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**EVALUATION REPORT**

**SANTA CRUZ MUNICIPAL INFRASTRUCTURE PROGRAM**

**Presented to: AGRICULTURAL AND RURAL DEVELOPMENT OFFICE,  
P.L. 480, TITLE II PROGRAM  
USAID/BOLIVIA**

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# SANTA CRUZ MUNICIPAL INFRASTRUCTURE PROGRAM

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## EXECUTIVE SUMMARY

Paying for basic municipal infrastructure in a city of such diverse income groups as Santa Cruz, especially during the recent period of tremendous urban growth, has presented unique challenges to political leaders. The present Municipal Government has met these challenges with innovative solutions, where there has been limited experiences to draw upon. When the beneficiaries of these new infrastructure services, were asked to help pay for the services the response to the idea was positive.

Fundamental to the Municipal Infrastructure Program was that neighborhood residents would pay the majority of the costs for residential pavement and sewage outlets and their property taxes would not be raised during the period of time they were making these payments. The Municipal Government then drew upon the private sector in an innovative approach to finance the remaining costs of main residential avenues and drainage canals, together with additional infrastructure that is beyond the means of neighborhood beneficiaries. Private construction companies, a private bank, a private water cooperative and private voluntary organizations were called upon by the Municipal Government to collaborate with the financing and execution of the Program. The response again was positive. Furthermore, the Municipal Government, with its heavy financial burden, including an obligation to repay the city's debt, set the priority for municipal infrastructure high and allocated its own scarce resources to this priority.

The PL 480 Title II, Food for Work Program has played an important role in the start up of the Municipal Infrastructure Program providing momentum to the Program. Food has been an incentive to the construction companies to contract unskilled and unemployed workers. The participation of USAID in the Program has also provided an element of confidence to both the neighborhood residents, as well as the participating institutions.

As in any program, once execution begins problems occur. One important problem has been the slow start up and initiation of infrastructure projects, due principally to uncommonly heavy rains. Neighborhood residents were asked to begin payments immediately upon initiation of construction, and when long delays stopped construction, these residents began to demand action, notwithstanding the continuing rains which prolonged the delay and re-initiation of construction. Another problem was the heavy start-up cost of construction and the first year payments by residents which reflected these high costs. When the costs first appeared on the water bills, they were unexpectedly high to many, and to others, impossible to meet

Despite these problems, one innovative construction company took it upon itself to solve some of the problems by talking and working closely with the neighborhood residents assuring them that construction would continue. The Company was able to reduce the late payments from a high of 80 percent to 15 percent over a seven month period.

Nevertheless, the outcome of these initial problems has been that many neighborhood residents continued to delay payments and continue to apply pressure to the Municipal Government to reprogram their payments, in some cases to find additional financing, and more stronger pressures are being applied to abolish the system of neighborhood resident's repayments. Consequently, the Municipal Government is presently reevaluating the financial aspects of the program.

This Report is an evaluation which attempts to analyze various problems in the Program, and draw conclusions and recommendations to assist the Municipal Government in carrying forward the infrastructure program. Ways are also recommended to better utilize the PL 480, Title II, Food for Work and monetization component to reach the goals of the Program, as well as the goals of the Title II, Food for Work. Below is a summary of the Conclusions and Recommendations of the Report.

#### 1. Food For Work

**Conclusion:** There are 332,340 very poor people living outside ring 4 without paved streets, sewage, drainage, hygienic facilities, clean water, etc, nor adequate housing. The Food for Work Program is not adequately reaching these groups.

**Recommendation :**Continue the present Food for Work Program into 1993, until the projects started in 1992 are completed. Begin in 1993 to refocus the PL 480 Title II food and monetary program on the marginal groups outside the 4th ring.

**Conclusion:** Control and monitoring of food distribution and delivery to construction companies and workers has been tightened and adjusted. More pressure will only add unnecessary burden.

**Recommendation :**Carry out requirements already in place. The cooperating agency must be at all deliveries to contractors, as well as deliveries to the workers. More flexibility is required on the part of the PVO on day and time of deliveries, even if it means after work hours, or on weekends. Only in exceptional occasions should

contractors be allowed to store food in their warehouse for later delivery to workers. The norm should be directly to the job site for delivery, and with worker time sheets available.

**Conclusion:** There is not enough control in the total amount of food and money allocated to each worker in each construction project.

