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**Project Assistance Completion Report
Tetouan Urban Development Program**

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FOREWORD

The Tetouan Housing Guaranty Project (608-HG-001) and the Tetouan Technical Assistance and Training Project (608-0194) are interrelated activities with shared goals and purposes that together comprise the Tetouan Urban Development Program. Each builds on and shares the results of the other. This Project Assistance Completion Report documents AID's assistance on the two projects.

This report was prepared by David Leibson, consultant to USAID/Morocco through the International City/County Management Association (ICMA). It relies heavily on an ICMA review of USAID's Shelter Sector Activities completed in June 1992 and detailed Project Descriptions completed by consultant, Bettina Brunner in January 1996.

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Project Assistance Completion Report

TETOUAN URBAN DEVELOPMENT PROGRAM

I. Summary

The Tetouan Urban Development Program was designed to improve a poorly serviced clandestine neighborhood that is home to more than 90,000 of the City's poor and to develop a comprehensive model for the management and finance of slum upgrading in Morocco.

AID provided loan guaranties totaling \$17,500,000 to help finance capital investments (Project no. 608-HG-001) and funded grants totaling \$5,264,000 to help strengthen the capacity of implementing institutions (Project no. 608-0194).

By the end of 1995, roads, drainage, street lighting, water, sewerage and other improvements had been completed on about 174 hectares (430 acres) in the Dersa and Samsa neighborhoods with more than 11,000 low income households. Infrastructure was also complete on a nearby 60 hectares (148 acres) with 1,900 serviced sites for new homes, schools and public services. Profits on sales of the new sites are helping cross-subsidize improvements in the older areas. Capital investments total about \$25 million or less than \$2,000 per household, dramatically less than the investment that would have been required to clear the neighborhoods and replace them with new housing.

Prior to the program, the neighborhoods had no sewers, safe sources of potable water, public lighting or even streets - only small alleyways. Residents had no sure tenure, and little access to public services because of their physical isolation. Physical conditions in the neighborhood, built on steep hills overlooking the central city, were very poor. During the rainy season, untreated sewage bubbled up out of homemade septic systems, causing frequent seasonal outbreaks of waterborne diseases such as cholera. Erosion of the hillsides, due to lack of grading, caused serious flooding problems for the city as a whole. Since improvement, regional medical authorities note significant decreases in the incidence of communicable water related diseases and consultations for diarrhea have been cut in half.

The neighborhoods were considered "clandestine" because houses were built on land to which the residents have no legal title. By the end of 1995, about 30% of the households (85% of whom were below median income) had secured title to their property and more than 70% had invested in rehabilitation and repairs; 10% had added a rental unit and 5% had created a shop on the ground floor. A 1992 evaluation found that the average household investment was 17,000 dh (\$2,000) and that there had been a 20-40% increase in household income.

The Municipality of Tetouan had overall responsibility for implementation of the Program; the Fonds d'Équipement Communal (FEC) acted as financial intermediary and the Agence Nationale de Lutte Contre l'Habitat Insalubre (ANHI) provided project management. A number of national and local authorities, neighborhood representatives, the Régie de Distribution d'Eau et d'Électricité (RDE), private engineering firms, contractors, U.S. and Moroccan consultants and the City of Raleigh, North Carolina all played key roles.

The Tetouan program demonstrated that living condition in large clandestine settlements, even on difficult sites, can be improved at significantly less cost to the government and greater benefit to low income residents than construction of new housing. While the Project proved more complex and took about five years longer than anticipated, it showed that the key to the model is continuing political commitment and cooperation between a large number of players and stakeholders. It demonstrated too that local government can take the lead in this collaborative relationship.

For AID, it's important to understand the Tetouan Urban Development Project in the context of the broad accomplishments of subsequent programs with the FEC, ANHI and other municipalities around the country. Tetouan was the beginning and the foundation of what has been a strong partnership.

II. Program Description

A. Goal and Purposes

The loan guarantee component (608-HG-001) and the technical assistance and training component (608-0194) of the Tetouan Urban Development Program share the same goal and related purposes.

goal: improve shelter conditions of low income families in Morocco

- purposes:
- a) upgrade a clandestine settlement and prevent its spread in a major Moroccan secondary city (608-HG-001),
 - b) develop a model for a comprehensive approach to urban development and shelter finance for low income families (608-HG-001), and
 - c) strengthen institutional capacities of Government agencies implementing the Tetouan Urban Development Program and other similar projects (608-0194).

AID's loan guarantees allowed access to U.S. capital markets for financing of infrastructure investments while technical assistance helped build and strengthen implementing institutions. Both supported national and local government policies that:

- addressed the proliferation of clandestine settlements,
- increased the availability of affordable shelter for low income families,
- improved critical environmental services in major urban centers,
- built an institutional structure capable of implementing similar projects,
- strengthened local government's ability to deliver cost effective services, and
- strengthened shelter sector financial intermediaries and capital market initiatives.

B. The Upgrading Concept

Upgrading programs start from the premise that clandestine settlements, though unplanned, unserved, often poor and illegal, nevertheless represent substantial built investment. Even when the site is difficult, as it is in Tetouan, costs of improvements are generally less than the costs of clearing and construction of new housing. Social disruption and dislocation of neighborhood employment is minimized. Costs can be at least partially recovered from beneficiaries who have an interest in legalized tenure and homeowners tend to invest in home improvements once they have security and see improvement of services.

Upgrading programs though are challenging and usually take longer than expected. They require cooperation between a number of different agencies on complex financial, legal and

technical problems. They require local leadership, political will and, in the beginning, substantial financial and technical assistance.

C. Program Components

1. Loan Guarantee Assistance (608-HG-001)

AID provided guarantees that enabled the Government of Morocco, on behalf of the Fonds d'Équipement Communal (FEC), to contract in U.S. capital markets for loans to finance infrastructure improvements.

Thirty year loans with a ten year grace on repayment of principal were structured with an AID guarantee to lenders and a Government of Morocco host-country guarantee to AID. Lenders were selected by the FEC and representatives of the Government from bids based on interest rate and other terms submitted at auction. Loans were disbursed in dollars to a special account with the General Treasury of the Government and credited in local currency to the FEC which it then on-lent through a subsidiary agreement to the Municipality of Tetouan.

The Municipality invested proceeds of the loans in a comprehensive development program that included:

- Upgrading the Dersa and Samsa I neighborhoods with improvements in water supply, sewers, roads, drainage, street lighting, utility connections, registry of land titles to legalize tenure and construction of low income housing units to replace structures that had to be demolished to improve access; and
- Land development and serviced sites sold for new low-income home building including some more valuable plots suitable for larger villas, apartments and commercial construction sold at a profit to generate cross-subsidies.
- A "Zone d'Aménagement Concerté" (ZAC) - a public-private development partnership to stimulate investment and further generate cross-subsidies; and
- Off-site infrastructure including construction of a municipal sewerage collection and treatment system with collectors, lift stations, outfalls and a treatment plant benefitting the whole city.

