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

PROJECT PAPER

Proposal and Recommendations  
For the Review of the  
Development Loan Committee

PANAMA - HOUSING INVESTMENT GUARANTY  
(Slum Upgrading And Home Improvement)

009

AID-DLC/P-2262

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AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON, D.C. 20523

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September 19, 1977

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: PANAMA - Housing Investment Guaranty  
(Slum Upgrading And Home Improvement)

Attached for your review is the recommendation for authorization of the issuance of guaranties pursuant to Section 221 of the FAA of a face amount not to exceed Fifteen Million Dollars (\$15,000,000) assuring against losses (not to exceed one hundred percent (100%)) of the loan investment and interest with respect to loans made to finance housing in Panama by eligible U.S. Investors (Investor) acceptable to A.I.D.

The purpose of the Guaranty is to assist in upgrading the worst squatter settlement and marginal residential areas in the San Miguelito District of Panama City.

The housing guaranty is scheduled for consideration by the Development Loan Staff Committee on Friday, September 23, 1977 at 2:30 p.m. in Room 3886 New State.

Please note that your views are requested at the close of the meeting. If you are a voting member a poll sheet has been enclosed for your response.

DEVELOPMENT LOAN COMMITTEE  
Office of Development  
Program Review

Attachments:  
Summary And Recommendations  
Project Analyses  
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P A N A M A

SLUM UPGRADING AND HOME IMPROVEMENT  
HOUSING GUARANTY PROGRAM

PROJECT PAPER

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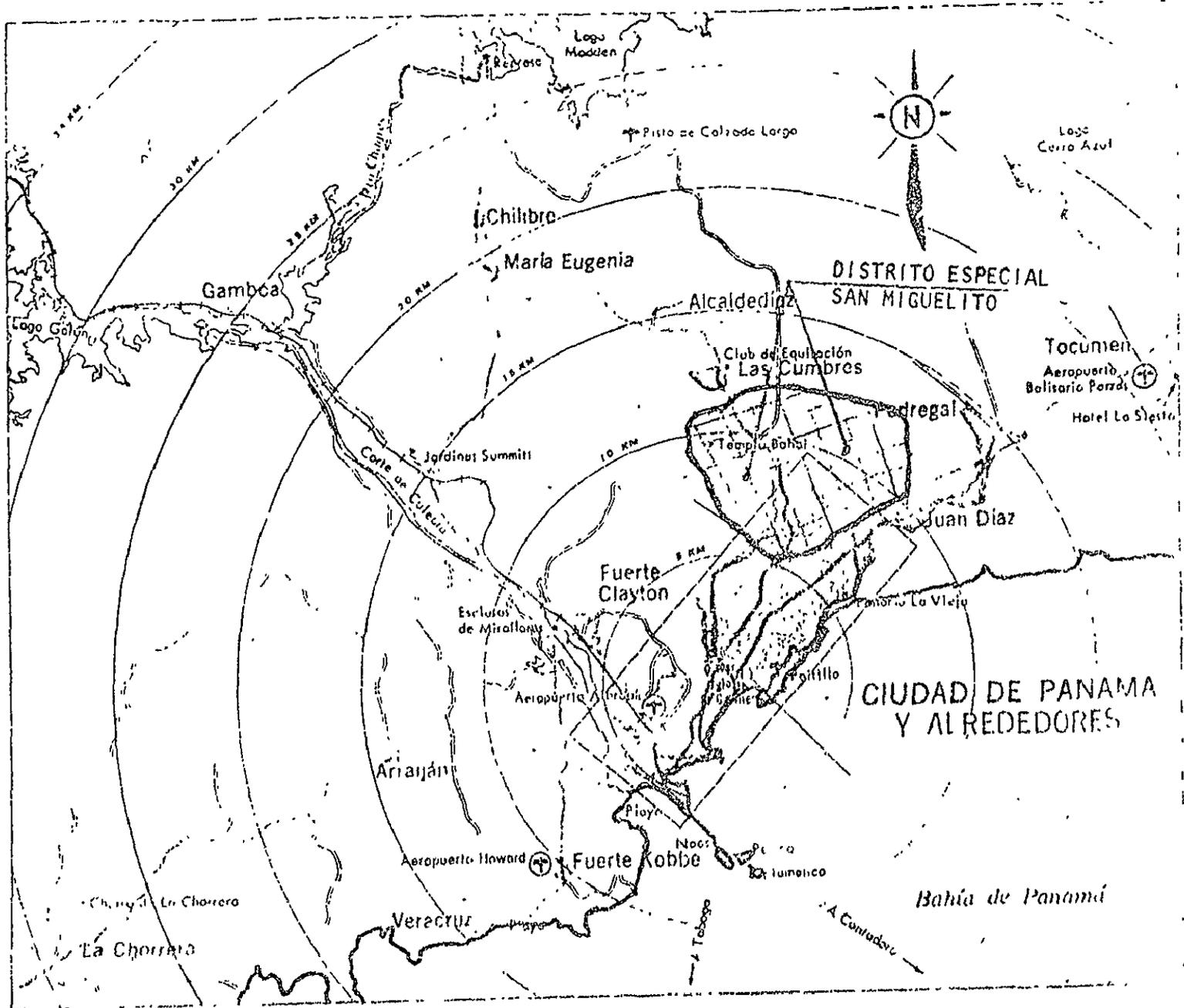
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## B. Recommendations

Based upon a review of the proposal set forth in this paper, it is recommended that the subject guaranty be approved as follows:

Amount of Guaranty: \$15 million

Term: The consolidated loan will be for a term of up to 30 years with a grace period on repayment of principal to be negotiated with the Investor.

Interest Rate: The interest rate payable to the U.S. Investor shall not exceed the allowable rate of interest prescribed by the Administrator of A.I.D. pursuant to Section 223(1) of the LAA, and shall be consistent with rates of interest generally available for similar type loans.

Technical Assistance: The Regional Housing and Urban Development Office in Panama will work on a close and continuing basis with the Borrower in coordinating the work on the various implementing agencies. The Office of Housing of A.I.D. will provide specific advisers and consultants as required and requested.

## C. Description of the Program

The goals of the proposed program are:

1. Assist the Government of Panama in the implementation of its marginal urban area redevelopment policy through the establishment of a pattern of institutional cooperation within the GOP and with appropriate local entities.

2. Demonstrate that the housing and public service needs of marginal urban areas redevelopment can be met and satisfied through loans financed at commercial rates of interest, a maximum of local participation and a minimum of national government subsidy.

The basic objectives of the proposed program are:

1. Create as quickly as possible the basic infrastructure for the integrated development of the San Miguelito District.

2. Rearrange the actual occupation of the area in a rational manner.

3. Strengthen administrative support at both the local and National levels.

4. Raise residents' sense of social and civic responsibility.

5. Broaden the focus of the High Level Commission (HLC) of San Miguelito to be able to effectively deal with the entire range of housing and social service needs of the District, as an example of redevelopment programming in marginal urban areas.

The proposed HIG project will provide \$15 million to the Banco Nacional de Panamá, which will act as Borrower and Fiscal Administrator for channelling loan funds to the following GOP agencies and semi-autonomous entities for the execution of the Sub-Programs:

Instituto de Acueductos y Alcantarillados Nacionales  
(Institute for National Water and Sewage Systems)

Ministerio de Vivienda (Ministry of Housing)

Ministerio de Obras Públicas (Ministry of Public Works)

Instituto de Recursos Hidráulicos y Electrificación  
(Institute for Hydraulic Resources and Electrification).

This Program is the first phase of a long-range plan to upgrade the most extensive slum area of metropolitan Panama, San Miguelito. The Program was conceived by the Ministry of Planning and Economic Policies (MPPE) as a practical demonstration of institutional coordination and action necessary for realistically addressing the shelter needs of the lowest income groups in urban Panama. The Program is further designed to establish institutional linkages for national-local cooperation in urban slum upgrading: (1) the MPPE as the national government entity to coordinate planning and resource mobilization for a sustained program through the 1980's; and (2) appropriate local organizations for participating in the execution of projects in each selected priority locale.

This institutional pattern developed for San Miguelito calls for an Executive Committee composed of representatives of MPPE, the Municipality, the High Level Commission, and the implementing agencies listed above to coordinate the inputs of the government agencies and semi-autonomous entities under this program. The local entity is the President's High Level Commission (HLC), which, working with the Municipality of San Miguelito, the 287 organized committees of San Miguelito residents (see breakdown in Annex A) and the respective agencies and entities, designated the areas to be served by the new water and electrical distribution systems, new

sewage collection systems and new access roads, walkways, and storm drainage systems. The Municipality and the HLC have identified with MPPE and the Ministry of Housing the land to be set aside for 2500 sites with services designed to receive the excess population from the areas to be improved, and have prepared preliminary plans for this development.

During the construction stage, the HLC will coordinate the scheduling of the various sub-programs and the relocation of the families which have to be resettled in the sites and services project area.

The HLC will continue to work with all of the participants in planning the second and future phases of the redevelopment of San Miguelito.

The agreements for the implementation of this Program between the National Bank of Panama and the Institutions which will administer each Sub-Program, detailing the specific responsibilities of the different institutions that will execute the respective sub-programs, are now being prepared and will be finalized before disbursements are authorized. The Program is composed of the following sub-programs:

Sub-Program I - Water and Sewer Services: \$9,305,000

This Sub-Program will be implemented by the Institute for National Water and Sewer Systems (IDAAN).

Approximately \$2,370,000 in loan funds will be utilized for community and individual water services; approximately \$6,003,000 in loan funds will be used for construction of sanitary sewer collection systems and individual service lines; and approximately \$932,000 will be provided by the GOP and IDAAN in cash and "in-kind" technical and administrative services.

Approximately 11,000 families will be benefited by Sub-Program I.

Sub-Program II - Electric Distribution and Services: \$1,300,000

This Sub-Program will be implemented by the Institute for Hydraulic Resources and Electrification (IRHE).

Approximately \$1,070,000 of loan funds will be utilized to provide electrical distribution networks and electrical service lines to an estimated 6,045 families in the San Miguelito District. GOP and IRHE contributions to this Sub-Program are estimated at \$230,000.

Sub-Program III - Streets, Sidewalks, and Storm Drainage  
System: \$2,457,000

This Sub-Program will be developed and implemented under the responsibility of the MOP (Ministry of Public Works) and the Municipality of San Miguelito. The investment of approximately B/2,457,000 will be utilized as follows:

a. Approximately B/ 2,057,000 of loan funds will be used for construction, and improvement of collector roads and secondary streets and for the construction of a surface drainage system and sidewalks in those areas in the Corregimientos of the District of San Miguelito where new collector roads and secondary streets will be either improved and/or constructed.

b. Approximately B/ 200,000 of the local contribution will be used by the MOP for design, technical studies and inspection of the road system (by-pass roads, main and secondary streets).

c. Approximately B/ 200,000 of the local contribution will be channeled through the Municipality and High Level Commission of San Miguelito for the construction and improvement of sidewalks.

It is anticipated that approximately 4,000 families will benefit from this Sub-Program which will provide 39.6 Kms of asphalt streets, 38,300 L.M. of pipe for the surface drainage system and 40,000 L.M. of lateral ditches.

Sub-Program IV - Sites and Services, Definition of Properties,  
Relocation of Excess Families: \$3,951,000

This Sub-Program will be implemented by the Ministry of Housing (MIVI) in coordination with the High Level Commission (HLC). Approximately \$3,500,000 in loan funds will be utilized in this Sub-Program, serving 2,500 families.

The Commission will carry out the definition of properties in the chaotic squatter settlement areas, a process which will automatically result in identifying the excess squatter families who will have to be relocated. As each property is defined and adjudicated, titles will be prepared for the new owner setting an appraised value for the lot. The new owner will be required to pay the appraised value either in cash or by mortgage note, or a combination of both. The Commission, in coordination with IDAAN, IRHE, and MOP, will also define the rights-of-way required to carry out Sub-Programs I, II and III, also resulting automatically in identification of the additional families who will be relocated.

The MIVI will construct the contiguous sites and services project, to which the excess families will be moved, comprising the ten levels of solutions described in Section III, each designed for a particular

level of family income. All necessary earthwork, water and sewer services, streets and access roads, and basic housing construction will be carried out by the MIVI.

The Commission will determine the number of each type of solution to be provided, and will allocate the sites to the families to be relocated.

High Level Commission and MIVI contributions to this Sub-Program are estimated at \$451,000.

Approximately B/ 331,000 of the local contribution through the implementing institution, MIVI (Ministry of Housing) will be utilized for designs, technical studies, inspection and administrative expenses of the urbanization project with its different categories and alternatives proposed for the low income families who will be relocated.

Approximately B/ 120,000 of the local contribution through the Municipality of San Miguelito, represents the value of the land set aside for this Sub-Program, the purchase of which is not funded under the HIG loan.

In all the relocation cases the title deeds of the property are required for obtaining credit and for constructing shelter on an individual basis and/or through the cooperative system.

#### D. Summary Findings

On the basis of similar programs which have been and are being developed with the assistance of the Agency for International Development (AID), the Mission feels that the institutions of the Government of Panama have the sufficient technical experience and managerial competence to successfully undertake the execution of this Program in an effective and coordinated manner.

All the institutions of the Government of Panama involved in this Program have previously carried out projects designed to fulfill the needs of low income population groups.

The housing sector goals enunciated by the GOP in its National Development Plan 1976-1980 are in accord with the policy and objectives of AID. The effective demand for the type of program proposed is evidenced by the occupants of the target District, and substantiated by studies carried out by the HLC and other concerned institutions.

It is felt that this Program provides a real opportunity to establish a new methodology for coordinating local initiatives

with national implementation in attacking the problem of upgrading the peri-urban slum areas largely created by rural-urban migration.

E. Project Issues:

Following are the major points raised at the time of the DAEC review of the PID for the proposed program:

1. Relationship of this Program to the Overall Mission Development Assistance Strategy for Panama:

The proposed HIG project for slum upgrading and home improvement is entirely consistent with the overall Mission development assistance strategy for Panama. The guiding principle of this strategy is to assist the lowest income groups in the population wherever they may be located. This is also the focus of GOP development policy. Both the ABS Narrative Summary and the 1975 DAP indicated Mission support of the GOP development strategy.

The DAP stressed that USAID, while concentrating on the interior, would remain receptive to requests to assist Panama in the development of the metropolitan area surrounding the Canal Zone (Section III.A., p. 36 of the DAP). The ABS pointed out that the basis of the projected USAID program from FY 1979 through FY 1983 is to attack some of the causes of urban as well as rural poverty. It expressed US commitment to the integration and effective participation of both marginal urban and rural people in the economy and society.

Panama's development needs and corresponding Mission policy have continued to evolve since the 1975 DAP. In the absence of unexpected circumstances, it is probable that a new DAP will be presented following conclusion of the Panama Canal Treaty Negotiations. Even pending the submission of this new DAP, the problems of urban poverty will require sustained attention, especially in those marginal urban areas of squatter settlements which abut or are near to the Canal Zone. For this reason, the Mission plans to prepare an urban shelter analysis during FY 1978 in order to define a long-term strategy for approaching the housing needs and for defining USAID priorities in working therein.

In the meantime, San Miguelito is empirically a prime target for action. It is the largest and most severe concentration of urban poverty in the entire country and although in an urban setting is an area which is demonstrably lacking in the provision of basic human needs to its populace. This is demonstrated by studies supporting the current AID health program and in statistics

contained in the documentation supporting the proposed HIG. The Government of Panama has continued to stress its interest in providing quick and effective assistance to this area (see PANAMA 5257). While there are other similar small pockets of poverty within the Panama City area, these are being addressed principally through slum clearance and resettlement under the Ministry of Housing program. San Miguelito is too large for such a program. Its lack of basic human needs must be attacked in the area. While AID's basic direction has recently been principally in assistance to the "rural" poor, neither we nor the GOP can afford either socially or politically to ignore the obvious lack of basic human needs of such a large concentrated segment of the population.

2. Relationship of this Program to the shelter strategy of the Government of Panama:

The statement of GOP strategy in the housing sector is contained in the National Development Plan 1976-1980.

Based on Article 109 of the Constitution, which states "The Government shall establish a National Housing Policy which guarantees this social right to the entire population, especially to those sectors of lower income," the National Development Plan describes as the short and medium term objective of the GOP "the financing of solutions for the lower-income socio-economic groups, and toward the formalization of plans for urban renewal in the metropolitan areas and other centers of the nation."

In the development of such plans, the GOP is to emphasize the following aspects:

1. Determination of areas for future expansion for lower income groups.
2. Installation of water lines of size and capacity to serve the increasing population (of such areas).
3. Expansion of the electrical systems (of such areas).
4. Street maintenance and extension of public transport (to such areas).
5. Extension of garbage collection service (to such areas).
6. Regulation of land use.

7. Revision of urbanization standards.
8. Revision of construction standards for housing to include minimum standards for low-cost housing.
9. Development of areas subject to urban renewal.
10. Standards for rehabilitation of and provision of services to rural housing.
11. Standards for rehabilitation and provision of services to marginal areas (specifically lists San Miguelito).
12. Regulations for condemning unsafe and unsanitary dwellings in the urban areas.
13. Encouraging the development of satellite cities, lying outside the principal cities.

In regard to resources for the implementation of these plans, the National Development Plan 1976-1980 has this to say:

"The external financial resources shall be obtained by means of loans which do not require that the credits so obtained be channelled to higher income groups in order to provide greater security for the loan, but which indeed will permit the utilization of the funds in the construction of housing for very low income sectors.

"The financing organization which provides this type of credit with these objectives is the Agency for International Development (AID), by means of its direct loans and its guaranteed loans (emphasis added) which are directed to the financing of low-cost housing."

And among executing agencies to carry out the intent of the National Development Plan 1976-1980 were listed the Ministry of Housing, the High Level Commission and the National Bank of Panama.

The Plan declares that the High Level Commission "shall be converted into a key organization which will channel resources of the agencies in the housing sector to realize low-cost housing projects in the near future."

Coordination of the investment programs required to carry out the plan is vested in the Ministry of Planning and Economic Policy.

This project has been designed in complete accord with the National Development Plan 1976-1980 of the GOP, in coordination with the key agencies envisaged by the Plan, and is beginning with the renewal of a key marginal area specifically identified in the Plan.

3. Importance of Utilization of FY 77 HIG authority for this project:

Panama 5257 was sent in response to this issue, and is included in this paper as Annex B.

Briefly, the Mission is attempting, with this project, to respond to an urgent representation by the Government of Panama, which was initiated by the Chief of Government, for an action program to alleviate unsafe and unsanitary health and environmental conditions in San Miguelito, to upgrade shelter conditions, and to rationalize the chaotic siting of shelter in the squatter settlement areas.

It is not often that A.I.D. can respond to such urgent requests in such a timely fashion (three months from project inception to PP presentation), and where the opportunity arises, it is certainly in the worldwide interest of the USG for the Agency to so respond.

It is understood that the Office of Housing has arranged for an allocation of HIG authority to satisfy the requirements of this project provided that the PP is promptly approved.

4. Cost Recuperation:

Repayment of the HIG loan (and therefore cost recuperation) is on two levels: Each Sub-Project Administrator (IDAAN, IRHE, Ministry of Housing, Ministry of Public Works) is responsible for payment of their sub-loans to the National Bank of Panama, and the beneficiaries of each Sub-Project are responsible for payment of their proportionate share of the cost of the services received, amortized over 30 years.

The GOP has exempted from property taxes all citizens whose property value and family income is below a certain level. All of the beneficiaries of the proposed program fall into the exonerated category. Property taxes, therefore, cannot and will not be used to recover the costs of the project. However, two major points must be understood in this connection: one, that all of the sites in the squatter areas which are to be identified, marked, and conveyed as a part of this program are to be paid for by their owners on the basis of their appraised value; and two, that over a period of time, these neighborhoods gradually improve both in quality of construction and income levels, finally reaching a point where the exonerated no longer applies and taxes must be paid.

The sites and services and home-improvement sub-program will be amortized by the beneficiaries like any other housing project, on the basis of 30-year mortgages.

The infrastructure sub-programs of IRHE and IDAAN will be amortized through the application of user charges as detailed in Section III (B).

The costs of the access street and walk improvement sub-program administered by the Ministry of Public Works will not be directly amortized by the beneficiaries, but will be defrayed through the application of general GOP revenues over the 30-year period of the loan.

5. Technical Assistance:

The Mission and AID's Regional HUD Office in Panama, with backstopping by the Office of Housing and its consultants, will provide necessary assistance at the project coordination and administration level. It is not anticipated that substantial inputs of technical assistance for sub-program implementation will be required. There is nothing in any individual sub-program that has not been done before by the implementing agencies. It is the combination of these forces in a single marginal area on such a massive scale that is innovative.

6. Relationship of proposed project with AID shelter policy:

PD 67 provides that the use of Housing Investment Guaranties should receive first priority in development of shelter programs for low-income families.

AID Shelter Sector Policy provides that such programs should be developed for the poor majority, and in connection with AID shelter programs this term has been generally defined as meaning families earning below the median income prevailing in the area in which such a program is to be developed.

The proposed project is clearly designed to carry out the foregoing statements of policy.

In addition, the Office of Housing prefers projects which carry out AID Shelter Policy objectives of institutional development, technical and financial innovation, and replicability. In regard to these aspects, the proposed project may be described as follows:

a. Institutionally, this Program will test new machinery for national-local cooperation in comprehensive efforts to attack urban and peri-urban slums. Although the Program is specifically

tailored for San Miguelito, it will provide the GOP and USAID invaluable experience in designing effective institutional arrangements for similar projects in other areas of the metropolitan Panama City-Colon corridor.

The Program will strengthen the GOP's capacity to deal with massive programs of slum upgrading. To date the GOP has concentrated on selective urbanization and housing projects, rather than large scale efforts to rationalize land use in such areas as San Miguelito, and to utilize the sites and services approach for reaching the very poor.

On the local level, the Program will strengthen the HLC and provide it with the necessary experience and the favorable political climate in which it will be able to continue the redevelopment and upgrading of San Miguelito, now the second largest Municipality in Panama.

The Program will thus fulfill a dual institution building role.

b. Financial Innovation: The proposed project will demonstrate that massive marginal area redevelopment projects of this nature, with the major infrastructure elements included, can be financed by the governments of developing countries utilizing market interest rate loans, and with a minimum of subsidy.

c. Replicability: This project is designed as the first of a number of marginal area redevelopment projects in the metropolitan area of Panama and Colon utilizing the same techniques.

PART II - Background and Overview

Panama, in common with most other developing countries, is experiencing a rapid and alarming population growth in the urban areas. The two urban areas most affected are the cities of Panama and Colon. The population growth in the Province of Panama from 1960 to 1970 was 204,252, and represented 58.8% of the population growth experienced by the entire country. In San Miguelito alone, population increased by 55,245 in the same decade, representing 15.9% of total population growth nationwide.\*

A major factor in this astonishing growth has been rural-urban migration. From 1960 to 1970, the other eight provinces actually registered migration losses in their population, while 40% of Panama's population growth was attributed to migration.\*

The District of San Miguelito is the area of the Province of Panama most affected by both natural population growth and rural-urban migration. In accordance with the Census of 1970, there existed in San Miguelito 11,962 dwellings occupied by 12,209 families, and 247 families with no dwelling of any kind. Many of the existing dwellings are described as "improvised" or "rustic", built of discarded lumber, cartons, felt paper and old corrugated metal, lacking minimum sanitary facilities, water, electricity and sufficient physical space for the inhabitants.

According to a study carried out in June, 1974, the District had grown to include 18,370 dwellings housing a population of 104,800, and by June, 1975 the population had grown to 114,200 occupying 20,100 dwellings. At the end of 1976, it is estimated that 22,000 dwellings existed in the District. The population density is 2,235 inhabitants per square kilometer, with an annual rate of growth of 9.5%. Of the occupied dwellings, 64% are without sanitary sewer and 30% are without water; 60% of water and electrical services are communal.

An analysis of the data developed in the Instituto Centroamericano de Administración y Supervisión de la Educación (ICASE) study of June, 1974, indicates the following:

The unemployment rate in San Miguelito is 16.8% versus 12.9% for Panama as a whole. Of the employed population of San Miguelito, 67.8% of families earn less than \$150 per month, distributed as follows: 23.8% earn less than \$50 per month; 23.7% earn between \$50 and \$100; and 20.3% earn between \$100 and \$150. An additional 23.3% earn between \$150 and \$300.

\*Source: National Bank of Panama

By any measure, therefore, San Miguelito is an urban disaster area, and in recognition of the increasing seriousness of the problem, the President created the High Level Commission (HLC) with a mandate to take the necessary action to bring order out of the chaos.

Much of the land occupied by the squatters was owned by the GOP. Private lands bordering on the squatter areas were also settled informally by the burgeoning population, and these lands were acquired by the GOP and passed on to the Municipality of San Miguelito.

The HLC started operations on January 1, 1975, and since that time has initiated a massive program for identifying and marking lots in the occupied areas and acquiring land for additional sites. In this way, the areas known as Samaria, Don Bosco, Gelabert, San Antonio, Nueve de Enero, Valle de San Isidro, Silos del IFE, Cerro Viento, and Las Trancas are being subdivided and marked.