**Recommendation:** A fixed and limited number of rations per worker per project must be defined and controlled.

## **2. Financing and Revolving Fund**

**Conclusion:** There is serious question whether the revolving fund, as presently organized, will cover costs. Late payments by neighborhood residents in the Program have various consequences and reasons. Construction costs and an overly burdensome administrative apparatus may be a contributing factor in high costs.

**Recommendation :** Identify two technical assistance experts in municipal infrastructure, finance, and in low-cost urban pavement construction to assist the Fondo in its immediate analysis and reorientation plans.

## **3. Organizational Diagnosis**

**Conclusion:** There are too many organizations involved in the execution of the Municipal Infrastructure Program. Communication and dialogue has been opened by the Fondo and the construction companies, and reducing the burden of administration will have a positive impact on the Program.

**Recommendation :** From an organization development point of view, as well as from the point of view of reducing costs, the number of organizations should be reevaluated and reduced. It is further recommended that two presidents from the participating neighborhood councils be appointed to the Board of the Fondo on a rotating basis, as well as two representatives from participating construction companies.

**Conclusion:** There is presently and will continue to be strong pressures on the Fondo to increase its staff to meet the demands of the program.

**Recommendation :** The objective of the Fondo should be to carry out its functions and tasks without expanding its staff. Contracting out many of its functions is one solution, e.g. the promotional function could be turned over to the neighborhood councils and pay neighborhood workers to carry out these tasks. Another is to contract, on a temporary basis, qualified technical personnel to monitor, supervise and provide fiscal control for ongoing projects. Data collection and analysis of the overall program could also be sub-contracted.

## I. INTRODUCTION:

### BRIEF OVERVIEW OF THE OPERATIONS OF THE MUNICIPAL INFRASTRUCTURE PROGRAM, SANTA CRUZ

#### A. OBJECTIVES OF THE PROGRAM

The Municipal Government of Santa Cruz set up the "Fondo de Desarrollo Municipal" in July 1990 to construct urban infrastructure works, thus permitting logical urban development to keep pace with the explosive population increases of this city. As a related social interest, the Municipal Government wishes to impact favorably on the City by providing jobs to unemployed in the execution of infrastructure projects using cash and commodities from the P.L. 480 Title II Program of USAID/Bolivia.

#### B. HOW THE PROGRAM OPERATES

##### 1. Types of construction works

Large urban infrastructure works consist of paving city residential streets and main arteries through residential areas, providing sewage outlet to houses and constructing storm drainage canals. Small infrastructure works include parks, playgrounds, health clinics, school remodeling and bathrooms.

##### 2. Fondo de Desarrollo Municipal (Fondo)

The main functions of the Fondo de Desarrollo Municipal are to plan, coordinate, promote, supervise, control and help obtain the economic resources required to carry out the urban infrastructure works requested by neighborhood councils. These councils represent the residents of the City of Santa Cruz. The Fondo is governed by a Board of Directors, for which the Mayor of Santa Cruz is the President. His principal technical and administrative department heads are Board members<sup>1</sup>. The functions of the Board members include prioritization of program areas and approving annual plans. Most of the Board members sit on the Contracts Board which approves the municipal infrastructure construction contracts.

As the neighborhood councils present requests for large

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<sup>1</sup> Municipal Departments are: Technical, Administrative, Revenue and Executive Director of the Fondo.

and small urban infrastructure projects, the Fondo staff<sup>2</sup> group these requests into urban neighborhood zones (unidades vecinales). A preliminary promotional campaign and survey is carried out by the Fondo staff to determine whether 60 % of the residents of the neighborhood zone actually want the project. If they do, then the appropriate Fondo Staff develop project profiles; including preliminary design studies, engineering studies, cost of works, technical specifications, legal obligations and administrative matters. After a project proposal is prepared by the Fondo staff, it is passed to the Contract Council composed of various members of the Fondo Board. A Technical Commission of this Council reviews and evaluates the project. If approved by the Technical Commission and the Contract Council, the proposed project is returned to the Fondo to be prepared for open bidding. A very thorough and complete legal procedure has been developed where by the Contract Council receives and evaluates bids and selects contractors.

The contract signed by a construction company for pavement, drainage canals and sewage work, details not only the construction specifications but also the company's responsibilities in neighborhood promotion, Food for Work requirements, supervision and control responsibilities.