The Municipality used loan resources primarily for upgrading and serviced sites and, in the end, used its own resources for the ZAC and off-site infrastructure components. Technical assistance was an important part of all four components.

2. Technical Assistance and Training (608-0194)

USAID/Morocco provided assistance from U.S. and Moroccan experts through contracts with local and American firms. Training included seminars and workshops in Morocco, the U.S., France Tunisia and Egypt.

Key components in assistance to the Municipality and to the FEC were:

- Short-term expatriate technical assistance including consultants and seminars on project management and monitoring, financial management, cost recovery, revenue generation, community services and selected technical topics;
- Training in land registry and titling, municipal finance, project appraisal and the design and operation of sewerage treatment systems;
- Microcomputer equipment, software and training in management information systems (MIS) and geographic information systems (GIS);
- Environmental planning including an environmental assessment and studies for a Sewerage Master Plan.

Locally hired personal service contract (PSC) advisors managed the assistance and played an important role in coordinating the Program.

D. Partners

1. Government of Morocco

The Ministry of Finance had oversight of financial arrangements and represented the Government on host country guarantee agreements with AID, loan agreements with U.S. lenders and on-lending agreements with the FEC. The Ministry of Interior was responsible for oversight of administrative arrangements and represented the Government on technical assistance agreements.

2. Fonds d'Équipement Communal (FEC)

The FEC, a fund which provides medium and long term financing to local governments and utility agencies, received local currency proceeds from the Housing Guarantee Loan, on-lent them to the Municipality of Tetouan and financed part of the infrastructure with its own resources. The FEC was originally created in 1959 as a subsidiary of the Caisse de Dépôt et de Gestion (CDG) which operates under the Ministry of Finance. When the FEC was restructured in 1992, AID assistance helped it redefine its role and move toward eventual establishment as a municipal bank.

3. Municipality of Tetouan

The Municipality had overall responsibility for the Project including capital investment, cost recovery and maintenance of improvements. This included borrowing to finance needed investments, planning and management of the Project from conception to completion, procurement for design and construction, registry of lots and establishment of legal tenure, collection from beneficiaries and repayment of loans. As the Municipality did not have the capacity for this wide range of functions, arrangements were made with ANHI for management of studies and construction, while AID provided computers and extensive training in financial management, public works management, systems operations and environmental services. AID also provided assistance with development of a Sewerage Master Plan.

4. Régie de Distribution d'Eau et d'Électricité (RDE)

The Régie, Tetouan's utility authority, provides water and electricity and was to have worked closely with the Municipality on the Project though technical and financial disagreements eventually led to disengagement. AID did provide computers, software and training on customer accounts, inventory and personnel.

5. Agence Nationale de Lutte Contre l'Habitat Insalubre (ANHI)

The ANHI was created in 1984 by the Ministry of Finance and the Ministry of Housing to combat unhealthy housing and quickly gained a reputation for sound project management, land development and sale of serviced sites where low income families could build affordable homes. With this expertise, ANHI was contracted as the Municipality's agent for planning, coordination and technical management. AID provided computers and technical assistance.

6. Other Agencies That Played A Role

The Direction Générale des Collectivités Locales (DGCL), in the Ministry of the Interior, coordinates with local governments to assure that they are consistent with national policy and played a role in disseminating information about the Tetouan project to other municipalities. The Direction de la Conservation Foncière et des Travaux Topographiques (DCFTT), in the Ministry of Agriculture, is responsible for surveys and land titling. The Service des Collectivités Locales de la Trésorerie Générale (SCL/TS), in the Ministry of Finance, monitors and provides support for local governments in budgeting, accounting and tax collection. The Centre d'Etudes de Recherches en l'Aménagement et l'Urbanisme (CERAU), affiliated with the Ministry of the Interior, supports study of regional and urban development and worked with the Municipality in helping build a geographic information system (GIS) for the Project.

7. Consultants

The Research Triangle Institute (RTI) was responsible for municipal management and management information systems (MIS) which it undertook in collaboration with Techniques

Urbain Maroc (TUM), a local consulting company. Bryler, an engineering firm, formed the American-Moroccan consortium Bryler-Iskane Sheladia for environmental studies and the Sewerage Master Plan for Tetouan. The International City/County Management Association (ICMA) assisted with needs assessments and facilitated a "twinning" relationship with the City of Raleigh, North Carolina which provided expertise in public works and waste management. The Environmental Services Research Institute (ESRI) supported development of geographic information systems (GIS). Other short term contracts included the Planning and Development Collaborative (PADCO) for planning of the Zone d'Aménagement Concerté, Louis Berger International and Price Waterhouse for assistance to the FEC and local firms such as Dynamic computers for hardware installation.

III. Program Implementation

A. Time Line

1. Background

Morocco's urban areas have experienced such rapid growth that the formal housing sector has been unable to meet the housing needs of low-income families. Two types of settlements arose on the periphery of cities: bidonvilles and clandestine housing. Bidonvilles are usually unserviced neighborhoods of extremely rudimentary shelter, while clandestine housing is unserviced shelter with more substantial building materials that lack land ownership and municipal authorization. Under the Protectorate and until quite recently, housing assistance activities in Morocco focused on reallocation of bidonville inhabitants to other areas of cities.

Changes in this policy began in the late 1970's with the realization that the Government could not subsidize all bidonvilles or hope to relocate inhabitants into more substantial dwellings, particularly in the face of budgetary constraints. At the same time, clandestine or informal housing in Morocco skyrocketed, with little possibility for revenue generation since these dwellings are not formally registered. Since the early 1980's, the Government has identified regularization of clandestine housing as its top priority.

AID's Housing Guaranty Loan Program in Morocco was designed in 1979 as a long term effort to help the Government, local authorities and the private sector grapple with the growing problems of bidonvilles, unserviced clandestine settlements and the need for affordable housing. A staged strategy was developed that included assistance with improvement of a large settlement to demonstrate upgrading as an alternative to clearance (HG-001); smaller improvement and low income housing projects around the country to build capacity and relieve pressure on the larger settlements (HG-002); serviced sites and planned neighborhoods where families could afford to build new homes of their own (HG-002); and policy, financial and institutional development to assure sustainability (HG-004).

2. Antecedents to the Tetouan Upgrading Program

Not surprisingly, improvement of existing neighborhoods proved more complicated than any of the other Projects. HG-001 was originally intended to finance upgrading in the Ben M'sik neighborhood of Casablanca. AID funded a U.S.-Moroccan team that worked with local authorities for several years on engineering, legal, organizational and financial plans to improve this particularly difficult bidonville - a poor cramped slum built almost entirely of tin. Then in 1981, when disturbances erupted in Casablanca, the Government decided it could not go forward with the Project as planned. AID and the Government agreed though to move ahead instead with less problematic efforts on smaller projects (HG-002).