In the first six months of this year, more than 1,500 lots have been delivered to their occupants. Their goal for 1978 is 5,460 lots measured, marked and sold to their occupants on the basis of appraised value.

The HLC obtained an allocation of \$3 million from the Ministry of Housing's "thirteenth month" fund and has constructed approximately 400 relatively low-cost (for Panama) houses in the area known as Los Andes for higher income San Miguelitans. Sales prices range from \$6000 to \$8000.

In March and April of this year representatives of the Ministry of Planning, and representatives of the HLC informally approached USAID officers in regard to the possibility of some form of financing for upgrading San Miguelito. At the same time, the Water and Sewer Institute (IDAAN) approached USAID for financing a massive water and sewer project in San Miguelito. The GOP interest was sparked by a mass meeting in San Miguelito at which the Chief of Government was strongly urged by the citizens to accelerate development plans for the District.

USAID saw an opportunity to design a major pilot project which would serve to integrate and coordinate effort on the national level with effort on the local level to alleviate extremely adverse shelter and health conditions in the marginal areas of the Panama-Colon corridor.

Accordingly, USAID cooperated with the Ministry of Planning in establishing an ad-hoc committee to design a comprehensive slum upgrading and home improvement program for San Miguelito.

The Ad-Hoc Committee was composed of first and second level representatives of the following departments of government, autonomous agencies, and political organizations:

Ministry of Economic Policy and Planning (MIPPE)  
Instituto de Acueductos y Alcantarillados Nacionales (IDAAN)  
Instituto de Recursos Hidráulicos y Electrificación (IRHE)  
Ministerio de Vivienda (MIVI)  
Ministerio de Obras Públicas (MOP)  
Municipalidad de San Miguelito  
Comisión de Alto Nivel (HLC)  
USAID  
RHUDO/PSA.

First sessions of the Ad-Hoc Committee, which began on May 16 and which was succeeded by a working-level group drawn from the participating entities, were also attended by Assembly Representatives from the San Miguelito District.

The working-level group, in weekly sessions usually lasting a half-day, hammered out the outlines of the proposed program, the roles of the respective coordinating and implementing agencies, the organizational aspects, and assigned tasks for development of the technical and financial aspects.

The PID was submitted and approved by the DAEC in early July.

The proposed HIG program will provide one or more benefits to approximately 15,000 families, or roughly half the population of San Miguelito. Future phases, already planned, should enable the GOP to "catch up" with the problem and then to stay abreast of it.

PART III - ANALYSIS OF SUB-PROGRAMS I, II, III and IV.

A. Technical Analysis

1. Sub-Program I - Aqueducts and Sewer Systems (IDAAN)

a. Description of the Projects and Technical Considerations

i. Description of the Projects

Some of the sectors included in this sub-program have been in existence for 20 or more years, others are more recent, but all of them suffer from the same problem, that is, a deficient aqueduct and sewer system or the total lack of basic public services.

The sub-program will be developed within an area of 51.3 Km<sup>2</sup> of which only 20% or 10.24 Km<sup>2</sup> are inhabited. This installation of water and sanitary sewer systems for the direct benefit of approximately 55,000 people distributed among the five Corregimientos of the District of San Miguelito.

The IDAAN has prepared preliminary estimates of the total cost involved in the provision of water and sanitary sewer systems. These systems are divided into several phases and only the first phase is part of this Program.

1. Aqueducts - 1st Phase (See Table No. 1)

The project herein described will provide aqueducts to the following areas:

- In the Corregimiento Victoriano Lorenzo two (2) sub-projects will be developed in the sites of "San Antonio" and "Gelabert".
- In the Corregimientos Amelia Dennis de Icaza and Belisario Porras one (1) integrated sub-project will be developed in the site "Nueve de Enero".
- In the Corregimiento Amelia Dennis de Icaza two (2) sub-projects will be developed in the sites of "San José" and "Pan de Azúcar".
- In the Corregimiento Belisario Porras two (2) sub-projects will be developed in the sites of "San Isidro, Sector 2" and "Samaría".

2. Sewer Systems - 1st Phase (See Table No. 2)

In an integrated manner, two (2) sub-projects will be developed in the Corregimientos Victoriano Lorenzo and Amelia Dennis de Icaza in the sites of "Quebrada Limón Colector" and "Parusia".

- In the Corregimientos Belisario Porras and Amelia Dennis de Icaza one (1) integrated sub-project will be developed in the site "Nuevo Veranillo", Sectors 18, 19, 31, 32 and 35.
- In the Corregimiento Amelia Dennis de Icaza two (2) sub-projects will be developed in the sites of "Nuevo Veranillo", Sectors 21, 27, 28, 30 and 37 and "Pan de Azúcar".
- In the Corregimiento Victoriano Lorenzo two (2) sub-projects will be developed in the sites of "San Antonio" and "Gelabert".
- In the Corregimiento Belisario Porras one (1) sub-project will be developed in the site of "Valle de San Isidro".

ii. Communities & Population which will benefit from these Projects (See Tables No.'s 1 and 2)

The communities which will benefit from these projects are presented in the three maps included in this section. Map No. 1 shows the inhabited areas in the District of San Miguelito and Map No. 2 shows the areas where aqueduct services have not yet been provided. The areas appearing in Map No. 2 have been divided into two groups: the ones which are included in this sub-program and those where services will be provided in the future. Map No. 3 shows the areas in the District which at present do not have sanitary sewer systems and as in Map No. 2, it points out the areas included in this sub-program and the ones which will be serviced in the future.

In summary, these Maps show the areas where services will be provided under this Program. When speaking of the provision of necessary services under this Program, we refer to the installation of water lines, of the size required by the users to the property line. The users will install connection lines from the property line to the inside of the dwelling. Each lot will be provided with a meter. Likewise, the sewer system will include collectors, manholes and service lines to the property line.

It is estimated that the population who will benefit directly by the aqueduct project will amount to 39,062 people and that 29,902

people will benefit from the sanitary sewer system project.

### iii. Source of Water Supply

The water for this project will be supplied by Planta Potabilizadora de Chilibre (Chilibre Waterworks) which obtains its water from Lake Alajuela (Madden Lake) and supplies water to the city of Panama through the existing water mains.

The city of Panama now consumes approximately 60 MGD of which 38 MGD comes from this water treatment plant; the remainder purchased from the Pan Canal Co. It is estimated that this Program will increase the water demand by approximately 3.5 MGD. The Chilibre Plant has the capacity to produce 60 million gallons of water per day without under-going modifications. The Plant possesses the capacity to supply the additional needs for San Miguelito including foreseeable increases by other activities that will be generated by this Program. The present storage capacity is 14 million gallons which is equivalent to the consumption of Panama city during a 14 hour period. With the addition of San Miguelito this storage capacity will decrease to 10 hours and IDAAN considers this to be a reasonable and sufficient emergency storage.

### iv. Design System and Criteria

The water systems will be designed using a consumption figure of 65 gallons per person per day (gpd). This figure takes into account the fact that although at the beginning consumption will be approximately 42 gpd, said consumption will increase as the standard of living improves.

### v. Work Areas of the Sub-Program

#### 1. Aqueducts

##### a. Water Mains

Steel pipe, concrete pipe or PVC will be used for the water mains. PVC for those lines smaller than 2". All the materials utilized will be in accordance with the COPANIT standards which are similar to those of the AWWA (American Water Works Association). The PVC of good quality is manufactured locally and no difficulties are foreseen in obtaining it for this project.

The steel pipes and concrete pipes will be acquired through public bids and it is estimated that there will be no difficulties in obtaining the materials at the time required. The majority of the fittings are manufactured abroad and will have to be purchased

through public bids. Tables Nos. 3 and 4 illustrate the estimated design and construction time requirements.

All installed water pipes must pass a pressure test of 125 lbs. per square inch.

## 2. Sewer System

### a. Main Collector

The areas to be provided with a sanitary sewer system under this project are shown on Map No. 3. It will be necessary to design and build a main collector of 24" diameter to receive the sewage of the Project areas and with sufficient capacity to serve future areas.

The magnitude of the project and the quality of the existing soil, which is mostly rocky and impermeable, does not permit the utilization of a filtration system.

### b. Collector Lines

Where required, a collecting network of smaller diameters will be installed.

### c. House Drains

The house drains will be of appropriate material with adequate diameters. All the materials included in this sewer system will comply with the standards set by COPANIT which are similar to those of the ASTM (American Society for Testing Materials).

### d. Sewage Treatment

All the sewage collected in the District of San Miguelito will be carried to a site near Rio Abajo to be tied into the existing collector. The GOP is negotiating for a major new loan from IDB for the development of a final treatment plant for the entire Panama City System.

### vi. Responsibility for the Design of Plans and Specifications

The Instituto de Acueductos y Alcantarillado Nacionales, IDAAN,\* will be responsible for preparing all plans and specifications for the Aqueduct and Sewer System projects of San Miguelito. The IDAAN has a technical staff of 35 people divided into 5 teams who will be dedicated on a full-time basis to the design of the projects.

\*

Panama Water and Sewer Agency

During the past two years the IDAAN has designed about \$25 millions in aqueduct and sewer system projects. It is felt that the Agency possesses the institutional and technical capacity to perform these works successfully.

All work effected will be inspected during its execution and approved prior to its final acceptance by the technical personnel of IDAAN's Engineering Division.

The work plan shown in Tables No.'s 5 and 6 demonstrates the design and construction program as well as the priority and estimated time required for each sub-project.

The aqueduct project has been divided into 7 areas of influence. It is estimated that the complete design of Area 1 will be finished by the end of the first month, after the date of signing the loan agreement; the design of Area 2 by the end of the following month, and so on. The preparation of the design for Area 7, which is the largest, will require approximately nine months. Likewise, for the sewer system works the project has been divided into 8 areas of influence. The designs for Areas 1, 2, 3 and 4 have been completed and only require final review.

#### vii. Construction

In general, the construction will be executed by force account utilizing to the extent possible workers from the District.

The IDAAN has shown through the execution of over 50 projects in the past two years its capacity to undertake a construction program by force account.

At present the IDAAN has almost all the necessary equipment to execute the construction. The IDAAN has ample experience in administering the supply of materials, fuels, tools, etc., to the site and no difficulty is expected with this aspect of the construction.

A preliminary cost estimate broken down by areas of influence, is shown on Tables No.'s 1 and 2. Several factors affect the cost in each area. It is expected that the sub-soil in some zones will be more rocky than in others and this will increase the cost of work in those areas. The high elevation areas will probably require pumping stations to receive water from the aqueduct system and some low areas will probably also need pumping stations to carry the sewage to the collector system.

Estimated Costs

The estimated costs for Sub-Program I include two components:

One, Aqueducts, 1st Phase, which involves the (7) sub-projects described in Tables No.'s 1, 3 and 4; and the other, a Sewer System, 1st Phase, consisting of (9) sub-projects as described in Tables No.'s 2, 5 and 6. The Summary of Estimated Costs (Direct and Indirect) for Sub-Program I are described in Table No. 7 which shows an estimated total of B/. 8,373,000 from the loan and estimated amount of B/. 932,000 as the local contribution through the IDAAN.

In this Table it can be observed that the B/. 9,305,000 represents the total amount which will be absorbed by the Sub-Program in the 16 sites and areas that the IDAAN will service in the District of San Miguelito.

In order to show the future needs in Phases 2 and 3, the needs of other sites in the District of San Miguelito which require these public utility services have been pointed out (See Table 8). 1/

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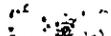
1/ The costs shown in this Table will not be included in the present loan application.



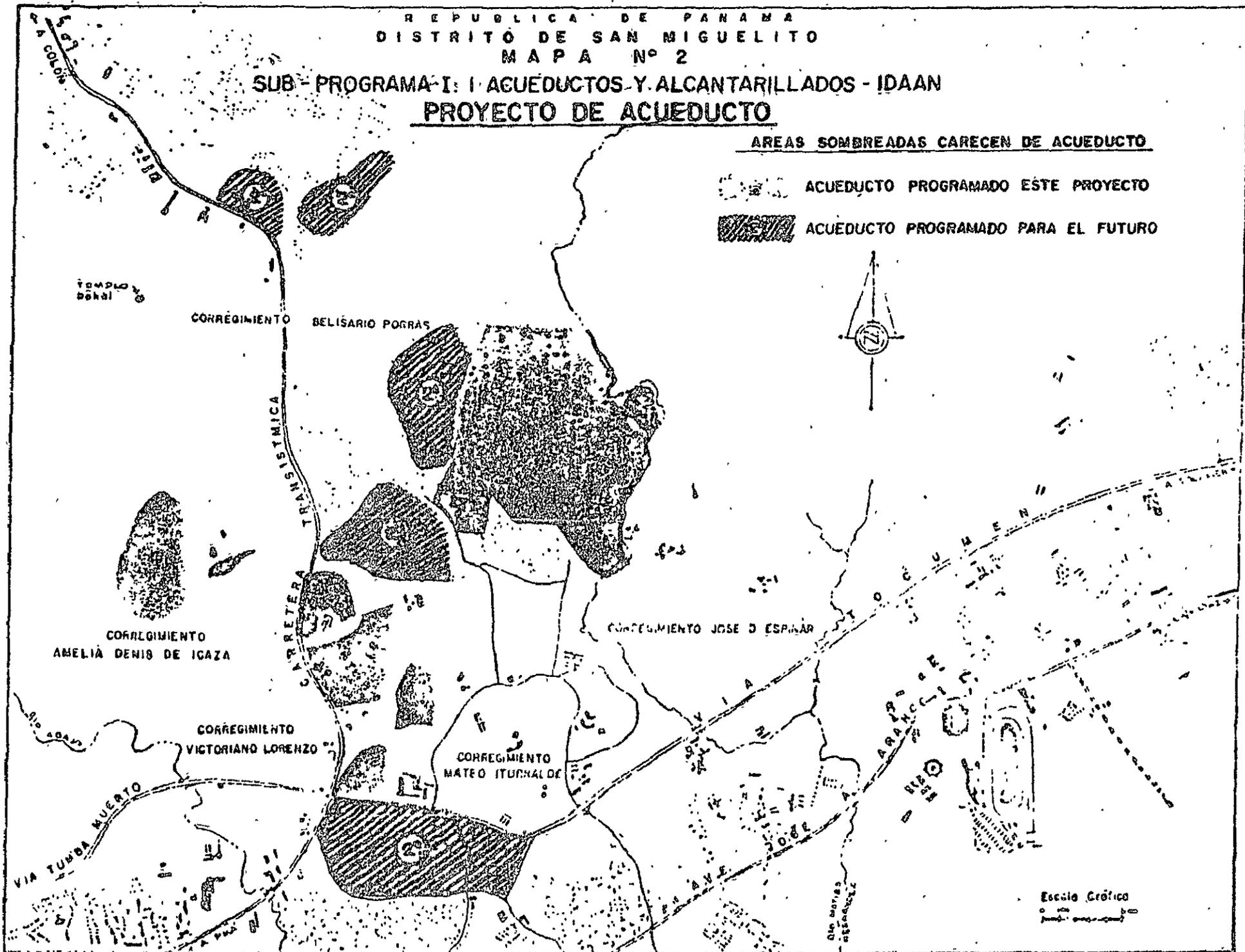
REPUBLICA DE PANAMA  
DISTRITO DE SAN MIGUELITO  
MAPA Nº 2

SUB-PROGRAMA I: ACUEDUCTOS Y ALCANTARILLADOS - IDAAN  
PROYECTO DE ACUEDUCTO

AREAS SOMBREADAS CARECEN DE ACUEDUCTO

 ACUEDUCTO PROGRAMADO ESTE PROYECTO

 ACUEDUCTO PROGRAMADO PARA EL FUTURO





## 2. SUB-PROGRAM II - ELECTRICITY AND PUBLIC LIGHTING - IRHE

### a. Description of the Sub-Program and Technical Considerations

#### i. Description of the Sub-Program

This sub-program proposes to provide electricity and public lighting to a total of 6,045 families benefiting approximately 30,000 persons distributed among the five Corregimientos of the District of San Miguelito. Sub-Program I, Table N° 9 demonstrates by Corregimiento the priority and number of beneficiaries.

#### ii. Source of Energy Supply

The sub-program is located in a sector served by IRHE's Santa Maria and Cerro Viento substations. The latter sub-station is located about 3 kms (1.8 miles) from the project site and was constructed in 1976 to satisfy the growing demand of the area included in the project. These substations form part of IRHE's Integrated Power System

Plenty of generating capacity is available since December 1976 when IRHE completed and placed in service the 150 MW installed capacity Bayano Hydroelectric Plant. The plant generates an average of 700 GWhr/year which is 50% of the generation now required by IRHE's integrated system. At present only the peripheral area of the sub-program has electricity but the sub-program area cannot be serviced due to lack of infrastructure and necessary electrical installations.

#### iii. Estimated Consumption

It is estimated that the total annual consumption of the sub-program area, once completed, will be between 5.6 GWhr and a maximum of 7.25 GWhr.

In the low income housing areas the average consumption per dwelling fluctuates between 100 and 120 KWhr/month.

For the sub-program area 667 street lights have been estimated with an approximate consumption of 339,915 KWhr/year.

#### iv. Specifications

The electrical construction standards will be in accordance with those of the IRHE which for this type of construction are based on the U.S. Rural Electrification Administration (REA) standards.

All equipment utilized must comply with the standards of the NASI, ASTM, DIN or any other equivalent or superior standards.

v. Design and Work Plan of the Sub-Program

The design as well as the work plan of the sub-program will be prepared by the IRHE in coordination with other institutions which will serve in the same areas and sites. (See Table N° 10).

The work plan will be executed in accordance with the program of projects for the sites described, taking into account the priorities listed in the technical studies and pointed out by the authorities and community organizations interested in the sub-program.

b. Estimated Costs (See Table N° 11)

The estimated costs for the electricity sub-program of the District of San Miguelito includes the installation of primary and secondary lines, purchase and installation of transformers, specialized equipment, installation of adjustment lines in the existing system, and the purchase and installation of service connections to the meters as shown on Table N° 11.

The total amount of Indirect Costs has been estimated at B/ 230,000 and it has been included in this document as the local contribution (See Table N° 12).

3. SUB-PROGRAM III: STREETS, SIDEWALKS AND SURFACE DRAINAGE SYSTEM (MOP-MUNICIPALITY OF SAN MIGUELITO)

a. Description of the Sub-Program and Technical Considerations

i. Description of the Sub-Program

This Sub-Program consists of the construction and improvement of streets, sidewalks and storm drainage systems in the District of San Miguelito, including those streets in each Corregimiento which due to their importance need to be paved and/or improved. The completed work will benefit approximately 4,000 families.

The amount of the streets and sidewalks to be paved and/or improved is about 40 kms., distributed by Corregimiento as follows:

	<u>Corregimiento</u>	<u>Length - Km.</u>
1.	José Domingo Espinar (5 Sub-Projects)	3.95
2.	Victoriano Lorenzo (12 Sub-Projects)	6.08
3.	Belisario Porras (18 Sub-Projects)	22.55
4.	Amelia Dennis de Icaza (17 Sub-Projects)	5.84
5.	Mateo Iturralde (2 Sub-Projects)	1.19
TOTAL	54	39.61

ii. Considerations in the Selection of the Sub-Program

1. Background of the Condition of the Street and Drainage Systems

The present condition of the streets under consideration is poor as the majority have an irregular surface of select material, a few are gravel streets and the ones paved with asphalt are deteriorated.

The surface storm drainage system in San Miguelito is in a deplorable state. The majority of the ditches are blocked with garbage or have been dammed to construct entrances to squatter dwellings causing the water to deviate from its channel eroding the surface of the streets. The damage to the streets is complicated because of the hilly terrain and uncontrolled side hill surface drainage.

A survey was made of the present conditions of the streets to be improved and built in each Corregimiento. The survey covers the present state of the pavement, thickness of the surface materials which compose it, bearing capacity and the condition of the drainage system.

## 2. Implementation

The work will be initially started on those streets which have an acceptable aqueduct and sewer system. All other street improvement will be scheduled and constructed after the IDAAN has finished the water and sewer system work.

## 3. Relation with Other Streets and Transportation

There is an existing primary concrete street system which has been in use for several years but is now beginning to deteriorate. This primary street system is insufficient given the rapid growth of the area and planned improvements. Many of the streets to be constructed and improved under this Program will be integrated with the existing network of main streets and will form part of the network of secondary streets.

## 4. Economic Influence in the Area

The improvement and repair of the streets in San Miguelito will have an economic impact in the area, specially as regards the improvement of the transportation system. At present there are areas of difficult access for cargo trucks. Street improvements and repair will not only facilitate the construction of buildings and dwellings but also the distribution of construction materials and commercial merchandise.

### iii. Work Areas of the Sub-Program

#### 1. General Construction Standards

The streets will generally be constructed of select material, or crushed rock, with a double asphalt bearing surface treatment. All sidewalks will be of concrete.

The street design will be based on a 18,000 lbs./axle load for main streets and 14,000 lbs./axle load for secondary streets.

## 2. Special Problems

The construction work will be done primarily during the dry season in order to insure quality and avoid the higher construction costs from being affected by climatic factors.

As some streets will be temporarily closed during the construction, a cooperation campaign will be conducted among the people residing in the area under construction in order to insure compliance with the barriers and detour signs which will be placed during the construction.

### iv. Maintenance Organization

The maintenance of the streets and sidewalks will be carried out by M.O.P. in its capacity as the GOP agency responsible for the maintenance of all roads and streets in the country.

It is planned that once the program is completed a task force including tools and equipment will be assigned to the District. This task force will consist of the following:

Personnel: 1 foreman, 10 workers and 1 truck driver.  
Equipment: 1 dump-truck, 1 manual packing machine.  
Tools: 4 shovels, 4 picks, 2 wheel barrows and 2 street brooms.

The maintenance cost is shown in Section B. hereof.

### b. Estimated Costs

Table N° 13 indicates the quantity unit prices and costs for each sub-project in each Corregimiento, resulting in an estimated total cost of B/1,717,505.

At the District level, culverts for main drainage ditches to carry perennial water will be constructed at an estimated cost of B/146,040.

The amount of B/193,455 has been estimated for contingencies taking into account that part of the work will have to be done during the rainy season.

Total Cost in the Corregimientos	B/1,717,505
Drainage Ditches (District)	146,040
+ 10% for Contingencies	<u>193,455</u>
<b>TOTAL COST</b>	<b><u>B/2,057,000</u></b>

The Government, through the Ministry of Public Works, will contribute an estimated amount of B/80,000 for the study and preparation of all the project plans.

In addition, an estimated amount of B/120,000 will be used for the inspection, administration and execution of the work. The Municipality of San Miguelito will contribute approximately B/200,000 for the construction of concrete sidewalks. The total Government contribution is estimated at B/400,000.

The estimated cost for sub-program III includes the construction and improvement of streets, sidewalks and surface drainage system in different sites (See Table N°14) "Summary of Investments for the Integrated Development of San Miguelito", which involves 54 Sub-Projects for an approximate total amount of B/2,057,000 from the Loan Fund and approximately B/400,000 contributed by the GOP through the Ministry of Public Works and the Municipality of the District of San Miguelito.

4. SUB-PROGRAM IV: RELOCATION-LOTIFICATION; LOANS FOR CONSTRUCTION AND MINIMUM HOUSING UNITS

(MIVI\* - HIGH LEVEL COMMISSION OF SAN MIGUELITO)

a. Description of the Sub-Program and Technical Considerations

i. Objectives of the Sub-Program

The inhabited area within the District of San Miguelito was to a great extent, spontaneously formed. This uncontrolled development has caused a rapid and progressive deterioration of the area and has created an ecologically unbalanced situation, affecting the health and welfare of old as well as new residents. This fact requires urgent implementation of programs to improve

\* Ministry of Housing (MIVI)

these areas. The HLC will carry out a program of identifying, marking, and selling to their occupants, the lots on which they are presently squatting. An estimated 5,460 lots will be conveyed in this manner.

It will be necessary to relocate some families which, due to the location of their shacks, obstruct access, rights of way, and rational land planning. It is for this reason that a reception area has been selected and will be prepared to relocate the displaced families.

ii. Description of the Sub-Program

The relocation area is located in a site adjacent to Cerro Batea and Samaria and will be integrated with these sectors.

The Sub-Program consists of the relocation of some 2,500 families from the different sectors of San Miguelito.

Approximately 90 hectares to accommodate the displaced families will be urbanized at an estimated cost of 3/3.95 million. The plan offers 10 types of alternatives which range from a lot with minimum services to a completely urbanized lot with floor and roof. Within these alternatives a special fund will be established to provide small loans to the families, for home improvement. Following all families will be subjected to a socio-economic study and relocated to a lot with a solution meeting their economic capacity to pay.

iii. The Site of the Relocation Area

The land selected to relocate the dwellers is within the Samaria property which consists of a total of 300 hectares. The site is located at approximately 5 kms. from the Boyd-Roosevelt Highway entering through Tinajilla Road (IDAAN water reservoir).

The distance to the center of town is approximately 20 minutes. This property is registered under number 4,646, Volume 881 IVU, Page 278, in the Real Estate Record Office of the Province of Panama. This property is owned by the District of San Miguelito and is located in the Corregimiento Belisario Porras. It is accessible through the Samaria project and Cerro Batea which was a project constructed by the MIVI. The area selected is vacant at present and readily available to carry out the proposed program in question. (See Map No.4, Project Area, and Map No.5, Topography of the Project Area).

