project development costs of \$18.27 million for HG funds, and the expected drawdown schedule, there still remains about \$900,000 to cover unexpected costs in the event the disbursements are speeded up, costs rise, or the improvement in Morocco's

economy is delayed by no more than one year. (See Section VI.C.- Economic and Debt Risk Analysis for justification of interest capitalization).

TABLE G-3
CAPITALIZING HG INTEREST PAYMENTS
(thousands of \$)

Date	Item	1st Drawdown	2nd Drawdown	3rd Drawdown	4th Drawdown	Total	Debt Service
1/87		4110				4110	
6/87	Interest	247				247	
	Outstanding	4357				4357	
1/88	Interest	261				261	
	Outstanding	4618	5737			10355	
6/88	Interest	277	344			621	
	Outstanding	4895	6081			10976	
1/89	Interest	294	365			659	
	Outstanding	5189	6446	4760		16395	
6/89	Interest	311	387	286		984	
	Outstanding	5500	6833	3046		17379	
1/90	Interest	330	410	303		1043	
	Outstanding	5830	7243	5349	3670	22092	
6/90	Interest	350	435	321	220	976	350
	Outstanding	5830	7678	5670	3890	23068	
1/91	Interest	350	461	340	233	1034	350
	Outstanding	5830	8139	6010	4123	24102	
6/91	Interest	350	488	361	247	-	838
	Outstanding	5830	8139	6371	4370	-	
1/92	interest	350	488	382	262	-	838
	Outstanding	5830	8139	6753	4632	-	
6/92	Interest	350	488	405	278	-	1243

3. Cost Recovery Aspects

A. Cash Flow

In addition to beneficiary contributions, there are two sources of funds for project development: FEC's own resources and the HG funds that are on-loaned by FEC. In the former case, the 10 percent, 10 year loan is considered to be in excess of the cost of money to FEC; that is, the cost of capital to FEC of 7 percent is lower than the return on loans. Therefore the cash flow, and for that matter, the profitability of FEC internally financed operations is positive, which in turn, means the project is feasible.

However with respect to the HG loan, which the FEC obtains at 12 percent for 30 years, the question of financial feasibility does arise. From a cash flow standpoint, periodic repayments for a 10 percent, 10 year loan are greater than that of 12 percent, 30 year loan, even with a 10 year grace on principal. Table G-4, which shows the cash flow effects of the proposed HG Loan over the first 10 years, indicates clearly that FEC is able not only to maintain a positive cash flow, but can also generate additional funds for project investments. Lines 6, 7 and 8 of the table prove this point.

B. Profitability

The case is different with respect to profit and loss from FEC's lending operations involving the HG loan. Obviously, a 10% loan will not generate adequate interest income to pay off a 12 percent loan. \$1,000 borrowed today at 12 percent and reloaned tomorrow at 10 percent, will result in \$20 loss over a year period (\$120 less \$100). However, the loss can be offset by investing surplus capital resulting from the differential cash flow and applying the interest income thereby earned to reducing the operational loss. Table G-4 shows clearly that in each year the FEC sustains a loss (line 9) as a result of the interest rate differential (12 percent vs 10 percent). However, by investing the accumulated surplus (Line 6) at 10 percent will result in considerable investment income (Line 7). By using the investment income to offset the interest loss, the FEC will sustain an overall loss in only the first three years. While losses will accumulate also in the fourth year, they are reduced, and by the fifth year the FEC will return to profitability. From that point onward, FEC will operate in the black as well as maintain a positive cash flow.

TABLE G - 4

Cash Flow For HG FEC Account

<u>Sources</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
1 - HG Loan Balance (DH/m)	41.10	98.42	146.02	182.72	182.72	182.72	182.72	182.72	182.72	182.72
2 - Repayments from beneficiaries, of which:	6.52	14.58	21.34	26.61	26.61	26.61	26.61	26.61	26.61	26.61
* Principal Payments	(2.41)	(4.98)	(7.48)	(9.83)	(10.81)	(11.89)	(13.09)	(14.39)	(15.83)	(17.27)
* Interest Payments	(4.11)	(9.60)	(13.86)	(16.78)	(15.80)	(14.72)	(13.52)	(12.22)	(10.78)	(9.34)
Total Sources:	47.62	113.00	167.36	209.33	209.33	209.33	209.33	209.33	209.33	209.33
<u>Uses</u>										
3 - Balance loans to municipality	38.69	91.03	131.15	167.85	158.02	147.21	135.32	122.23	107.84	92.45
4 - Repayments on HG loan of which:	4.93	11.81	17.52	21.93	21.93	21.93	21.93	21.93	21.93	21.93
* Principal Payments	-	-	-	-	-	-	-	-	-	-
* Interest Payments	(4.93)	(11.81)	(17.52)	(21.93)	(21.93)	(21.93)	(21.93)	(21.93)	(21.93)	(21.93)
Total Uses:	43.62	102.84	148.67	189.78	179.95	169.14	157.25	144.16	129.77	113.38
5 - Surplus	4.00	10.16	18.69	19.55	29.38	40.19	52.08	65.17	76.56	95.95

6 - Accumulated Surplus	4.00	14.16	32.85	52.40	82.23	122.42	174.50	239.67	319.23	414.62
7 - 10% Interest on Surplus	<u>.40</u>	<u>1.42</u>	<u>3.29</u>	<u>5.24</u>	<u>8.22</u>	<u>12.24</u>	<u>17.45</u>	<u>23.97</u>	<u>31.92</u>	<u>41.46</u>
8 - CASH FLOW - Positive	4.40	15.58	36.14	57.64	90.45	134.66	191.95	263.64	351.15	456.08
9 - Interest Income (Loss)	(.82)	(2.21)	(3.66)	(5.15)	(6.13)	(7.21)	(8.41)	(9.71)	(11.15)	(12.73)
10 - Net Income (Loss)	(.42)	(.79)	(.37)	.09	2.09	5.03	9.04	14.20	20.77	28.73
11 - Accu. Net Income (Loss)	(.42)	(1.21)	(1.58)	(1.49)	.60	5.63	14.07	28.27	49.04	77.77

Notes to FEC Cash Flow for HG Loan Only

1. Total HG loan of DH 182.72 million, with drawdowns as follows from GOM:
 - 1st year DH 41.10 million
 - 2nd year DH 57.32 million
 - 3rd year DH 47.60 million
 - 4th year DH 36.70 million
2. Terms to beneficiaries are 10% annual interest, for 10 years.
3. Loans disbursed to beneficiaries on same schedule as HG loan.
4. Terms on HG loan are 12%, 30 years and a 10 year grace period on principal.
5. The surplus is the positive difference between the higher total sources and the lower total uses.
6. The surplus is accumulated each year.
7. The accumulated surplus is invested at a 10% interest rate.
8. The overall cash flow, including interest income on the surplus.
9. The interest income is the difference between the interest paid annually on the HG loan, which is a higher rate and the interest paid by beneficiaries which is lower.
10. Net income is the difference between the negative balance between interest paid and interest received, and the positive balance resulting from the investment of the surplus.
11. Accumulated net income shows losses during the first four years, after which the income is positive.

C. Cross-Subsidization

The development of two separate, yet related project components - The upgrading and the sites and services component - presents an opportunity for cross-subsidization. Whereas in the former component, the beneficiaries are predominately low income families, in the latter, a part of the project site will be sold to more affluent buyers. The expected income from sales of higher priced lots in SAMSA II will reach at least Dh 245 million. Yet the expected capital cost to develop SAMSA II is only Dh 181.57 million. The difference of Dh 63.43 million can be used to assist poorer families in the upgrading area. Assuming a Dh 5,000 capital contribution for each family in DERSA/SAMSA I, the total needed for the cross-subsidy will be Dh 37.5 million, which still leaves an estimated Dh 17 million for other project purposes such as relocation and providing more assistance to the poorest families who might have difficulty making part or all of the advance payment. (See Tables G5 and G6).

TABLE G - 5

Income From Sale of Serviced Lots

Type of Unit	Total m ² for ¹⁾ each use	Sales Price per m ²	Total Income (DH)
80m ² lots	350,000	200 DH	70,000,000
200m ² lots	100,000	350 DH	25,000,000
multifamily lots	150,000	400 DH	67,500,000
commercial lots	50,000	450 DH	82,500,000
	<u>650,000</u>		<u>245,000,000</u>

1) Total m² in Samsa II is 1,300,000, of which 50% is common use (roads, open space, community facilities, etc.)

TABLE G - 6

Allocation of Lot Sales Revenue (DH/M)

- Total Income		236.25
- Less: Loan Repayment	47.57	
Land Purchase	39.00	
Beneficiary Advances	<u>95.00</u>	
Total Cost: Sites and Services		<u>181.57</u>
- Excess of Income Over Development Costs		54.68

4. Interest Rate Considerations

A. Borrowing Rates

The rate of interest paid by banks and other financial institutions is controlled by the government. For time deposits and certificates of deposits, the rate is progressive and is based on the duration of the deposit, with a maximum rate of 12.0 percent for 12 month deposits. Deposits in excess of 12 months are not regulated. On April 1, 1985, interest rate ceilings were raised, and rates were increased generally by 2 percentage points over previous rates, which had been in effect since September 1983.

The Credit Immobilier et Hotelier, (CIH) the primary housing finance institution, raises some funds through the issuance of bonds. Currently, bond interest rates range between 12 percent and 13 percent depending on the term of the bond. On April 1, 1985 these rates were also increased by 1.5 percent over the previous rates.

TABLE G - 7

Selected Borrowing Interest Rates
(Effective April 1, 1985)

1. <u>Commercial Banks:</u> <u>Time Accounts and Certificates of Deposit</u>	<u>Effective</u>	
	<u>Sept 1983</u>	<u>April 1985</u>
* 1 month	4.5	6.5
* 3 months	6.5	8.5
* 6 months	8.5	10.5
* 12 months	10.0	12.0
* 18 months	10.5	unregulated
2. <u>National Saving Bank</u>	8.0	9.0
3. <u>Credit Immobilier et Hotelier</u>		
* 5 Year Bond	10.5	12.0
* 10 Year Bond	11.0	12.5
* 15 Year Bond	11.5	13.0

Source: Bank Of Morocco

The cost of money for investment in housing, therefore, can reach 13.0 percent for 15 year bonds. Foreign loans with terms not exceeding the cost of money to CIH, should be acceptable to the GOM, notwithstanding the foreign exchange considerations.