The Municipality of Tetouan had been aggressively pursuing better housing and development of the Dersa area for some time. As HG-002 began to advance, discussions moved forward on revising the HG-001 program around upgrading of the Dersa-Samsa clandestine settlement in Tetouan.

3. Planning

Preliminary plans and feasibility analyses were developed in the period 1981-1985. AID's Regional Housing and Urban Development Office (RHUDO) in Tunis and USAID/Rabat provided some assistance. ANHI and the Municipality did most of the studies. The Housing Guarantee Loan Project Paper (608-HG-001) was completed in 1985 and an amendment providing for Training and Technical Assistance was authorized in 1986.

In 1986 and 1987, ANHI contracted for detail planning including socio-economic surveys, topographic surveys, geotechnical studies, land use and architectural plans. At the same time, each of the partners finalized negotiation of their commitments to the Project and with each other. Program Agreements between AID and the Government were signed in 1987 as were Agreements between ANHI and the Municipality. The FEC completed financing agreements with the Municipality and the Régie in 1989.

4. Program Implementation

The first work to actually get underway, beginning in 1988, was construction of 200 dwelling units for families that had to be relocated. Those units were largely completed by 1990 and work on infrastructure in the upgrading and sites and services areas began in 1991. Roads, storm and waste water collectors, lighting, electricity, water and other works were largely, though not entirely, completed by 1992-1993. Work on the ZAC and off-site infrastructure started later and is still underway, though not now financed under the program with AID.

Technical assistance and training paralleled progress on construction. Assistance during this time included further studies, geographic and management information systems and support to strengthen participating institutions as well as assistance with project management. In 1991-1992 environmental studies, development of a Sewerage Master Plan got underway and a

“twinning” relationship with the City of Raleigh on public works and waste management were all launched. The program was evaluated in 1992 and had made substantial progress toward its objectives.

The program had benefitted from six years of political leadership committed to the Program. In 1992 a new mayor and city officials were elected. Also that year, the Government restructured the Municipality of Tetouan with the creation of two separate “Communes” under a third over-arching jurisdiction, the “Tetouan Urban Community”. In the distribution of responsibilities and financial authorities, roles had to be worked out between the Al Azhar Commune which assumed the Tetouan Project and the Tetouan Urban Community which retained responsibility for sewerage. The three jurisdictions also went through substantial changes in administrative procedures and reassignment of staff.

It has been estimated that restructuring of the Municipality caused delays of at least two years in Project implementation. ANHI assistance provided continuity during a confusing period of adjustment. AID’s Project Assistance Completion Date (PACD) was eventually extended to June 30, 1996, by which time all Housing Guarantee Loan financed and Technical Assistance Project funded activities were complete.

B. Anticipated and Actual Inputs

1. Loan Financing

The Program design anticipated AID loan guarantees of up to \$25 million. The Government drew down a total of \$17.5 million. The first loan was contracted with Lazard Freres & Co. in March 1990 for \$8.5 million with a 9.28% interest rate, a thirty year term and a 10 year grace period on payment of interest. The second loan was contracted with First National Bank of Chicago in May 1993 for \$9.0 million with a 7.29% interest rate, also thirty years with a ten year grace. The FEC was the Borrower of Record on both loans and Riggs National Bank of Washington, DC the paying and transfer agent.

Dollar proceeds of the loans were transferred to a Special Account with the Trésorie Générale and local currency equivalents were transferred to the FEC. Loans from the FEC to the Municipality carry a 15 year term with a 1½ % spread on the interest rate and repayment beginning in two years. To facilitate the transfer of funds between the FEC and the Municipality and to better control Project expenses, a Special Project Account was created at the Municipality. The FEC disbursed loan funds directly to the account and the Municipality’s payments to contractors are made directly from the account, thus avoiding transit and co-mingling in the Central Budget.

The FEC disbursed a total of 146 million dh (\$17.5 million) to the Special Project Account. Expenditures from the account through the end of 1995 totaled 208 million dh (\$24.5 million). See tables for a summary of expenditures on capital investments as of the end of 1995.

Drawdown of the \$7.5 million balance in AID's authorization for loan guarantees could have been justified on the basis of total expenditures and used to finance off-site sewerage, but the Ministry of Interior, the FEC and the restructured Commune were unable to agree on any further Housing Guarantee Loan borrowings for the Tetouan Project. AID de-authorized the remaining balance in 1996.

It's not clear if the lack of an agreement to draw down the balance related to the changes in the city's political leadership and administrative structure in 1992 or to uncertainty about capacity to service additional debt. After restructuring, the Al Azhar Commune had less than one third the revenues of the former Municipality of Tetouan and in 1994 was not able to make loan payments due the FEC. Cost recovery on the Project has been slower than anticipated though revenues had totaled \$10 million by the end of 1995 (see subsequent sections).

See tables for a summary of flows into and from the Special Project Account including disbursements by the FEC, Project expenses and revenues as of the end of 1995.

2. Grant Funding

Four supplements to the Tetouan Urban Development Project Paper extended the life of the project and increased funding available as follows:

FY 1986	800,000
FY 1989	1,000,000
FY 1990	1,764,000
FY 1992	1,700,000
total	\$5,264,000

Contracts and other commitments totaled as follows:

technical assistance	2,244,000
training	314,000
commodities	1,151,000
sewerage planning	1,054,000
PSC project managers	408,000
contingencies	16,000
Total	\$5,188,000
not committed	76,000
authorized	\$5,264,000

At the end of 1996, all but \$325,000 of the funding committed had been disbursed. This included, primarily, disbursement against procurement of waste management equipment. Unliquidated obligations with the \$76,000 that was not committed totaled \$401,000.

See tables for summaries of expenditures and Project financial status as of 12/17/96.

C. Anticipated and Actual Outputs

1. Loan Financed Infrastructure and Improvements

Neighborhood upgrading and provision of serviced sites for homebuilding which were at the center of the Project were completed largely as planned. Introduction of concepts for public-private development in the Zone d'Amenagement Concerté (ZAC) proved less successful and off-site infrastructure proved dependent on a waste water treatment plant that was beyond the scope and resources available to the Project.

See tables for summaries of anticipated and actual outputs.

Each of the Project components was detailed in the Project Description completed by USAID/Morocco consultant, Bettina Brunner, in January 1996. Abstracts follow:

a. Upgrading

By the end of 1995, roads, drainage, street lighting, water, sewerage and other improvements had been completed on about 174 hectares (430 acres) in the Dersa and Samsa neighborhoods with more than 11,000 low income households. Some work still remained in a few areas. Only 127 families had to be relocated, less than half the original estimate, allowing sale of 73 of the 200 new homes that had been built to re-house them.