The relocation development area has been designed as an integrated part of Cerro Batea, constructed by the MIVI, and Samaria, developed by the Municipality of San Miguelito. Therefore, it is proposed as a continuation of these two sectors which means that both the road system as well as the electricity and drinking water

systems will be designed taking into account the existing systems in the afore-mentioned areas.

iv. Proximity to Centers and Sources of Employment and Transportation Facilities

This program is located near the Boyd-Roosevelt Highway where there is a concentration of industries which are sources of employment. In addition, there exists a private industrial type urbanization and the industrial sector of the Los Andes project. GOP housing programs are also being developed which generate employment within the construction industry. The Municipal Government is initiating other activities and small industries as a means of developing the community.

Complete urbanization plans are now being designed for the 90 hectares, including sidewalks, surface drainage, lotification, aqueducts and sanitary sewer systems. The program intends to provide approximately 1,455 lots with minimum services, public water with electricity as well as latrines and approximately 1,045 semi-urbanized and completely urbanized lots. Surface drainage systems, streets, and sidewalks will be staged with the intention of completing full urbanization of the area in the future.

Likewise, the capacity of all the main aqueduct and sewer lines installed in this phase will provide capacities to serve the total development of the 90 hectares. This future development will be the responsibility of the respective GOP sector institutions.

Near the area the GOP has construction projects such as the widening of the Tocumen Highway, the State Cement Factory and the new International Tocumen Airport.

As regards transportation, there exist at present 10 public transportation routes which serve the District of San Miguelito and run along the main access highways or avenues such as the Boyd-Roosevelt and Tocumen Highways. These routes also serve the communities of Veranillo, Villa Guadalupe, Samaria, Las 500 and Paraiso.

v. Existence of Community Development Institutions and Facilities in the District of San Miguelito

Annex A shows the existence of 287 organized groups, classified under seven types of activities, in the five Corregimientos of the District of San Miguelito.

vi. Description of the 10 alternatives of the Sub-Program

The following is a brief description of the 10 alternative solutions of the project.

The total estimated cost for this project is B/ 3,951,000, of which B/ 3,500,000 will be from the loan funds and B/ 451,000 will be local contribution through the MIVI and the Municipality of San Miguelito (See Table N° 15)

1. Lots with Minimum Services

The construction of about 755 lots of 200 m<sup>2</sup>, each to include: water service, all-weather streets and/or sidewalks, surface drainage with open lateral ditches, latrines and electricity.

The estimated total cost is B/ 784,000, the cost per unit B/ 1,038 with monthly instalments of about B/ 10.26. For the distribution of the costs of this alternative see Table N°16.

2. Lots with Minimum Services plus Construction Materials

350 lots with an area of 200 m<sup>2</sup> per lot, with minimum services including a loan for the construction materials to complete the relocation of the transplanted dwelling. The estimated total cost is B/ 433,300, the cost per unit B/ 1,238 with a monthly installment of B/ 12.13. (See Table N°17).

3. Lots with Minimum Services plus Concrete Floor

Construction of 350 lots with an area of 200 m<sup>2</sup> per lot which will have a concrete floor area of 35 m<sup>2</sup> with minimum services. The estimated cost is B/ 485,800, the cost per unit B/ 1,388 and the monthly instalments will be B/ 13.60. (See Table N°18).

4. Semi-Urbanized Lots

Construction of 300 lots with an approximate area of 180 m<sup>2</sup> per lot. These lots include minimum services and water and sewer systems with service lines to the property line. The total cost is B/ 549,180, the cost per unit B/ 1,830.60 and the monthly instalments will be about B/ 17.94. (See Table N°19).

5. Semi-Urbanized Lots plus Construction Materials

Construction of 150 lots with an approximate area of 180 m<sup>2</sup> per lot, including minimum services, with water and sewer system plus a loan for the construction materials to complete the relocated dwelling. The estimated total cost is B/ 304,600, the cost per unit B/ 2,030.60 and the monthly installments will be about B/ 19.90. (See Table N°20).

6. Semi-Urbanized Lots plus Concrete Floor

Construction of 150 lots with an area of 180 m<sup>2</sup> per lot, including minimum services, with water and sewer system plus a concrete floor on which the family will build the dwelling. The estimated total cost is B/ 327,090, the cost per unit B/ 2,180.60 and the monthly installments will be about B/ 21.37. (See Table N°21).

7. Urbanized Lots

Construction of 150 lots with an area of 180 m<sup>2</sup> per lot. This solution consists of completely urbanized lots (earthwork, water and sewer system with service lines to the property lines, paved streets or sidewalks, surface drainage system, electricity). The estimated total cost is B/ 311,000, the cost per unit B/ 2,073.60 and the monthly installments will be about B/ 20.32. (See Table N°22).

8. Urbanized Lots plus Construction Materials

Construction of 100 lots with an area of 180 m<sup>2</sup> per lot. These lots will be completely urbanized, as described in alternative 7, and will include a loan for the construction materials needed to complete the relocated dwelling. The estimated total cost is B/ 227,400, the cost per unit B/ 2,273.60 and the monthly installments will be about B/ 22.28. (See Table N°23).

9. Urbanized Lots plus Concrete Floor

Construction of 100 lots with an area of 180 m<sup>2</sup> per lot. In addition to the services included in alternative 7, these urbanized lots include the concrete floor on which the family will build the dwelling. The estimated total cost is B/ 242,400, the cost per-unit B/ 2,423.60 and the monthly installments will be about B/ 23.75. (See Table N°24).

10. Urbanized Lots plus Minimum Housing Unit

Construction of 95 minimum housing units in urbanized lots with an area of 180 m<sup>2</sup> per lot, including the

services provided under alternative 7. The floor and roof area of the unit will be 35 m<sup>2</sup>. The estimated total cost is B/ 286,767, the cost per unit B/ 3,018.60 and the monthly installments will be about B/ 29.58. (See Table N°25).

b. Other Considerations

For the 10 alternative design of this sub-program, the urbanization and floor plans will be designed taking into account their future expansion.

Each family will be issued a deed for the property, duly registered, which will guarantee their permanence on the lot that has been assigned to them. This will provide an incentive to build a permanent dwelling and/or make additions to such in accordance with their means. The flexibility of the architectural design adopted and the standardization of the alternative described will permit intensive utilization of families self-help labor.

The floor will be concrete with block walls and corrugated roofing of asbestos cement or zinc over wooden beams. All materials are manufactured locally. All the work will be constructed in accordance with the current standards and specifications of Panama and good engineering practices will be employed.

The site will be protected from invasion by non-eligible migrants.

c. Availability of Manual Labor

A considerable percentage of the metropolitan unemployed reside in the District of San Miguelito. It can be anticipated that most of the construction work of this sub-program will utilize the manual labor available within this sector.

Some phases of the sub-program will be executed by contracts and others will require the participation of other GOP administration forces.

The construction industry has been an important factor within Panama's economy. Panama has a considerable amount of construction companies with experience, technical capacity and equipment to manage and construct any phase of the sub-program, either through direct contracts or public bids.

d. Inspection of the Sub-Program

The MIVI will have the responsibility of inspecting and supervising this sub-program. Final approval will be given by

this Ministry once all the institutions participating in the construction have performed their work in a satisfactory manner,

e. Estimated Costs

The cost analysis of the sub-program and the break down of unit costs of the 10 housing alternatives proposed were described under section a. It must be pointed out that the concept of salable cost utilized in this document refers to the value at which the user will purchase the solution and in this program they are considered equal to the construction costs.

i. Factors which affect the Costs

The costs of the sub-program can vary due to factors which could affect them directly such as material cost increases, unexpected rocky soil in the project area, increased cost of manual labor, etc.

ii. Cost Analysis of the Alternatives

Refer to section a (iv) hereof and Tables N°'s 15 through 25.

## B. Financial Analysis

The Projects and Sub-Projects under Sub-Programs I, II, III, and IV will be developed, organized, executed and managed by the institutions involved in the Program in accordance with their specific roles as described in the preceding chapters. It is expected that all costs of the projects carried out under Sub-Programs I, II and IV will be recovered since such costs will be paid by the beneficiaries.

The GOP has appointed the Banco Nacional de Panamá (BNP) as the borrowing entity. The roles of each of the participating institutions will be established through agreements effected between the Executive Commission and the respective institution with the BNP's approval.

It is estimated that the beneficiaries will be charged an annual rate of interest of 11% on the mortgage sub-loans granted.

### 1. Income Analysis

The study conducted by ICASE<sup>1/</sup> in 1974 demonstrated that 47.5% of the families of the District of San Miguelito earn a monthly income of less than B/100.00 per month and that 67.8% of such families have monthly incomes of less than B/ 150.00 per month. The median family income of San Miguelito is thus approximately B/ 125.00 per month. This compares with a median family income in the metropolitan area of Panama of B/ 250 per month. The implementing agencies have calculated affordable solutions in each sub-program as follows:

This Sub-Program consists of the following two components:

#### i. Aqueducts

It is estimated that the water consumption per person will be 42 gallons per day until the year 2000. From then on, and taking into account that the water consumption increases as the standard of living improves, 65 gallons have been estimated per person per day.

It has been estimated that 36,062 people will be benefiting by the project, which at an average of 5 persons per family means that the project will benefit approximately 7,412 families.

The current water rate is of B/ 0.68/1000 gallons per month, which by the end of this year will be increased to about B/ 0.75/1000 gallons per month.

1/ Supporting documentation available upon request.

On the basis of this information, it can be concluded that the water consumption amounts to 47,346,705 gallons per month, which implies that at the rate of B/ 0.75 the amount of B/ 35,510 will be collected monthly. (B/ 426,120 annually).

Each family will consume an average of 6,387.5 gallons per month and their monthly payments based on the rate of B/ 0.75/1000 gallons will be B/ 4.79.

ii. Sewer Systems

Using the assessment method, the income is calculated on the basis of the areas benefiting by the main collectors as well as the lateral lines. In this case only one calculation was made.

The cost of the program, without increased costs due to inflation, is B/ 6,673,000, which divided by the project area of 2,610,100 m<sup>2</sup> results in a payment of capital of B/ 2.56 per square meter. The rate of recovery is 11% over 25 years, and the number of lots, based on the average size of 180 m<sup>2</sup> and 200 m<sup>2</sup>, is 14,500 and 13,050 respectively.

The multiplication of the payment of capital (B/ 2.56 ) by the average size of the lots and by the factor for rate recovery of investment results in a monthly payment of B/ 4.50 for lots of 180 m<sup>2</sup> and B/ 5.00 for lots of 200 m<sup>2</sup>.

The amount collected per month, when multiplying these monthly payments by the respective number of lots, would be B/ 130,500 (B/ 1,566,000 annually) based upon 100% collections. However, it is estimated that collections will amount to approximately 55% of this amount or B/ 861,300 annually.

b. Sub-Program II: Electricity and Public Lighting - IRHE

It has been estimated that this Sub-Program will be benefiting 30,225 people, which at an average of 5 persons per family means that the project will benefit approximately 6,045 dwellings.

The total annual consumption of the project area, once completed, will be a minimum of 5.6 GWhr and a maximum of 7.25 GWhr. The consumption per family will range between 100 and 120 KWhr per month.

The studies conducted by the MIVI indicate that 67.8% of the population in the District of San Miguelito have monthly incomes of less than B/ 150.00. It is estimated that 50% of the population earn B/125 or less. Based on this information, it is estimated that 60% of the families benefiting by the project consume 100 KWHr/month and the remaining 40% consume 120 KWHr/month.

The rate for 100 KWHr/month during the month of May was B/ 8.23 and for 120KWHr/month it was B/ 9.36. This rate, increased by 1% until December 1977, will result in a charge of B/ 8.85 in the first case and B/ 10.05 in the second. These rates, adjusted by the fuel clause of 0.004624, amount to B/ 9.27 and B/ 10.55, respectively.

The payments of 3,627 families consuming 100 KWHr/month amounts to B/ 33,622.29 monthly and those of 2,412 families who consume 120 KWHr/month add up to B/ 25,509.90 per month, which means that the total amount collected per year is B/ 709,586.

c. Sub-Program IV: Relocation-Lotification: Loans for Construction Materials and Minimum Housing Units - MIVI

i. Housing

In view of the number of solutions and the monthly installments, the amount recovered from the housing project will be B/ 38,785.40 monthly (B/ 465,425 annually).

The income derived from each sub-program, and their respective projects, is shown in Table N°26.

The monthly payments of the users will be:

<u>Concept</u>	<u>Payment (B/)</u>
<u>Water</u>	4.80
<u>Sewer System</u> (Assessment)	4.50 to 5.00
<u>Electricity</u>	
100 KWHr/month	9.25
120 KWHr/month	10.55

<u>Concept</u>		<u>Payment (B/)</u>
<u>Housing</u>		
Solution	1	10.26
Solution	2	12.13
Solution	3	13.60
Solution	4	17.94
Solution	5	19.90
Solution	6	21.37
Solution	7	20.32
Solution	8	22.28
Solution	9	23.75
Solution	10	29.58

## 2. Counterpart

In order to insure the development and execution of the sub-programs in accordance with the work plan, the design and administrative expenses will be included as part of the costs in each project, but will not be financed by the HIG loan.

These local contributions, estimated at approximately 10% of the project costs, will enable the implementing institutions, (IDAAN, IRHE, MOP, MIVI, Municipality of San Miguelito and High Level Commission of San Miguelito) to prepare the studies of their respective project, develop the final plans and supervise and inspect their work during the construction period for the final acceptance of the project, which includes making the necessary arrangements for bids when required.

In the case of the projects constructed on the basis of self-help techniques, experience shows that a higher allocation of administrative expenses is justified.

## 3. Administrative Costs

It is anticipated that BNP charges for the administration of the loan will be 0.75%. The BNP has had ample experience in the administration of long-term loans and the MIVI has a large portfolio of low income mortgage loans.

The MIVI has additional experience in the administration and financing of infrastructure and housing loans.

### a. Infrastructure Loans

The public services institutions, IDAAN and IRHE, will charge the users for their services through surcharges included in

the monthly bills. These institutions, in turn, will remit all payments to the BNP in accordance with the agreements signed for the execution of the above mentioned projects.

b. Loans for Construction Materials and Minimum Housing

Both the MIVI and the High Level Commission of San Miguelito (HLC) have had good experience with loans granted to low income families. The total mortgage portfolio of these two institutions is intended for this level of family income which is unable to obtain financing from other local financial sources.

In order to execute the present program with guaranteed funds, the GOP will enact a special regulation authorizing the MIVI and HLC to increase their interest rate for mortgage loans from 7% to 11%. GOP policy in regard to interest rates for similar programs will be based on the actual cost of the funds utilized to finance the program, plus administrative and service charges, but in no case less than 7%.

4. Other Costs

In addition to the aforementioned mortgage costs, the users must pay the corresponding life insurance premium established in this program.

5. Cash Flow

Table N° 26 shows the cash flow and Tables Nos. 27 and 28 show the disbursement calendar for the Program, including and excluding inflation, respectively. Table N°29 shows disbursement calendar of loan funds during the construction period. In order to develop a cash flow it has been assumed that the projects will be carried out in a coordinated manner to avoid interference between them. It must be clarified, however, that not all the projects will be developed in each area. The IDAAN has completed some of the project plans and expects to start work immediately after the agreements have been signed with the Executive Commission.

In the work plan it has been established that once Sub-Program I (Aqueducts and Sewer Systems) and Sub-Program IV (Relocation-Lotification: Loans for Construction Materials and Minimum Housing Units) have been started, Sub-Program III (Streets, Sidewalks and Surface Drainage System) will follow. However, it is necessary to clarify that the construction of some projects in certain areas is independent from the execution of the other projects and therefore said construction can be initiated at any time. The last Sub-Program which will be initiated is II (Electricity and Public Lighting) whose work, with the exception of the main feeder, should commence three months after the other projects have been started, especially Sub-Program III.

It is estimated that the entire program will be executed in 29 months taking into account that Sub-Program IV should be started in October 1977, and that Sub-Program I should be finished by February 1980. The coordinated work plan indicates that Sub-Program IV will be executed in 18 months. The Aqueduct and Sewer System Projects of Sub-Program I, which will be initiated in January 1978, will be finished in 22 and 24 months, respectively. Sub-Program III which will also be initiated in January 1978 will be finished in 22 months with a recess period during the months of September and October 1978. Sub-Program II, to be initiated in February 1978, will be executed in 12 months with a recess period from October 1978 to September 1979.

The work plan is shown in Tables Nos. 30 to 34. Based on this work plan, during the fourth quarter of 1977 it will be necessary to invest B/ 607,100 of which B/ 455,200 will consist of loan funds that will be reimbursed once the loan documentation has been signed; this is expected to occur during the first semester of the following year. It is estimated that the investment per semester during 1978 will be in excess of B/ 5.0 million whereas in 1979 said investment will be B/ 3.5 million during the first semester and B/ 2.4 million for the second semester. During the first quarter of 1980 only B/ 131,100 will be invested.

Of the investment effected in the entire program, less than 90% will consist of external funds.

#### 6. Total Cost of the Program

The total cost of this Program has been estimated at B/ 17,012,400, of which B/ 15.0 million will be provided by the loan fund and the balance of B/ 2,012,400 represents the GOP counterpart contribution through the implementing institutions.

#### 7. Government Guarantee

The GOP will guarantee to the US Government payment of capital and interest related to the loan. A decree of the National Legislative Council will authorize the BNP to sign the loan agreement and the Ministry of Treasury to issue a state guarantee of the loan under consideration.

## C. SOCIAL ANALYSIS

### 1. Participation of Organized Groups

Since its establishment over a quarter of a century ago the community of San Miguelito has demonstrated that given the living conditions of its inhabitants and the complex problems which exist therein, special attention from government authorities was required.

The inhabitants of San Miguelito slowly searched for the means to become a self-developing community by joining together to solve their most urgent problems. As an example mention must be made of some groups which were formed during the '50's. In 1952 San Miguelito Unido was created and in 1954 the Civic Society of San Miguelito was organized. The main objective of both groups was to improve the precarious living conditions of the inhabitants of San Miguelito.

Subsequently, other groups, committees and societies were organized with the purpose of achieving improvements for the dwellers of this community which was growing at an astonishing rate.

As a result of community organization and policy, the San Miguelito Plan was created in 1969 with the basic purpose of incorporating community participation in the decisions which affect them. The object of the Plan was to form a community organization which would permanently fight for the improvements desired by the then heavily populated Corregimiento of San Miguelito. On the other hand, the Plan also wished to encourage internal organization in the assemblies held by societies and planned sectors in order to promote community integration.

All this organizational background motivated by clearly defined objectives aimed at improving living conditions led the National Government to realize that San Miguelito not only required priority attention but that it also needed political and administrative mechanisms to confront the complex problems which exist in the area.

By means of Cabinet Decree N°258 of June 30th., 1970, the Revolutionary Government created the Special District of San Miguelito and on September 1st. of that same year the First Community Assembly was established which is the forefather and model of the present Panamanian legislative political structure: The National Assembly of Corregimiento Representatives.

At present the District of San Miguelito is divided into five (5) Corregimientos and in each one there is a Community Council whose objective is to promote community development and look after the solution of its problems.<sup>1</sup> These Local Councils are presided over

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<sup>1</sup> Article 224 of the Constitution.

by the Representative of the Corregimiento and its respective Boards of Directors include the Corregidor and three citizens of the Corregimiento.<sup>2</sup>

All the problems affecting individuals, neighborhoods and those of the Corregiduría are channeled through the Local Councils which form part of the Municipality.

There exist at present 101 Local Councils. Each Local Council is managed by a Board of Directors consisting of 7 directors and 5 deputies. The members are elected by popular democratic vote once a year and all those persons over 15 years of age are eligible to participate in the voting. The members may be re-elected if the community considers that the work accomplished has been beneficial for the population.

These Local Councils play an important role in the communities as they work with the Representative of the Corregimiento and the DIGEDECOS \* officials identifying the problems which affect the population and attempting to find immediate solutions to such problems. Those problems which the Local Councils are unable to solve are handled by the Community Councils.

The Local and Community Councils are organized through committees in charge of production, health and social assistance, roads, community development activities, sports, etc.

The minimum age required to become a member of the Community Councils is 18 and 15 for the Local Councils. Other requirements are that the individual must reside in the community and show a genuine interest in solving the most pressing problems of the area.

In general it can be said that the majority of the Community and Local Councils of the District work quite dynamically. Among their various activities they work with schools, through the Education Commission, to achieve solutions to those problems related to increased school registrations. These Councils also try to develop some preliminary projects in order to increase the few employment sources. This is the case of the Victoriano Lorenzo Community Council which intends to open a knitting workshop with industrial machinery as a means of alleviating the present unemployment situation.

a. Cooperative Movement

The cooperative organization is a relatively recent event

<sup>2</sup> Article 225 of the Constitution.

\* Dirección General de Desarrollo de la Comunidad (Community Development Commission)

in San Miguelito. It was initiated between 1960 and 1963 with the participation of the Catholic Church of Panamá. The first cooperatives were the following: three credit cooperatives, one consumer cooperative and one production cooperative. Subsequently, a transportation cooperative was organized.

The most active ones at present are the consumer and transportation cooperatives.

The GOP is promoting a housing cooperative in the Nueve de Enero community which will be located within the twenty two (22) hectares presently occupied by this community.

b. Labor Union Movement

These groups have only developed effectively during the last few years due to the support which they have received from the GOP through the approval of the new Labor Law encouraging the organization of labor unions.

At present there exist 169 organizations with 55,000 affiliates. Of these, 115 operate in the Province of Panama with 36,264 members.

During the past five years 82 new unions have been created which incorporate 17,897 members who represent 32.5% of the total existing in the Republic.

Many of the workers residing in San Miguelito are affiliated to different unions which operate at a provincial level.

The Amado Engineering Company, which is established in the District, has a professional and labor union whose members are mostly community residents. This union has collective contracts with the company and it is affiliated to national federations.

c. Other Groups

The District of San Miguelito has other civic organizations involved in development activities for the benefit of the community residents. These organizations can be temporary (such as committees of electricity, water, streets, bridges, etc.) or permanent (Boy Scouts, Lions Club, Girl Guides, etc.). In addition, there exist other organizations such as CARITAS and APLAFA which are involved in social welfare programs throughout the country.

Another group oriented towards the development of the District of San Miguelito is the Economic Planning and Development Commission. This is a multidisciplinary group which is integrated

by professionals who reside in the District. Its main objective is to encourage development projects for the benefit of the inhabitants of San Miguelito.

d. Organized Groups in the District of San Miguelito

Table No. 41 lists the organized groups existing in the Corregimientos of the District of San Miguelito.

2. Employment, Unemployment and Underemployment in the District of San Miguelito

a. Employment

The economically active population of San Miguelito in 1974 consisted of 33,504 people, which represented 32.2% of the total population.

Of this economically active population, only 86.0% were working, i.e., approximately 28,817 people who represent 27.7% of the total population. The dependent population, which was quite high, amounted to 75,183 people.

Another important fact identified by the ICASE survey was the reduced participation of women in productive labor. Of the total number of people employed, women represented 26.8% while men represented a total of 73.2%.

b. Unemployment

i. The data obtained from the 1970 Population Census revealed the following situation:

Total Population	70,140
Active Population	22,271
Unemployed Population	3,741
Unemployment Rate	16.8%

ii. The most recent data pertaining to the employment situation of the District is derived from the 1974 ICASE study entitled "Socio-economic and Educational Diagnosis of San Miguelito". According to this analysis, the number of unemployed people was 4,687 which represented an unemployment rate of 14%.

Of these 4,687 unemployed, 2,660 had worked before the survey was conducted. Of this total, 42.8% are men and 57.2% are women.

Active Population	33,504
Unemployed Population	4,687
Unemployment Rate	14%

iii. In view of the rapid population growth of the District, it is estimated that in 1976 the population reached 124,350. Assuming that between 1974 and 1976 no great changes took place in the District's activity rate, the economically active population in 1976 consisted of 40,000 people. If, on the other hand, the unemployment rate identified in 1974 has not increased, the approximate number of unemployed people would be 5,600. Based on the hypothesis that the unemployment rate at least reached the 1970 level (16.8%), then the number of unemployed people in 1976 was 6,700, which indicates a high unemployment rate.

### c. Underemployment

Open unemployment, as calculated in the preceding paragraphs, does not constitute the core of the employment problem. Concealed or disguised unemployment and underemployment, both of which exist to a considerable extent in the District, significantly aggravate the situation. According to the ICASE survey, a great proportion of the employed population is underemployed and these evidently do not appear in the figures calculated for open unemployment.

Unemployment and underemployment rank among the most important problems which affect this District and they constitute a permanent concern for local and national authorities.

Most of the manpower of San Miguelito consists of unskilled manual laborers, a fact which aggravates the unemployment and underemployment problem of the District.

### 3. Growth and Migration

The Special District of San Miguelito is characterized as an area with an accelerated population growth due to the fact that it is a receiving center of migratory groups who come from different rural regions of the country searching for better living conditions.

In addition to the population resulting from rural migrations, the District's population consists of low income families from the capital city who have moved to San Miguelito pressured by the great housing shortage and the high rental fees of urban dwellings.