B. Lending Rates

The prevailing interest rate for mortgage loans is skewed by the fact that the government provides rebates to the CIH for housing construction loans on properties with a value inferior to DH 500,000. While CIH loans carry a 16 percent interest rate - the prevailing local market rate - the rate can be bought down to as little as 8%, depending on the value of the property. The GOM then absorbs the cost difference between the market rate (16%) and the effective rate, which is lower. Nevertheless, the true market rate, which is reflected in CIH loans for properties in excess of DH 500,000 and for real estate development is in the 15 to 16 percent range. Borrowers from the Dersa/Samsa area of Tetouan would generally qualify for 8 percent loans.

With respect to site development and infrastructure works, the CIH interest rate, primarily to private developers, is 15 percent, while the FEC rate to municipalities for infrastructure improvements is currently 10 percent. The Ministry of Housing is presently undertaking an upgrading and

core housing program, which is financed partially under AID's HG program, and which carries an interest rate of 7 percent.

TABLE G - 8

Lending Interest Rates:
Housing and Infrastructure

<u>Institution</u>	<u>Interest rate</u>
1. Credit Immobilier et Hotelier (CIH)	
A. General - Construction of owner occupied housing:	
1. Property under DH 150,000	8.0% (*1)
2. Property between DH 150,000 - 200,000	10.0%
3. Property between DH 200,000 - 300,000	12.0%
4. Property between DH 300,000 - 500,000	15.0%
5. Property over DH 500,000	16.0%
B. Real Estate Development	
1. Commercial	15.0%
2. Site Development	15.0%
3. Prefinancing for Developers	15.0%
4. Purchase	15.0%
2. Fonds d'Equiptment Communal (FEC)	10.0%
3. Ministry of Housing	7.0% (*2)

*1) Effective rate after GOM buydown (rebate).

*2) Rate at which HG-002 funds are being loaned under upgrading program.

Sources: Bank of Morocco, FEC

C. Inflation Rate

Since 1980, the rate of inflation has fluctuated between 6.7 percent (1982) and 13.2 percent (1981) with a projected rate of 12 percent for 1985. The real interest rate, taking into account the inflation rate, has always been less than the nominal rate of interest, both for borrowing and lending. The real cost of money for the CIH, based on 15 year bonds, has ranged from minus 3.2 percent to plus 4.8 percent. If the projected rate of inflation for 1985 holds at 12 percent, then the real cost of money to CIH will be 1 percent. The situation improves with respect to lending rates. The percentages have ranged from minus 0.2 percent to plus 7.3 percent, with a 3 percent real rate projection for 1985, if the current 15.0 percent interest rate on CIH loans is maintained. Accordingly, in both cases (borrowing and lending), the prevailing interest rate for housing finance and housing mortgages in Morocco is in excess of the anticipated rate of inflation.

TABLE G - 9

Real Interest Rates Based on Annual Inflation

<u>YEAR</u>	<u>INFLATION (1)</u> <u>RATE</u>	<u>BORROWING RATE</u>		<u>LENDING RATE</u>	
		<u>NOMINAL (2)</u>	<u>REAL</u>	<u>NOMINAL (3)</u>	<u>REAL</u>
1980	9.7%	10.0%	+0.3%	13.0%	+3.3%
1981	13.2%	10.0%	-3.2%	13.0%	-0.2%
1982	6.7%	11.5%	+4.8%	14.0%	+7.3%
1983	12.5%	11.5%	-1.0%	14.0%	+2.5%
1984 (est)	12.5%	11.5%	-1.0%	15.0%	+2.5%
1985 (proj)	12.0%	13.0%	+1.0%	15.0%	+3.0%

(1) Cost of living index

(2) Rate paid on 15 year notes issued by CIH

(3) CIH interest rate to borrowers. Rate does not take into consideration GOM interest rate rebate on low income loans, which varies between 3% and 7%.

Source: Bank Of Morocco and CIH

ANNEX H

ENVIRONMENTAL ANALYSIS

Site Description

This section comprises brief, analytic and comparative descriptions which are based on the review and analysis of the many previous studies, reports, Master Plan for Sanitation and Master Plan for upgrading and development.

GEOGRAPHY

The Municipality of Tetouan is situated in the northern most province of Morocco. The city is not only the administrative center of this region but due to its geographical position it also attracts the commercial, financial, agricultural and touristic impact from the recently urbanizing coastal strip along the Mediterranean Sea from the City of Fnideq to the north to the City of Martil to the south, a distance of about 30 kilometers.

TOPOGRAPHY

Tetouan is located nine kilometers inland from where the Oued Martil river enters the Mediterranean Sea. Approximately 65% of the city's residential areas are built along the southern slopes and terraces of the Djebel Dersa mountain. The lowest elevation within the city is the bridge deck over the Oued Martil river and rural road S608 at the easterly periphery, which is 9 meters above Mean Sea Level.

Topography of the Dersa upgrading district

The lowest average elevation is 64 meters which is at a point where the invert of the drainage culvert of the ravine called Khandaq Zarbouh crosses under the main east-west access road to the Dersa district. The highest average ground elevation is 240 meters and occurs along the northern boundary of the district. Street grades throughout the district are more or less level in the east-west orientation, but vary to extremely steep gradients of between 14% and 33% in the north-south down slope orientation, requiring stairways and hairpin curves which follow the natural rock and outcrop escarpments. The majority of these narrow paths, passageways, alleys and streets are accessible to small vehicles, load carrying animals and pedestrians.

Topography of the Samsa I and II district

The land surface features consist of broadly undulating to steep rocky and arid terrain interspersed with many deeply eroding gullies (thalwegs) and man made ditches. There are two or three relatively flat or slightly sloping terraces, one of which includes an 8 hectare parcel of land belonging to the Ministry of Housing and is at this moment set aside for a low-income core-housing project. This project benefits the widows and families of army veterans, called Village des Martyrs, and will also include rehousing units from the Dersa upgrading project.

The lowest average elevation occurs at a point at the intersection of the access road to the existing stockpens and slaughterhouses and the main highway between Tangiers and Tetouan, which is 14 meters (NGM). The highest average elevation is 124 meters along the northern boundary of the area under review, for the sites and services component of the project.

GEOLOGY

The southern slopes and terraces of the Djebel Dersa mountain are the site of ever more increasing and intense residential building activities since the nineteen fifties. The entire zone is composed of fissured karst with altered limestone outcroppings. The surface soils to a depth of one and a half meter are sandy limestone, gravelly clays or sandy clays with fines * content of between 15% and 28%. The environmental consequences of these large percentages of fines in unpaved and densely populated built up areas are at least the following:

- In the dry and windy season fines mixed and polluted with organic matter, human and animal feces, garbage, sewage, etc., are the cause of endemic outbreaks of enteritis, diarrhea, meningitis and broncheal diseases among the population, not only in the effected district but due to the winds the fines are carried great distances effecting the health conditions, food and water supply of other villages and resort towns along the coast.

- During the rainy season silt** is washed away from the upper slopes of the area clogging existing downstream facilities, channels, culverts and catchbasins in the older and better equiped sections of the city including the existing educational complex and the relatively level Sidi Talha neighborhood.

Permeability of this area is low due to the hard surfaces, roofs, concreted areas, asphaltic alleys and roads and the compacted nature of the soils in the public areas accessible to constant traffic of all kinds.

Seismic activity records of the Tetouan province and the peninsula indicate that the entire zone is subject to potentially severe tectonic movement. Therefore it should be kept in mind with regards to the structural aspects of any future planning within the scope of this Project Paper. Since the Agadir earthquake there has been an increased awareness in building of seismic conditions. The area north and west of the Atlas mountain ranges has been for the most part classified as a moderate earthquake zone. This zone includes almost all major urban areas, the City of Tetouan included. Building codes include structural design criteria and considerations for limiting damage. To the extent that owner built housing incorporates standard building procedures, these regulations are respected

*Fines are sanddust particules less than 80 microns in diameter (micron - .001 mm).

**Silt consists of primarely fines mixed with organic matter.

HYDROGRAPHY

The city of Tetouan is traversed by the Oued Martil river which drains approximately 1220 square kilometers of mountainous and slightly forested region. Several large man made water catchment reservoirs exist or are in the process of being studied and implemented. These will decrease erosion of the slopes and contribute to existing and future large irrigation schemes, soil conservation projects and prime water supply resources for the expanding needs of the region.

The Oued Martil at its narrowest normal river bed section within the city limits is about 35 meters wide, with vertical embankments on the scour side of upto six meter height, indicative of the sediment transport capacity of the river during flood stage. An alluvial sloping terrace exists on both sides of the river channel and measures between 200 and 700 meter in width. The alluvial silt is the source of material for local brick and pottery factories, large agricultural plots produce a variety of foodcrops for the local markets.

The river, when in flood stage, is estimated to reach up to an elevation of about 10 meters at the existing bridge along rural road S608. One can observe that due to land reclamation and the filling in of the river terraces to provide higher ground for municipal and provincial government buildings or for flood protection there is an increased velocity of the stream due to constriction and the damming effect of debris, trees, etc., which are lodging in the deck and railings of the existing bridge. It is assumed that the abandoned bridge crossing just 100 meter downstream was undermined and overturned due to the pressure and velocities. The existing bridge S608 is also in the process of being undermined, although the municipality is continuously checking this structure and trying to keep it in safe condition until the new proposed bridge is in place. (See paragraph, Roads and Bridges.)

Hydraulic aspects based on rainfall and climate

Recordings over a recent fifteen year period indicate that total yearly rainfall in Tetouan is above the national average. The average is 650 millimeter with a maximum of 1300 millimeter and a minimum of 400 millimeter.

From previous studies on the meteorological observations and data recorded during severe rainstorms it appears that the prevailing strong westerly winds occurring during an intense storm are usually more destructive on the slopes of Djebel Dersa mountain than on the other side of the valley. This prompted the residents of the district to protect the masonry construction and to cover as much as economically feasible the more erodable surfaces of public access areas with either concrete, asphalt or hand placed rock revetments.

However due to the ongoing deforestation uphill from the district and the existence of still large areas of steep slopes in excess of 33%, at each major rainstorm large amounts of soil, silt, brush, mud and rocks are flowing or carried into the city, blocking roads and sidewalks and plugging culverts and catchbasins.

Several studies have attempted to correlate stormwater runoff data and quantities for the area under review. Simulated time, intensity, gradient and absorption factors were used in order to predict quantities at a given point of intersection of major streets or at a culvert crossing. In general these

exercises indicate that due to the concentrated quantities and high velocities of the current, combined with the steep impermeable slopes "sheet flow" phenomena occur which carries all loose debris, undermines trees and structures, weakens building foundations, etc. The traditional stormdrain collection system with catchbasins and culverts is not adequate under the above conditions. Part of the upgrading effort will be to develop elements in the tertiary system (steps, directional flow structures to retard and limit sheet flow under worst conditions).