About 30% of the households had secured title to their property. This percentage, while encouraging, is well short of target and contributes to slower than anticipated cost recovery. Residents are reluctant to make payment on land for which they can not yet claim full ownership and problems remain in clearing title of some of the underlying land parcels in the Project area. Payment for utility connections is also low and the political will to enforce cost recovery with low income constituents may be thin.

b. Serviced Sites

The size of the area was reduced by about a half to 1900 sites on 60 hectares (148 acres). Work was slowed until a problem with water supply was resolved and at the end of 1995 was nearly complete. Though not all sites had been sold and not all buyers were current on payments, receipts were nearly twice the total of expenditures, producing a healthy cross-

subsidy to off-set infrastructure costs in the upgrading area. The development includes provision for schools and public services.

c. Zone d'Aménagement Concerté (ZAC)

Infrastructure work in the Zone d'Aménagement Concerté (ZAC) began in 1991. This effort at public-private partnership is not being financed with loan guarantee resources and work has been proceeding slowly. The concept is new, lacks enabling legislation and private sector interest in financing is low. The component was expected to provide cross-subsidy support and without further progress Project cost recovery will be reduced.

d. Off-Site Infrastructure

Though connection of on-site sewerage collectors to existing outfalls has been completed, off-site work, which has not been financed with loan guarantee resources, has been slow. Environmental assessments and a Sewerage Master Plan for the city has been funded by AID as a part of the technical assistance in the Project. Key to the plan is a treatment plant to process effluent before it flows into the river, Oued Martil.

2. Grant Funded Technical Assistance

The Project produced a broad range of workshops, analyses, systems and tools for the complex legal, financial, administrative and technical agenda of the ten different agencies and institutions that were responsible for the Tetouan Urban Development Project.

Anticipated outputs were defined in the Project Paper as:

- explicit management structures, reporting and project oriented procedures;
- improved staff skills in project planning, management and financial analysis;
- Operating computer systems for project planning, financial and technical analysis.

Assistance provided was detailed in the Project Description completed by USAID/Morocco consultant, Bettina Brunner, in January 1996. Abstracts follow:

a. Assistance to the FEC

Assistance to the FEC began in 1988 with two studies examining the feasibility of creating a municipal development bank undertaken by Trans-Atlantic Consulting Services. A technical assistance program to reorganize and improve operating efficiency began with Louis Berger in 1991. By 1993, Berger had completed recommendations and a draft operational procedures manual. Assistance also included procurement and installation of computers, software and a management information system.

After the FEC was restructured in 1992, assistance was put on hold pending recruitment of new staff. Then in 1995, Price Waterhouse was engaged at the request of the new Director for

a reorganization study. AID presently continues to provide assistance through USAID project 608-0221 and the FEC is participating in the HG-004 loan program for the finance of environmental infrastructure in municipalities around the country.

b. Assistance to the Municipality of Tetouan

In 1990, a comprehensive technical assistance and training program with the Municipality was launched. The Research Triangle Institute (RTI) won the three year contract and activities began in September of that year. ANHI, as the Municipality's agent for implementation of the Project, was involved in all of the assistance activities and shared in the benefits from them.

management systems: RTI helped the Municipality on organization and steps to optimize resources and improve effectiveness, investigated management performance measures and supported key steps in national and local policies. RTI's work on analysis and reorganization of municipal structures proved most useful when the Municipality was restructured and two new Communes created.

cost recovery: RTI developed customized software and systems to track cost recovery and manage beneficiary files, though these have not been maintained. They also developed systems for the municipal revenue service, though this was interrupted after key staff were divided between the two new Communes when the Municipality was restructured.

property taxes: RTI was engaged to produce operational software for managing local property taxes though this proved not feasible in part because tax records are controlled at the central level and municipal tax collectors were not able to identify and collect arrearages.

c. Assistance with Geographic Information Systems (GIS)

A Geographic Information Systems (GIS) integrates computers, software and data collection to capture, store, update, manipulate, analyze and display complex sets of information based on geographic references. Microcomputer systems were installed in the Municipality and the National Urban Planning Research Center (CERAU) helped build a GIS system to facilitate planning and management of the Tetouan Urban Development Project. Database layers automated in the pilot system included: water pressure zones, water basins, administrative areas, voting districts, census boundaries, zoning, electricity and water networks, sewers, drainage and land parcels. CERAU was also furnished with GIS equipment for its facilities in lieu of payment for its assistance in building the system and on-going technical support

A second system was purchased for the environmental department of the Municipality to support development of the Sewerage Master Plan. A large database was collected on the climatology, topography, geography, hydrology, biology, socio-economics and demography of Tetouan. The system is now housed in a GIS department, though maintaining the database requires on-going resources and co-operation with other departments and agencies.

d. Environmental Assistance

An AID/Washington funded study of the "Impact of Urbanization on Natural Resources" highlighted the level of deterioration of the Tetouan coastal zone, in particular the pollution of the Martil River and contamination of groundwater aquifers.

sewerage master plan: Bryler-Iskane-Sheladia, a U.S./Moroccan engineering consortium was contracted in 1990-1991 with USAID funding of the foreign exchange component and funding by the Municipality of the local currency component. The Master Plan completed for the city includes: a diagnostic of existing sewage treatment, treatment options, analysis and recommendations, detail plans, a project summary, institutional analysis and cost recovery.

solid waste management: In 1991, the International City/County Management Association (ICMA) completed a solid waste management service study to help in development of a privatization plan for solid waste collection and disposal. Two further studies were completed by RTI and a large conference in Rabat in 1992 brought officials from around Morocco together for the first time to discuss solid waste issues. Development of a landfill in Tetouan though was shelved by outcries from residents.

twinning program with the City of Raleigh: In 1991, the Public Works Director of the City of Raleigh, North Carolina completed a public works assessment and organizational recommendations for the Municipality of Tetouan. In response, the Municipality created an Environmental Services Department, a first for Morocco. In the following year, the two cities signed an Agreement of International Cooperation that provides for exchanges and assistance to the Municipality on both solid and liquid waste management from a U.S. city of about the same size with a nationally recognized state of the art environment program. Technical assistance from Raleigh's staff experts was funded through a buy-in to an AID/Washington project with the ICMA.

The City of Raleigh was also responsible for procurement for Tetouan of equipment funded through the Project for water quality monitoring and sewerage system maintenance. This was slowed by differences in USAID's and Raleigh's procurement procedures, but equipment purchased included: a sewer jet vacuum truck, sewer jet trailers, supporting equipment, trucks and a water quality laboratory.