These situations constituted the basis of San Miguelito's initial growth, especially during 1950 when low income families began to take shelter in the 2,807 hectares of land located between the Boyd-Roosevelt Highway and the Tocumen Highway.

If a comparison is made of the population growth rates of San Miguelito with those of the Province of Panamá and of the entire country, it will be evident that the District's population growth rate surpasses them by an ample margin.

This can be verified by the following data. At the date of the 1960 Population Census, the population of San Miguelito consisted of 12,975 inhabitants whereas at the date of the 1970 Population Census this figure had increased to 68,400 which represents an increase of 427.2%. On the other hand, the population growth rate registered for the Province of Panamá during the same period was 54.8% and for the entire country it was 32.8%.

It was estimated that on June 10th., 1975, the population of San Miguelito was 114,200, which represented a high population density (2,235 inhabitants per Km<sup>2</sup>) and an annual growth rate of 9.5%.

According to population projections, it has been estimated that by 1980 the annual rate of growth of this District will be 9.2% and its population at June 1st. of that same year will be 169,870.

Although it is true that in San Miguelito high demographic growth rates have been registered, the factor which contributes the most to this rapid growth are the immigrants who come from the rural areas of the country. The following table illustrates this statement:

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Population Growth of San Miguelito by Live Births  
and Immigration. Years 1971 - 1972 - 1973

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Years	Total Population	Increase	Births in S.Miguelito	%	Immi- gration	%
1970-1971	77,430	7,260	2,869	39.3	4,421	60.7
1971-1972	85,840	8,410	3,125	37.2	5,285	62.8
1972-1973	94,750	8,910	3,095	34.7	5,815	65.3

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It is evident that the flow of immigrants which this District is continuously receiving accounts for almost two thirds of its population growth.

In the District of San Miguelito, as in all communities or urban centers that are recipients of a large number of immigrants, a series of problems result from these population movements which the community is unable to solve due to its lack of absorption capacity.

Among the most pressing problems existing in the District as a result of this phenomenon are the following: housing shortages, high unemployment and underemployment rates, lack of social and public facilities such as schools, health centers, aqueducts, sewer systems, electricity, etc.

In brief, San Miguelito is a District where there exist a number of serious socio-economic problems which must be dynamically attacked in order to avoid a deterioration of the present situation.

#### 4. Access to Credit

The sources of credit which up to now have been available in the District of San Miguelito are few. Considering that one of the basic problems of the District is housing, the efforts made so far within this field have been oriented towards the fulfillment of this need.

An example of the foregoing is the B/2.2 million loan granted halfway through 1975 by the Banco Hipotecario Nacional to the Municipality of San Miguelito for the Samaria Project (PROSA).

This Project is developing 318 hectares through which it intends to benefit a great number of families with housing problems.

In addition to semi-urbanizing the area, this Project has started production projects for the benefit of the residents of Samaria and of the District of San Miguelito in general. These projects are intended to reduce unemployment and thereby enable the residents to improve their dwellings and purchase household furniture as well as food.

#### 5. The Role of Women

Women have always played an important role in the socio-economic development of the District of San Miguelito.

Since the creation of all the civic organizations in San Miguelito, women have been active participants and have demonstrated their initiative as well as their willingness to work and cooperate to improve their community. Specifically, women have searched for solutions to such problems related to the lack of drinking water, streets, schools, sidewalks, etc.

At present there exist several organized women's groups in San Miguelito which work with the District and Corregimiento authorities. (See Annex A ).

Women's Committees exist in the five Corregimientos and most of them are very active groups permanently involved in improving the living conditions of the families who reside in the area. Among the various activities of these women's groups is the pursuit to create child care centers in order to enable women to incorporate themselves into the labor force. These groups also organize several training courses for women in sewing, handicrafts, among others, which allow women to improve their family income while working at home.

Although the women of San Miguelito have achieved some of their objectives, their activities still require more support and development so that a greater number of women may have access to the benefits derived from child care centers and training courses.

At present there exist in the District two child care centers in the Corregimiento Jose Domingo Espinar and three in the Corregimiento Victoriano Lorenzo.

#### D. ECONOMIC ANALYSIS

##### 1. A View of the Panamanian Economy

As from 1974 a sharp decline in economic growth can be observed due to the disappointing performance of the main sources of growth and the lack of new substitute sources. In effect, between 1974 and 1976, the average annual rate of growth was 0.33%. The reversion of Panama's general economic tendencies, as explained above, shows the following distinct characteristics:

a. Private demand, that is, both consumption and private investment, showed a decreasing tendency: consumption declined from an annual rate of growth of 4.5% for the period 1971-1973 to negative rates between 1973 and 1975 and private investment declined from an annual rate of growth of 12.6% during the 1970's to a negative rate for the period 1973-1975.

b. The public expenditure components, both in consumption (although it declined from 8.12% in the past decade to 5.5% during the years 1973-1975) as well as in investments (which registered an impressive increase with an annual rate of over 17% during the past decade to almost 33.0% during the period 1973-1975), were the dynamic elements within the general economic framework and compensated for the negative effects caused by the decrease of private demand.

c. The external demand showed a declining tendency between 1973 and 1975.

d. As a result of the foregoing factors, economic activity has experienced serious stagnation and in view of the continuous population growth this has resulted in a decrease of per capita income and an increase of the unemployment rate.

e. As regards the supply, the different sectors of the economy show similar tendencies to those observed in relation to the global demand, that is:

i. The sectors with a strong demand from the public sector (public administration, services and electricity, gas and water) showed an increase.

ii. The sectors affected directly or indirectly by internal private demand (commerce, construction and industry) showed a considerable decrease in their activity rates.

iii. The remaining sectors (transportation, storage and communications) showed the positive effects of the activity of the Colon Free Zone.

iv. The services to the Canal Zone registered a decline due to the policy of the Panama Canal Company in regard to salaried jobs.

v. The agricultural sector shows fluctuations which reflect the internal price policies, the international market situation and, in some cases, specific sector problems such as a drought, etc.

iv. The external supply (imports) was reduced in volume due to its relation with the general economic activity, including the harmful effects of the conditions of international trade, and to the decline of the production level of the oil refinery which considerably increased the importation of refined petroleum products.

The main factors which determined the aforementioned performance of Panama's economy during the past few years are the following:

a. The increase in world inflation accompanied by a marked recession hampered the formulation of economic policies aimed at rectifying its effects.

b. The decrease in the rates of growth of the gross internal product which in some cases were negative.

c. The sharp decrease of manufacturing production

- d. The rapid increase of unemployment rates
- e. The price increase of oil and other products which Panama imports.
- f. The significant decline in demand for products which Panama exports as a result of the worldwide economic recession.

The difficulties of Panama's economy during 1975 and 1976 were basically centered around four key sectors: agriculture & livestock, Industry, construction and commerce, wholesale and retail. The Canal Zone is excluded as it has been fluctuating with no particular tendency since 1970.

If these sectors had maintained the 1975 levels, the gross internal products would have grown 1.5% with respect to 1975, as it can be observed in the following table:

SECTOR	1975	1976	Change
Agriculture & Livestock	183.6	182.6	-1.0
Agriculture	147.4	141.5	-5.9
Industry	174.9	172.0	-2.9
Construction	66.5	60.2	-6.3
Commerce, Wholesale & Retail	153.7	147.1	-6.6

If agriculture had also maintained the 1975 levels, the gross internal product would have grown to 2.0%.

Other sectors of the economy registered growth. These were mines and quarries, electricity et al. and various services.

In order to make a forecast for 1977 it is important to anticipate how these sectors will perform.

As regards the agricultural and livestock sector, the key variable is the rate of rainfall. Up to now (June 1977) the amount of rainfall has been adequate. This enables us to predict a growth of 3.0% to 5.0% for this sector.

The performance of other sectors can also be predicted on the basis of the results of a recent study carried out by Professor Sjaastad<sup>1/</sup> who, utilizing a monetary approach, concluded that Panama's recession during 1975 and 1976 appears to follow a traditional pattern and was caused by deficiencies in the final demand due to a great increase in the demand for money in real terms. This increase in the demand for money by the private sector coincided with a reduction of credit for the public sector, which was compensated during 1975 by the private sector's accumulation of cash but not so in 1976.

Consequently, the implications for 1977 and 1978 are favorable. Evidence indicates that during the first four months of 1977 bank deposits have grown at a smaller rate than during 1976 while at the same time the credit rate of growth has increased.

If these tendencies are projected for the entire year, there could be a recovery of the economy in real terms of around 3.0% or 4.0%.

Therefore, considering what we know about the agricultural and livestock sector and the monetary sector, we can make a conservative prediction that the economy will grow at a rate of 3% in real terms.

## 2. Payment Capacity of the GOP

The aforementioned problems will not affect the GOP's payment capacity of the proposed guaranteed loan. In effect, the GOP's indebtedness in 1976 amounted to B/ 843.0 million, which reflects a net increase of B/ 132,8 million with respect to the preceding year. This net increase was due to the demand of funds required to maintain the development process of the country and the credit will only amount to 1.78% of that total. If the aforementioned favorable predictions materialize and as Panama increases its productive capacity, especially by the time when amortization of the loan capital begins, the country will be in a very healthy financial and economic situation. <sup>1/</sup>

## E. ENVIRONMENTAL CONSIDERATIONS AND IEE THRESHOLD DECISION

A study and assessment of existing environmental conditions in the San Miguelito District concluded that several areas were of potential concern. These included: 1) serious environmental health problems related to water supply, storm drainage and sewage disposal; 2) housing quality and overcrowding; 3) accessibility and convenience of public services; 4) municipal sewage collection and treatment; 5) unemployment and underemployment; and 6) general social unrest and dissatisfaction.

<sup>1/</sup> "Money and Credit in Panama", 1977; study conducted for MIPPE.

<sup>2/</sup> The above analysis of the Panamanian economy is based upon the information provided on Tables 35 to 40.

Based on these and other environmental concerns, the proposed HG program was evaluated as to its potential impact on the physical, socio-economic, and cultural dimensions of these problems. An environmental impact identification matrix was utilized to analyze the potential effect of each component of the AID program. In each case, with one exception, the conclusion was that the environmental impact of the program would not cause a significant change in existing conditions of the human environment. The evaluation concluded that a high degree of environmental sensitivity in its broadest sense has been exhibited in the design of program components and numerous mitigating measures have been incorporated into the overall program. Because no significant reduction in adverse environmental effects could be reasonably expected from any future study, the initial environmental examination (IEE) recommended a Negative Determination\* for each project element with the exception of sewage disposal.

It was determined that the sewage disposal element of the project may have a significant impact on the human environment in the foreseeable future. For this reason, the preparation of an Environmental Assessment has been called for to determine that any significant adverse environmental effects from this one project activity have been adequately analyzed and have been minimized. Preparation of an EA for the sewage disposal aspect of the project would not involve interruption of critical program implementation since construction for this phase is not scheduled to begin until the second quarter in FY 78. Therefore, the following actions are recommended:

- Authorization of the entire \$15 million for the project.
- Preparation of an EA for the sewage disposal phase only of the project and consideration of its results in the final sewage design decision--even in the unlikely event that the result of the EA is that sewers and sewage connections should not be built.
- Incorporation in the Authorization and Housing Guaranty of a condition precedent to first disbursement or to the issuance of any commitment documents under the Project Agreement providing that an EA shall be prepared and its results included in the final design of the project.

In implementing the actions of the proposed HG program, it is recommended that special considerations be given to conducting an assessment of San Miguelito's land requirements for future public uses so that these needs are not pre-empted or foreclosed by Phase I's work. Reservation of public lands in appropriate locations for such uses as community facilities, recreation areas, open space in flood-prone areas, etc., would be particularly timely in Phase I, since it involves resubdivision and lotification of existing lands as well as conveyance of property titles. Accomplishing this initial planning for San Miguelito's future community needs will set the stage for speedy implementation of future planned projects and minimize potential complications.

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\*The IEE is available in AID/W files.

PART IV. PROGRAM PERFORMANCE

A. Participating Agencies

1. Program Administrator

a. Executive Committee

The Program for the Integrated Development of the District of San Miguelito, shall be administered by an Executive Committee, which is organized as presented in Annex C.

The Executive Committee shall be made up of the following:

1. Minister of Planning and Economic Policy or a designated representative, who shall act as Chairman of the Committee.
2. The Mayor, legal representative of the Municipality of San Miguelito, or a designated representative, who shall act as Vice-Chairman of the Committee.
3. A legal representative of the Banco Nacional de Panama, who shall act as Treasurer of the Committee.
4. The Minister of Housing or a designated representative
5. The Minister of Public Works or a designated representative.
6. The Chief Executive of the Water Institute (I.D.A.A.N.) or a designated representative.
7. The Chief Executive of the Institute for Electricity and Water Resources (I.R.H.E.) or a designated representative.

i. Duties of the Executive Committee

The duties of the Executive Committee shall be basically the following:

1. Determine general policy regarding design, performance, control and administration of the development program.

2. Coordinate with the Executive Level of the institutions participating in the works to be realized.

3. Supervise the works of the Technical Division to assist them in their general functions.

4. Approve program proposals and present them for the approval of the Ministry of Planning and Economic Policy and the Controllers Office for presentation to the National Bank (B.N.P.), legal representative of the GOP to the loan agreement.

5. Approve the implementation plan for the works.

b. Technical Direction

The High Level Commission (HLC) of San Miguelito shall designate a representative who shall be the Technical Coordinator for the program. The Technical Direction shall consist of additional personnel for planning and budgeting, Legal Counsel, General Administration, Special Notary and Secretary to provide logistic support to the program.

For the technical aspects, the Technical Direction shall receive assistance from the Municipality.

i. Duties of the Technical Direction

1. Shall be directly responsible for the coordination of the work by the diverse institutions.

2. Shall coordinate the work of the personnel of the institutions in the administrative aspects and shall be responsible that the program is completed within the cost and time frame and within the budget.

3. Shall coordinate the preparation of all requests for disbursement and their presentation for final approval by the Executive Committee

4. Shall act as a liaison between the Executive Committee and the participating agencies in the preparation of the design, execution and the budget within the prescribed time and cost.

c. Controller (External Consultant)

The Controller's Office will designate a representative (Principal Auditor), to carry out the work of assessment <sup>and</sup> supervision

of the budget for the completed work.

d. Political Committee

The Political Committee will consist of the Honorable Representatives of the 5 Corregimientos of the District of San Miguelito, with their Representative Committee and local groups.

i. Duties of the Political Committee.

The duties of the Political Committee is to furnish political support to the program division of the activities, the organization of the community to implement a system of mutual help and self-help and the institutional coordination for the mobilization of the beneficiaries of the program and support to those families that will be relocated as a Sub-Program IV.

e. Municipal Engineering Division

The technical support that will be furnished to the assisting personnel of the Municipality through the Municipal Engineering Office shall constitute the operating mechanism for the technical support of the program as described in earlier chapters.

2. Administrators for the Sub-Programs and Project Implementation

a. Legal representatives:

Following order:

1. Services, consisting in the 3 following projects:

1. Sub-Program I. Water & Sewage System, performed by:

National Water & Sewage Institute (IDAAN).  
Via Brazil, Panamá, Panamá  
Legal Representative: Dr. Julio Sandoval,  
Executive Director

2. Sub-Program II. Public Electricity, performed by:

Institute for Electricity and Water Resources  
(I.R.H.E.)  
Calle 35 and Ave. Cuba, Hatillo Building  
Panama, Panama  
Legal Representative: Arq. Edwin Fabrega,  
General Director

3. Sub-Program III. Streets, Water and Drainage,  
performed by:

Ministry of Public Works  
David, Chiriquí, Republic of Panamá  
Legal Representative: Ing. Nestor T. Guerra,  
Minister

Municipality of the San Miguelito District,  
Panamá, Republic of Panamá  
Legal Representative: Major  
Lic. Deusdedith Escobar

4. Sub-Program IV. Relocating and Sub-Dividing,  
Sites and Services, Loans for construction materials for minimum  
housing; performed by the Ministry of Housing:

Ministry of Housing  
Mexico Ave. and 12 de Octubre Street  
Panamá, R. of Panamá  
Legal Representative: Lcdo. Tomás G. Altamirano  
Duque, Minister

High Level Committee of San Miguelito  
San Miguelito, Panamá  
Local Representative: Ing. Nilson Espino,  
Legislative Commissioner

b. Sub-Program and Projects Coordinator

Each institution shall designate a competent coordinator. Those coordinators from each institution (IDAAN, MIVI, IRHE and MOP), shall coordinate their departments.

The relocation, lotification and the transfer of families shall be coordinated by a competent professional from the High Level Commission.

The budget dispositions such as support personnel (secretaries, messengers, etc., as well as office materials) shall be the responsibility of each institution.

The responsibility of the Coordinator of each Sub-Program shall be as follows:

1. Administer the design, execution and control of the Sub-program of their charge.
2. Coordinate the field programs so that these are realized with the program planned.
3. Prepare the physical programming in the work as well as the financial portion to assure that the disbursements program of the sub-programs and respective projects shall be in accordance with the physical advances of the work.
4. Shall have under their responsibility the preparation of the annual investment budget.
5. They shall be responsible for the performance of the personnel assigned to the program within each institution.
6. Within the Commission they shall be responsible for the personnel assigned by their agencies for the execution of the work. At the same time they shall coordinate the works for each institution.

## B. EVALUATION PLAN

### 1. Monthly Progress Evaluation

As was indicated earlier, the complementary progress evaluation of the results expected in the schedule will be carried out in a regular basis.

It is expected that the Executive Committee will submit to AID summarized monthly progress reports for their consideration. These reports must include the proposed projects according to the advance and the executing agency, as well as information on projects under construction.

Annual evaluations will be made jointly by AID and the Executive Committee to monitor the overall global progress compared with the implementation plan. A major joint evaluation will also be carried out after the second year. The purpose of these evaluations is to identify operations problems and to develop administrative improvements within and between the agencies.

A series of recommendations must result from each evaluation with the necessary adjustments to be made later. The periodic visits of the technical advisor will be scheduled to coincide with the annual evaluations so as to maximize his contribution. The primary reason for the evaluations will be to confirm the capacity of the institutions that will execute the program.

In addition to the above, AID will review the sub-program plans of the Program and will make regular visits to inspect the construction sites and the field offices of the institutions. Recommendations covering technical aspects of the Program will result from these inspections.

On completion of the loan, the evaluation will be directed toward determining if the objectives of the Program were realized. The results of this final evaluation will be placed at the disposition of GOP, AID and others, who might learn from the experience of the Program.

The coordination between the institutions executing the sub-programs will be a necessary condition for the implementation of the loan of the above described Program.

Some indicator questions in the evaluation might be: if the families participating in the Program are satisfied with their investment, if the living conditions have been improved as a result of the Program, if the participating families are capable of making their payments, and if the experience has been sufficiently satisfactory to

motivate local investors to finance similar projects.

Whether the quality and efficiency of the work of the participating institutions improved, and whether the very same institutions will be prepared to carry out subsequent projects and on a larger scale.

The answers to these questions will largely determine the success or failure of the Program.

Improvements in the standard of living of the families who benefit (from the program) can be observed in the field by way of interviews and information (i.e. schools, clinics, etc.).

Data in regard to the repayment of the loan will be available from the administrative and financial institutions.

If the Program helps to improve the present system for upgrading marginal areas and demonstrate that the commercial interest rate of the funds can be utilized to achieve this purpose, it can be reasonably expected that additional local resources might be available and can be used efficiently. The success of the program will lead to improving the capacity of the GOP to serve the poor urban sector.

Whether or not the Program results in better housing and services for a larger proportion of the population can be verified by examining the census data, by field observation, and by information in the hands of the executing institutions.

## C. CONDITIONS AND STATE OF THE NEGOTIATIONS

### 1. Negotiations

Once the loan is authorized, a Letter of Advice will be sent to the Banco Nacional de Panama, which in this case is the Borrower, and a notice will be placed in The Federal Register to invite interested Lenders to submit proposals in regard to the Loan.

The Banco Nacional de Panama, in consultation with the Executive Committee, will enter into negotiations with the objective of obtaining financing for the Program under the best terms and conditions possible.

The terms and conditions of the 4 basic documents of the project guaranty will be negotiated simultaneously.

The legal documents are:

- a. The Loan Agreement between the Investor and the Banco Nacional de Panamá.
- b. The Guaranty Contract: AID and the Investor.
- c. The Implementation Agreement: AID and the Banco Nacional de Panamá, acting on behalf of the Executive Committee.
- d. The Guaranty Agreement of the Republic of Panama: AID and GOP.
- e. Before these documents are executed, a Supreme Decree of the Cabinet Council approving the loan and the guaranty of the GOP must be presented.

## 2. Conditions Precedent for Disbursement

Prior to the first disbursement of the loan, the Borrower shall present for AID's knowledge and approval where required at least the following:

- Disbursement procedure from the Banco Nacional de Panamá to the Implementing Agencies, and the system and staffing for administration of the Loan to be established by the Banco.
- Consolidated Program Work Plan providing estimated scheduling of the Program and Cash flow data.
- Schematic plans and schedules for the construction of each Sub-Program.
- Evidence that land for Sub-Program IV (Sites and Services) has been legally set aside for the Program.
- Names and titles of the members of the Executive Committee, the Technical Director for the HLC, and the responsible officers of the Implementing Agencies of each Sub-Program.
- Statement of the procedures planned for constructing each Sub-Program, and for inspecting the work during construction.
- Such other information as AID may reasonably request.

Prior to subsequent disbursements of the Loan, the Borrower shall provide updated Work Programs and Cash flow schedules, and such other information as AID shall reasonably request.

Prior to the first disbursement of the Loan, the Borrower shall provide AID with the proposed framework for imposing and collecting user charges which have been calculated for recuperation of the costs of Sub-Programs I and II, and for inscribing the mortgages providing for recuperation of the costs of Sub-Program IV, as well as such other information as AID may reasonably request.

In addition, prior to first disbursement of the loan, an Environmental Assessment shall be prepared and its results included in the final design of the project.

Evaluations as described in Section IV (B) will then be conducted to assure that the cost recuperation aspects of the Program are being carried out with reasonable efficiency.

### 3. Advance Disbursements

Disbursements of the Loan in advance of construction of up to \$5 million will be considered by AID upon presentation of appropriate justification by the Borrower.

In view of (a) the necessity of commencing Sub-Program IV in advance of Sub-Programs I, II, and III, so that families displaced by the other Sub-Programs can be relocated to the new Sites and Services project, and (b) the fact that Sub-Program IV should be commenced as soon as the dry season starts in November, 1977, costs of up to \$0.5 million incurred by MIVI in commencing Sub-Program IV after Project Authorization but before execution of the Project Agreements may be reimbursed from proceeds of the Loan; provided that the technical documents and inspection procedures utilized in the work so commenced are satisfactory to A.I.D.

MONTHLY FAMILY INCOME DISTRIBUTION FOR METROPOLITAN  
PANAMA CITY AS OF JUNE 30, 1975 (1)

Total Population: 538,776  
No. of Families: 113,652  
Ave. Family Size: 4.7

Salary Range In U.S. \$	No. of Persons	%	No. of Families	%	Cum. %
0 - 74.99	19,908	3.70	7,812	6.87	6.87
75 - 99.99	15,876	2.95	4,032	3.55	10.42
100 - 124.99	21,672	4.02	5,796	5.10	15.52
125 - 174.99	59,724	11.09	13,608	11.97	27.49
175 - 249.99	89,460	16.60	19,152	16.85	44.34
250 - 499.99	170,856	31.71	33,768	29.71	74.05
500 - 749.99	91,224	16.93	16,632	14.63	88.68
750 - 999.99	31,248	5.80	5,796	5.10	93.78
1,000 - & more	38,808	7.20	7,056	6.22	100.00
	538,776	100.00	113,652	100.00	100.00

According to the above information the median monthly family income for Metropolitan Panama City was approximately \$300.00 as of June 30, 1975.

(1) Source: Dirección de Estadística y Censo, Panamá

8/16/77

# TELEGRAM

20 PM '77

INDICATE  
 COLLECT  
 CHARGE TO USAID

*RU 30*

FROM	CLASSIFICATION
AMEMBASSY PANAMA	UNCLASSIFIED

E.O. 11652:  
TAGS:  
SUBJECT:  
ACTION:  
INFO

N/A

R 222120Z JUL 77 7

FY 77 Slum Upgrading & Home Improvement PP San Miguelito 5257

SECSTATE WASHDC 2870

AMEMBASSY LA PAZ ~~XXXXXXXXXX~~ 2135

AMEMBASSY ASUNCION ~~XXXXXXXXXX~~ 1226

UNCLASSIFIED PANAMA 5257

DCM  
AID  
CHRON

AIDAC  
FOR KILGORE  
REF. STATE 170029

1. Joint USAID/P-RHUDO-GOP team coordinated by Ministry of Planning and including fulltime representatives of USAID/P-RHUDO, Ministry of Housing, IDAAN (Water & Sewer), IRHE (Electric Power), Ministry of Public Works and high-level Commission representing local governments in San Miguelito area have prepared draft project paper. Mission-RHUDO currently analyzing draft, identifying remaining problems to be addressed and putting it into PP format. Estimate completed PP will be ready for presentation AID/W week of 15 August. Appropriate SER/H TDY assistance will be requested ASAP in order to meet mid-August deadline.