The nature of the upgrading project will require additional action in order to alleviate the problems of flooding and health hazards. These actions will include the progressive development and maintenance of tertiary infrastructure by the residents themselves.

Population projection and population equivalency factor

Design projections and investment cost estimates for future planned domestic and industrial infrastructures such as sewage treatment, water supply, electric energy, access roads and bridges are usually phased and implemented over periods of 15 to 25 years. The Tetouan region comprises three categories of users of the above mentioned infrastructures:

- the residents of the area
- the touristic complex and seasonal activities
- manufacturing and industry

From a technical viewpoint it is necessary to establish an estimated population equivalent factor independent of the actual demographic estimates or census. The prime reason is that the three above mentioned categories require these resources at varying times and different quantities.

In the case of the needed sewage treatment facilities for Tetouan and without reviewing biological or bio-chemical considerations which will be covered in a separate section of this Project Paper, it has been established on the basis of previous studies that the following data are a valid and reasonable attempt to objectively determine the needs and cost estimates for the proposed sanitary sewage treatment station up to the year 2001, (see separate section for details on the several proposed or projected site locations and treatment processes).

The following values are required as shown in the comprehensive report issued in 1977, by the SOCIETE AFRICAINE D'ETUDES MAROC 9 S.A.E.M..

1987	City of Tetouan		1982
	1992	1997	
Projected population			179,000
238,000	296,000	361,000	
Population equivalent			200,900
274,400	350,000	434,200	
Volume (m 30/day sanitary sewage)*			24,363
33,003	41,895	51,516	
Load (Kg/day) of pollutant matter			12,657
17,294	22,048	27,333	
in suspension of all sources			

* (Note: A 1984 report based on non-quantified data gives higher volumes of sanitary sewage flows,

Volume (m 3/day) sanitary sewage	25,500	
36,000	52,200	76,600

Estimated projections for the Dersa and Samsa upgrading area and sites and service program.

1990	Dersa - Samsa I' and II		1985
	1995	2000	
Population	51,500	65,000	83,000
100,000			
Sanitary sewage (m 3/day)			3,800
4,900	6,300	7,500	
Load (Kg/day) of pollutant matter			1,900
2,450	3,150	3,750	
in suspension at 50 gram per liter (BOD ₅). (BOD ₅ = Biological Oxygen Demand for a five day period.)			

Note: The above projections are for estimates only since the total environmental impact of the future Samsa I and II areas is not known at this time.

ROADS AND BRIDGES

The Project implementation will require, pedestrian bridge crossings over the ravines where necessary and to provide right of way for the construction of access streets, sidewalks, traffic circles, taxi and bus pickup areas, to facilitate access to schools, markets and other sections of the neighborhood. In some instances there will be a need for temporary storage of refuse and collection points where debris will be accumulating during the initial phases of the construction of the housing schemes and other infrastructure. This will alleviate the problem of cleaning up when the project nears completion.

The existing highway between Tetouan and Tangiers is the main access road to the project. The Master Plan for transportation indicates that this highway will be widened, larger culverts will be installed in connection with the planned storm drainage system. Two new bridges and a new alignment for the by-pass highway is projected to decongest the heavy seasonal traffic.

STORM DRAINAGE AND SANITARY SEWER SYSTEM

The City of Tetouan has an existing storm sewer drainage system dating from the Spanish Protectorate. This system discharges directly into the Oued Martil river by means of an unknown number of large and small effluent structures. Since its inception there have been an untold number of cross connections with private sanitary sewers which in fact make it a combined system. The Master Plan for Tetouan recommends as a long term solution the gradual disconnection of these sanitary outlets and integrate them into a proposed separate sanitary sewer system.

The long term objective for the City of Tetouan is to have two separate systems, a storm sewer system discharging directly into the Oued Martil and a sanitary sewer system together with treatment facilities for residential and industrial liquid waste. The large investments which are required over several decades in order to finance such major infrastructure programs constitute a constraint which is unresolvable at this time.

There is no central authority in charge of implementing or managing the existing combined system. Problems are solved as they occur by the Public Works department of the Municipality.

The proposed Dersa and Samsa upgrading and site and services project will impact on the existing conditions downstream. The degree of impact related to the storm water runoff has been described previously in this section.

The potable water system in the Tetouan region is under the responsibility of three authorities, the Service Hydraulique, The Office National de l'Eau Potable and the Régie Autonome (RDE). They are in charge of the different aspects of the water distribution, from source of the water to its final connection to the user including the treatment and monitoring of health standards.

The primary source of water for the region is the Nakhla dam with a capacity of 8 million cubic meters, with a delivery capacity of 3 m³/second. Due to the gradual silting of the storage reservoir there is a markable reduction of yield which will be solved after the completion of the

proposed Ben Karriche storage reservoir and dam with a projected storage capacity of 80 million m³.

The Regie states in their annual report for 1984 a water consumption for the City of Tetouan of 8 million m³ for residential and industrial users. The actual total water production for 1984 was 13 million m³. The difference in water use between the invoiced quantity and the net total production quantity constitutes the amounts lost to leaks, municipal use for street cleaning, public fountains, water which is requested for use by the Hydraulic Service Agency and other Governmental authorities. (Refer to documents of the Regie as listed.)

A new modern water treatment plant will eventually replace the existing facilities located near Torreta, which are just sufficient for the current demand except during drought conditions when public taps on the high level service areas are closed off temporarily.

Water quality is considered as acceptable based on a recent quality sampling program at nine different points in the system. Chlorine residual was found to be 0.2 mg/liter which is within the acceptable norms.

ELECTRICITY AND PUBLIC LIGHTING

The Master Plan for Tetouan states that the existing system is being modernized on the basis of the national interconnected grid requirements. Old overloaded city distribution lines and transformers are gradually being replaced to provide for future demand and to upgrade street lighting.

The impact of the Dersa - Samsa load demand will not effect the system since it will take several years for it to be a factor. In the meantime new high voltage transmission lines are being installed and it is reported that there will be an excess capacity for about ten years.

ANNEX I

Bureau Environmental Coordinator Issues and Answers

Questions posed by the Bureau Environmental Coordinator, Mr. S. F. Lintner
Refer to Memorandum dated June 19, 1985

A. Primary Issues

1. a.) The team should obtain basic descriptive information to characterize the general water quality in the Oued Martil and estimate the impact of the increased wastewater flows resulting from project implementation on water quality. b.) This issue should be addressed recognizing the high seasonal variations in discharge in the Oued Martil. c.) If inadequate water quality data is available, the team should design a simple collection and analysis program to obtain descriptive data to be proposed as a Moroccan contribution to the Project.

A. PRIMARY ISSUES

Oued Martil river water quality.

a.) Water quality of the Oued Martil river immediately downstream of the existing bridge crossing at rural road S608 at the eastern periphery of the city of Tetouan is extremely polluted. The primary source of the pollution is from industries such as tanning and hide preparation, slaughterhouses, textile mills, bleaching and dyeing works, food canning operations, paper and cellulose mills, rendering and soap factories, printing plants, portland cement mill, etc. The river also receives the effluent of a small inefficient primary treatment plant, eight major combined sanitary sewer and stormdrain outfalls, and an unknown number of smaller private residential or industrial outlets. In addition it receives solid waste and debris from a large number of tipping operations by private and semi-public garbage haulers. There are no existing records of sampling or monitoring being done or planned in the immediate future. However the City Engineer intends to either contract out for a preliminary water quality survey and inventory of discharge outlets or designate an individual from within the Provincial Government who already has a hands on experience to begin a program of record keeping and monitoring.

Increase wastewater flows from the proposed implementation of additional tertiary connections in the upgrading area and the installation of a tertiary system in the site and services area will not immediately affect the water quality in the Oued Martil

river if the sewage treatment plant is built within the first five year increment of the Project as planned. The operational management of the plant begins as soon as possible

b.) During the dry season the river flows are decreasing to such extent that the normal channel is completely dried up at the confluence of the Oued El Khemis approximately three kilometers west of the urban limits. A contributory cause for this is the large amounts of water being pumped for irrigation purposes.

The main tributary Oued Horchaf provides a relative minor flow due to the existence of many small irrigation catchment bassins and the location of the important regulating storage and water supply dam (Nahkla Reservoir) which is operated by the National Hydraulic Service and provides potable water to the Cities of Tetouan, Martil and Fnideq.

During the rainy season the river channel runs full but is subject to flash flood conditions and brief periods where it overflows onto the alluvial terrace. Installation of quantitative flow measurement and recording gauges are being planned to collect useable data for future planning.

c.) The Municipal Department of Public Works and the City Engineer plan to initiate a preliminary water quality study and the identification of toxic substances and their sources, based on WHO* recommendations and standards.

It has not been determined if the City will contract directly with a water quality laboratory or farm out to the National Hydraulic Service. The Municipality of Tetouan is receptive to eventual suggestions or recommendations during the pre-implementation stage of the project.

The team did not have the specialized equipment necessary to undertake any type of water quality sampling. Turbidity, temperature at various depths and amounts of suspended matter would have been the rudimentary elements of a brief reconnaissance spot check at various locations. If a definitive and verifiable water quality analysis of the Oued Martil River is required it should be carried out over a period of time to incorporate seasonal variations and include all substances, chemicals, heavy metals, etc. in which case it is recommended to contract with a firm that has at least the capability to do the atomic absorption test (Elmer-Perkins equipment or similar).

2. a.) The team should determine how the current and continued pollution of the Oued Martil, from domestic and industrial sources, impacts on local fisheries, recreational use and tourism. b.) It should determine the incremental impact of the increased wastewater flows resulting from project implementation on these items.

* WHO World Health Organization

Impact on fisheries, resorts and tourism activities.

a.) Already the impact of dry season flows when the various untreated effluents and discharges, solid waste, etc., are in their most concentrated and septic condition have affected the City of Martil which is located along the estuary of the Oued Martil river. Recreational lagoon fishing and offshore commercial fishing may have to be stopped by the responsible authorities; unless it is carefully monitored. Especially during the hot summer season when the population along the resorts and beaches is temporarily housed in tents and open canvas shelters, large amounts of waste of all sorts are to be contained in certain controlled areas to be disposed of in an acceptable manner.

A portion of the Martil beach was affected by a temporary closing in the 1984 summer season due to health risk conditions.

b.) The incremental impact of the Dersa/Samsa upgrading and site and services project however is not expected to increase the total pollutant load, since by the year 1990 it is anticipated that an operational primary sewage treatment station will have started to improve the overall river water quality.

It has been estimated that the future population of the project area will reach approximately 25% of the total City of Tetouan population. It should be noted however that the actual pollutant load contributed by the above mentioned population in Dersa - Samsa I and II may constitute only about 10% of the combined residential, industrial and touristic complex peak loads.