IV. Program Results

A. Accomplishment of Purposes

purpose - upgrade a clandestine settlement: Prior to the program, the neighborhoods had no sewers, safe sources of potable water, public lighting or even streets - only small alleyways. Residents had no sure tenure, and little access to public services because of their physical isolation. Physical conditions in the neighborhood, built on steep hills overlooking the central

city, were very poor. During the rainy season, untreated sewage bubbled up out of homemade septic systems, causing frequent seasonal outbreaks of waterborne diseases such as cholera. Erosion of the hillsides, due to lack of grading, caused serious flooding problems for the city as a whole. Since improvement, regional medical authorities note significant decreases in the incidence of water-related communicable diseases and consultations for diarrhea have been cut in half.

The neighborhoods were considered "clandestine" because houses were built on land to which the residents have no legal title. By the end of 1995, about 30% of the households (85% of whom were below median income) had secured title to their property and more than 70% had invested in rehabilitation and repairs; 10% had added a rental unit and 5% had created a shop on the ground floor. A 1992 evaluation found that the average household investment was 17,000 dh (\$2,000) and that there had been a 20-40% increase in household income.

purpose - develop a model for a comprehensive approach: Capital investments in the Tetouan Urban Development Project total about \$25 million or less than \$2,000 per household, dramatically less than the investment that would have been required to clear the neighborhoods and replace them with new housing. While the Project proved more complex and took about five years longer than anticipated, it showed that even very difficult sites with very low income families are manageable. While some components were less successful than others and all encountered challenges, upgrading and serviced sites which were the core of the model both worked. The project showed that the key to the model is continuing political commitment and cooperation between a large number of players and stakeholders.

purpose - strengthen institutional capacities of implementing agencies: Each of the agencies involved in the Tetouan Urban Development Project has grown and has gone on to play important roles in other urban development programs around the country and institutions like the FEC and ANHI have become key elements in the Government's strategies to improve shelter and environmental conditions for low income families in Morocco. More than 30 cities around the country, now have neighborhood upgrading efforts underway or planned. While not all of the recommendations and management systems produced by the consultants and firms that supported the Project were adopted or maintained, many were and all were important steps in the evolutionary development of the tools needed for long term success. Importantly, the Project demonstrated that local government can take the lead in this kind of collaborative effort.

B. Lessons Learned

Probably the most important lessons are the need for leadership along with strong, technical and management partners to back it up. The Municipality provided that leadership on the Tetouan program. They owned it. They stood at the center of diverse interests ranging from Government authorities in oversight ministries, a number local and national agencies with key responsibilities, contractors, consultants and, most importantly, the neighborhood itself. As

committed as the Municipality was, they could not though have completed the Project without ANHI at their side throughout. ANHI shared the Municipality's commitment to Project goals and brought both the technical expertise needed to conceptualize and plan the program as well as the management sense needed to guide such a complex undertaking. When political leadership and administrative structure changed, it in fact took the Municipality a good while to adjust and many of the Project activities stalled. ANHI though maintained continuity, kept the Project on track and saw it through to completion.

Cost recovery is clearly an important element of the model that is not yet performing as well as it should. The key lesson is probably back at the basics. Even low income families can afford to share in the costs of improving their homes and neighborhoods and they are generally willing to pay for clear and legalized ownership of their property. But clearing title and registering land that was mostly settled clandestinely always takes a long time and substantial pressure to overcome legal and administrative hurdles. When that falls behind schedule, as it has in Tetouan, the neighborhood will be leery of investment and cost recovery will lag.

Finally, the Tetouan Urban Development Project illustrates the linkages between neighborhood development and environmental management. Unplanned growth and clandestine settlement over the years of the Samsa and Dersa neighborhoods was a contributor to degradation in the area and sanitary conditions within the neighborhoods themselves were a threat to the health of residents. The Project substantially improved access, water and sanitation, but connection to the city's sewerage system substantially raised the need for treatment to prevent further deterioration of the River and its coastal estuary.