Small municipal infrastructure project procedures are handled much the same way as large projects, with the exception that financial control, supervision and monetary matters are carried out by a separate unit directly responsible to the Mayor's Office (Oficial Mayor Técnico).

Pavement and sewage are the two types of large infrastructure projects which neighborhood households are required to pay back the cost of the project construction. Other large municipal infrastructure projects, such as storm drainage canals, principal road throughways, and parks and plazas are financed through direct contributions by national and international founders. Also taxes are raised by the Municipal Government to help pay for these works<sup>3</sup>

### 3. Private Construction Companies

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<sup>2</sup> Fondo de Desarrollo Municipal Departments include: Urban Pavement, Drainage, Financial Control and Monitoring, Administration, and Special Projects.

<sup>3</sup> The various contributors and their contributions are detailed in a later section.

The construction company's role is a critical one since all construction is carried out by private firms. Validating information of neighborhoods, lot size, water meter codes, resident's ability to pay, providing information to neighborhood councils. Promoting the good will of the program among the neighborhood has become a critical component of the role of the construction companies. The more astute company understand that unless the neighborhood council and residents are satisfied, they will not pay for municipal works, thus the company may not receive its construction payments.

#### 4. Food For Work

The Food For Work activity in Santa Cruz lies solely with ADRA-Bolivia, a private U.S. voluntary organization approved by USAID. Its function is to control and supervise the storage and distribution of food brought in from the United States, or purchased locally, for the Municipal Infrastructure Program.

The Food For Work requirements for the year are made by Fondo de Desarrollo Municipal in collaboration with ADRA. The pavement, sewage and drainage projects use unskilled and semi-skilled workers who receive varying percentages of their salary in money and food. Food ranges from a low of about 27 % (budgeted by the construction firm) to a high of about 70 %. The actual amount depends upon how much food a worker is willing to receive. The more unskilled the task and the more labor intensive (e.g. loading rock and gravel in a river bed), the worker accepts a larger percentage of food. The more professional workers; office personnel, carpenters, plumbers, electricians, will accept very little, if any food.

Once food arrives in the warehouses of ADRA, it is stored and grouped by food product; wheat, rice, salt, beans, etc., and by date of arrival so that earliest food in is then first out. This assures less of a chance of spoilage. Inventory lists are attached to each stack of bags, indicating date received and quantity remaining in the warehouses.

Distribution by ADRA takes place when a form letter from the Fondo authorizing the distribution to the construction company is received, based upon inspection of the construction works. The form letter is signed by the Fondo Executive Director and the monitoring and project department heads. An order to distribute is then prepared by ADRA, which details the number of rations, i.e., quantities of food and food mix, from which the kilos and

number of bags are calculated

Contact is then made with the construction company to provide ADRA a payroll time sheet listing the workers who are to receive rations. Date and time are arranged with the construction company to arrive at the ADRA warehouse to pick up the food commodities. ADRA, the construction company and the warehouse supervisor have copies of the disbursement order. The construction company must provide the transportation and workers to load the truck. The truck is then driven to the warehouse owned by the construction company to be unloaded. If the workers are not waiting to receive their rations, which is usually the case, then another date and time must be arranged for workers to receive their rations. When workers receive their rations, they are to present their identification cards. This usually does not happen because most workers do not have identification cards. The workers are required to get their food rations to their home on their own, unless the company voluntarily agrees to provide transportation, which occasionally happens.

The ration which is received for each project, is a percentage of direct labor costs, calculated at 27 % but varies with the type of construction, i.e., more labor intensive and more unskilled workers, the higher food percentages received. Each worker's ration and monetary payments is based upon a predetermined task completion, e.g. 25 sq. meter of pavement completion would receive one ration for the completed task. The exception to this is when the task to be completed is a continuous one, such as sweeping streets. Then workers are paid with food rations for the days worked per period, e.g., one week.

##### 5. Neighborhood organization and participation

When municipal infrastructure works involve repayment of costs by beneficiaries, such as residential street pavement and sewage for residential houses, the existing neighborhood councils are utilized to organize and coordinate project promotion and supervision.

These councils are used by the various institutions

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<sup>4</sup> The make up of food ration, i.e, what percentage of each type of food is available to be included in a ration, is discussed and calculated between ADRA and the Fondo when they receive notice at the beginning of the year of quantity of Food For Work that will be available.