3. The team should determine a.) when the Government of Morocco anticipates beginning implementation of the planned improvements in wastewater collection and treatment in the Tetouan region. b.) It should specify the status of the required technical and feasibility studies, c.) cost estimates for these improvements and discuss the anticipated source of funding.

a.) It may be premature to anticipate a definitive specific date even though the intent is clearly established that to go ahead with the implementation of the first phase of the treatment facilities would be ordered as soon as the City of Tetouan has the necessary funding assurances to start a waste water collection and treatment system.

b.) The basic research and technical studies have been done and constitute an extensive amount of data, maps, charts, reports, cost estimates, etc.. Various treatment processes have been suggested. Funding and operational management procedures have also been discussed with GOM and Provincial authorities.

c.) Cost estimates for the various components appear in Section IV of this Project Paper and will be further refined as the phasing of construction and management cost over the life of the Project.

4. The team should a.) determine when the Government of Morocco anticipates beginning implementation of the proposed diversion of the Oued Martil to a second abandoned channel further to the southeast of the existing diversion. The team should b.) determine the environmental benefits from implementation of this proposed diversion as it provides an interim solution to reducing pollution of the beach at Martil.

Oued Martil Diversion Scheme

a.) The proposed diversion within the reaches of the estuary as previously outlined in various studies and reports has not been implemented. This important decision will be made after further investigations and inquiries concerning riparian boundaries, geographical limits of the estuary, costs and benefits of mitigative measures, intrusion of salt water during the dry season, possible effect on existing estuarine ecosystems, salinity gradient, etc.

b.) An interim beneficial solution for reducing pollution along the Martil beach should be weighed against the overall solution of regional problems. There is a concern that diversion without first checking the implications may create another problem somewhere else.

The environmental benefit of the suggested diversion scheme, if further implemented by partially covering the accumulated bottom sludge and detritus by means of dredging sand from the sea or from available borrow areas, would be a positive first step. The overall implications should however be part of the estuary ecological balance assessment.

5. The team should review the design of all stormwater drainage structures to assure they are adequately sized to accommodate flows during major storm events and provide easy access for routine cleaning out of solid waste and sediment. Special attention should be given to assessing peak flows given the low permeability of the natural and developed portions of the catchments.

Plans and criteria for the design of secondary and primary combined collectors, including stormwater overflow weirs, surge bassins, culverts and open channels, retarding dams and pumping stations have been thoroughly reviewed and discussed with the responsible engineers in charge. A high level of professional and technical ability, imagination and skill was demonstrated during these sessions and field investigations.

Peak flow assessments of storm water runoff and pollution levels for either the City of Tetouan or the Dersa - Samsa districts have not been accurately determined. The S.A.E.M. study of 1976-1977 did determine the estimated quantities for certain typical and selected areas, which were to be used as a guideline for further simulation exercises. Since this initial report, several studies have been made to further refine the storm runoff quantities in relation to the various slopes and configurations of the ravines with the objective to try to decrease flooding in the downtown and educational complex areas. A number of these have resulted in partial implementation and construction of retarding dams, larger culverts, etc..

Given the very low permeability of the steep slopes additional means of stormwater drainage and channeling have been discussed and will be explained in the body of this Project Paper. (see Technical Analysis section).

6. The team should review the solid waste disposal sites to assure that they will be properly sited, developed and operated. Field observation indicated a large number of solid waste disposal sites, both formal and informal, being located at the edge of the natural drainage features, existing stormwater collectors, adjacent to roads and the floodplain the Oued Martil.

The disposal problem of solid waste is the most difficult problem facing the Municipality of Tetouan. The principal engineer in charge of restructuring municipal activities is to inventory all available public and unclaimed/unused lands to not only provide sites for future landfill operations but also to incorporate them into future green belts, parks, cemeteries, rights-of-way for public utilities, major access roads and bridges. At this moment the municipality is negotiating with the brick factories to begin landfill operations in the depleted clay extraction pits. These pits are about 5 meters deep and measure about 100 X 50 meters in area. There are many of these abandoned pits which may be the best interim solution, provided the pits are protected from flooding.

7. In accordance with Bureau policy the team should determine the annual operation and maintenance costs for facilities funded under the project. It should identify how these costs will be met and identify any training required to assure their proper operation and maintenance. Special attention should be given to the training of personnel in the management of solid waste disposal facilities.

According to the municipal engineering office several existing agencies and departments will be given additional functions and mandates for the purpose of taxing and/or collecting prorated user fees, licenses and ton/truck load charges to be paid before

dumping solid waste at the approved sites. Concerning the combined sewer facilities and the proposed future sewage treatment station, preliminary discussions have taken place to study the feasibility to invoice for water usage and disposal on the same billing. The operational management of a complex sanitary sewage treatment plant of the size contemplated for the City of Tetouan is estimated to employ about 120 persons on a three shift around the clock schedule.

The GOM through its designated Ministeries and Agencies created the central administratives school in Casablanca (SIRTI) for the purpose of providing information, training, courses in municipal management, etc.. In addition the Direction de la Formation des Cadres du Ministère de l'Interieur gives working seminars on a variety of subjects related to public works operations.

It is recommended that throughout the implementation of the proposed Project certain selected individuals would be candidates for hands on training at a medium size sewage treatment plant.

8. The team should review the concept of including a public education program concerning solid waste disposal practices in the project area. Until residents are aware of the problems they are creating by informal disposal practices, especially in areas adjacent to the natural drainage features, only limited improvement in environmental health and the reduction of flooding can be expected to occur.

Public education program

The city of Tetouan through its City Council President and engineering staff has indicated that the situation has come to a critical stage which requires immediate action, both on the part of the municipality and the public at large. Several awareness campaigns are under way to alert the public of the dangerous health consequences. These campaigns are made through the press and the local broadcast station and educational institutions, maternities and public clinics. As part of the Project implementation it would seem appropriate to include a public awareness program.

B. Secondary Issues

1. The team should identify interim measures which can be taken to reduce solid waste problems in advance of formal project implementation. Special attention should be given to clearing of large amounts of solid waste which have accumulated above the Dersa site.

B. Secondary Issues

As previously mentioned the Municipality is in the process of inventorying available sites and of organizing a means by which licensed truckers will be charged for dumping. Concerning the removal of existing semi-public dumps such as in the vicinity of the Quartier Zyana cemetery and many others throughout the city, it may be safer to try to sanitize the areas with chemicals (lime) cover them with earth and plant some type of ground cover. The alternate would be to dig up the waste under controlled conditions during the winter season, ie. in covered trucks, etc. The logistical and financial burden would be prohibitive. Site identification has not yet been made and should be recommended during Project implementation.

2. The team should determine how the Government of Morocco anticipates management and treatment of industrial wastes from existing and planned industries. The team should assess their impact on the Oued Martil and discharge area in the Mediterranean Sea if improperly treated or controlled. It should specify how this problem will compound existing wastewater problems.

The existing industrial zone east of the airport has a basic liquid waste collection system and pumping plant. The point of discharge at this moment is in existing drainage ditch leading into the Oued Martil river.

Proposed treatment of the effluent will consist of pumping the effluent into a large oxydation lagoon to be sited in the swampy area adjacent to the industrial zone. Until more comprehensive laboratory analysis records are available, which may indicate that toxic, heavy metals or poisonous substances are disposed in this manner, it appears the best interim solution for this problem. The intent is to provide approximately 15 hectares of initial lagoon area to a depth of approximately 2 and 1/2 meters. The area consists of sandy to sandy clay loam and silt deposits. The berms would be at an elevation above the highest observed flood levels. After the berms have been compacted and can contain the pool to its design level there may be a need for installing pontoon supported aerators which would be driven by either the available high tension power substation located next to the existing effluent pumping station or by independent electric generators attached to the pontoon barge. Eventually the effluent from the oxydation lagoon would be discharged into the previously mentioned drainage ditch and the Oued Martil river.

3. The team should advise the Government of Morocco concerning the desirability of filling the abandoned channel of Oued Martil in the immediate vicinity of Martil. The presently closed-off channel fragment presents a major seasonal health hazard and is presently being used as an informal solid

waste dump. The increased and continued discharge of untreated wastewater into the Oued Martil from Tetouan will only compound this problem.

Meandering oxbow river channels have been closed or have altered during the course of major floodstages over the last several hundred years. From a close study and interpretation of aerial photographs it appears that man made levees and channels were dug in order to claim more accessible areas along the alluvial terraces for brick manufacturing and agricultural plots. The abandoned channels average 50 meters wide and include swales or depressions which extend from rural road bridge S608 to the Oued Martil estuary. Filling these depressions will require a major suction dredging operation. As in all instances where a dredging scheme is contemplated, an environmental assessment will have to be done which includes all the items previously mentioned in the Oued Matil Diversion Scheme, in order to avoid further deterioration of the ecology in the estuary and the region.

ANNEX J
DETAILED TECHNICAL ANALYSIS

A. UPGRADING COMPONENT

1. Characteristics and Development of the Site

a. Conditions

1) Topography

The lowest average elevation is 64 meters which is at a point where the invert of the drainage culvert of the ravine called Khandaq Zarboub crosses under the main east-west access road to the Dersa district. The highest average ground elevation is 240 meters and occurs along the northern boundary of the district. Street grades throughout the district are more or less level in the east-west orientation, but vary to extremely steep gradients of between 14% and 33% in the north-south down slope orientation, requiring stairways and hairpin curves which follow the natural rock and outcrop escarpments. The majority of these narrow paths, passageways, alleys and streets are accessible to small vehicles, load carrying animals and pedestrians.

2) Soils

The southern slopes and terraces of the Djebel Dersa mountain are the site of ever increasing and intense residential building activities since the nineteen fifties. The entire zone is composed of fissured karst with altered limestone outcroppings. The surface soils to a depth of one and a half meter are sandy limestone, gravelly clays or sandy clays with fines content of between 15% and 28%.

During the rainy season, silt is washed away from the upper slopes of the area clogging existing downstream facilities, channels, culverts and catchbasins in the older and better equiped sections of the city including the existing educational complex and the relatively level Sidi Talha neighborhood.

Permeability of this area is low due to the hard surfaces, roofs, concreted areas, asphaltic alleys and roads and the compacted nature of the soils in the public areas accessible to constant traffic of all kinds.

From previous studies on the meterological observations and data recorded during severe rainstorms, it appears that the prevailing strong westerly winds occuring during an intense storm are usually more destructive on the slopes of Djebel Dersa mountain than on the other side of the valley. This prompted the residents of the district to protect the masonry construction and to cover as much as economically feasible the more erodable surfaces of public access areas with either concrete, asphalt or hand placed rock revetments.