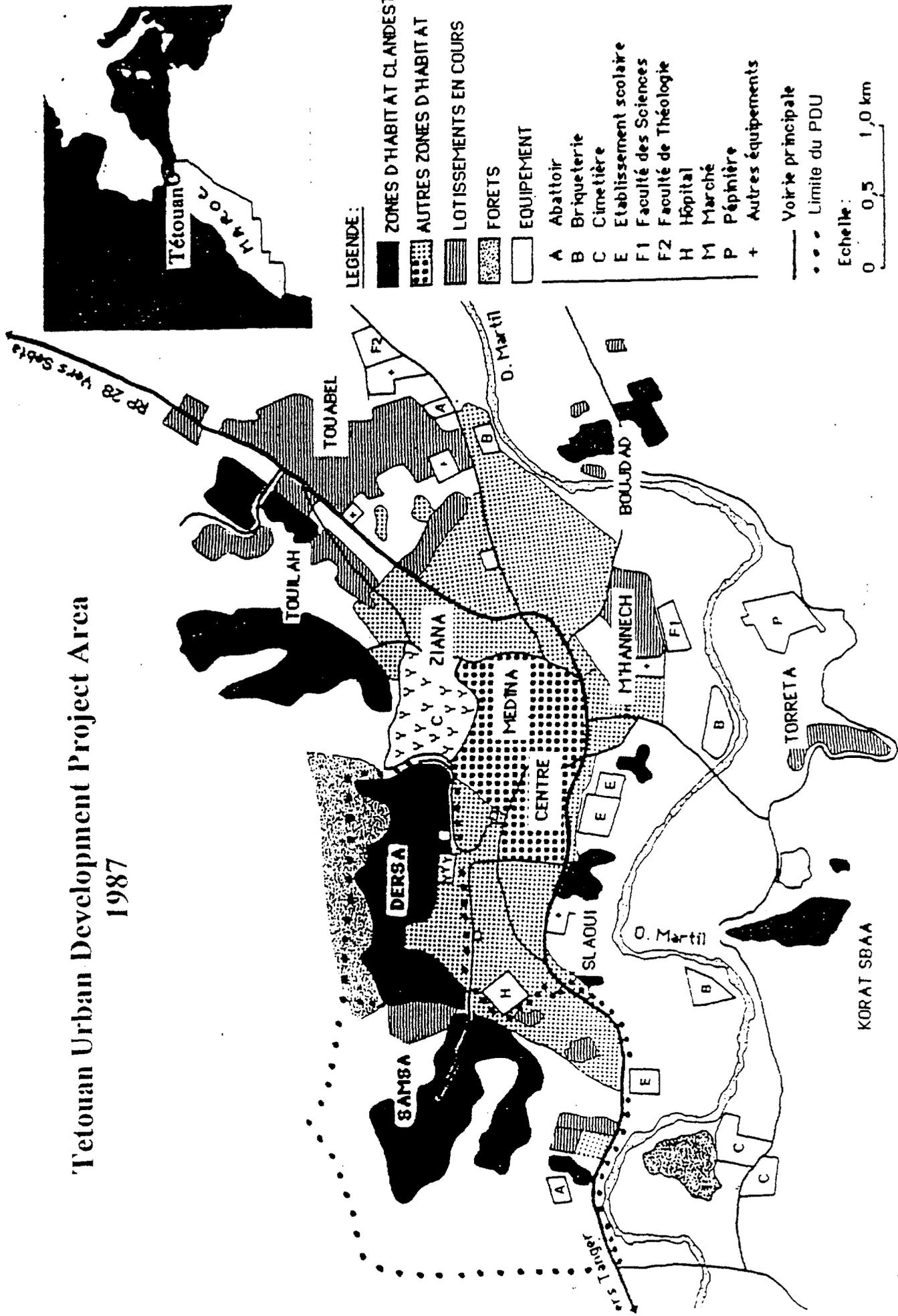
C. Continued Monitoring and Evaluation

Development in Tetouan will continue. AID's assistance helped launch efforts and provided authorities with basic tools. Most of the systems that were developed will change over time though as the city grows and grows in experience. Several areas should be monitored to further learning about the model. It would be important to periodically look at the status of land titling to determine whether that is eventually accomplished and what effect it has on payments by beneficiaries. It would be useful to accompany that with periodic comparisons of home building and improvements in the neighborhood with conditions mapped at the beginning of the Project. Sale of remaining serviced sites, and home construction on them should also be tracked. At the level of the Municipality important questions remain: its capacity to service current and new debt for urban development and financing of the sewerage treatment plant.

For AID, it's important to understand the Tetouan Urban Development Project in the context of the broad accomplishments of subsequent programs with the FEC, ANHI and other municipalities around the country. Tetouan was the beginning and the foundation of what has been a strong partnership.

Tetouan Urban Development Project Area

1987



Source: ICMA/Benjelloun, 1992

**Summary of Capital Investments as of 12/95
Tetouan Urban Development Project: HG-001**

(million dh)

Upgrading

civil works, roads and sewers	117.5
utilities, connections and other works	6.8
studies, surveys, planning and monitoring	6.8
housing construction	19.6

150.7

Sites and Services

civil works, roads and sewers	36.5
utilities, connections and other works	27.8
studies, surveys, planning and monitoring	3.7

68.0

Total contracted	218.7	
Total expended through 12/31/95	207.9	(\$24.5 million)
A.I.D. Housing Guaranty Loans	146.0	(\$17.5 million)

source: USAID/Morocco program files

Special Project Account as of 12/95
Tetouan Urban Development Project: HG-001

(Million dh)

year	disbursements by the FEC	expenses paid from Account	project revenues	cumulative balance
1988	23.2			23.2
1989		1.6		21.6
1990	27.7	16.4		32.9
1991	3.5	48.6		(12.2)
1992	26.8	23.5	51.3	42.4
1993	64.8	68.9	10.1	48.4
1994		40.7	14.0	21.7
1995		8.2	8.6	22.1
total	146.0	207.9	84.0	22.1
Dollars (million)	(\$17.5)	(\$24.5)	(\$10.0)	(\$2.6)

source: Compiled from tables in Bettina Brunner report, 1/96
 Based on ANHI quarterly reports; project manager database

**Summary of Technical Assistance as of 12/96
Tetouan Urban Development Project: 608-0194**

	(dollars)
participants in seminars, conferences and workshops	313,928
municipal management assistance and training	859,500
studies and short term experts	454,888
assistance to the FEC	242,295
assistance on development of the zone d'activité concerté (ZAC)	114,695
geographic information systems & management information systems	260,693
computer equipment, software, installation and training	481,722
assistance on public works and waste management	328,237
waste management equipment	669,500
environmental assessment and sewerage planning	1,054,373
PSC project managers	408,226

total committed	5,188,057
uncommitted	75,942
Total	5,263,999
Authorized	5,264,000

Source: USAID/Morocco Controller's Office 12/17/96

FINANCIAL STATUS as of 12/17/96

Tetouan Urban Development Project Technical Assistance: 608-0194

Obligations and Earmarks

allotments	technical assistance	training	commodities	environmental assessment	advisors and managers	audit and evaluation	contingencies	unearmarked	TOTAL
PDAA-86-29608-DG11	37,299	49,930	70,062	42,709					200,000
QDAA-86-27608-DG13	482,472	17,526						2	500,000
PDSA-87-29608-KG11	38,292		61,708						100,000
QES9-89-27608-KG13	760,000	46,220		70,000	106,074		16,369	1,337	1,000,000
QESO-90-27608-KG13	304,378			17,138	14,852			2,390	338,758
QESO-90-27608-KG13	322,803	96,216	149,709	749,684	106,828			1	1,425,241
NES2-92-23608-KG13		21,649	400,000	174,842				3,509	600,000
NES3-93-23608-EG13		19,972	44,628		154,000			1,400	220,000
NES3-93-23608-KG13	301,905	62,415	435,329		38,574	40,000		1,777	880,000
total earmarked (uncommitted)	2,247,149 (3,210)	313,928	1,161,436 (10,214)	1,054,373	420,328 (12,102)	40,000 (40,000)	16,369	10,416 (10,416)	5,263,999 (75,942)
total committed	2,243,939	313,928	1,151,222	1,054,373	408,226	0	16,369		5,188,057

unliquidated commitments

		committed	disbursed	unliquidated
PIL 608-0194-16	computer applications study	25,000	5,232	19,768
PIO/T 608-0194-3-00309	T/A & training on sewerage equipment	87,960	62,017	25,943
PIL 608-0194-3-30028	PSC resident advisor thru 06/97	10,959	5,897	5,062
PIL 608-0194-16	procurement: mini-tracteur	59,900	0	59,900
PIL 608-0194-18	GIS equipment for DGCL	50,000	49,441	559
PIO/T 608-0194-3-30030	GIS Tetouan analysis	5,717	5,300	417
PIL 608-0194-13	reserve for training and seminars	47,113	44,294	2,819
PIL 608-0194-06	sewerage and lab equipment	196,080	10,536	185,544
PIL 608-0194-17	PSC financial advisor	30,000	4,550	25,450
				325,462

unexpended balance

not obligated or earmarked	10,416
earmarked but not committed	65,526
committed but not disbursed	325,462

401,404

source: USAID/Morocco Controller's Office 12/17/96

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Summary of Major 608-0194 activities