DRAFTED BY I. Tragen: D/P Saenz, DD: bv	DRAFTING DATE 7/22/77	TEL. EXT.	CONTENTS AND CLASSIFICATION APPROVED BY: Irving G. Tragen, Director
--	--------------------------	-----------	--

CLEARANCES:

Dir. I Tragen (draft) *[Signature]* ~~XXXXXXXXXX~~ 1

OES: C Donato / F Vergara *[Signature]* RHUDO: J Rodriguez

REC: ~~XXXXXXXXXX~~

CONT: W Naylor

ODP: R Mathias *[Signature]* 7/22

~~XXXXXXXXXX~~

UNCLASSIFIED

CLASSIFICATION

*file*

2. GOP interest and priority is fully demonstrated by high level commitment of time and resources to preparing documentation for subject project in less than 6 weeks when GOP facilities, especially in Planning Ministry, already strained by heavy workload related to treaty negotiations, PRODIAR and other development programs. In addition, General Torrijos and several Ministers have publicly stated that this project is urgent and critical priority for GOP; in fact, GOP Vice President Gonzalez has personally chaired several of the working sessions to assure timely completion of project in order secure FY 77 funding.

3. Mission strongly <sup>recommends</sup> ~~recommends~~ that, if this project is submitted in time for FY 77 decision -- and our time-table at this time indicates that we can meet the mid-August deadline --, it be funded under FY 77 HIG authority. Immediate FY 77 authorization would expedite negotiation of the project with the GOP and initiation of urgently needed action program to alleviate and upgrade conditions in San Miguelito. It would also provide positive response by USG which well might be useful in showing AID support for Panamanian development in connection with treaty negotiations. Given level of effort by GOP to prepare project, plus actual conditions in San Miguelito area,

Mission urges that every effort be made to fund project under FY 77 HIG authority.

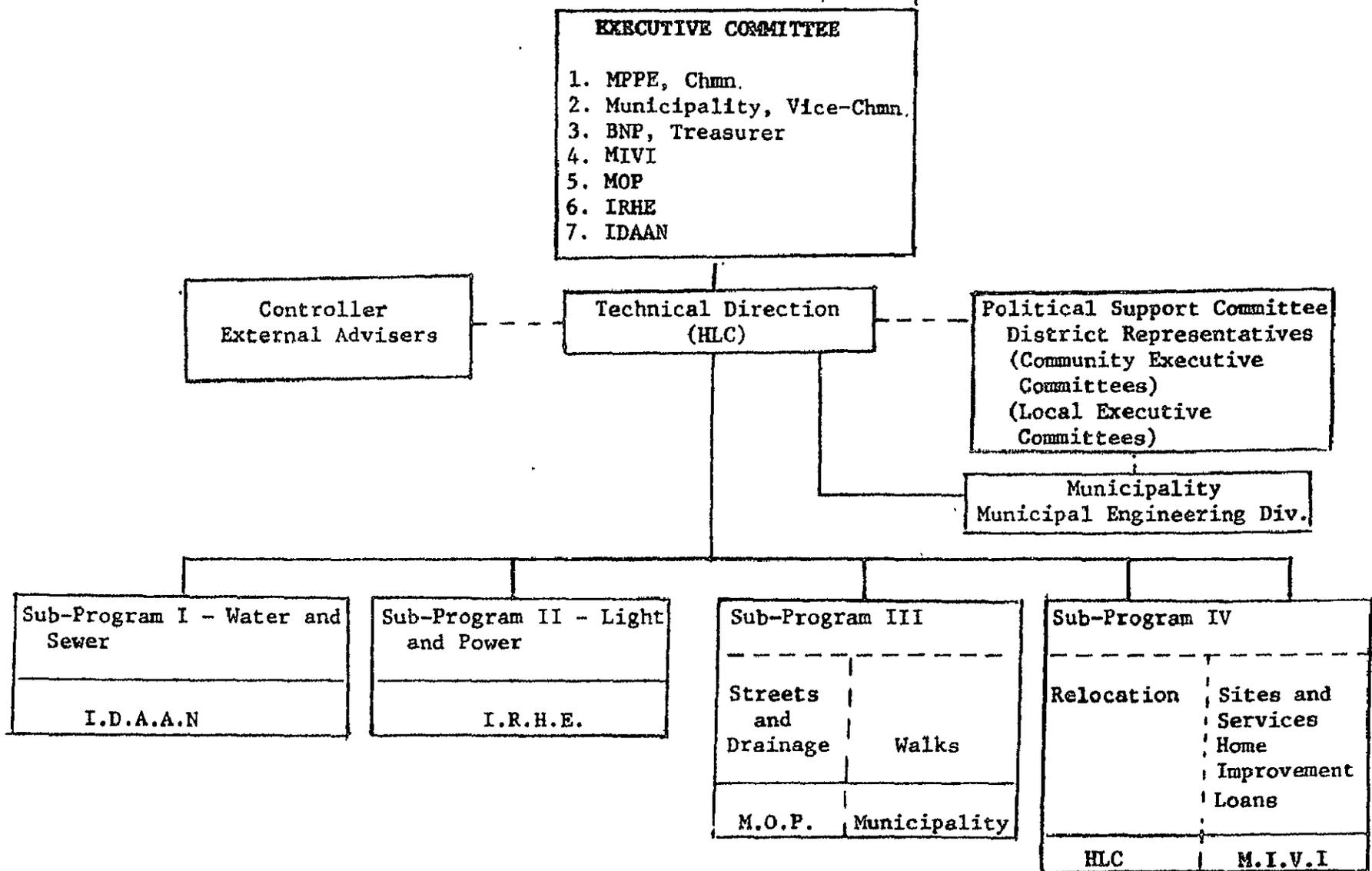
4. Remaining questions will be addressed in PP.

  
JORDEN  
BENZALEZ

ANNEX C

ADMINISTRATIVE ORGANIZATION FOR IMPLEMENTATION OF THE PROGRAM

PROGRAM AID-GOP --- DISTRICT OF SAN MIGUELITO



**EXECUTIVE COMMITTEE**

1. MPPE, Chmn.
2. Municipality, Vice-Chmn.
3. BNP, Treasurer
4. MIVI
5. MOP
6. IRHE
7. IDAAN

Controller  
External Advisers

Technical Direction  
(HLC)

Political Support Committee  
District Representatives  
(Community Executive Committees)  
(Local Executive Committees)

Municipality  
Municipal Engineering Div.

Sub-Program I - Water and Sewer

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I.D.A.A.N

Sub-Program II - Light and Power

---

I.R.H.E.

Sub-Program III	
Streets and Drainage	Walks
M.O.P.	Municipality

Sub-Program IV	
Relocation	Sites and Services
	Home Improvement
	Loans
HLC	M.I.V.I.

R HUDD

REGIONAL HOUSING AND URBAN DEVL OFFICE  
 RECEIVED:  
 JUL 21 1977  
 ACTION TO:  
 DATE:  
 ACTION TAKEN:  
 DATE:

**ACTION COPY**  
 ACTION TAKEN  
 DATE INITIALS

UNCLASSIFIED  
 ACTION TO:  
 DATE:

11-3

0 0120037 JUL 77  
 BY SECRETARY WASHDC  
 TO AMEMBASSY PANAMA PRIORITY 6445  
 UNCLAS STATE 170020

AIDAC  
 E.O. 11652: N/A  
 TAGS:

SUBJECT: REVIEW OF FY 77 SLUM UPGRADING AND HOME IMPROVEMENT PID

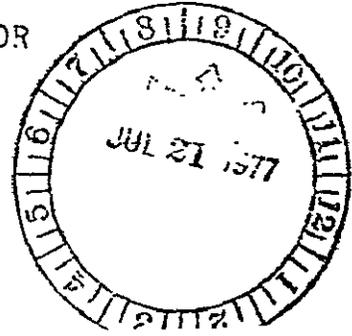
1. AGREEMENT IN PRINCIPLE GIVEN TO PROCEED WITH DEVELOPMENT OF PP FOR FY 77 PROPOSAL WHICH WILL PROVIDE BASIC INFRASTRUCTURE, A SITES AND SERVICES PROJECT, AND INDIVIDUAL LOANS FOR HOME IMPROVEMENTS. MAJOR ISSUES RAISED WHICH SHOULD BE ADDRESSED DURING PREPARATION OF PP ARE AS FOLLOWS:

OFF	ACT	INF
DIR		✓
D/DIR		
A/DIR	X	
EX-C		
ODP		1
ECCN		
SMC		
CONT		
EDU		
HRD		
CES		1
ARD		1
EXC-P		
SPC		
AAG		
IIS		
RHUDD		1
EMB		
C&R	2	

A. HOW DOES THIS PROJECT FIT INTO THE OVERALL MISSION DEVELOPMENT ASSISTANCE STRATEGY FOR PANAMA? APS NARRATIVE SUMMARY AND 1975 DAP INDICATE MISSION STRATEGY FOR PANAMA IS DEVELOPMENT OF INTERIOR AND STRENGTHENING OF REGIONAL GROWTH POLES. HOWEVER, PROPOSED HIG WILL FOCUS EXCLUSIVELY ON UPGRADING ACTIVITIES IN MAJOR SLUM DISTRICT IN VICINITY OF CAPITAL CITY. APPARENT CONFLICT BETWEEN PURPOSES THIS PROJECT AND STATED MISSION DEVELOPMENT STRATEGY FOR PANAMA SHOULD BE RECONCILED.

B. HOW DOES THIS PROJECT FIT INTO THE GOP SHELTER STRATEGY AND WHAT DATA WILL BE USED TO JUSTIFY THE FIT OF THIS PROJECT WITH THAT STRATEGY? ALTHOUGH IT WAS NOTED THAT GOP

UNCLASSIFIED  
 PERFORMED A SHELTER SECTOR ASSESSMENT IN 1972 UNDER SER/ SUPERVISION, AND THAT AN URBAN SECTOR ASSESSMENT CURRENTLY IS BEING CONDUCTED IN CONJUNCTION WITH THE REGIONAL GROWTH AND SERVICE CENTER DEVELOPMENT PROJECT, THE BUREAU QUESTIONED ADEQUACY THIS DATA TO PROVIDE RATIONALE FOR PROPOSED SAN MIGUELITO PROJECT VIS-A-VIS OVERALL GOP STRATEGY FOR SHELTER IN PANAMA.



UNCLASSIFIED  
 Classification

C. HOW IMPORTANT IS IT TO MISSION AND GOP THAT THIS PROJECT BE FUNDED USING FY 77 HIG AUTHORITY, AND WHAT JUSTIFICATION CAN MISSION PROVIDE SUPPORTING EVIDENT HIGH PRIORITY ATTACHED TO PROJECT? PROJECTS IN AUTHORIZATION PROCESS PRIOR TO RECEIPT OF SUBJECT FY 77 PID ON MAY 31, 1977 EXCEED EXISTING FY 77 HIG PROGRAM TARGETS. ACCOMMODATION MISSION REQUEST MAY INVOLVE POSTPONEMENT OTHER ACTIVITIES.

D. TO WHAT EXTENT IS GOP COMMITTED TO RECUPERATING COSTS AND HOW WILL THIS BE ACCOMPLISHED FOR THE INSTALLATION OF INFRASTRUCTURE THIS PROJECT? ISSUE RAISED ABOUT HG OPERATIONAL EXPERIENCE SLUM UPGRADING IN GENERAL, AND THE GOP RECORD TO DATE IN SUPPORTING SELF-LIQUIDATING SCHEMES FOR HOUSING AND PHYSICAL INFRASTRUCTURE FOR LOW-INCOME HOUSEHOLDS. WOULD STRONGLY URGE THAT "LESSONS LEARNED" FROM OTHER WORLDWIDE HIG EXPERIENCES INVOLVING THE INSTALLATION OF BASIC INFRASTRUCTURE, ETC., AND RECUPERATION OF COSTS BE INCORPORATED INTO PROJECT DESIGN.

E. WHAT TECHNICAL ASSISTANCE, IF ANY, WILL BE REQUIRED TO HELP GOP IMPLEMENT THE PROJECT? TA REQUIREMENTS SHOULD BE ASSESSED DURING PREPARATION OF PP AND DETERMINATION MADE WHAT FUNDS WOULD BE UTILIZED.

F. HOW DOES PROPOSED PROJECT PROMOTE AID SHELTER POLICY OBJECTIVE OF INSTITUTIONAL DEVELOPMENT, TECHNICAL AND FINANCIAL INNOVATION, AND REPLICATION?

2. YOUR EARLY INDICATION OF PROPOSED WORK PLAN TO ACHIEVE FY 77 AUTHORIZATION WILL BE APPRECIATED. VANCE  
BT

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

(INSTRUCTION: THIS IS AN OPTIONAL FORM WHICH CAN BE USED AS AN AID TO ORGANIZING DATA FOR THE PAR REPORT. IT NEED NOT BE RETAINED OR SUBMITTED.)

Life of Project: From FY 78 to FY 81  
Total U.S. Funding: HIG 15,000  
Date Prepared: AUGUST 1, 1977

PAGE 1

AID 1670 28 (1-73)  
SUPPLEMENT 1

Project Title & Number: SLUM UPGRADING AND HOME IMPROVEMENT 525-HG-009

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes: (A-1)</p> <ol style="list-style-type: none"> <li>1. Assist the Government of Panama in the implementation of its marginal urban area redevelopment policy through the establishment of a pattern of institutional cooperation with local coordinating commissions.</li> <li>2. Demonstrate that the housing and public service needs of marginal area redevelopment can be met and satisfied through loans financed at commercial rates of interest, with a maximum of local participation and a minimum of national government subsidy.</li> </ol>	<p>Measures of Goal Achievement: (A-2)</p> <p>Organizational and administrative arrangements designed for this program operate efficiently and effectively.</p> <p>Substantial local participation in planning and implementing program.</p> <p>Additional programs of marginal area redevelopment planned and carried out on a similar basis.</p> <p>Direct and indirect costs financed by HIG are recuperated from beneficiaries.</p>	<p>(A-3)</p> <p>Periodic Evaluation by joint AID-GOP team.</p> <p>Periodic post-completion audits of MIVI, IDAAN, IRHE records in regard to program.</p>	<p>Assumptions for achieving goal targets: (A-4)</p> <ul style="list-style-type: none"> <li>-GOP Ministries can cooperate with each other and with High Level Commission of San Miguelit</li> <li>-Continued GOP priority will be given to the needs of urban poor</li> <li>-GOP Ministries and autonomous agencies will enforce collection procedures.</li> <li>-Economic conditions are such that target group continues to be able to pay.</li> </ul>

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: \_\_\_\_\_  
From FY 78 to F.Y. 81  
Total U.S. Funding HIG 15,000  
Date Prepared: August 1, 1977

Project Title & Number: SLUM UPGRADING AND HOME IMPROVEMENT 525-HG-009

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose: (B-1)</p> <p>Create as quickly as possible the basic infrastructure for the integrated development of the San Miguelito District.</p> <p>2. Rearrange the actual occupation of the area in a rational manner.</p> <p>3. Strengthen administrative support at both the local and national levels.</p> <p>4. Raise residents' sense of social and civic responsibility.</p> <p>5. Broaden the focus of the High Level Commission of San Miguelito to be able to deal effectively with the entire range of housing and social service needs of the District as an example of re-development programming in marginal urban areas.</p>	<p>Conditions that will indicate purpose has been achieved: End-of-Project status. (B-2)</p> <p>1. The basic infrastructure is completed or planned for completion in phases.</p> <p>2. The area is planned, lots are surveyed, marked and conveyed; excess population is relocated.</p> <p>3. The organizational pattern established for the Program is institutionalized for later phases of development.</p> <p>4. Support and assist residents implementing agencies. Crime and delinquency rates decline. Appearance of existing dwellings, public buildings improves.</p> <p>5. Programs to develop other areas of Panama and Colon are developed by MIPPE utilizing institutional pattern developed for Program.</p>	<p>(B-3)</p> <p>1. On-site inspection review of plans.</p> <p>2. On-site inspection. Review of Property Registry. Interviews with homeowners.</p> <p>3. Observation and discussion with GOP officials.</p> <p>4. Observation of political and social organization of residents, press reports, interviews with group leaders. Statistics on social problems. On-site inspection.</p> <p>5. Observation, press reports, interviews with appropriate officials.</p>	<p>Assumptions for achieving purpose: (B-4)</p> <p>1. Organizational structure is effective, agencies will work together. Terrain is physically suitable for infrastructure development.</p> <p>2. Residents will support rationalization including necessary relocation. Residents can be prevented or will prevent each other, for permitting new occupations of identified and conveyed properties.</p> <p>3. GOP Agencies and HLC will project enthusiasm and cooperation generated by Program into future.</p> <p>4. Local organized groups will continue to work effectively with membership after impetus generated by Program is dissipated.</p> <p>5. HLC retains effective capable leadership, retains support of highest levels of GOP, retains support citizenry.</p>

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: \_\_\_\_\_  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U. S. Funding \_\_\_\_\_  
Date Prepared: \_\_\_\_\_

Project Title & Number: \_\_\_\_\_

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Outputs: (C-1)	Magnitude of Outputs: (C-2)	(C-3)	Assumptions for achieving outputs: (C-4)

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: From FY 78 to FY 81  
Total U.S. Funding: HIG 15,000  
Date Prepared: AUGUST 1, 1977

Project Title & Number: SLUM UPGRADING AND HOME IMPROVEMENT 525-HG-009

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Inputs: (D-1)	Implementation Target (Type and Quantity) (D-2)	(D-3)	Assumptions for providing inputs: (D-4)
1 AID a) Housing Guaranty Loan b) Technical Assistance	1. a) \$15,000,000 b) As required	1. SER/H Records	1. High Loan available at feasible rate of interest
2 GOP In-kind contributions Land	2. Admin. & Tech Staffs Office Space & Equip. Heavy Const. Equip. and Vehicles.	2. Project Records	2. Sufficient qualified Technical and Administra- tive Staff available in implementing Agencies.
3 Community of San Miguelito Participation and support.	90 Hectares of Land for Sub-Program IV Rights of Way  3. Community participation in planning  Coordination of Relocation. Support in providing Rights of way.	3. Project Evaluation	3. Community residents support their leadership after they find out what new services and homesites will cost each.

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: From FY 78 to FY 81  
Total U.S. Funding: HIGH 15,000  
Date Prepared: August 1, 1977

AID 1072 28 11 731  
SUPPLEMENT 1

Project Title & Number: SLUM UPGRADING AND HOME IMPROVEMENT 525-HG-009

PAGE 3

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Outputs: (C-1)</p> <ol style="list-style-type: none"> <li>1. Infrastructure services               <ol style="list-style-type: none"> <li>a. Water and Sewer Services.</li> <li>b. Electrical connections</li> <li>c. Streets and walks</li> </ol> </li> <li>2. Sites and Services with /without improvement loans.</li> </ol>	<p>Magnitude of Outputs: (C-2)</p> <p>Approx. 11,000 families served with water, sewer or both.</p> <p>Approx. 6,045 families served with electricity</p> <p>Approx. 4,000 lots served with vehicles and/or pedestrian access</p> <p>Approx 2,500 families provided with new homesite.</p>	<p>(C-3)</p> <p>Monthly reports Annual Evaluations On-site inspections Project Monitoring by RHUDO/PSA Project Records. End of Project Evaluation.</p>	<p>Assumptions for achieving outputs: (C-4)</p> <ul style="list-style-type: none"> <li>-Rights of way can be obtained without lengthy juridical procedures</li> <li>-Terrain is suitable for construction proposed</li> <li>-Residents will support program</li> <li>-Institutions have capacity to carry out construction.</li> </ul>

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

GUARANTY AUTHORIZATION

Provided from: Housing Investment Guaranty Authority  
Panama: National Bank of Panama

Pursuant to the authority vested in the Assistant Administrator, Bureau for Latin America, by the Foreign Assistant 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 percentum (100%) of loan investment and interest with respect to loans by eligible U. S. investors acceptable to A.I.D. made to finance housing projects in Panama.

This guaranty shall be subject to the following terms and conditions:

1. Term of Guaranty: The loan shall extend for a period of up to thirty years (30) from the date of disbursement of the first installment of the loan, including a grace period on the repayment of principal not to exceed ten (10) years. The guaranty of the loan shall extend for a period beginning with the first disbursement of the loan and shall continue until such time as the Investor has been paid in full pursuant to the terms of the loan.

2. Interest Rate: The rate of interest payable to the Investor pursuant to the loan 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.

3. Government of Panama Guaranty: The Government of Panama shall provide for a full faith and credit guaranty to A.I.D. in United States dollars assuring against any and all losses to A.I.D. 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 of one per centum (1/2%) per annum of the outstanding guaranteed amount of the loan plus the fixed amount of \$150,000 to be paid as A.I.D. may determine upon disbursement of the loan.

5. Other Terms and Conditions: The guaranty shall be subject to such other terms and conditions as A.I.D. may deem necessary.

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Assistant Administrator  
Bureau for Latin America

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Date.

STATUTORY CHECKLIST

PANAMA

Banco Nacional de Panama

Section 222(b)

The proposed guaranty will enable financing of self-liquidating housing projects in Latin America for lower income families and persons as provided for in Section 222(b)(3).

Section 222 (c)

The total face amount of guaranties issued, outstanding at any one time, shall not exceed \$1,030,000,000.

Section 223 (a)

The A.I.D. guaranty fee has been determined by A.I.D. in accordance with the authority delegated by the President.

Section 223 (f)

The maximum rate of interest allowable to the eligible U.S. investor, to be prescribed by the Administrator, will not be more than one percent above the current rate of interest applicable to housing mortgages issued by the Department of Housing and Urban Development.

Section 223(h)

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.

Section 223 (j)

(1) Panama is a country that is presently receiving development assistance under Chapter 1 Part 1 of the Act.

(2) The proposed Housing Guaranty will be coordinated with and complementary to other development assistance to Panama.

(3) The proposed Housing Guaranty will demonstrate the feasibility and suitability of particular kinds of housing and financial institutional arrangements.

The project is designed and planned by A.I.D. so that at least ninety percent (90%) of the face value of the proposed guaranty will be issued for housing suitable for families with incomes below the median income (below the urban median income for the housing in urban areas) in Panama.

The \$15,000,000 housing guaranty will be authorized in Fiscal Year 1977. The face value of guaranties issued (i.e. authorized) with respect to Panama in this fiscal year will not exceed \$25 million. It is planned that the average face value of all housing guaranties issued in any fiscal year shall not exceed \$15 million

Section 238(c)

The guaranty will cover only lenders who are "eligible investors" as defined in this section of the Act at the time the guaranty is issued.

Section 620/620A

There is no available information as to facts which would prohibit the furnishing of assistance to Panama.

TABLE N°1

- AQUEDUCTS AND SEWER SYSTEMS - IDAAN  
SAN MIGUELITO  
"AQUEDUCT - 1st PHASE"

SITE LOCATION	COMMITMENTS	PRIO CITY	MCA (MI)	ESTIM. POPUL. BENEFIT	CONST. COST %	SOURCE	EXIST. SIST.	PROP. WORK DIST. NET.	DISE. BY IDAAN	WATER AV. WATER RESERV. CONSUM.		MATERIAL CONDUIT LINES	DIST. LINES	PUMP STATIONS	DESIGN WATER PIPES	SPEC. IDAAN	CONST. INSPEC. IDAAN	PROGRAM IDAAN
										1976	2000							
Indateno	Indateno	1	6.95	1032	140,000	L.P.		/	/	/	42	65	/	/	/	/	/	/
San de En	San de En	2	7.1	450	150,000	L.P.		/	/	/	42	65	/	/	/	/	/	/
San Pedro	San Pedro	3	8.0	1000	185,000	L.P.		/	/	/	42	65	/	/	/	/	/	/
San José	San José	4	9.075	1500	195,000	L.P.		/	/	/	42	65	/	/	/	/	/	/
San Juan	San Juan	5	10.4	3600	210,000	L.P.		/	/	/	42	65	/	/	/	/	/	/
San Luis	San Luis	6	21	11400	210,000	L.P.		/	/	/	42	65	/	/	/	/	/	/
San Carlos	San Carlos	7	225.46	27,000	1,000,000	L.P.		/	/	/	42	65	/	/	/	/	/	/
TALES				37,062	2,370,000													

IDAAN CONTRIB. Design: 237,000  
 Contingency: 25,000  
**TOTAL COST: 2,630,000**  
 \* L. MADDEN LAKE  
 P. CHILIAKE TREATMENT PLANT  
 V. TRANSMISSION WATER LINE  
 T. FOCUMEN WATER LINE.