3) Climate

Recordings over a recent fifteen year period indicate that total yearly rainfall in Tetouan is above the national average. The average is 650 millimeter with a maximum of 1300 millimeter and a minimum of 400 millimeter.

The proposed drainage facilities will be designed to accommodate a 20 year storm. Note that a 20 year storm could occur two years in a row or even twice during the course of one year.

Several studies have attempted to correlate stormwater runoff data and quantities for the area under review. Simulated time, intensity, gradient and absorption factors were used in order to predict quantities at a given point of intersection of major streets or at a culvert crossing. In general these exercises prove that due to the concentrated quantities and high velocities of the current, combined with the steep impermeable slopes "sheet flow" phenomena occurs which carries all loose debris, undermines trees and structures, weakens building foundations, etc. The traditional storm drain collection system with catchbasins and culverts is not adequate under the above conditions.

Part of the upgrading effort will be to develop elements in the tertiary system (flow retarding steps or stairways, directional flow devices, temporary storage basins) to reduce the destructive effects of sheet flow under most conditions.

b. Historical development of the site

Until its fertile topsoil was gradually lost by erosion, the south slope of the Dersa mountain immediately adjacent to the city served as an agricultural zone and source of water for the Medina. During the Spanish Protectorate, a dirt road was also cut through the area joining the "EL BORG" fort with the Medina and continuing up to the radio station at the top of the mountain. The construction of this road opened up the site for residential development.

The first real construction of houses on the site began with a 400 unit project of low-cost housing called the "Municipal Block". This project was built to rehouse bidonville inhabitants from the center of the city and consisted of several large blocks of small courtyard houses sited around a small commercial center of 60 shops. The construction of "clandestine" housing units in Dersa began around this project.

c. Density and land use

The population of Dersa is now estimated to be 54,000 inhabitants. Because of varying site conditions and steep slopes, the population density varies considerably across the site. The areas of highest density have an estimated 660 inhabitants per hectare while the average density is closer to the accepted norm of 350 inhabitants per hectare.

The number of housing units per hectare in Dersa is 58 while in Samsa I this number is 15.

Within the area to be upgraded only the western end of the site (Samsa I) has some open land or infill plots to be developed. These will be used for rehousing families displaced from other parts of the site by infrastructure works. Sites for public facilities will also be provided. Remaining plots will be sold off for individual housing development.

2. Infrastructure characteristics for the upgrading component

a. roads

1) existing situation

The only practical access road to the Dersa district is Boulevard Abdelkrim Khattabi. It serves Dersa, Sidi Talha, Samsa and Malaga neighborhoods. The existing streets, alleys, trails and footpaths varie between 1 and 4 meters in width. Some of these will require stairways due to the extreme slope. Most houses are at least 30 to 50 meters away from a street accesible to minor traffic. Two-thirds of the housing units are more than 400 meters distant of any type of public transportation, taxi and/or the Sidi Talha bus line. Dersa is about one kilometer distant from the center of town.

The existing east-west oriented Boulevard Abdelkrim Khattabi right-of-way is approximately 8 to 12 meters wide, starting from the Khandaq Zarboub ravine to the Psychiatric Hospital. The point of access to this Boulevard is from the north-south oriented 10 meter wide street adjacent to the Christian cemetery which in turn connects to the Boulevard Mauritania and the center of town.

2) proposed improvements

The proposed new street grid which will improve traffic and bring bus services within a reasonable distance to all the residents consists of a double loop (figure eight) and the widening and grading of two additional north-south connection access feeders to the double loop. The finished surface will consist of portland cement concrete. This will follow the pattern presently favored over asphaltic surfaces. The street alignment will require that certain sections will be cut and fill, with structural retaining walls in fieldstone masonry and reinforced concrete. The total cost of the concrete roads and sidewalks is estimate at approximately 19 million dirham.

Approximately 270 households and may lose all or a portion of their existing dwelling, when the cadastral surveys have been completed and the new alignment for the proposed roads and street system has been determined.

b. Wastewater collection

1) existing situation

The tertiary sanitary drainage system consists of small diameter unreinforced concrete pipes, partially buried or incorporated in the narrow concrete sidewalks. This is due to the difficulty of excavating trenches in the hard rock. For the most part it is a semi-private system

maintained by the users or the property owners directly affected. The Municipality has a cooperative attitude towards this method of installation since ultimately it benefits the entire community - 60 to 70% of the tertiary system is in place - however due to the fact that a portion is above ground, it will be necessary to either bury them during the street construction or relocate them when the secondary system is being installed.

The secondary network of pipes consists of diameters between 40 and 80 cm. and have been partially constructed by the Municipality. These pipe diameters are not properly sized for the number of tertiary pipes connected to it. The proposed secondary system improvements will incorporate additional larger diameter reinforced concrete pipes which will be installed parallel to the existing ones in order to decongest the informal portion of the network.

The primary collector is partially in place. It is based on engineering surveys done in 1965 (see SOMATEC report). The collector is a large capacity ovoid reinforced concrete culvert which was constructed during the years 1980 to 1983. It follows the alignment of a ravine which drains the stormwater runoff from the mountain above Dersa. This ravine and several other ravines (thalwegs) such as the Khandaq Zarbouh are the dumping place for garbage.

2) proposed improvements

The proposed new drainage system as shown on the map will consist of seven secondary collectors of 80 to 100 cm in diameter. Two new primary collectors (large diameter ovoid shaped reinforced concrete) will be constructed in the alignment of the ravines. The result will be that the open drainage will be enclosed and the surrounding grade could be partially filled with rock excavation from the tertiary and secondary systems. The existing refuse piles could be used as fill and covered with composted materials and earth so as to create a clean open space. It still will require, to protect these depressions with storm water runoff retarding bassins, minor overflow structures and soil erosion devices, in order to decrease runoff velocities to less than 4 meters per second. The cost of the ovoid shaped culverts is estimated at 1.613 dirham per linear meter in place.

c. water supply

According to the Regie (RDE) as indicated in their yearly report about 60% of the dwellings are served by the system. A major portion of the distribution network is already in place. The RDE expects to continue installing additional pipes including a storage reservoir for the high service system above elevation 180 (NGM) with a capacity of 7000 m³. This high level system will also serve Samsa I and the future site and services Samsa II district.

d. electricity and street lighting

Street lighting is very sporadic, and will have to be entirely renewed with standard overhead sodium vapor lamps to be placed on the power poles or to be anchored to existing structures. A medium tension transmission line is scheduled to be replaced in the near future by the RDE. However, for the majority of the dwellings electric service is already provided and meters have been installed.

3. Proposed infrastructure characteristics for the sites and services component

This component of the Project includes approximately 130 hectares, located west of the Dersa - Samsa I and Z.A.C districts. The land surface is treeless, crisscrossed with dry gullies and rocky ravines. The terrain is undulating with several sloping terraces. The development of this zone will consist of the entire range of lot development served with streets, alleys, access roads, sidewalks, street lighting, drainage and sanitary sewer facilities, including potable water and electricity connections.

A detailed cadastral survey will be made which will serve to identify existing claims of property ownership, location of right-of-way for existing high tension power lines, existing slaughterhouse complex and stockpens, school, etc..

Primary, secondary and tertiary infrastructure will be installed by the project and their costs distributed to the various lots on a proportional manner based on the size of the lot and its intended use.

a. wastewater collection

The primary and secondary system will be designed based on detailed topographic data, and consists of one ovoid shaped large diameter collector identified as T210 to be built in place as a reinforced concrete structure, complete with clean out openings, retarding bassins, flow deflecting structures, and overflow weir in to the Oued Martil river and/or the future off-site primary collector to the proposed treatment plant. The primary T210 collector will gather both the sanitary sewage and the storm water runoff from the site including what comes down from the slopes above Samsa II. The secondary collectors consist of pipe diameters varying between 80 and 100 cm. The tertiary are 60 cm in diameter.

In addition to the ovoid reinforced concrete primary collector the Project will undertake surveys to ascertain if a separate drainage system would be feasible. This may be accomplished if the large ravine which forms the easterly boundary of Samsa II were to be controlled by means of many retarding basins, cascading stairways, stone and concrete revetment of the slopes, paving of the invert of the channels, planting the berms and slopes that are too steep to incorporate in the lot arrangements. It would be a first step in following the long range guide lines as mentioned in the Final Report of the Tetouan Master Plan.

b. roads

A preliminary layout as shown on the map in the Annex shows a network of loops meandering around the terrain features, following for the most part existing trails and roads. It is the path of least resistance method and may have some merit at first glance. Under the project implementation, several variations and schemes will have to be developed in order to optimize all the components of the project, i.e., lot and lot sizes, slopes, surface area of roads versus the developed lots, cost of primary and secondary infrastructure, etc..

c. water and electricity

At this moment, only basic criteria and cost estimates have been established based on preliminary outlines.

4. Housing

Housing in the upgrading area is predominantly owner-built. Approximately 53% of these "clandestine" housing units are built by qualified labor under the direction and management of the homeowner himself. In this case, the owner is responsible for supervision of the work, the purchase of building materials and the direct payment of the workers. His participation in the actual construction is generally limited to clean-up activities and the general preparation of walls and surfaces. These efforts by the owner can reduce construction costs by 15 to 30%. A slightly higher percentage of cost reduction (45%) can be obtained by owners who build their houses entirely on their own, but this must be weighed against the amount of individual time and effort it takes and a subsequent reduction in quality. Approximately equal proportions of the remaining 47% of the housing units were completely built by their owners or built by small scale construction companies.

The principal materials and methods of construction used in "clandestine" housing in Dersa are very similar to those employed in other low-income housing neighborhoods throughout the city. This includes stone foundations, reinforced concrete structures and baked brick walls (either hollow brick or solid) with interior and exterior plastering. Roof and wall slabs are made of thin reinforced concrete slabs laid over shallow brick vaults supported by steel I beams spaced at about 1.5 meter intervals. There is generally a minimum of carpentry work in the house which includes small window openings and some doors. Other interior finishings depend on the financial capabilities and priorities of the individual owners.

The build up area of an average sized "clandestine" housing unit in Dersa is between 75 and 80 m². Almost 93% of these units include standard squat toilets, while 88% have indoor kitchens and 28% have additional exterior courtyard space. Most units also have a stairway leading to the roof terrace or upper floors. Approximately 64% of the housing units in Dersa have upper floors with 17% having three or more floors.