Subject	Contractor	Description	Status
Cost Recovery assistance	TUM 87-89	Analysis & design of property tax collection system	completed
Property Tax Information System	RTL/TUM 1-5/88	Recovery of real estate taxes by computerizing property tax rolls	interrupted
Organizational Study	RTI 1-5/88	Analysis & Diagnosis of Municipal Administrative Structures	completed
Municipal Revenues Analysis & computerization	RTL/TUM 88-91	Analysis of taxes collected by MUN. 2 reports prepared, computerization of municipal revenue office (régie)	completed
Cost Recovery Software System	RTL/TUM 88-92	Install system in MUN to keep track of beneficiary payments	installed
Computer equipment procurement	DCI 87/88	10 computers w/ software installed	completed
ZAC Land Development Strategy	PADCO/TUM 88/89	land development strategy	completed
Technical support by City of Raleigh	ICMA/RAL	Review of Tetouan's Public Works Functions & procurement of sewer-related equipment	ongoing
Solid Waste Management Services Study	ICMA	Examination of MUN's solid waste w/recommendations	completed
GIS technical assist. & training	ESRI/CERAU	Procurement of GIS equip. & training; development of computer mapping for Tetouan (Dersa); procurement of hardware, software & training	pilot project completed
MIS training for MUN personnel	DCI	4-wk. training course on computers	completed
Sewerage Master Plan Study	WASH 1/89	analysis of RFP for SMP	completed
Tetouan Sewerage Studies	BIS 90-94	Study for Sewerage Master Plan	completed
Industrial Zone Study for Samsa to increase Project revenue stream	Rocd 94	<u>Etude de faisabilité pour la Creation d'une Zone d'Activités Economique et Industrielle à Samsa-Tetouan</u>	completed

Source: Adapted from Project Paper Supplement 4, 1992.

Institutional Agreements

Year	Agreement	Function
March, 1987	MUN-ANHI	ANHI to manage all technical and construction services for Tetouan Urban Dev. Proj. in exchange for 6% of contract bids.
April, 1987	GOM-USAID	Housing Program Agreement signed for HG-001.
December, 1989	FEC-RDE	FEC to provide financing for RDE infrastructure activities as part of Tetouan Urban Dev. Proj.
December, 1989	FEC-MUN	FEC to provide financing for MUN activities.
January, 1990	MUN-RDE	Parties agreed to work together on project implementation. MUN may give up role of project owner to RDE for infrastructure in Sites/Services Component.

Source: USAID files.

HG-001 Major Events

- Jan., 1985 Negotiations begin between USAID and the GOM
- Sept., 1985 HG-001 Project Paper signed by USAID/Rabat Director
- March, 1986 Socio-economic survey begins, transfer of \$400,000 (HG-002 to ANHI)
- August, 1986 Agreement signed between USAID and Ministry of the Interior
- March, 1987 Agreement signed between Municipality of Tetouan and ANHI
- April, 1987 Signature of l'Accord du Programme d'Habitat
- Nov., 1987 Satellite center of ANHI opens in Tetouan
- Nov., 1987 Loan contract signed FEC/MUN for construction of 200 dwellings
- Feb., 1988 Treasury Agreement for currency risk
- March, 1988 Agreement signed between FEC and the Municipality of Tetouan
- July, 1988 Approval of Special Account for Municipality of Tetouan
- August, 1989 First FEC disbursement to MUN for construction of 200 dwellings
- Dec, 1989 Agreements signed: RDE/Municipality, RDE/FEC
- June, 1990 First disbursement of HG-001 loan to FEC of \$8.5 million
- August, 1991 Infrastructure work begins in Sites and Services Zone
- Jan., 1992 Special Account modified
- June, 1992 Evaluation of HG-001 and other USAID shelter activities
- August, 1992 FEC restructured by Dahir
- May, 1993 Second disbursement to FEC of \$9 million fixed rate promissory notes
- 1993 Tetouan becomes Tetouan Urban Community. Sidi Al Mandrih & Al-Azhar
- mid-1993 Municipality unable to pay ANHI
- mid-1994 Municipality unable to continue reimbursements of FEC loan
- mid-1994 Special Account modified
- Dec, 1995 Tetouan fails to request last tranche of HG-001 loan

Source: Benjelloun, D., (1992), Hessini, C., (1991), Project Papers, ANHI reports, USAID files.

Anticipated Project Outputs vs. Actual Outputs

Component	Anticipated Outputs, 1985	Outputs to Jan. 1996
Upgrading	<ol style="list-style-type: none"> 1) primary & secondary infrastructure installed 2) 7,500 property titles registered 3) sale of 3,300 houselots 4) rehouse 270 households 	<ol style="list-style-type: none"> 1) completed in project area 2) 3,100 titles registered 3) 3,862 lots, but none sold 4) 200 houses built, 127 households rehoused*
Sites/Service	<ol style="list-style-type: none"> 1) complete infra. on 130 ha 2) 4,000 low income housing plots 3) sale 10 ha villa sites 4) sale 16.5 ha comm./apt. sites 5) 3.5 ha for public services 	<ol style="list-style-type: none"> 1) size decreased, infra. completed on 60 ha 2) 1,900 low income housing plots 3) all villa sites sold 4) 75% of comm./apt. sites sold 5) Land provided for school and public administrative bldgs.
ZAC	-primary infrastructure to 70 ha	-infrastructure 30% complete
Off-Site Infrastructure	<ol style="list-style-type: none"> 1) provide main collector 2) connections to existing outfalls 3) sewage treatment plant. 	<ol style="list-style-type: none"> 2) connections to outfalls 100% complete.

*Changes in road design reduced the number of units demolished.

Source: Adapted from HG-001 Project Paper.

Anticipated Cost Recovery Mechanisms vs. Results to Date

Project Component	Cost Recovery Mechanism	Results
Upgrading <ol style="list-style-type: none"> 1) land 2) infrastructure 3) housing units 	<ol style="list-style-type: none"> 1) lot payments 2) advance & monthly payments 3) monthly payments 	<ol style="list-style-type: none"> 1) Partially instituted 2) Partially instituted 3) No; politically unfeasible
Sites/Services	Downpayment	Yes
ZAC	Lump payments for improvements	Partially instituted

Source: HG-001 Project Paper, PIR Reports, ANHI reports.