TABLE NO. 2

- AQUEDUCTS AND SEWER SYSTEMS - IDAAN  
 SAN MIGUELITO  
 "SEWAGE - 1st PHASE"

SITE LOCATION	CORREGIMIENTO	PRIORITY	AREA (Has.)	ESTIM. BENEFIT POPUL.	CONST. COST \$/1000	SEWAGE TREATMENT	DESIGN	CONSTR. PLANS READY	DESIGN CAPACITY	MATERIALS MAIN LINES	TRIAL SECOND. LINES CONCEPT	MANHOLES STAND. IRON	SPECIAL MANHOLE	DOMESTIC LIQUID CONCRETE	MAT. TEST	DOMESTIC CLEAN OUT
Colectora Cabrera Lima	Victoria Lorenco Analia Denis de Jara	1	100.0	40,000	500,000	NO			✓	✓	✓	✓	✓	✓	✓	✓
Ilveto Peraniillo Fct 19, 23, 22, 17	Belisario Porras Analia Denis de Jara	2	53.65	6000	1,300,000	NO	✓	✓	✓	✓	✓	✓		✓	✓	✓
Ilveto Peraniillo Fct 21, 27, 20, 30, 37	Analia Denis de Jara	3	30.35	5100	1,000,000	NO	✓	✓	✓	✓	✓	✓		✓	✓	✓
Parusia	Victoria Lorenco Analia Denis de Jara	4	8.66	1300	160,000	NO	✓	✓	✓	✓	✓	✓		✓	✓	✓
San Isidro	Belisario Porras	5	30.	5000	780,000	NO	✓		✓	✓	✓	✓		✓	✓	✓
San Antonio	Victoria Lorenco	6	6.95	1032	248,000	NO	✓		✓	✓	✓	✓		✓	✓	✓
Gelbert	Victoria Lorenco	7	10.40	3600	320,000	NO	✓		✓	✓	✓	✓		✓	✓	✓
Pan de Azucar	Analia Denis de Jara	8	21	6720	720,000	NO	✓		✓	✓	✓	✓		✓	✓	✓
Varios	"	9		1150	310,000											
TOTALES P. IDAAN				29,902	6,003,100											

IDAAN CONTRIB.: Design: 610,000  
 Contingency: 60,000  
 TOTAL COST: \$ 6,673,000.

TABLE N°3

SUB-PROGRAM: I

AQUEDUCTS AND SEWER SYSTEMS  
 "AQUEDUCT - DESIGN - 1st PHASE"  
 IDAAN  
 SAN MIGUELITO

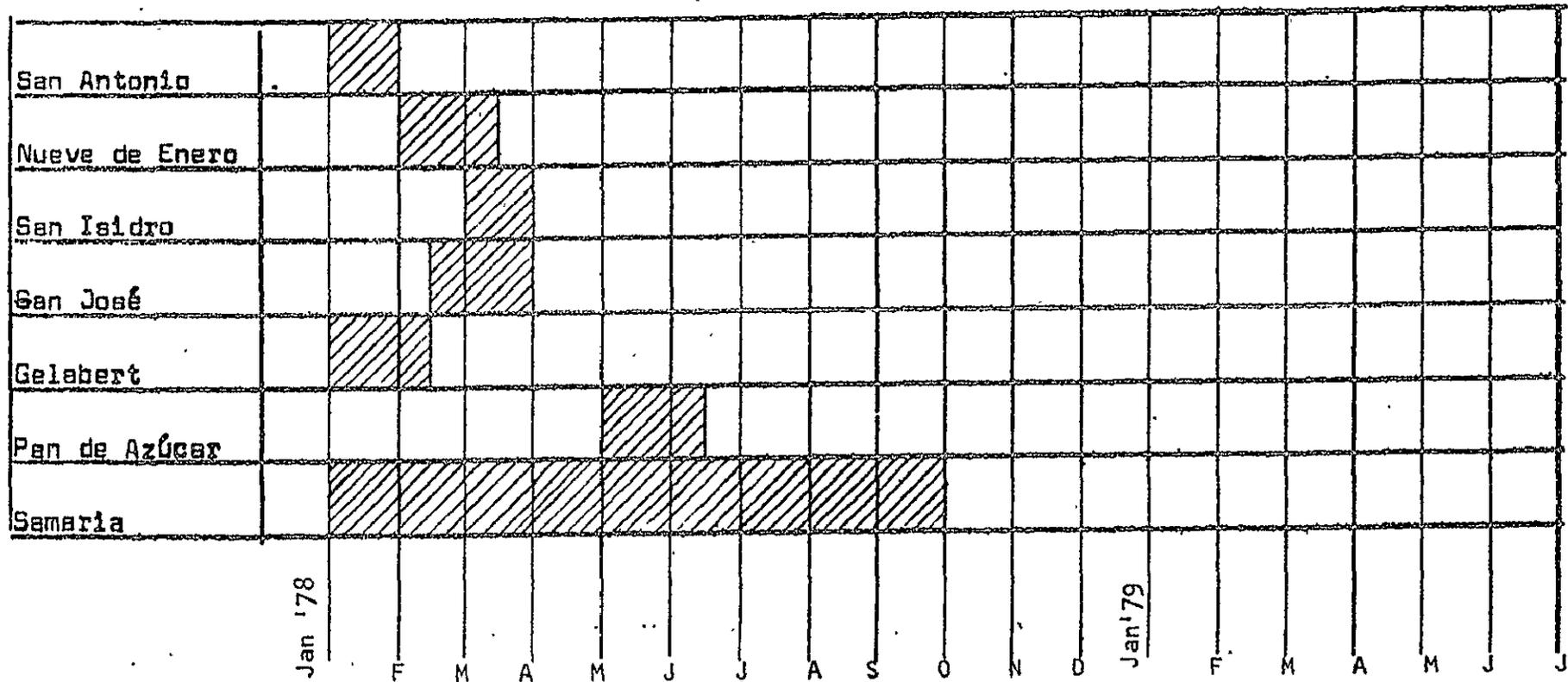


TABLE No.4

SUB - PROGRAM I. C. - AQUEDUCTS AND SEWER SYSTEMS  
 "AQUEDUCT - CONSTRUCTION - 1st PHASE"  
 IDAAN  
 SAN MIGUELITO

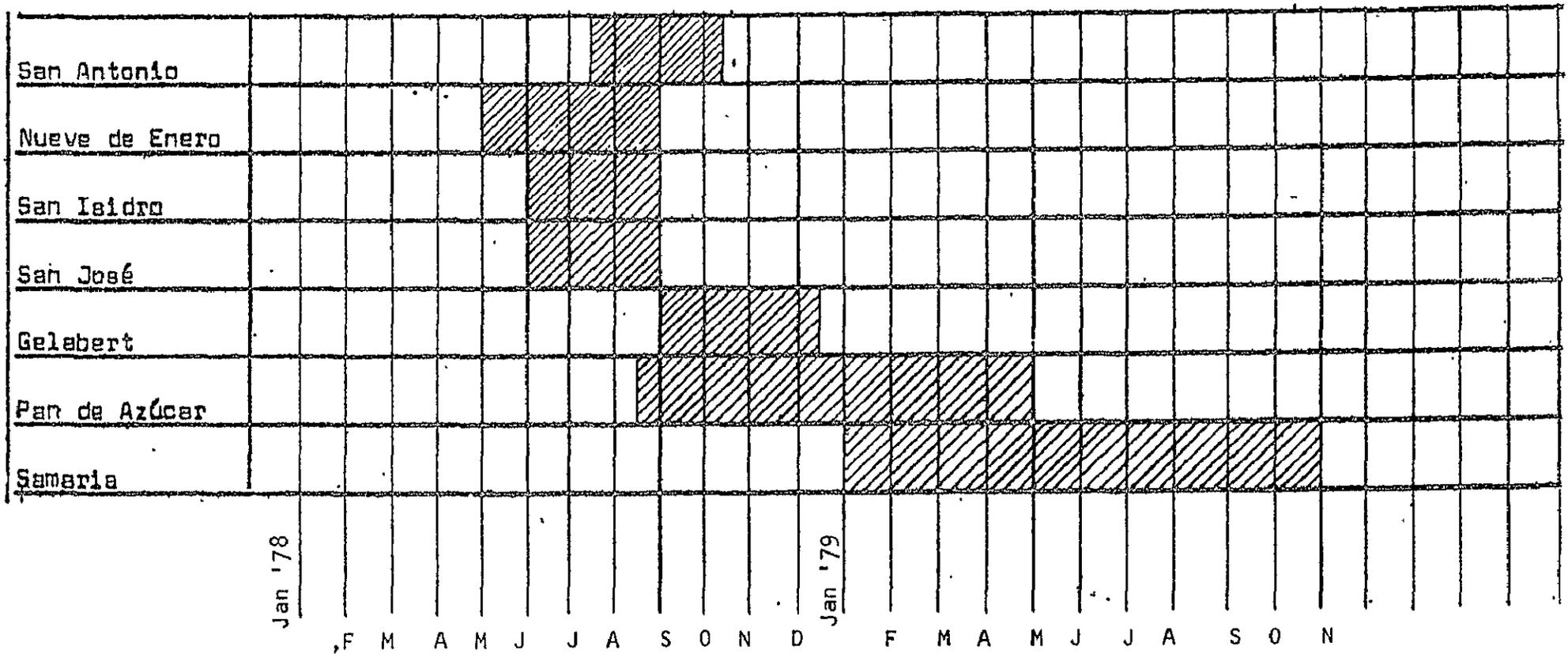


TABLE No. 5

Sub-Program 1

- AQUEDUCTS AND SEWER SYSTEMS  
 "SEWER SYSTEM - DESIGN - 1ST PHASE"  
 IDAAN  
 SAN MIGUELITO

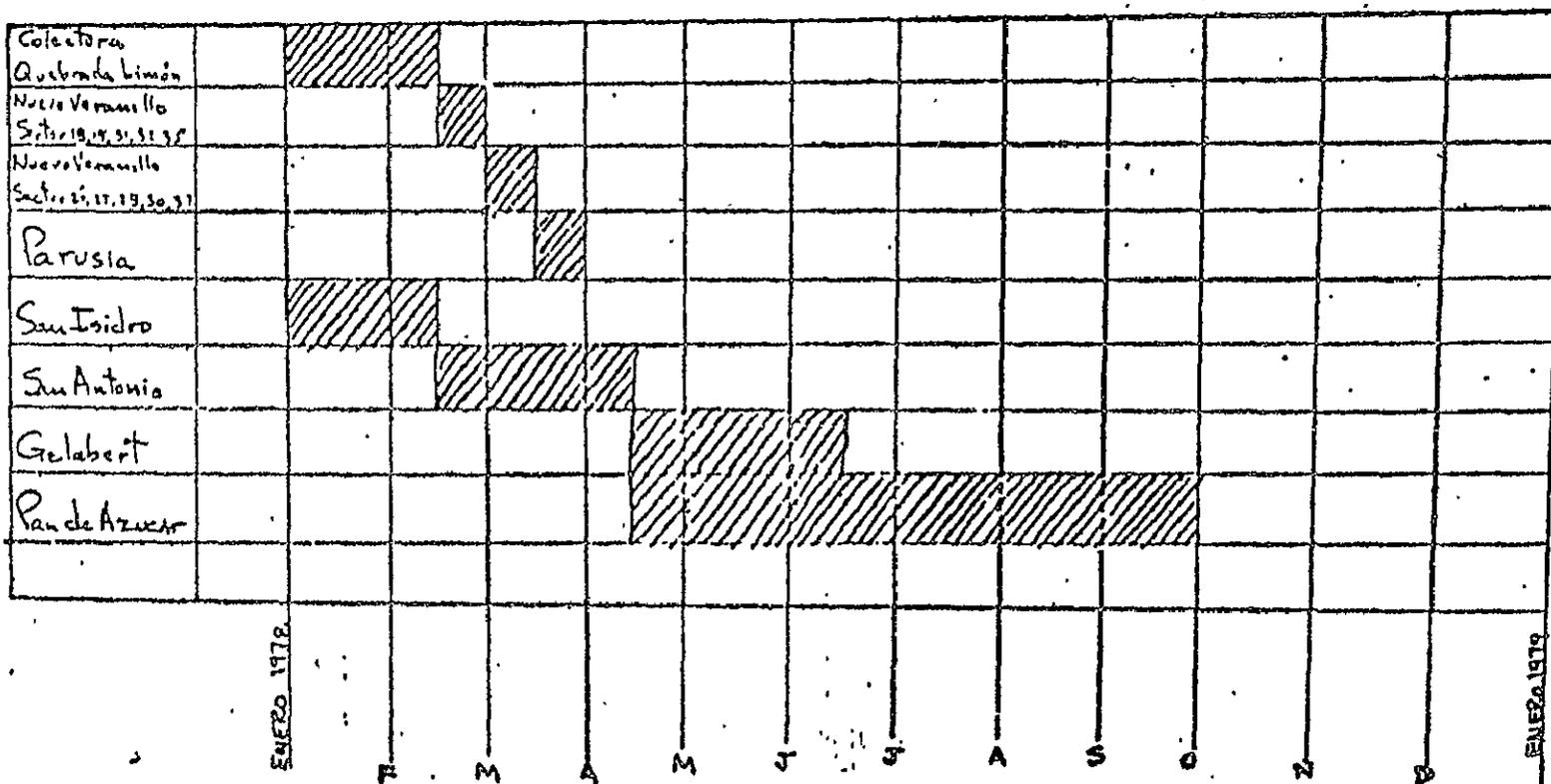


TABLE N° 6

Sub program I AQUEDUCTS AND SEWER SYSTEMS  
 "SEWER SYSTEM - CONSTRUCTION - 1st PHASE"  
 IDAAN  
 SAN MIGUELITO

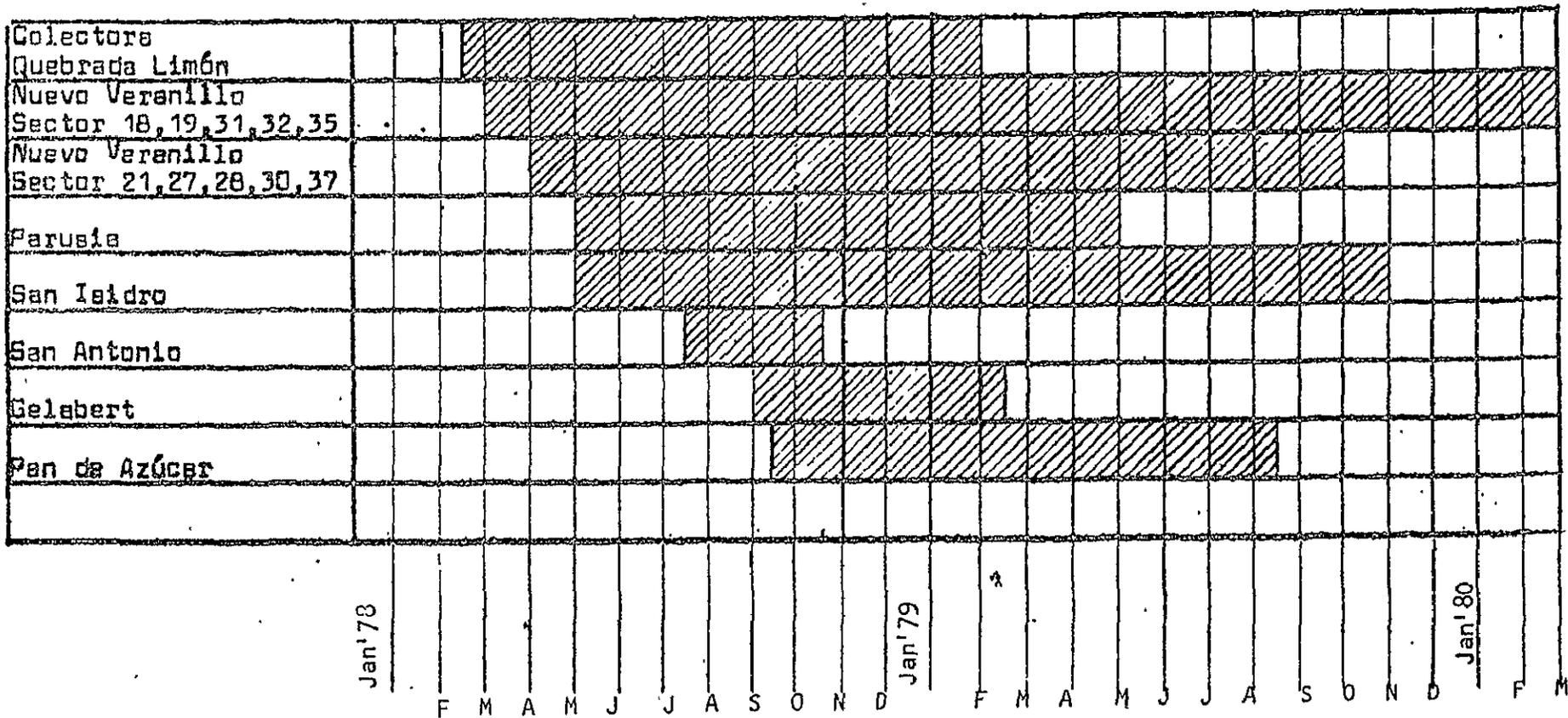


TABLE N° 7

SUB-PROGRAM I - AQUEDUCTS AND SEWER SYSTEMS - IDAAN. SUMMARY OF INVESTMENTS FOR THE INTEGRATED DEVELOPMENT OF SAN MIGUELITO.

<u>I.1 AQUEDUCTS</u>	<u>LOANS</u>	<u>IDAAN</u>	<u>TOTAL</u>
<u>Indirect Costs:</u>			
Administrative Expenses			
<u>Include: Design (includes</u>		237,000	
<u>land surveying)</u>			
Supervision			
Inspection			
<u>Direct Costs:</u>			
Direct costs of operating			
equipment and Transportation			
Design (includes land			
surveying)			
Supervision			
Inspection	2,370,000		
<u>Contingencies:</u>			
		25,000	
	B/. 2,370,000	262,000	2,632,000
<u>I.2 AQUEDUCTS</u>			
Administrative Costs			
Design (includes		610,000	
land surveying)			
Supervision			
Inspection			
<u>Direct Costs:</u>			
Equipment operation	6,003,000		
costs and Transportation			
Construction materials			
Unskilled manual labor			
<u>Contingencies</u>			
		60,000	
	B/. 6,003,000	670,000	6,673,000
Total Cost of			
Project I.1	B/. 8,373,000	932,000	9,305,000

TABLE No. 8

EXPANSION COSTS OF THE 2nd AND 3rd PHASES OF THE  
AQUEDUCT AND SEWER SYSTEMS

<u>IDAAN</u>		
<u>1. AQUEDUCTS</u>	<u>1st Phase</u>	<u>(Part of this Project)</u>
<u>Site</u>		<u>Cost</u>
1. San Antonio	B/.	140,000
2. Nueve de Enero		150,000
3. San Isidro Sector 2		185,000
4. San José		195,000
5. Gelabert		210,000
6. Pan de Azúcar		290,000
7. Samaria		1,000,000
Sub-total Cost	: B/.	2,370,000
Design Cost (IDAAN)		237,000
Contingencias		25,000
Total Cost of Phase 1	B/.	2,632,000
<u>Site</u>	<u>2nd Phase</u>	<u>(Future Project)</u>
8. Monte Oscuro	B/.	300,000
9. Pan de Azúcar-Samaria		450,000
10. Don Bosco		670,000
11. San Isidro-Tinajita		465,000
Sub-total Cost - AID	B/.	1,885,000
Design Cost (IDAAN)		
Contingencias (IDAAN)		
Total Cost of Phase 2	B/.	
<u>2. SEWER SYSTEM</u>	<u>1st Phase</u>	<u>(Part of this Project)</u>
<u>Site</u>		
1. Sector Quebrada Limón	B/.	700,000
2. Nuevo Veranillo-Sector 18, 19, 31, 32 y 35		1,300,000
3. Nuevo Veranillo-Sector 21, 27, 28, 30 y 37		1,100,000
4. Parusia		460,000
5. Valle de San Isidro		780,000
6. San Antonio		240,000
7. Gelabert		320,000
8. Pan de Azúcar		720,000
9. Several*		375,000

(continued)

TABLE No. 8 (cont.-)

Cost/Loan Required:	B/.	6,003,000
Design Cost (IDAAN)		610,000
Contingencies (IDAAN)		60,000
<u>Total Cost of Phase 1</u>	B/.	<u>6,673,000</u>
<u>Site</u>		(Future Project)
10. Nueva de Enero	B/.	160,000
11. Pan de Azúcar		450,000
12. La Fulida		675,000
13. Cerro Viento		500,000
14. Las Trancas		400,000
15. Samaria		3,500,000
Cost/Loan Required	B/.	5,685,000
Design Cost (IDAAN)		
<u>Total Cost of Phase 2</u>		
<u>Site</u>		3rd Phase
16. Don Bosco	B/.	675,000
17. San Isidro		1,150,000
18. El Remonazo		230,000
Cost/Loan Required		2,055,000
Design Cost (IDAAN)		
<u>Total Cost of Phase 3</u>		

\* Includes the following small areas: Behind the school "Estado de Israel", Del Fuerte Sector, "S" Street, "O" Street, "K" Street, Tinajita, Buenos Aires, "A" Street San Isidro.

TABLE NO 9

SUB-PROGRAM II - ELECTRICITY AND PUBLIC LIGHTING

POPULATION BENEFITING BY THE PROJECT BY CORREGIMIENTO AND SITE

DISTRICT OF SAN MIGUELITO

Corregimiento	No.	SITE	PRIORITY	N° of Units Serviced	N° of Persons per Family	N° of People Benefiting		
JOSE DOMINGO ESPINAR	1.1	La Pulida	2	300	5	1,500		
	1.2	Las Trancas		50	5	250		
	1.3	Carro Viento		35	5	175		
	Sub-Total.....	3			385	5	1,925	
VICTORIANO LORENZO	2.1	San Antonio	1	1,200	5	6,000		
	Sub-Total.....	1		1,200	5	6,000		
BELISARIO PORRAS	3.1	Samaria	3	4,160	5	20,800		
	3.2	Nva. Providencia		50	5	250		
	3.3	San Isidro (Sector no Medido)		50	5	250		
	3.4	Vereda 18 de Abril		50	5	250		
	3.5	Sonsorate		100	5	500		
	Sub-Total.....	5			4,410	5	22,050	
AMELIA DENNIS DE ICAZA	4.1	Mta. Oscura (End)	4	50	5	250		
Sub-Total.....	1			50	5	250		
TOTAL POPULATION BENEFITING FROM THE PROGRAM				10		6,045	5	30,225

TABLE No. 10

SUB-PROGRAM II ELECTRIFICATION AND PUBLIC LIGHTING

WORK SCHEDULE

CORREGIMIENTO	1978												1979												LOCALITY
	E	F	M	A	M	J	J	A	S	O	N	D	E	F	M	A	M	J	J	A	S	O	N	D	
JOSE D. ESPINAR				///	///																				LA PULIDA, LAS TRANCAS, CERRO VIENTO.
V. LORENZO								///																	SAN ANTONIO
B. PORRAS				///	///	///	///	///													///	///	///	///	SAMARIA, NVA. PROVIDENCIA SAN ISIDRO, SAN SONATE, VEREDA 16-ABRIL.
A. D. ICAZA			///																						MONTE OSCURO FINAL.
ALIMENTADOR PRINC.		///	///																						PARA EL AREA.

TABLE NO. 11

SUB-PROGRAM II "ELECTRICITY AND PUBLIC LIGHTING"  
 DETAILS OF INVESTMENTS FOR THE INTEGRATED DEVELOPMENT OF SAN MIGUELITO  
 AID PROGRAM BY CORREGIMIENTO (In B/.)

NO	Corregimiento	Site	Description	ESTIMATED COSTS						Total Cost		
				Direct Costs			Indirect Costs			Local	External	Local + External
				Local Direct Costs	External Direct Costs	Sub-total Local + External	Local Eng. & Supervision	Local Adminis- tration	Sub-total Local Eng. + Admin.			
1	JOSÉ DOMINGO ESPINAR	1.1 La Pulla	Electric Wiring	2,370	5,777	8,147	718	1,078	1,796	4,166	5,777	9,943
		1.2 Las Trencas	Electric Wiring	5,925	14,442	20,367	1,796	2,694	4,490	10,415	14,442	24,857
		1.3 Cerro Viento	Electric Wiring	3,555	8,665	12,220	1,077	1,617	2,694	6,249	8,665	14,914
2	VICTORIANO LORENZO	2.1 San Antonio	Electric Wiring	1,778	4,333	6,111	539	808	1,347	3,125	4,333	7,458
		3.1 Somaria	Electric Wiring	70,490	187,613	258,103	22,683	34,016	56,709	127,199	187,613	314,812
		3.2 Nva. Providencia	Electric Wiring	1,178	4,333	6,111	539	808	1,347	3,125	4,333	7,458
		3.3 San Isidro (Sector no Medida)	Electric Wiring	3,555	14,914	18,469	1,077	1,617	2,694	2,249	14,914	21,163
		3.4 Vereda 16 de Abril	Electric Wiring	1,185	7,284	8,469	360	538	898	2,083	7,284	9,367
		3.5 Sonsonate	Electric Wiring	1,778	4,333	6,111	539	808	1,347	3,125	4,333	7,458
4	AMELIA DENNIS DE ICAZA	4.1 Mts. Oscuro Final	Electric Wiring	711	1,733	2,444	215	323	538	1,249	1,733	2,982
5	DISTRICT SUPPORT AND AREAS IN GENERAL	From center of the load to the Area	Main Feeder	9,485	39,365	48,850	4,229	8,343	10,572	20,057	39,365	59,422
6			Specialized Equipment	176	4,427	4,603	386	580	966	1,142	4,427	5,569
7		To the Area	Distribution Transformer	9,303	130,572	139,875	11,811	17,717	29,528	38,831	130,572	169,403
8		To the Area	Service Connections	51,987	166,842	218,829	19,102	28,653	47,755	99,742	166,842	266,584
9		To the Area	Single phase Meters	72,540	156,686	229,226	20,311	30,467	50,778	123,318	156,686	280,004
10		To the Area	Public Lighting	17,955	63,042	80,997	7,049	10,574	17,623	35,578	63,042	98,620
TOTAL INVESTMENTS - SUB-PROGRAM T.3:				<u>254,571</u>	<u>814,161</u>	<u>1068,932</u>	<u>92,431</u>	<u>138,651</u>	<u>231,082</u>	<u>485,653</u>	<u>814,161</u>	<u>1300,014</u>

TABLE N° 12

SUB-PROGRAM II - ELECTRICITY AND PUBLIC LIGHTING - IRHE

"SUMMARY OF INVESTMENTS FOR THE INTEGRATED DEVELOPMENT OF SAN MIGUELITO"

(IN THOUSANDS OF B/. )					
A.I.D. Local Cost	A.I.D. External Cost	Loan Total Cost	IRHE's Contribution Total Local Cost	Total Investment	
<u>Electricity and Public Lighting:</u>					
<u>Indirect Costs:</u>			230.0	230.0	
Design of the System					
Supervision and Inspection					
Administrative Costs					
<u>Direct Costs:</u>			255.0	815.0	1,070.0
Equipment Operation Costs and Transportation					
Construction Materials and Unskilled Manual Labor					
<u>Contingencies:</u>					
<hr/>					
Total Investments Project 1.2			255.00	815.0	1,300.0
			1,070.0	230.0	1,300.0

The GOP contribution, through IRHE, consists of the indirect costs which include the design, technical assistance and management capacity to administer the project, and represent a total estimated amount of B/. 230,000.