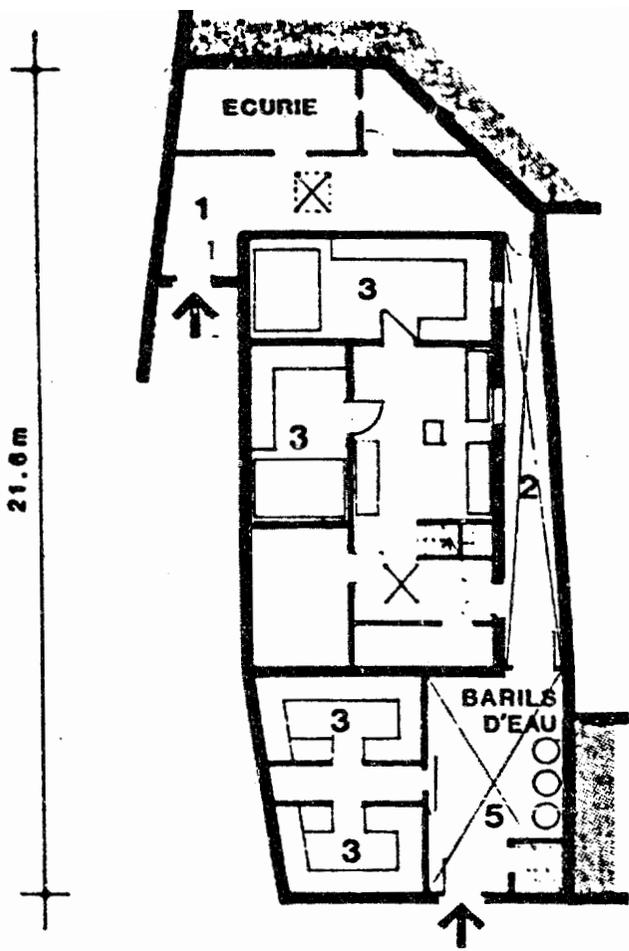
Figure indicates the floor plans of several typical clandestine housing units. House "C" for example is a recent construction of approximately 40 m² which includes three livable rooms of 16 m², 8 m². This smaller than average unit also has a rudimentary kitchen, toilet and hallway with no courtyard.

House "B" is a clandestine unit in Samsa which was built on a 30 m2 plot later expanded to 40 m2 when it was extended into the street. The unit has two floors built through four distinct phases of construction over a ten year period. The initial construction included a single room of about 10 m2 built at the end of the plot away from the road. During the second phase of construction a second room, kitchen and small entry hall were added. The third phase included the extension of the plot into the street and the addition of a small courtyard and stairway to the roof. A small room of 6 m2 was also built on the roof. The fourth phase of construction included the completion of the upper floor including two additional rooms of 12 and 4 m2.

House "D" is a unit of approximately 75 m2 which is close to the average sized house. The ground floor includes 3 livable rooms of 15, 14 and 6 m2, a large kitchen, storeroom, two entrances, stairway, toilet and central hallway. The upper floor which is used as a separate apartment has a similar arrangement of three livable rooms, kitchen and toilet.

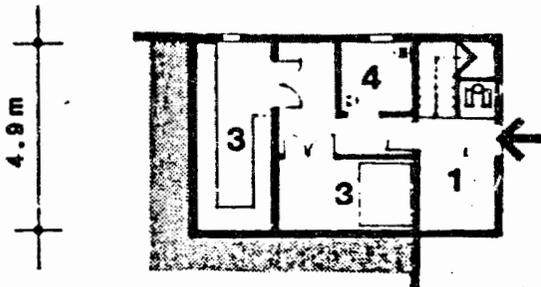
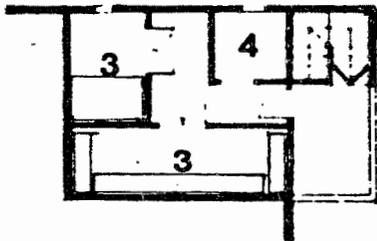
Surveys done for the Tetouan Master Plan indicate that the number of rooms per household in clandestine housing areas is 3.19. This is virtually identical to that of planned low-income housing area (3.25) and to the general average for all of the existing housing stock (3.23). The number of persons per room however, is somewhat higher in clandestine housing areas due to larger family size. Nevertheless three quarters of these housing units have less than 3 persons per room.

30 July 1985

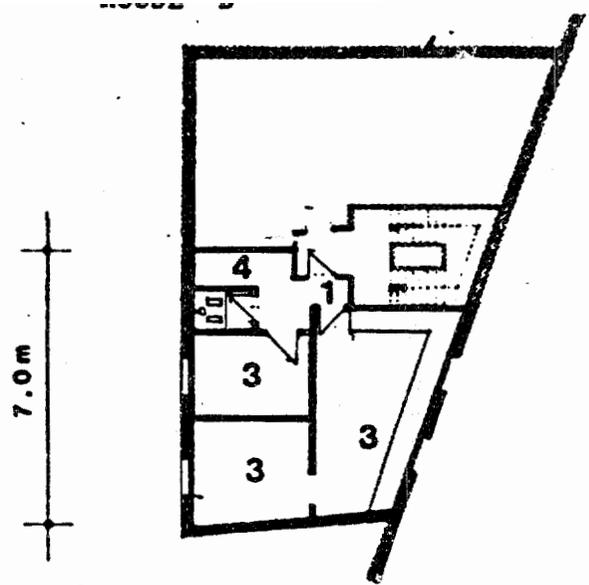


164 m²
R

HOUSE "C"

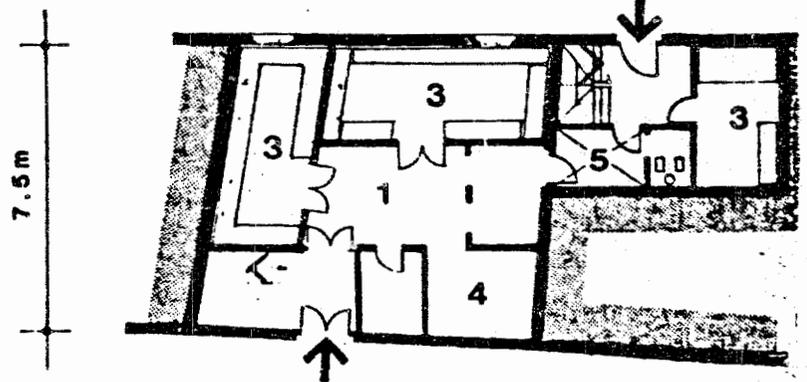
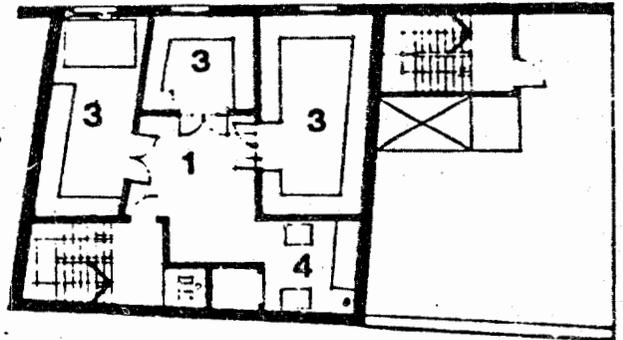


37 m²
R+1



37 m²
R+1

HOUSE "D"



75 m²
R+1

1. ENTRY 2. HALL 3. ROOM 4. KITCHEN 5. COUREYARD

ANNEX K

PARTICIPATING AGENCIES

The following is additional information on the agencies charged with various aspects of project administration.

A. THE NATIONAL AGENCY TO COMBAT SUBSTANDARD HOUSING (ANHI)

The creation of a National Agency to Combat Substandard Housing (ANHI) was one of the major institutional developments to be accomplished during the 1981-1985 Development Plan period..

ANHI was created in January 1984 and operates under an agreement signed with the Ministry of Finance and the Ministry of Housing in February 1984. Its Board of Directors is chaired by the Minister of Housing and includes representatives from the Ministry of Housing, the Ministry of Interior, the Ministry of Finance, the Ministry of Economy and Plan, the State Secretary for Economic Affairs Assigned to the Prime Minister, and the Fund for Community Infrastructure (FEC).

The creation of ANHI was a response to the need for a public instrument capable of undertaking the comprehensive development operations necessary to improve substandard housing and to provide serviced urban land in order to preempt the uncontrolled growth of bidonvilles and clandestine settlements. ANHI's statutes give it with the operational authority necessary to pursue these goals.

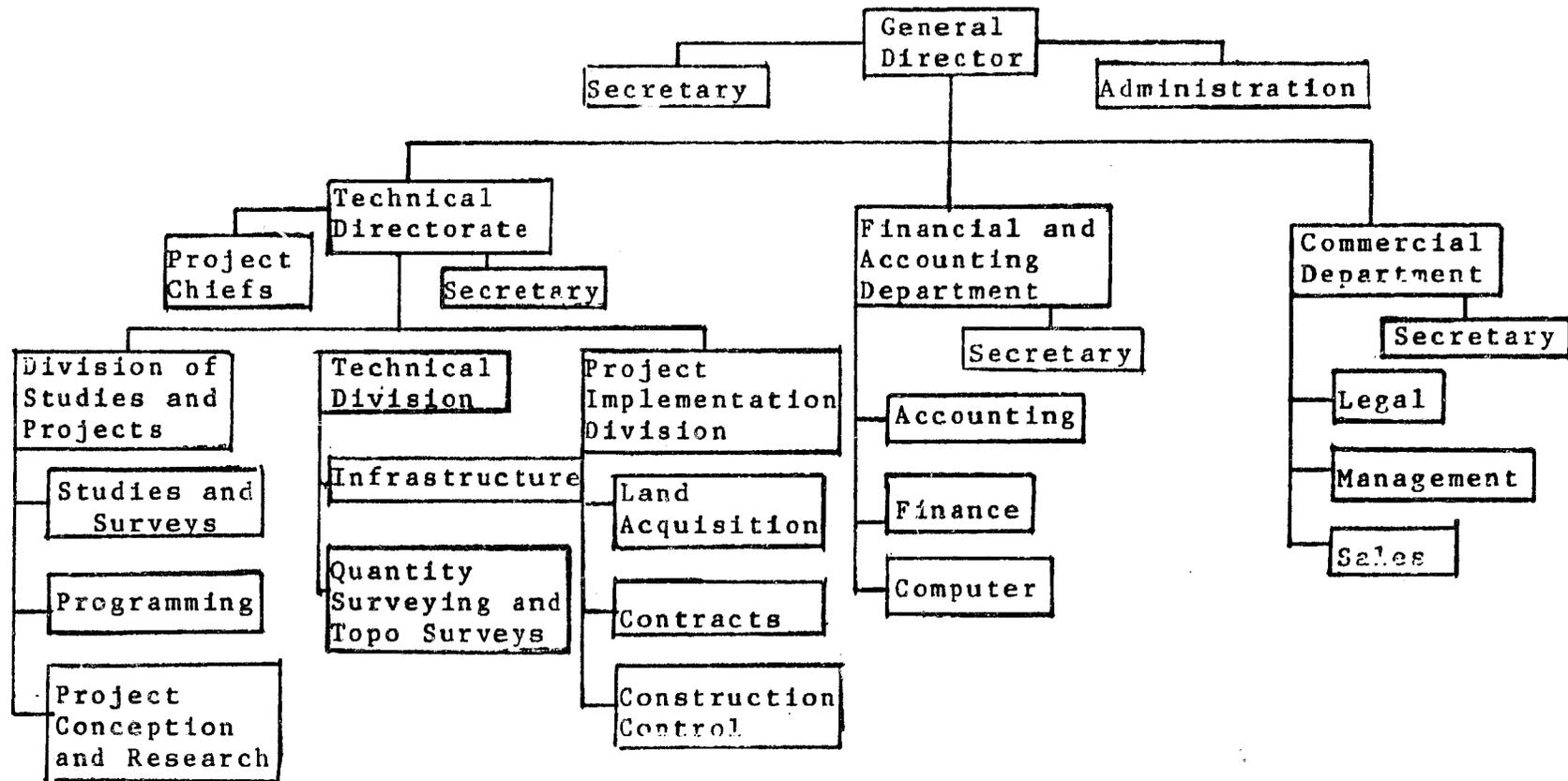
ANHI may buy, develop and sell land, to undertake required studies, to construct housing units for the rehousing of low-income populations when necessary, and to participate in the construction of related community facilities. Financing for these activities can come from budget sources, from the sale of plots and/or housing units, from the collection of downpayments from beneficiaries, from both internal and external loans authorized by the Ministry of Finance, and from cost recovery programs for commercial and apartment units.