Bettina Brunner, 1/96

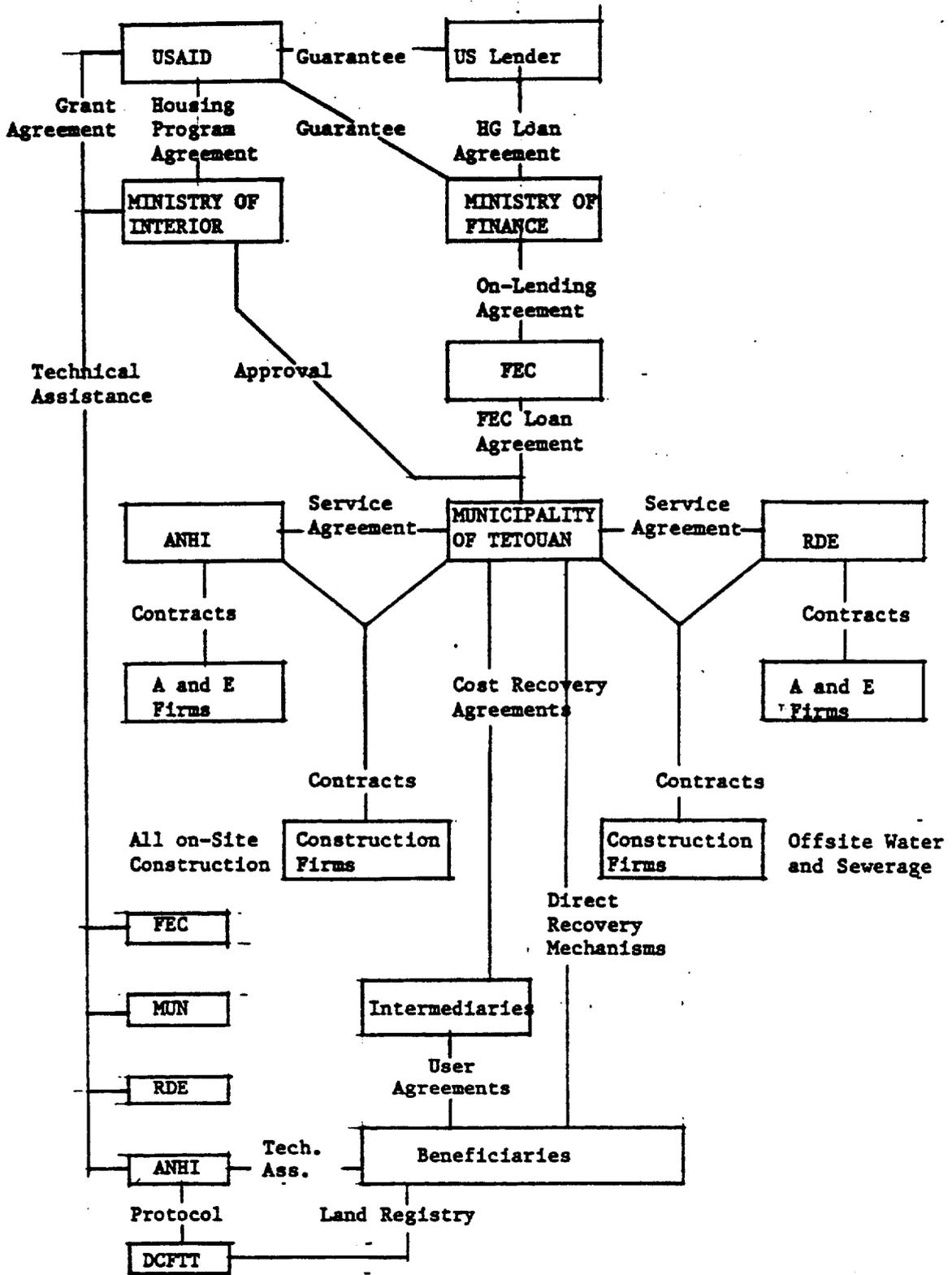
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**Responsibilities for Project Implementation
Project Paper/Implementation Experience**

	Project Paper: Primary Agency// Secondary Agency	Implementation: Primary Agency// Secondary Agency
Project Preparation		
Land Use Planning	ANHI//DH, MUN	MUN//ANHI
Land Tenure Situation	ANHI//CAD, MUN	MUN//ANHI, CONS
Socioeconomic Analysis	ANHI//DH, CONS	MUN//ANHI, CONS
Feasibility studies	ANHI//DH, CONS	MUN//ANHI, CONS
Preliminary plans	ANHI//DH	MUN//ANHI, CONS
Preliminary Engineering	CONS//ANHI, RDE	ANHI//CON
Final Project and bids	ANHI//RDE	MUN//ANHI
Project Execution		
Registration and titles	CAD//ANHI, MUN	LAND, CAD//MUN
Land expropriation	LAND//ANHI	ANHI//LAND, CAD
Street Surfacing	ANHI, MUN//RDE	MUN//ANHI
Sewage facilities	ANHI, MUN//UT	MUN//ANHI
Water supply	RDE//ANHI	MUN//RDE//ANHI
Power Supply and streetlights	RDE//ANHI	MUN//RDE, ANHI
Environmental protection	MUN, RES//ANHI	MUN
Project Cost Recovery		
off-site infrastructure	MUN//RDE	not done
Streets	ANHI//MUN	MUN
Sewerage facilities	ANHI//MUN	not done
Water supply	ANHI, RDE//MUN	RDE
Power supply & streetlights	ANHI, RDE//MUN	RDE//MUN
Project Operation		
Off-site infrastructure	MUN	not done
Streets	MUN	MUN
Sewerage facilities	MUN	not done
Water supply	RDE	MUN//RDE
Power supply & streetlights	RDE	MUN//RDE
Coordination with other ministries for public facilities	GOV//ANHI, MUN	GOV//ANHI, MUN

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INTERAGENCY AND BENEFICIARY AGREEMENTS



Abbreviations and Acronyms

ANHI	Agence Nationale de Lutte Contre l'Habitat Insalubre
BDCL	Banque de Développement des Collectivités Locales
CDG	Caisse de Dépôt et de Gestion
CERAU	Centre d'Etude de Recherche de l'Aménagement et de l'Urbanisme
CCA	Cellule de Concertation et d'Assistance (for the ZAC)
CDG	Caisse de Depôt et de Gestion
DGCL	Direction Générale des Collectivités Locales
Dh	Dirhams (\$1.00 = 8.5 Dh)
EA	Environmental Assessment
FEC	Fonds d'Equipement Communal (Municipal Investment Fund)
GIS	Geographic Information System
GOM	Government of Morocco
HG	Housing Guaranty (shelter financing program of USAID)
IBRD	International Bank for Reconstruction and Development
MDH	Millions of Dirhams
MHAT	Ministère de l'Habitat et de l'Aménagement de Territoire
MOH	Ministère de l'Habitat
MOI	Ministère de l'Intérieur
MOF	Ministère des Finances
MUN	Municipality of Tetouan
PDU	Projet de Développement Urbain à Tetouan
RDE	Régie de Distribution d'Eau et d'Electricité
RHUDO	Regional Housing and Urban Development Office
SDAU	Schéma Directeur d'Aménagement Urbain
SIG	Système d'Information Géographique
SIU	Système d'Information Urbain
SPA	Special Project Account (PDU)
TG	Tresorie Générale
USAID	United States Agency for International Development
ZAC	Zone d'Aménagement Concerté