The estimated costs, per items and development areas, have been included for clarification purposes.

TABLE N° 13

SUB-PROGRAM III - STREETS, SIDEWALKS AND SURFACE DRAINAGE SYSTEM (MOP)

TOTAL COST BY CORREGIMIENTO AND SUB-PROJECT

CORREGIMIENTO	SITE	PRIORITY	SUB-PROJECT	LENGTH Km.	POPULATION WHO WILL BENEFIT	COST B/.
JOSE D. ESPINAR	SANTA PERA	1st Sem. 78	Access Sta. Perá	0.40		13,563.00
	LAS TRANCAS	1st Sem. 78	Access Las Trancas	1.10		25,176.00
	CERRO VIENTO	1st Sem. 78	Access Cerro Viento	1.00		22,299.00
	LA PULIDA	1st Sem. 78	By-Pass La Pulida 1a	0.45		10,627.00
	LA PULIDA	1st Sem. 78	By-Pass 1a Pulida 2a	1.00		40,059.00
		SUB-TOTAL		3.95		111,724.00
VICTORIANO LORENZO	SANTA CECILIA	1st Sem. 78	Street Santa Cecilia	0.35		12,683.00
	SAN PANCRACIO	1st Sem. 78	Street San Pancracio	0.30		13,630.00
	SANTA ROSA	1st Sem. 78	Street Santa Rosa	0.25		14,874.00
	LA LOMA	1st Sem. 78	Street La Loma	0.35		16,423.00
	MONTE OSCURO	1st Sem. 78	Street 16 Monte Oscuro	1.20		60,680.00
	MONTE OSCURO	1st Sem. 78	Street 6a Monte Oscuro	0.30		16,558.00
	MONTE OSCURO	1st Sem. 78	Street 2a Monte Oscuro	0.20		9,781.00
	MONTE OSCURO	1st Sem. 78	Street 3a Monte Oscuro	0.775		34,850.00

TABLE N° 13

CORREGIMIENTO	SITE	PRIORITY	SUB-PROJECT	LENGTH Km.	POPULATION WHO WILL BENEFIT	COST B/.
VICTORIANO LORENZO	MONTE OSCURO	2nd Sem. 78	Calle Altamira	0.45		23,971.00
	MONTE OSCURO	2nd Sem. 78	Calle 8a	0.60		28,992.00
	MONTE OSCURO	2nd Sem. 78	Calle 9a	0.65		30,353.00
	GELABERT	2nd Sem. 78 & 1st Sem. 79	Calle Gelabert	0.66		29,682.00
		SUB-TOTAL		6.085		292,477.00
BELISARIO PORRAS	SAN CRISTOBAL	1st Sem. 78	M-1	0.56		24,493.00
	SAN CRISTOBAL	1st Sem. 78	m-2	0.50		17,212.00
	SAN CRISTOBAL	1st Sem. 78	M	0.14		4,776.00
	PARAISO	2nd Sem. 78	Carlos A. Mendoza	0.20		5,869.00
	PARAISO	2nd Sem. 78	A	0.20		5,869.00
	SANTA ELENA	2nd Sem. 78	Santa Elena	0.425		16,875.00
	SAN ISIDRO	2nd Sem. 78	1a. San Isidro Viejo	0.85		22,880.00
	TINAJITA	2nd Sem. 79	Tinajita	2.10		47,379.00
	EL VALLE	2nd Sem. 79	B	1.25		61,581.00

TABLE N° 13

CORREGIMIENTO	SITE	PRIORITY	SUB-PROJECT	LENGTH Km.	POPULATION WHO WILL BENEFIT	COST B/.
BELISARIO PORRAS	EL VALLE	2nd Sem. 79	E	0.525		21,424.00
	EL VALLE	2nd Sem. 79	C	0.30		7,418.00
	BUENOS AIRES	1st Sem. 78	Buenos Aires	0.90		25,026.00
	CHIVO CHIVO	1st Sem. 78	Access to Chivo Chivo	0.75		22,245.00
	SONSONATE	1st Sem. 78	Sonsonate	0.55		19,632.00
	SAMARIA	1st Sem. 79	Covered with Gravel	1.40		73,814.00
	SAMARIA	2nd Sem. 79	Dirt Road	1.70		94,662.00
	SAMARIA	1st and 2nd Sem. 79	With Hardpan	6.20		292,899.00
	SAMARIA	1st and 2nd Sem. 79	To be cut	4.00		217,788.00
		SUB-TOTAL				981,842.00
AMELIA DENIS DE ICAZA	SECTOR F, SILOS IFE	2nd Sem. 79	6a C	0.275		8,245.00
	PAN DE AZUCAR	2nd Sem. 79	3a C	0.35		14,606.00
	PAN DE AZUCAR	2nd Sem. 79	4a C	0.225		10,237.00
	SILOS IFE	2nd Sem. 79	5a C	0.625		22,744.00

TABLE N° 13

CORREGIMIENTO	SITE	PRIORITY	SUB-PROJECT	LENGTH Km.	POPULATION WHO WILL BENEFIT	COST B/.
AMELIA DENIS DE ICAZA	PAN DE AZUCAR	2nd Sem. 79	3a D	0.15		6,777.00
	FATIMA	2nd Sem. 79	Fátima	0.75		28,037.00
	PAN DE AZUCAR	2nd Sem. 79	2a C	0.275		13,146.00
	PAN DE AZUCAR	2nd Sem. 79	1a. C	0.45		25,489.00
	SAN JOSE	2nd Sem. 79	L (San José)	0.45		32,391.00
	NUEVO VERANILLO	2nd Sem. 79	P	0.15		8,557.00
	NUEVO CHORRILLO	2nd Sem. 79	Q	0.39		25,970.00
	NUEVO VERANILLO	2nd Sem. 79	X	0.225		11,405.00
	NUEVO VERANILLO	2nd Sem. 79	Y	0.39		18,337.00
	NUEVO VERANILLO	2nd Sem. 79	Z	0.50		21,816.00
	FATIMA	2nd Sem. 79	Fátima V-2	0.20		6,973.00
	NUEVO VERANILLO	2nd Sem. 79	Z-1	0.28		12,247.00
	NUEVO VERANILLO	2nd Sem. 79	Z-2	0.15		8,021.00
			SUB-TOTAL	5.835		274,817.00
MATEO ITURRALDE	SAN MIGUEL	1st Sem. 78	San Miguel	0.51		24,889.00
	SAN MARTIN	1st Sem. 78	San Martín	0.675		31,756.00
			SUB-TOTAL	1.185		56,645.00

TABLE N° 14

SUB-PROGRAM III - STREETS, SIDEWALKS AND SURFACE DRAINAGE -  
MOP AND MUNICIPALITY

"SUMMARY OF INVESTMENTS FOR THE INTEGRATED DEVELOPMENT OF SAN MIGUELITO"

	A.I.D. Financing	MOP Contribution	Total Investment
<u>Streets, Sidewalks and Surface Drainage System</u>			
<u>Indirect Costs:</u>			
Design of the Supervisory and Inspection System, and Administrative Costs		80,000 120,000	80,000 120,000
<u>Direct Costs:</u>	1,863,545	200,000	2,063,545
Equipment Operation Costs and Transportation of Construction Materials and Unskilled Manual Labor			
Contingencies: (10.3%)	193,455		193,455
TOTAL	2,057,000	400,000	2,457,000

TABLE 4/15  
SUB-PROGRAM 11 RELOCATION-LOTIFICATION- LGANS FOR CONSTRUCTION MATERIALS AND HOME IMPROVEMENT  
SUMMARY OF INVESTMENTS FOR THE INTEGRATED DEVELOPMENT OF SAN NIGUELITO - COSTS OF THE HOUSING ALTERNATIVES (IN DOLLARS)

Type	Solution Description	No. of		UNITARY COST PER SQUARE METERS					COST PER DWELLING					monthly Installments	TOTAL PROGRAM COST				
		Units	Area	Const.	Ed. 1/	Design 1/	Land	Sale	Const.	Adm.	Design	Land	Sale		AID Loan	Local Contribution			
														Constr.	Avg.	Design	Land	Other	
1	lots w/ln. services	755	200	4.53	0.24	0.17	0.25	5.19	506.00	48.00	34.00	50.00	1,038.00	10.26	634,030	36,240	25,670	37,720	241,440
2	lots w/ln. services	350	200	4.53	0.24	0.17	0.25	5.19	506.00	48.00	34.00	50.00	1,038.00		317,100	16,800	11,900	17,500	363,300
	Const. materials								181.50	18.10	-	-	200.00 2/		63,665	6,335	-	-	363,300
									1,067.50	66.10	34.00	50.00	1,238.00	12.15	380,765	23,135	11,900	17,500	393,200
3	lots w/ln. services	350	200	4.53	0.24	0.17	0.25	5.19	906.00	48.00	34.00	50.00	1,038.00		317,100	16,800	11,500	17,500	353,300
	Concrete floor		35	9.09	0.54	0.37	-	10.00	318.15	18.90	12.95	-	350.00		111,352.50	6,615	4,532.50	-	122,500
				13.42	0.78	0.26	0.25	15.19	1,224.15	66.90	46.95	50.00	1,383.00	13.60	426,452.50	23,415	16,432.50	17,500	377,300
4	semi-urbanized lots	300	180	9.05	0.52	0.35	0.25	10.17	1,629.00	93.60	63.00	45.00	1,830.60	17.94	488,700	26,050	16,900	13,500	545,150
5	semi-urbanized lots	150	180	9.05	0.52	0.35	0.25	10.17	1,629.00	93.60	63.00	45.00	1,830.60		244,350	14,040	9,450	6,750	274,590
	Const. materials								181.90	18.10	-	-	200.00 2/		27,285	2,715	-	-	27,000
									1,810.90	111.70	63.00	45.00	2,030.60	19.90	271,635	16,755	9,450	6,750	294,590
6	semi-urbanized lots	150	180	9.05	0.52	0.35	0.25	10.17	1,629.00	93.60	63.00	45.00	1,830.60		244,350	14,040	9,450	6,750	274,590
	Concrete floor		35	9.09	0.54	0.37	-	10.00	318.15	18.90	12.95	-	350.00		47,727.50	2,835	1,942.50	-	52,505
				13.14	1.06	0.72	0.25	20.17	1,947.15	112.50	75.95	45.00	2,180.60	21.37	292,072.50	16,885	11,392.50	6,750	327,000
7	urbanized lots	150	180	10.28	0.59	0.40	0.25	11.52	1,850.40	106.20	72.00	45.00	2,073.60	20.32	277,560	15,930	10,800	6,700	311,000
8	urbanized lots	100	180	10.28	0.59	0.40	0.25	11.52	1,850.40	106.20	72.00	45.00	2,073.60		185,040	10,620	7,200	4,500	207,360
	Const. materials								181.50	18.10	-	-	200.00 2/		15,150	1,850	-	-	17,000
									2,031.90	124.30	72.00	45.00	2,273.60	22.28	201,190	12,470	7,200	4,500	227,360
9	urbanized lots	100	180	10.28	0.59	0.40	0.25	11.52	1,850.40	106.20	72.00	45.00	2,073.60		185,040	10,620	7,200	4,500	207,360
	Concrete floor		35	9.09	0.54	0.37	-	10.00	318.15	18.90	12.95	-	350.00		33,815	1,890	1,295	-	35,000
				13.17	1.13	0.77	-	21.52	2,168.55	125.10	84.95	45.00	2,423.60	23.75	216,852	12,510	8,495	4,500	232,350
10	urbanized lots	95	180	10.28	0.59	0.40	0.25	11.52	1,850.40	106.20	72.00	45.00	2,073.60		175,788	10,089	6,840	4,275	196,992
	Adm. Housing Units		35	24.55	1.47	0.98	-	27.60	859.25	51.45	34.30	-	945.00		81,628.75	4,887.75	3,288.50	-	89,805
				34.83	2.06	1.38	0.25	39.12	2,709.65	157.65	106.30	45.00	3,018.60	29.58	257,417.50	14,576.75	10,352.50	4,275	296,625
	TOTAL		2,520												3,503,678.25	254,386.75	133,333.50	119,775	3,951,173

1/ The costs for administration and design have been calculated as 10% of the construction costs after deducting \$0.40 corresponding to the electrification cost per sq. meter.

2/ This figure corresponds to the cost of materials per dwelling plus 10% for administration.

TABLE N° 16

SUB-PROGRAM IV: RELOCATION-LOTIFICATION: LOANS FOR CONSTRUCTION  
MATERIALS AND HOME IMPROVEMENT

COST ANALYSIS BY TYPE

PROJECT:

Corregimiento: Belisario Porras

TYPE OF SOLUTION: "Type 1"

DESCRIPTION: Lots with Minimum Services

1. Number of Solutions	-	755
2. Approximate Area per Lot	-	200 m <sup>2</sup>
3. Sale Cost per m <sup>2</sup>	- B/	5.19
4. Sale Cost per Lot	- B/	1,038.00
5. Monthly Installment per Unit	- B/	10.26 <sup>1/</sup>
6. Services Included per Unit/Lot:		
a. Land		
b. Earthwork		
c. Aqueduct with Public Faucets		
d. Gravel or Hardpan Streets or Sidewalks		
e. Surface Drainage System with Open Lateral Ditches		
f. Latrines		
g. Electricity		

NOTE: <sup>1/</sup> All monthly installments are calculated with an 11% annual rate of interest over a 25 year period, with no down payment, with life insurance.

TABLE N° 17

SUB-PROGRAM IV: RELOCATION-LOTIFICATION: LOANS FOR CONSTRUCTION MATERIALS AND HOME IMPROVEMENT

COST ANALYSIS BY TYPE

PROJECT:

Corregimiento: Belisario Porras

TYPE OF SOLUTION: "Type 2"

DESCRIPTION: Lots with Minimum Services Plus Construction Materials

1. Number of Solutions	-	350
2. Approximate Area per Lot	-	200 m <sup>2</sup>
3. Sale Cost per m <sup>2</sup>	-	B/ 5.19
4. Sale Cost/Lots with Minimum Services	-	B/ 1,038.00
5. Cost of Construction Materials	-	B/ 200.00
6. Sale Cost per Lot	-	B/ 1,238.00
7. Monthly Installments per Unit	-	B/ 12.13
8. Services Included per Unit:		

- a. Land
- b. Earthwork
- c. Aqueduct with Public Faucets
- d. Gravel or Hardpan Streets or Sidewalks
- e. Surface Drainage System with Open Lateral Ditches
- f. Latrines
- g. Electricity
- h. The construction materials needed to complete the relocation of the dwelling.

TABLE N° 18

SUB-PROGRAM IV: RELOCATION-LOTIFICATION: LOANS FOR CONSTRUCTION  
MATERIALS AND HOME IMPROVEMENT

COST ANALYSIS BY TYPE

PROJECT:

Corregimiento: Belisario Porras

TYPE OF SOLUTION: "Type 3"

DESCRIPTION: Lots with Minimum Services Plus Concrete  
Floor

1. Number of Solutions	-	350
2. Approximate Area per Lot	-	200 m <sup>2</sup>
3. Sale Cost per m <sup>2</sup>	-	5.19
4. Sale Cost/Lot with Minimum Services	-	B/ 1,038.00
5. Concrete Floor Area	-	35 m <sup>2</sup>
6. Sale Cost per m <sup>2</sup> of Concrete Floor	-	B/ 10.00
7. Cost of Concrete Floor	-	B/ 350.00
8. Sale Cost per Lot	-	B/ 1,388.00
9. Monthly Installments per Unit	-	B/ 13.60
10. Services Included per Unit/Lot:		
a. Land		
b. Earthwork		
c. Aqueduct with Public Faucets		
d. Gravel or Hardpan Streets or Sidewalks		
e. Surface Drainage System with Open Lateral Ditches		
f. Latrines		
g. Electricity		
h. Concrete Floor on which the Family Will Build the Dwelling		

TABLE N° 19

**SUB-PROGRAM IV: RELOCATION-LOTIFICATION: LOANS FOR CONSTRUCTION MATERIALS AND HOME IMPROVEMENT**

**COST ANALYSIS BY TYPE**

**PROJECT:**

**Corregimiento: Belisario Porras**

**TYPE OF SOLUTION: "Type 4"**

**DESCRIPTION: Semi-Urbanized Lots**

1. Number of Solutions	-	300
2. Approximate Area per Lot	-	180 m <sup>2</sup>
3. Sale Cost per m <sup>2</sup>	-	B/ 10.17
4. Sale Cost per Lot	-	B/ 1,830.60
5. Monthly Installments per Unit	-	B/ 17.94
6. Services Included per Unit/Lot:		
a. Land		
b. Earthwork		
c. Aqueduct with Service Lines to the Property Line		
d. Sewer System with Service Lines to the Property Line		
e. Gravel or Hardpan Streets or Sidewalks		
f. Surface Drainage System with Open Lateral Ditches		
f. Electricity		

TABLE N° 20

SUB-PROGRAM IV: RELOCATION-LOTIFICATION: LOANS FOR CONSTRUCTION  
MATERIALS AND HOME IMPROVEMENT

COST ANALYSIS BY TYPE

PROJECT:

Corregimiento: Belisario Porras

TYPE OF SOLUTION: "Type 5"

DESCRIPTION: Semi-Urbanized Lots Plus Construction  
Materials

1. Number of Solutions	-	150
2. Approximate Area per Lot	-	180 m <sup>2</sup>
3. Sale Cost per m <sup>2</sup>	-	B/ 10.17
4. Sale Cost of Semi-Urbanized Lots	-	B/ 1,830.60
5. Loans for Construction Materials	-	B/ 200.00
6. Sale Cost Lot	-	B/ 2,030.60
7. Monthly Installments per Unit	-	B/ 19.90
8. Services Included per Unit:		
a. Land		
b. Earthwork		
c. Aqueduct with Service Lines to the Property Line		
d. Sewer System with Service Lines to the Property Line		
e. Gravel or Hardpan Streets or Sidewalks		
f. Surface Drainage System with Open Lateral Ditches		
f. Electricity		
g. The Construction Materials Needed to Com- plete the Relocation of the Dwelling		

TABLE N° 21

SUB-PROGRAM IV: RELOCATION-LOTIFICATION: LOANS FOR CONSTRUCTION  
MATERIALS AND HOME IMPROVEMENT

COST ANALYSIS BY TYPE

PROJECT:

Corregimiento: Belisario Porras

TYPE OF SOLUTION: "Type 6"

DESCRIPTION: Semi-Urbanized Lots Plus Concrete Floor

1. Number of Solutions	-	150
2. Approximate Area per Lot	-	180 m <sup>2</sup>
3. Sale Cost per m <sup>2</sup>	-	B/ 10.17
4. Sale Cost of Semi-Urbanized Lots	-	B/ 1,830.60
5. Concrete Floor Area	-	35 m <sup>2</sup>
6. Sale Cost per m <sup>2</sup> of Concrete Floor	-	B/ 10.00
7. Cost of Concrete Floor	-	B/ 350.00
8. Sale Cost per Lot	-	B/ 2,180.60
9. Monthly Installments per Unit	-	B/ 21.37
10. Services Included per Unit:		
a. Land		
b. Earthwork		
c. Aqueduct with Service Lines to the Property Line		
d. Sewer System with Service Lines to the Property Line		
e. Gravel or Hardpan Streets or Sidewalks		
f. Surface Drainage System with Open Lateral Ditches		
g. Electricity		
h. Concrete Floor on which the Family Will Build the Dwelling		

TABLE N° 22

SUB-PROGRAM IV: RELOCATION-LOTIFICATION: LOANS FOR CONSTRUCTION  
MATERIALS AND HOME IMPROVEMENT

COST ANALYSIS BY TYPE

PROJECT:

Corregimiento: Belisario Porras

TYPE OF SOLUTION: "Type 7"

DESCRIPTION: Urbanized Lots

1. Number of Solutions	-	150
2. Approximate Area per Lot	-	180 m <sup>2</sup>
3. Sale Cost per m <sup>2</sup>	-	B/ 11.52
4. Sale Cost per Lot	-	B/ 2,073.60
5. Monthly Installment per Unit	-	B/ 20.32
6. Services Included per Unit/Lot:		
a. Land		
b. Earthwork		
c. Aqueduct with Service Lines to the Property Line		
d. Sewer System with Service Lines to the Property Line		
e. Paved Streets or Sidewalks		
f. Surface Drainage System		
g. Electricity		

TABLE N° 23

SUB-PROGRAM IV: RELOCATION-LOTIFICATION: LOANS FOR CONSTRUCTION  
MATERIALS AND HOME IMPROVEMENT

COST ANALYSIS BY TYPE

PROJECT:

Corregimiento: Belisario Porras

TYPE OF SOLUTION: "Type 8"

DESCRIPTION: Urbanized Lots Plus Construction Materials

1. Number of Solutions	-	100
2. Approximate Area per Lot	-	180 m <sup>2</sup>
3. Sale Cost per m <sup>2</sup>	B/	11.52
4. Sale Cost of Urbanized Lots	-	B/ 2,073.60
5. Loans for Construction Materials	-	B/ 200.00
6. Sale Cost per Lot	-	B/ 2,273.60
7. Monthly Installments per Unit	-	B/ 22.28
8. Services Included per Unit:		
a. Land		
b. Earthwork		
c. Aqueduct with Service Lines to the Property Line		
d. Sewer System with Service Lines to the Property Line		
e. Paved Streets or Sidewalks		
f. Surface Drainage System		
g. Electricity		
h. The Construction Materials Needed to Complete the Relocation of the Dwelling		

TABLE N° 24

SUB-PROGRAM IV: RELOCATION-LOTIFICATION: LOANS FOR CONSTRUCTION  
MATERIALS AND HOME IMPROVEMENT

COST ANALYSIS BY TYPE

PROJECT:

Corregimiento: Belisario Porras

TYPE OF SOLUTION: "Type 9"

DESCRIPTION: Urbanized Lots Plus Concrete Floor

1. Number of Solutions	-	100
2. Approximate Area per Lot	-	190 m <sup>2</sup>
3. Sale Cost per m <sup>2</sup>	-	B/ 11.52
4. Sale Cost of Urbanized Lots	-	B/ 2,073.60
5. Concrete Floor Area	-	35 m <sup>2</sup>
6. Sale Cost per m <sup>2</sup> of Concrete Floor	-	B/ 10.00
7. Cost of Concrete Floor	-	B/ 350.00
8. Sale Cost per Lot	-	B/ 2,423.60
9. Monthly Installments per Unit	-	B/ 23.75
10. Services Included per Unit/Lot:		
a. Land		
b. Earthwork		
c. Aqueduct with Service Lines to the Property Line		
d. Sewer System with Service Lines to the Property Line		
e. Paved Streets or Sidewalks		
f. Surface Drainage System		
g. Electricity		
h. Concrete Floor on which the Family Will Build the Dwelling		

TABLE N° 25

SUB-PROGRAM IV: RELOCATION-LOTIFICATION: LOANS FOR CONSTRUCTION  
MATERIALS AND HOME IMPROVEMENT

COST ANALYSIS BY TYPE

PROJECT:

Corregimiento: Belisario Porras

TYPE OF SOLUTION: "Type 10"