During their last meeting, ANHI's Board of Directors re-affirmed the need to find additional sources of project funding, to encourage the timely financial participation of beneficiaries in meeting project costs, to continue the use of internal project cross-subsidies in favor of the lowest income group, and to maintain the financial flexibility of the ANHI.

Like all parastatal agencies in Morocco, ANHI is subject to Government financial controls and is required to give full accounting of its expenses and incomes to the Ministry of Finance. Each year it prepares an annual budget for Ministry of Finance approval which includes anticipated expenses and incomes for both operating and investment budgets.

All contracts, sales prices for housing units, etc. for each project are reviewed by a joint commission from the Ministries of Finance and Housing and ANHI. For accounting purposes, ANHI is required to open a separate account for each project.

FIGURE
 ORGANIZATION CHART FOR THE NATIONAL AGENCY TO COMBAT
 SUB-STANDARD HOUSING.



Projects undertaken by the agency must benefit inhabitants of bidonvilles or clandestine neighborhoods. Such projects include the upgrading of existing neighborhoods, sites and services projects, and construction of housing units for the relocation of displaced families. ANHI is also empowered to build and sell commercial areas at a profit in order to generate cross-subsidies for the low-income housing.

After 18 months of operation, ANHI has projects underway involving 10 bidonvilles in 9 cities. These projects include about 20,000 plots which will benefit approximately 27,300 people. They are distributed in the following way:

Casablanca	1050 plots
Rabat	2253 plots
Fes	2504 plots
Khouribga	1750 plots
Taza	3000 plots
Larache	3300 plots
Ben Slimane	807 plots
M.Bel Ksiri	643 plots
Temara	8400 plots

The total estimated cost of these operations is 370,000,000 dirhams (\$37 million). Total cost of the four projects now under actual construction is approximately 200,000,000 dirhams (\$20 million).

ANHI's agreement with the Ministry of Finance authorizes it to pay competitive salaries to its staff who are recruited to meet high professional standards .

All of the core staff architect/planners have extensive experience in upgrading and in the delivery of low-income shelter. They are generally recognized as being the most qualified professionals in Morocco in this respect. The financial director also has a higher degree in finance and management and has worked for eight years with the ERAC in Agadir.

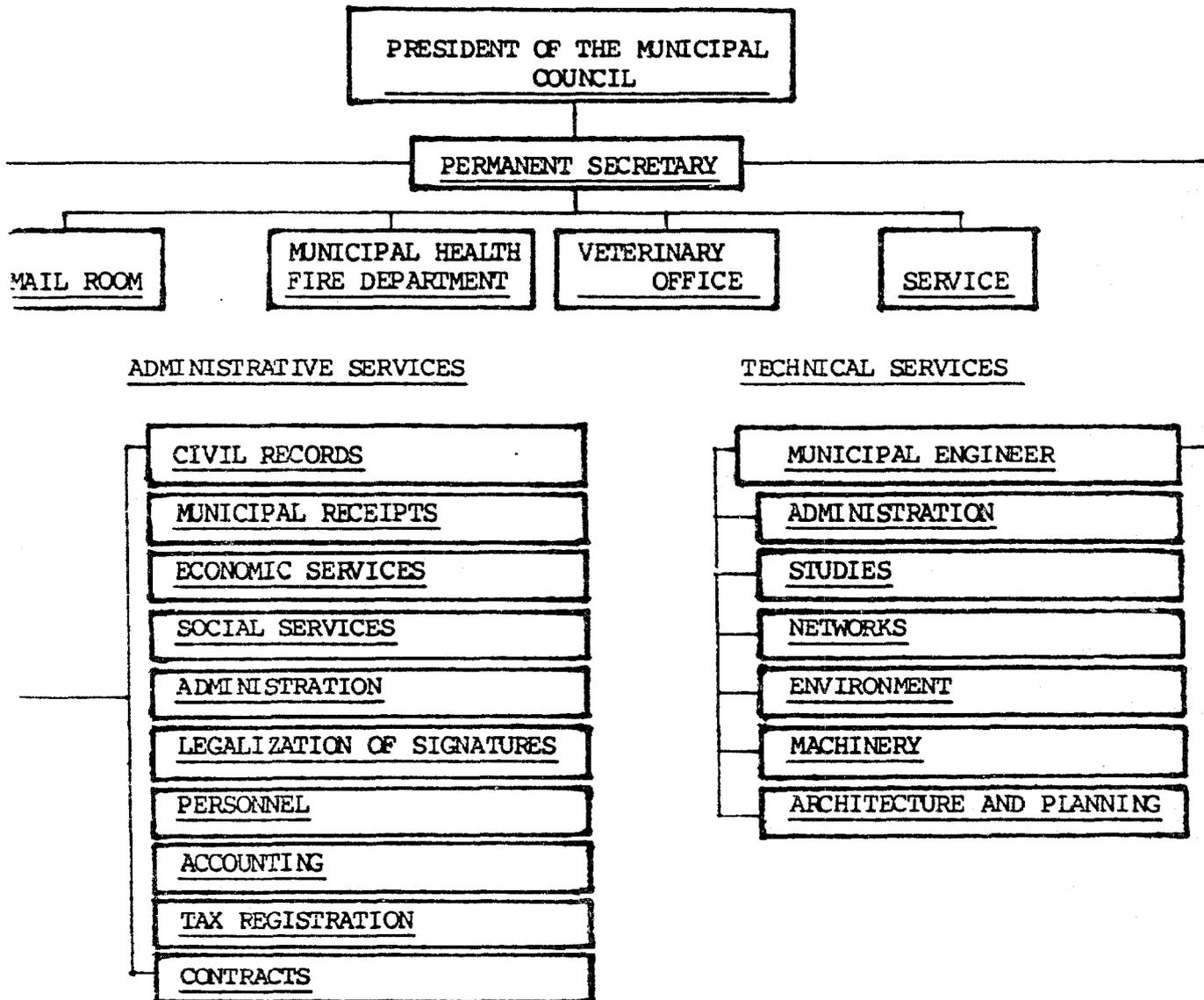
B. MUNICIPALITY OF TETOUAN

The Municipality of Tetouan was officially created in 1958. In 1978 it had 634 employees of which the majority were manual workers. At the present time the central office at the Municipality has approximately 110 employees which include professional and technical/clerical staff. The present organization chart of the Municipality is shown in the Figure VI-I. The Municipality is divided into two main divisions: Administrative and Technical Services. Of the two divisions, the Technical Services Division is more important to the project in terms of the number and types of professional staff it employs.

TECHNICAL SERVICES DIVISION:

The Municipality's Technical Services Division is headed by the Municipal Engineer. The division is charged with resolving all important technical problems faced by the Municipality, providing technical assistance and guidance to the Municipal Council and coordinating municipal services and activities with outside agencies. It is charged with programming, coordination and on-site control and supervision of all infrastructure works

FIGURE ORGANIZATION CHART OF
THE MUNICIPALITY OF TETOUAN



done in the name of the Municipality.

The division is divided into six sub-units or services:

Of these, the Administration and Accounting Service will be involved in the project through its Accounting and Contracts Office and Municipal Property Office, which manages municipal property, carries out expropriation, and handles land sales.

The Service for Studies and site works (Topographic Office) is responsible for topographic surveys and road alignments, and its Office of Studies handles documentation of tax calculations.

Road installation, management and maintenance and traffic management will be the responsibility of the Service for Networks, while its Office of Street lighting would install, manage and maintain the street lighting network.

The Service for the Environment has responsibility for sewer systems and wastewater and storm drain systems and will be a key participant in project activities.

Also important is the Service of Architecture and Planning, whose Office of Design and Construction issues building and occupancy permits and controls municipal construction, while the Office of Town Planning enforces zone development plans and reviews subdivision plans.

In addition to the Municipal Engineer who has overall responsibility for the Division and the Municipal Architect who is in charge of the services (networks) and environment) are also headed by qualified engineers. The present organization chart does not reflect the recent ministerial changes through which the town planning function of MHAT was transferred to the Ministry of Interior and will ultimately be in the service of the Municipality.

ADMINISTRATIVE SERVICES RELATED TO URBAN IMPROVEMENTS

Within the Administrative Division, the Accounting Service is responsible for the formulation of the budget, payments, purchasing, administrative taxes and fees, and accounting matters related to municipal property. The office has seven professional and technical employees.

The Service for Municipal Receipts is responsible for monitoring all municipal expenses and all payments made to the Municipality. The service also provides verification of tax payments to other municipal services prior to the issuance of building permits, licenses or official individual documents. The list of persons required to pay various taxes and the amounts to be paid is determined by the Tax Registration Service. The Service of Municipal Receipts has five administrators including the officially designated Receiver and a secretary.

The Tax Registration Service is responsible for the determination and application of various municipal taxes and the establishment of the

corresponding tax roles. It is responsible, for example, for determining the amount of road taxes and betterment taxes to be paid. It also controls all municipal fees and charges coming from the municipal slaughterhouse, bus stations and markets. The service has a central staff of three to four people and several employees working full time in the field. The operation of this service will be directly involved with the project and is very important for cost recovery. The service can recover taxes itself or send the lists to Municipal Receipts.

There are a few small scale public works projects in which the Municipality buys the materials and uses its own employees or the Promotion National to do the project. This system will probably be used for the tertiary infrastructure in the project.

C. WATER AND ELECTRICITY SUPPLY COMPANY (RDE)

The water and electricity supply company for the Tetouan province (RDE) was founded in 1970 and supplies water and electricity to the major cities in the Tetouan province including Larache, Ksar el Kebir and Tetouan itself. In 1984, the company had 615 employees in addition to a management staff of around 20 professionals. The organization of the company is based on two main divisions, one for water and other for electricity. These divisions are in turn broken down into services concerned with the extension and improvement of water and electricity networks, with the control and maintenance of existing networks, counters, reservoirs etc., and with the protection of electrical equipment.

Water for the old city of Tetouan originally came from Dersa mountain behind the city. Beginning in 1974, the RDE assumed responsibility for providing water to the entire city. During 1984, the RDE was able to install approximately 9.6 kilometers of new major water lines in Tetouan. At the end of 1984 annual domestic water use rose by 11 percent to 6.3 million cubic meters and the number of individual water connections had increased by 9.5% to 30,871. During 1984, the RDE connected an additional 14,070 housing units under its regular program of individual connections and 1861 connections under its program for connecting groups of houses in low income neighborhoods. Many of these connections were made in the Dersa and Samsa neighborhoods. Total capital investment for water supply in the city of Tetouan in 1984 was 18,600,000 dirhams. The Sites and Services and ZAC Components at the proposed project would require plus, minus 10,000 new water connections over a five year period which is well within the capacity of the RDE.

Electricity in Tetouan was originally supplied by two companies which included the COOPERATIVE ELECTRA HISPANO MARROQUI for the medina and SOCIETE ELECTRAS MARROQUIES for the new city. In 1978 and 1974 respectively, the RDE took over the two existing systems. In 1984, the RDE increased the number of regular connections by 676 and those for low income neighborhoods by 2466. Once again a large number of these connections were made in the Dersa-Samsa area. The rate of new electrical connections due to the project will not be excessive given RDE's present capacity.

In addition, the RDE of Tetouan has access to the large size computer

data banks of ONEP's main office in Casablanca on which it stores all its records. ONEP supplies RDE with standard forms and accounting procedures, as well as basic management guidelines. Local billings in Tetouan are made using the RDE's micro-computers and then transferred to ONEP's main computer for storage. Under special agreements with the government, the RDE can bill for items unrelated to water and electricity, such as the visiting television tax and could collect specific betterment taxes for the Municipality.

The RDE also has its own internal training program which focuses on the use of micro-computers in management techniques, the development of data banks and word processing. Selected members of RDE's staff periodically participate in training sessions conducted by the special school for utility companies in Casablanca.

The RDE could also be delegated maintenance and management responsibility of the sewerage system and treatment plant, and has indicated interest in taking it on. Management and maintenance of the plant would be paid for by billing clearly indicated on the water bill as being for sewerage treatment.

D. THE PROJECT STEERING COMMITTEE

As in other major upgrading projects in Morocco, a project Steering Committee will be established composed of the following members:

- the Governor of the Tetouan Province
- the Khalifa in charge of the Tetouan Municipality
- the President of the Municipal Council
- the Director of ANHI
- the Director of the FEC
- the Project Director

Delegates from other GOM agencies and representatives from the neighborhood will also be invited to participate in meetings of the steering committee when necessary.

The Chairman of the Steering Committee will be the Governor of the Province of Tetouan. The Committee will meet at least twice a year and at the discretion of the chairman throughout the course of the project.

An administrative Commission will also be established, headed by the Governor and assisted by the President of the Municipality. The purpose of this commission is to review and make rulings on disputed issues which may arise during the execution of the project. Disputed claims will be fully investigated and documented prior to review by this committee by a well qualified lawyer hired especially to assist the project. The resolution of any legal or disputed issues before they are taken to court will have a beneficial effect on the implementation of the project in helping to prevent unnecessary delays.

ANNEX L

TECHNICAL ASSISTANCE ANALYSIS

This project is the first example of a comprehensive approach in which the problem of clandestine housing is addressed at the municipal level. Because of the large size and scope of the proposed project, as well as its importance in addressing questions concerned with the development of clandestine housing, cost recovery, and municipal management and finance, direct technical assistance to the project will be required. The rationale for this type of technical assistance is twofold. First of all, given the size of the project and the responsibilities involved, the project will need additional and sustained assistance to succeed. Both USAID and the Moroccan Government have strong interests that it does so. Secondly, the potential impact of the project will be based on its results. Policy development in Morocco (and elsewhere) in the area of housing, finance and administration is most often based on what works.

Three types of technical assistance will be funded through a USAID grant. These include long term resident assistance, short-term workshops and training sessions, and specific training opportunities.

LONG-TERM TECHNICAL ASSISTANCE

Long-term technical assistance will be provided as direct support to the project and will be assigned to the ANHI. This approach is based on the idea that the successful implementation of the project will encourage the use of the techniques developed on other similar projects.

The one result will be a wide impact on policy issues. Better policies will therefore not only be based on theory but on actual proven results. The Tetouan project provides this opportunity.

The interagency composition of the project unit also means that any technical assistance supplied to it will have a wider base of impact which cuts across several agencies.

a. PROJECT MANAGEMENT SPECIALIST (30 PERSON MONTHS)

The participation of this professional in the project has a twofold goal: to assist the Project Director in making sure that the project is well managed and coordinated, and to see that the experience gained and lessons learned from the project are well documented and form a base of experience and knowledge which will facilitate the implementation of similar projects in other cities.

Specific activities will include:

- assisting the Project Director organizing and coordinating project start up and implementation,
- establishing management procedures compatible with the existing systems of the different agencies involved in the project and with HG requirements,
- preparing project monitoring and coordination guidelines,
- maintaining the reporting and project management tools required for the HG loan including the Project Implementation Plan, cash-flow planning and other items identified in the Implementation Agreement,
- assisting in the preparation of budgets, disbursement requests and supporting documentation to meet required deadlines,
- identifying opportunities for and programming short-term assistance to the project, workshop/seminars and training,
- producing reports for the Special Evaluations.

b. COST RECOVERY SPECIALIST (24 PERSON MONTHS)

This professional will participate in the joint efforts of the ANHI and the Municipality in regards to the recovery of project costs. Activities will focus on two major areas of concern: communication and contact with project beneficiaries, and municipal practices and management in recovering project costs.

Concerning contacts with beneficiaries, the specialist will work with Moroccan counterparts to:

- establish a rapid approach to identifying those families who potentially may have serious difficulties in meeting proposed cost recovery payments, prepare a list of these families (widows, handicapped, etc.) and help establish alternative cost recovery schedules for them,
- assist those families needing or requesting advice on planning their household budgets in light of cost recovery requirements,
- develop a public information and education system concerning project benefits and cost recovery obligations for the upgrading area and the ZAC,
- resolve issues related to the relocation of families displaced by upgrading activities, determine damages to be paid to them and the payments they will have to make for any new housing provided by the project,
- establish criteria for determining monies to be recovered from upgrading beneficiaries based on plot size, location or other factors and taking into account the impacts of cross-subsidies,
- establish recording and filing procedures for special payments or downpayments made to the Municipality.

Regarding work within the Municipality, the specialist will work with them to:

- establish written agreements with beneficiaries concerning their cost recovery obligations,
- develop procedures for assigning addresses to clandestine housing units and registering these families on the tax roles,
- assist in the application of the initial betterment tax (TPE), with verification possibly through aerial photographic interpretation,
- coordinate activities of different agencies involved in cost recovery,
- maintain up to date records of cost recovery performance and application of cross-subsidies,
- identify possible computer applications in monitoring cost recovery, tax imposition and municipal expenditures and budgeting, set up relevant programs for short-term technical assistance and training.

- review and identify weaknesses in tax collection, municipal finance, etc. which could benefit from further technical assistance,
- help produce Special Evaluation reports related to cost recovery issues.

c. UPGRADING SPECIALIST (20 PERSON MONTHS)

This professional will work with the ANHI and the Municipality. Through close collaboration on project activities, assistance will also be provided directly to the Municipality.

The efforts of the Upgrading Specialist will include the following:

- developing a workable approach and criteria related to inspecting existing clandestine housing units and issuing formal approval and/or advising residents how to bring their housing units up to safety and health standards,
- providing technical assistance to neighborhood residents in completing or upgrading tertiary infrastructure for pathways, stairs, storm water drainage and sewers,
- collaborating with the Municipality and residents to develop several test or pilot areas which will treat typical and/or most difficult physical conditions for the installation of tertiary infrastructure and serve as examples to residents,
- develop procedures and organization for maintenance of tertiary infrastructure,
- provide assistance to residents in housing construction and improvement,
- review and analyze building and site development regulations in light of project experience and make recommendations on their more realistic application to low income housing

2. WORKSHOPS AND SEMINARS

An important aspect of the proposed technical assistance is its ability to focus on important issues as they become evident during the implementation of the project. This will be accomplished partially through the Special Evaluations and partially through a series of short term technical assistance and training workshops to be defined and carried out within the framework of the project. Areas of consideration can include for example: house registration and tax collection methods, municipal management and budgeting, training and use of microcomputers, organization of municipal services, infrastructure maintenance, sewage treatment, etc.

The workshop/seminar sessions will be organized in the following manner. Approximately three weeks in-country will be devoted to each workshop. Activities will focus on a seminar/training session to review current theory and experience related to the issue under consideration, confrontation of these theories with the Moroccan situation, their adaptation, and the development of joint recommendations on the most suitable approaches to be applied and tested. A follow-up seminar/workshop can also be conducted several months later to evaluate the effectiveness of the recommendations and make additional changes or refinements. The seminar/workshops would be open to participation of Moroccan professionals and government officials from the National and other local levels. They would help publicize the activities and results of the project and encourage reflection on important issues and potential policy developments.

SPECIALIZED TRAINING

The third element of the technical assistance package concerns the specialized training of project participants and particularly municipal staff. Although specific training activities and needs can only be identified and developed in collaboration with the Municipality during the course of the project, a preliminary list of potential areas to be addressed through training would include waste water management, computerized financial management for local governments, and application of tax collection methods and controls.

The training activities envisaged here will primarily include hands-on experience of a very practical nature which will occur over a training period of three to four months. Because this training will be application oriented, its full value will be realized only if the Municipality has agreed to install the policy and management changes which are required to form the base for its effective application.