DESCRIPTION: Urbanized Lots Plus Floor and Roof

1. Number of Solutions	-	95
2. Approximate Area per Lot	-	180 m <sup>2</sup>
3. Sale Cost per m <sup>2</sup>	-	B/ 11.52
4. Sale Cost of Urbanized Lots	-	B/ 2,073.60
5. Floor and Roof Area	-	35 m <sup>2</sup>
6. Sale Cost per m <sup>2</sup> of Floor and Roof	-	B/ 27.00
7. Cost of Floor and Roof	-	B/ 945.00
8. Sale Cost per Lot	-	B/ 3,018.60
9. Monthly Installments per Unit	-	B/ 29.58
10. Services Included per Unit/Lot:		
a. Land		
b. Earthwork		
c. Aqueduct with Service Lines to the Property Line		
d. Sewer System with Service Lines to the Property Line		
e. Paved Streets or Sidewalks		
f. Surface Drainage System		
g. Electricity		
h. The Floor and Roof of the Dwelling which the Family Will Build		

TABLE No. 26  
 EMPLOYMENT PROGRAMS FOR SAN DIEGO COUNTY SPECIAL DISTRICT  
 COSTS, INCOME & CASH FLOW  
 (top of balance)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002			
<b>1. ASSETS</b>																													
<b>1.1 Cash</b>																													
1.1.1 Investments	---	---	875.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
1.1.2 Cash	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
<b>1.2 Other Assets</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
<b>1.3 Other Assets</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
<b>2. LIABILITIES</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
<b>2.1 Liabilities</b>																													
2.1.1 Local Contribution	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2.1.2 Other Liabilities	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>2.2 Income</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2.2.1 Local Contribution	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2.2.2 Other Income	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>3. CASH FLOW</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3.1 Local Contribution	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3.2 Other Cash Flow	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>4. NET ASSETS</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4.1 Local Contribution	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4.2 Other Net Assets	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>5. INVESTMENTS</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5.1 Local Contribution	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5.2 Other Investments	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>6. TOTAL</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6.1 Local Contribution	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6.2 Other Total	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>7. NOTES</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7.1 Local Contribution	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7.2 Other Notes	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7.3 Total Notes	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

1/ Cash flow capital income and liability  
 2/ This amount will be determined by the end of Quarter 4 '07  
 3/ Other information from item 1000 of item 1000 of item 1000 of item 1000

TABLE No. 2/  
DEVELOPMENT PROGRAM OF SAN MIGUELITO SPECIAL DISTRICT  
TOTAL INVESTMENT AND DISTRIBUTION SCHEDULE BY SUB PROGRAMS  
SOURCES OF FINANCE AND COST TYPES  
(000 of Balboas)

	TOTAL	1977	1978		1979		1980
		Fourth Quarter	First Half	Second Half	First Half	Second Half	First Quarter
TOTAL .....	17,012.4	612.4	5,117.6	5,244.1	3,482.0	2,432.3	124.0
Local .....	2,012.4	157.4	961.5	458.9	194.2	236.4	4.0
- Direct Costs .....	100.4	100.4	-	-	-	-	-
- Indirect Costs .....	1,912.0	57.0	961.5	458.9	194.2	236.4	4.0
- Plans .....	732.0	25.0	525.9	171.1	10.0	-	-
- Engineering Supervision & Administration .....	465.0	32.0	133.2	171.1	91.0	34.0	3.7
- Contingencies .....	85.0	-	52.4	21.7	7.2	3.4	0.3
- Others 1/ .....	630.0	-	250.0	95.0	86.0	199.0	-
AID HIG Loan .....	15,000.0	455.0 <sup>4/</sup>	4,156.1	4,785.2	3,287.8	2,195.9	120.0
- Direct Costs 2/ .....	14,806.5	455.0	4,098.4	4,766.0	3,250.4	2,116.7	120.0
- Others 3/ .....	193.5	-	57.7	19.2	37.4	79.2	-
<u>Housing</u> .....	3,250.4	612.4	1,469.0	1,315.0	554.0	-	-
Local .....	450.4	157.4	139.0	125.0	29.0	-	-
- Direct Costs .....	100.4	100.4	-	-	-	-	-
- Indirect Costs .....	350.0	57.0	139.0	125.0	29.0	-	-
- Plans .....	140.0	25.0	55.0	50.0	10.0	-	-
- Engineering Supervision & Administration .....	210.0	32.0	84.0	75.0	19.0	-	-
AID HIG Loan (Direct) .....	3,500.0	455.0 <sup>4/</sup>	1,330.0	1,190.0	525.0	-	-
<u>Water Distribution</u> .....	2,632.0	-	885.2	872.3	595.2	279.3	-
Local (Indirect) .....	262.0	-	174.2	59.4	19.3	9.1	-
- Plans .....	155.0	-	135.0	29.1	-	-	-
- Engineering Supervision & Administration .....	72.0	-	21.6	24.7	17.5	8.2	-
- Contingencies .....	25.0	-	16.7	5.6	1.8	0.9	-
AID HIG Loan (Direct) .....	2,370.0	-	711.0	812.9	575.9	270.2	-
<u>Sewer System</u> .....	6,673.0	-	1,304.8	2,520.7	1,848.8	874.7	124.0
Local (Indirect) .....	670.0	-	398.3	179.5	59.9	28.3	4.0
- Plans .....	427.0	-	335.0	92.0	-	-	-
- Engineering Supervision & Administration .....	183.0	-	27.6	71.4	54.5	25.8	3.7
- Contingencies .....	60.0	-	35.7	16.1	5.4	2.5	0.3
AID HIG Loan (Direct) .....	6,003.0	-	906.5	2,341.2	1,788.9	846.4	120.0
<u>Streets, Walks and Storm Drainage</u> .....	2,457.0	-	735.6	247.6	484.0	989.8	-
Local .....	400.0	-	122.0	44.0	86.0	148.0	-
- Direct Costs .....	200.0	-	61.0	22.0	43.0	74.0	-
- Indirect Costs .....	200.0	-	61.0	22.0	43.0	74.0	-
AID HIG Loan (Direct) .....	2,057.0	-	613.6	203.6	398.0	841.8	-
- Direct Costs .....	1,863.5	-	555.9	184.4	360.6	762.6	-
- Contingencies .....	193.5	-	57.7	19.2	37.4	79.2	-
<u>Electrical Distribution</u> .....	1,300.0	-	723.0	288.5	-	288.5	-
Local (Indirect) .....	230.0	-	128.0	51.0	-	51.0	-
AID HIG Loan (Direct) .....	1,070.0	-	595.0	237.5	-	237.5	-

1/ Plans, Engineering, Supervision and Administration of Sub Program II & III Streets, Walks, Electrification & Storm Drainage

2/ Includes Contingencies

3/ Refers to Contingencies for Sub Program III for Streets, Walks & Storm Drainages

4/ This amount should be covered by local funds in 1977 & later reimbursed from the AID HIG loan in the first half of 1978. If this is not done the Program will be greatly delayed.

TABLE NO. 28

DEVELOPMENT PROGRAM OF SAN MIGUELITO SPECIAL DISTRICT  
TOTAL INVESTMENT, DISBURSEMENT SCHEDULE AND INFLATION ADJUSTMENT  
BY SUB-PROGRAMS  
(000 of Balboas)

	Total	1 9 7 7	1 9 7 8		1 9 7 9		1 9 8 0
		Fourth Quarter	First Half	Second Half	First Half	Second half	First Quarter
<b>TOTAL</b> .....	<b>19,351.1</b>						
<b>Inflation</b>							
Value Excluding Adjustment for	17,012.4	612.4	5,117.6	5,244.1	3,482.0	2,432.3	124.0
Adjustment for Inflation .....	2,338.7	158.0	1,185.1	505.1	280.0	188.2	22.3
<b>Housing</b> .....	<b>4,353.7</b>						
Value Excl. Adj. for Inflation...	3,950.4	612.4	1,469.0	1,315.0	554.0	-	-
Adjustment for Inflation (8%)....	403.3	158.0	139.8	86.7	18.8	-	-
<b>Water Distribution</b> .....	<b>2,992.0</b>						
Value Excl. Adj. for Inflation...	2,632.0	-	885.2	872.3	595.2	279.3	-
Adjustment for Inflation (8%)....	360.0	-	210.6	78.3	46.5	24.6	-
<b>Sewer System</b> .....	<b>7,686.4</b>						
Value Excl. Adj. for Inflation...	6,673.0	-	1,304.8	2,520.7	1,848.8	874.7	124.0
Adjustment for Inflation (8%)....	1,013.4	-	533.8	236.1	144.7	76.5	22.3
<b>Streets, Walks &amp; Storm Drainage</b>	<b>2,853.6</b>						
Value Excl. Adj. for Inflation...	2,457.0	-	735.6	247.6	484.0	989.8	-
Adjustment for Inflation (8%)....	396.6	-	196.6	76.7	70.0	53.3	-
<b>Electrical Distribution</b> ..	<b>1,465.4</b>						
Local Indirect Costs .....	255.2						
Value Excl. Adj. for Inflation...	230.0	-	128.0	51.0	-	51.0	-
Adjustment for Inflation (7%)....	25.2	-	16.1	4.1	-	5.0	-
Local Direct Costs .....	291.8						
Value Excl. Adj. for Inflation...	255.0	-	142.0	56.5	-	56.5	-
Adjustment for Inflation (9%)....	36.8	-	23.0	6.1	-	7.7	-
External Direct Costs .....	918.4						
Value Excl. Adj. for Inflation...	815.0	-	453.0	181.0	-	181.0	-
Adjustment for Inflation (8%)....	103.4	-	65.2	17.1	-	21.1	-

TABLE No. 29

DEVELOPMENT PROGRAM FOR THE SPECIAL DISTRICT OF SAN MIGUELITO  
DISBURSEMENT AND INTEREST SCHEDULE DURING CONSTRUCTION  
FOR A B/ 15 MILLION LOAN AT 8% PER ANNUM INTEREST RATE  
ON THE OUTSTANDING BALANCE AND 1% PER ANNUM ON THE NON DISBURSED AMOUNTS  
(In Thousands of Balboas)

	1 9 7 8	1 9 7 9	1 9 8 0
	<del>First</del> January 1	<del>Second</del> Semester	<del>First</del> Semester
	1 9 7 8	1 9 7 9	1 9 8 0
	First Semester	Second Semester	First Semester
Disbursements . . . . .	-	4,611.1 <sup>1/</sup>	4,785.2
Accrued Disbursement . . . . .	-	4,611.1	9,396.3
Outstanding Balance . . . . .	15,000.0	10,388.9	5,603.7
Interests . . . . .	-	409.5	511.2
.1 Loan Commission (1%) . . . . .	-	150.0	-
.2 Interest on Balances (8 1/2%) . . . . .	-	196.0	399.3
.3 AID Guaranty Fee (1/2% on disbursement) ment)	-	23.1	47.0
.4 GOP Guaranty Fee (1/2% on disbursement) ment)	-	23.1	47.0
.5 BNP Administration Fee (3/4% on disburse- ments)	-	17.3	17.9

Includes the reimbursement of B/455,000 corresponding to costs paid during 1977.



TABLE No. 31

DEVELOPMENT PROGRAM FOR SAN MIGUELITO SPECIAL DISTRICT

AQUEDUCT PROJECT: GENERAL WORK SCHEDULE

	1978												1979											
	E	F	M	A	M	J	J	A	S	O	N	D	E	F	M	A	M	J	J	A	S	O	N	D
SAN ANTONIO																								
NUEVE DE ENERO																								
SAN ISIDRO																								
SAN JOSE																								
GELABERT																								
PAN DE AZUCAR																								
SAMARIA																								

 Design

 Construction

TABLE No. 32

DEVELOPMENT PROGRAM FOR SAN MIGUELITO SPECIAL DISTRICT

SEWAGE PROJECT: GENERAL WORK SCHEDULE

SUB-PROYECTO	1978												1979												1980			
	E	F	M	A	M	J	J	A	S	O	N	D	E	F	M	A	M	J	J	A	S	O	N	D	E	F	M	A
COLECTORA - QUEBRADA LIMON																												
NUEVO VERANILLO SECTOR 18, 19, 31, 32, 33																												
NUEVO VERANILLO SECTOR 21, 27, 29, 30, 37																												
PARUSIA																												
SAN ISIDRO																												
SAN ANTONIO																												
GELABERT																												
PAN DE AZUCAR																												



Design



Construction





TABLE No. 35

ACCRUED SUPPLY AND DEMAND  
(In Millions of Balboas of 1960)

	1970	1971	1972	1973	1974	1975 P/
Global Demand . . . . .	<u>1,330.6</u>	<u>1,462.7</u>	<u>1,541.1</u>	<u>1,589.0</u>	<u>1,564.0</u>	<u>1,550.5</u>
Foreign (Purchasing power) <u>1/</u>	364.2	394.5	397.4	399.6	367.2	369.0
Domestic . . . . .	966.4	1,068.2	1,143.7	1,189.4	1,196.8	1,181.5
Investment . . . . .	<u>242.2</u>	<u>276.0</u>	<u>333.3</u>	<u>315.8</u>	<u>281.7</u>	<u>322.1</u>
Private . . . . .	183.4	216.4	208.1	238.9	200.6	206.6
Public . . . . .	58.8	59.6	125.2	76.9	81.1	135.5
Consumption . . . . .	<u>724.2</u>	<u>792.2</u>	<u>810.4</u>	<u>873.6</u>	<u>915.1</u>	<u>859.4</u>
Private . . . . .	621.8	678.6	685.8	741.6	778.1	712.7
Public . . . . .	102.4	113.6	124.6	132.0	137.0	146.7
Global Supply . . . . .	<u>1,330.6</u>	<u>1,462.7</u>	<u>1,541.1</u>	<u>1,589.0</u>	<u>1,564.0</u>	<u>1,550.5</u>
Foreign <u>1/</u> . . . . .	436.1	490.1	507.3	487.8	433.9	400.7
Domestic . . . . .	894.5	972.6	1,033.8	1,101.2	1,130.1	1,149.8

1/ Including trade exchange ratio.

P/ Preliminary figures.

Source: Dirección de Estadística y Censo.

TABLE NO. 36

SECTORIAL GROSS DOMESTIC PRODUCT AT MARKET PRICES  
1970 - 76  
(In Millions of 1960 Balboas)

TRADE ACTIVITY	1970	1971	1972	1973	1974	1975	1976 P/
Gross Domestic Product.....	<u>894.5</u>	<u>972.6</u>	<u>1,033.8</u>	<u>1,101.2</u>	<u>1,230.1</u>	<u>1,137.2</u>	<u>1,137.7</u>
Agriculture, Silviculture, hunting and Fishing.....	161.1	167.1	172.0	177.9	175.2	183.6	182.7
Mine and quarry exploitation .....	2.3	2.6	2.7	3.7	3.5	3.3	3.5
Manufacturing Industry .....	153.6	166.7	177.1	184.6	176.4	174.9	172.0
Construction .....	54.0	64.1	71.8	76.3	79.4	66.5	60.2
Electricity, gas, water and Sewer .....	26.0	30.4	34.2	38.5	40.3	44.1	45.6
Transportation, warehousing and Communication .....	59.6	68.0	72.2	80.4	92.5	94.5	97.9
Wholesale and retail trade .....	126.6	135.9	144.4	153.7	161.7	153.7	147.1
Banking, insurance, real estate and other financial activities .....	34.8	39.9	45.1	54.7	59.9	65.6	70.8
Housing ownership .....	60.1	66.5	73.7	81.0	84.9	87.6	91.0
Public Administration .....	23.4	25.3	27.3	27.7	30.0	33.0	35.6
Public and Private Services .....	122.7	132.8	142.0	147.9	157.4	153.5	160.0
Services provided to the Canal Zone .....	70.3	73.3	71.3	74.8	68.9	71.9	70.3

P/ Preliminary Figures

Source: Dirección de Estadística y Censo.

TABLE 37

PERCENTAGE OF INCREASE BY ECONOMIC ACTIVITY: YEARS 1972 - 76

## INCREASE PERCENTAGE

(In millions of 1960 Balboas)

	1972	1973	1974	1975	1976
Gross Domestic Product .....	<u>6.3</u>	<u>6.5</u>	<u>2.6</u>	<u>0.6</u>	<u>0.0</u>
Agriculture, Silviculture, hunting and Fishing .....	2.9	3.4	-1.5	4.6	-0.5
Mine and quarry exploitation .....	3.8	37.0	-5.4	-5.7	6.0
Manufacturing Industry .....	6.2	4.2	-4.4	-0.9	-1.7
Construction .....	12.0	6.3	4.1	-16.2	-9.5
Electricity, gas, water and Sewer .....	12.5	12.6	4.7	9.4	5.7
Transportation, warehousing and communication....	6.2	11.4	15.0	2.1	3.6
Wholesale and retail trade .....	6.2	6.4	5.2	-5.0	-4.3
Banking, insurance, real estate and other financial activities .....	13.0	21.3	9.5	9.5	7.9
Housing ownership .....	10.8	9.9	4.8	3.2	3.9
Public Administration .....	7.9	1.5	8.3	10.0	7.9
Public and Private Services .....	6.9	4.2	6.4	0.7	0.9
Services provided to the Canal Zone .....	-2.7	4.9	-7.9	4.4	-2.2

Source : Dirección de Estadística y Censo.

Table No. 33

## LOCAL DEPOSITS AND LOANS: 1972-1977

(Balances as of December 31st. of each year in millions of balboas)

YEARS	LOANS			DEPOSITS <sup>a/</sup>			Loans + Deposits <sup>b/</sup>
	Total	Private	Public	Total	Private	Public	
1972.....	765.9	700.1	65.8	601.8	542.6	59.2	1.27
1973.....	1026.0	953.4	72.6	556.3	587.7	59.1	1.57
1974.....	1352.3	1231.6	120.7	795.9	727.5	68.4	1.70
1975.....	1525.3	1289.1	236.2	949.6	803.4	46.2	1.79
1976.....	1628.3	1288.0	340.3	994.8	950.6	42.2	1.64
1977 <sup>c/</sup> .....	1695.2	1291.7	403.5	1018.1	956.2	61.9	1.67

<sup>a/</sup> Includes sight, term and savings deposits and deposits between banks.<sup>b/</sup> Loans/Deposits ratio.<sup>c/</sup> As of April, 1977

Source: L. A. Sjaastad

TABLE 39

## CENTRAL GOVERNMENT

## SERVICE OF THE CONTRACTUAL PUBLIC DEBT

January 1 to December 31, 1975 - 1976

(In Millions of Balboas)

BREAKDOWN	(1)	(2)	(3)	D I F F E R E N C E	
	(1975 ACTUAL	1 9 7 6 Planned Law	7 6 ACTUAL	(3)-(1)	(3)-(2)
TOTAL	64.8	91.0	80.4	15.6	-10.6
I. Foreign Debt	38.2	60.6	53.5	15.3	-7.1
1. Interest	28.9	42.2	36.4	7.5	-5.8
2. Amortization	9.3	17.5	17.0	7.7	-0.5
3. Fees and other Costs	0.0	0.9	0.1	0.1	-0.8
II. Domestic Debt	26.6	30.4	26.9	0.3	-3.5
1. Interest	12.7	17.9	15.7	3.0	-2.2
2. Amortization	13.9	12.5	11.2	-2.7	-1.3

January 11, 1977.

TABLE 40  
CENTRAL GOVERNMENT  
STATUS OF THE CONTRACTUAL PUBLIC DEBT AS OF DECEMBER 31, 1976  
(IN Millions of Balboas)

BREAKDOWN	Balance as of 12/31/75	Interests Paid	New Liabilities	Amortizations	Balance as of 12/31/76
TOTAL	<u>710.2</u>	<u>54.4</u>	<u>164.5</u>	<u>39.2</u>	<u>843.0</u>
FOREIGN DEBT	<u>427.4</u>	<u>34.3</u>	<u>99.3</u>	<u>17.5</u>	<u>510.2</u>
AID	35.8	0.7	3.0	1.4	37.4
FOREIGN BONDS	25.6	1.1	-	0.9	24.7
IDB	35.7	1.5	7.1	2.6	40.5 2/
EXPORT-IMPORT BANK	11.5	0.9	3.6	1.1	14.0
BIRF	-	0.0	-	-	-
PRIVATE FINANCING	311.4	29.3	85.0	9.2	367.2
EQUIPMENT PURCHASES	7.4	0.8	0.6	2.3	5.3 2/
DOMESTIC DEBT	<u>282.8</u>	<u>20.1</u>	<u>65.2</u>	<u>21.7*</u>	<u>372.8</u>
SOCIAL SECURITY BONDS	76.5	4.2	-	3.1	73.4
PRIVATE BONDS	89.0	6.1	12.8	5.3	95.4 2/
NOTES	100.3	7.3	52.4	13.1	147.7
PRIVATE DOMESTIC FINANCING	9.0	2.1	-	0.3	15.3 4/
OTHER EXPENSES	-	0.4	-	-	-

1. Includes B/0.3 million of IDB Loan 240-SF/PN adjustment.
2. Includes B/0.7 million of adjustment for difference of 1971 obligation notes for Purchase of Equipment "Ministry of Education ENOSA"
3. Excludes B/0.1 million of Bond profits.
4. Includes B/6.6 million transferred to Central Government records pursuant to a resolution of the Agriculture Bank.

TABLE NO. 41

ORGANIZED GROUPS AND COMMITTEES IN THE DISTRICT OF SAN NICOLITO

1977

CORREGIMIENTO	LOCAL COUNCILS	WOMEN	YOUTH	SPORTS	EDUC. & CULTURE	VOLUNTARY WORK	REVOLUTION OBSERVANCE	TOTAL
JOSE D. ESPINAR	19	7	2					28
AMÉLIA D. DE ICAZA	13	8		7	6			24
BELISARIO PARRAS	44	35	15			90		184
VICTORIANO LORENZO	7	4					2	13
MATEO ITURRALDE	26	2						28
TOTAL	109	56	17	7	6	90	2	287

Minimum Family Income Needed to Amortize Sub-Program Options

<u>Services</u>	<u>Monthly Payment Per Lot</u>	<u>Basis for Cost Amortization</u>	<u>Percent of Median Income*</u>
1. Water	\$ 4.79	11 1/25 years	3.8%
2. Sewer	4.50/5.00	"	3.6%/4.0%
3. Electricity	9.25/10.55	"	7.4%/8.4%
4. Water & Sewer	9.29/9.79	"	7.4%/7.8%
5. Water & Electricity	14.04/15.34	"	11.2%/12.3%
6. Sewer & Electricity	13.75/15.55	"	11.0%/12.4%
7. Water, Sewer & Elec.	18.54/20.34	"	14.8%/16.3%

Sites & Services

<u>Solution</u>	<u>No.</u>	<u>Percent of Total</u>	<u>CUM %</u>	<u>Monthly Payment Per Lot</u>	<u>Loan Amount Per Family</u>	<u>Loan Terms</u>	<u>Maximum % of Family Income</u>	<u>Minimum Famil. Income Needed</u>
1	755	30%	30%	\$ 10.26	\$1,039	11 1/25 Yrs	25%	\$ 41.04
2	350	14%	44%	12.13	1,238	"	"	48.52
3	350	14%	58%	13.60	1,388	"	"	54.40
4	350	12%	70%	17.94	1,830	"	"	71.76
5	150	6%	76%	19.90	2,030	"	"	79.60
6	150	6%	82%	21.37	2,180	"	"	85.48
7	150	6%	88%	20.32	2,073	"	"	81.28
8	100	4%	92%	22.28	2,273	"	"	89.12
9	100	4%	96%	23.75	2,423	"	"	95.00
10	95	4%	100%	29.58	3,019	"	"	118.32

\*Estimated at \$125.00 in San Miguelito

EFFECTIVE DEMAND FOR SERVICES IN SAN MIGUELITO

No. of Inhabited Dwellings (a)	Percent of Dwellings Needing Services (b)			Lowest Percentile that can Afford all Services (c)			"Overlap" (d)			Effective Demand		
	Electr.	Water	Sewer	Electr.	Water	Sewer	Electr.	Water	Sewer	Electr.	Water	Sewer
22,000	27.4%	30%	64%	21.5%			5.9%	8.5%	42.5%	1,298	1,870	9,350
							+ 43.5% <sup>(e)</sup>	+ 42.0% <sup>(e)</sup>		9,570	9,240	
							49.4%	50.5%	42.5%	10,868	11,110	9,350
							To be Served by this Project:			<u>6,045</u>	<u>7,812</u>	<u>5,980</u>

NOTE: The monthly rates for each service shown in Section III (B) (Financial Analysis) are average rates. IDAAN and IRHE will actually apply a sliding scale based on family income. The lowest possible monthly rate to be charged by IRHE for electricity is \$2.40, and by IDAAN \$3.60 for water. The average minimum for sewer service is \$4.75. These minimum monthly rates result in a minimum total of \$10.75. Applying the 20% of income rule, the minimum family income required to afford all three services is \$53.75, which is the 21.5 percentile shown in Column 3.

- a) Source: Census Study 1970, ICASE Study 1974, 1975, combined data projected to end 1976.  
 b) Source: IDAAN-IRHE-HLC Studies  
 c) Calculated on basis of 20% of income to cover minimum total utility service charges.  
 d) "Overlap" is a measurement (expressed as percentage of inhabited dwellings) of those target group families who can afford basic services, but are not presently being served.  
 e) Calculated on basis that ICASE Study showed 60% of existing dwelling units which had water and electrical services were communal. These services must be individualized. Therefore, 60% of units served communally results in additional percentage requirements shown.