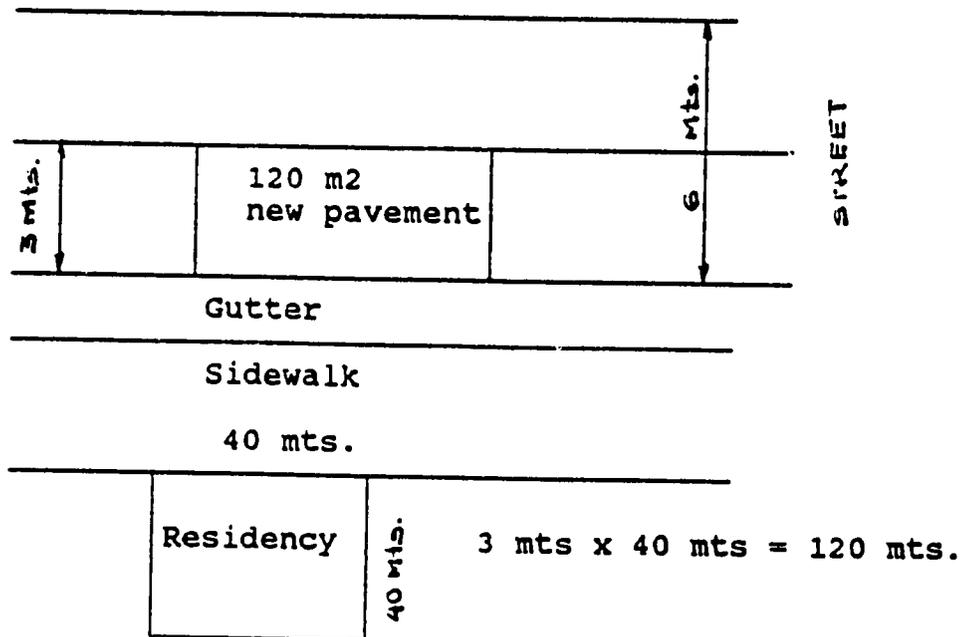
involved in executing works to relay information about the project, organize meetings to discuss problems and issues, promote the various infrastructure works, negotiate changes in contract conditions and to assist in repayment problems. These councils are extremely active and vocal in their participation in most aspects of project planning and execution. There have been cases where work stoppage on municipal works have been brought to the attention of the public by the neighborhood councils through newspaper and television interviews and demonstrations. In one extreme case, a group of neighborhood members and the council leaders went on a hunger strike and received considerable attention until the Mayor and a National Senator were able to negotiate a settlement.

The neighborhood councils' communication network was originally intended to be channeled through the Fondo de Desarrollo Municipal, but residents and their leaders feel free to go to the source of the problem. In some cases they write or visit with the construction companies, or the SAGUAPAC (Santa Cruz water cooperative), which are the two key institutions in the program. Frequent visits are made to the Mayor's office.

Repayment of the costs of construction work by neighborhood beneficiaries are made through a revolving fund which has been organized through the private water cooperative, SAGUAPAC. Participating residents are charged for street pavement and sewage construction by measuring and calculating the costs based upon lot frontage for each residency. In pavement construction, it is the square meters from the two extreme frontage points of the residence to the center of the proposed road. For resident sewage construction, the lineal meters are measured from the two extreme frontage points. The estimated cost of pavement construction per square meter ranges from about \$us.14.50 to 17.50 due to different soil conditions in the city and therefore different construction costs. Then the lots are mapped and registered, and water meter code numbers documented.

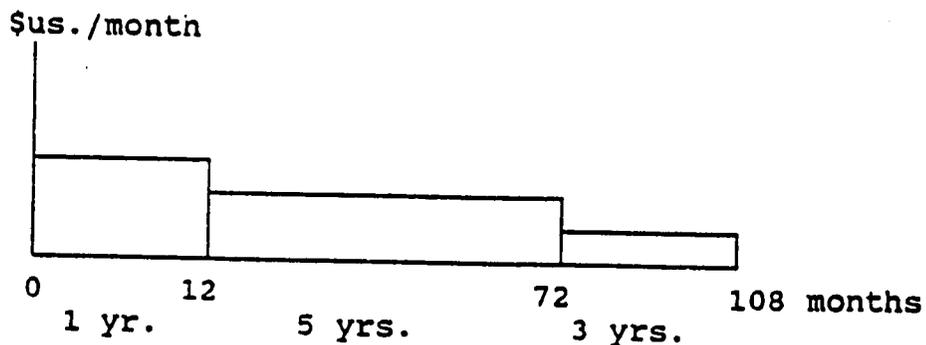
Residents begin to pay an initial quota start up determined by the square meter cost. This start up quota is a heavy burden for residents and the payment is therefore spread over one year. An example of a typical cost calculation presently used for paving the frontage of a residence lot is the following:

RESIDENTIAL STREET TO BE PAVED



- Gutters and sidewalks are not included in construction, nor in costs.
- Calculated cost of construction of residential pavements by Fondo is estimated at \$us 15 per mt2.(based upon soil conditions in this neighborhood).
- Cost calculations:  $120 \text{ m}^2 \times \$us 15 = \$us.1,800$

Repayment conditions: 8 years, actually 9 years because the Fondo calls the first year an advance payment, (anticipo), as follows:



Year one: Is the start-up and construction period and the resident home owner is required to pay more during the first year to help with these initial construction costs, called advance payment (anticipo).

Years two to six: The resident home owner is required to make monthly payments to cover the remaining period of repayment to the construction company, plus 15 % annual interest to the company for waiting for its payment.

Years seven to nine: The home owners repayment period will go to the Municipal Government to be rotated into other pavement projects.

#### 6. Revolving Fund & Water Cooperative

A "revolving fund" has been set up whereby resident neighbors pay the pavement and sewage costs directly to the water cooperative (SAGUAPAC). This payment is included in their monthly water bill payments. These water bill payments can be made directly to the water cooperative or to any local bank. The water cooperative has a special account in the Banco Boliviano Americano, where all resident payments designated for pavement and sewage construction are deposited by SAGUAPAC. The Banco Boliviano Americano pays 10% annual interest (the commercial rate) on this account which remains in the account to be used for other projects. When authorized, this bank makes payments directly to the construction company. Authorization to pay construction companies is initiated by the Fondo de Desarrollo Municipal for initial start up payments, project advance and final payments. Supervision and inspections are made for contract conformity by the Fondo. The Fondo then sends appropriate documentation to the Municipal Department of Administration and Finance, (Oficial Mayor Administrativo), requesting they authorize payment. Finally, the Banco Boliviano Americano is authorized to make the payment directly to the construction company.

Since the "revolving fund" has been in operation for a relatively short period there are some complications. Due to late payment by beneficiaries, and late start up of many construction projects, especially pavement projects, the revolving fund has not been able to totally cover costs of construction. The Fondo is presently re-evaluating the repayment conditions as one attempt to correct some of these complications<sup>5</sup>.

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<sup>5</sup> A thorough explanation and evaluation of this rotating fund is given in a later section of this Report.

### C. COOPERATING INSTITUTIONS AND THEIR RESOURCES

#### 1. List of institutions and functions \*

The following institutions are participating in the Municipal Infrastructure Program. Detailing the structure, professional staff and operations of each and every institution for the purpose of this analysis was not necessary although some are obviously functioning better than others, and this has been addressed in a latter section. The interest here is to identify the functions that each institution is carrying out to assist the Municipal Infrastructure Program in reaching its objectives. Additionally, this section briefly identifies the resource contribution of each institution in graphic form. (See Table # 2).

Table # 1  
FUNCTIONS OF COOPERATING INSTITUTIONS

Institutions	Policy	Planning	Promo tion	Execu- tion	Finance	Monitor- ing/Fisca control	Evalu ation	Totals
1. Municipal Government	x	x			x		x	4
2. Fondo de Desarrollo Municipal	x	x	x			x	x	5
3. Neighborhood Councils & Residents				x	x	x		3
4. Construction companies			x	x				2
5. SAGUAPAC				x				1
6. ADRA				x				1
7. Banco Boliviano Americano				x	x			2
8. USAID/B	x				x		x	3
9. Small projects Municipal Govt.			x	x		x		3
10. Fondo de Tierra			x	x				2
Totals	3	2	4	7	4	3	3	NA

There is an excessive number of institutions involved in this Program. Even though all are able to justify their

participation, the simplicity of the construction works does not justify the involvement of so many institutions. There is excessive duplication of functions, although some redundancy is not necessarily negative, if one is interested in checks and balances. Too many organizations also increase the costs, and someone is paying for these costs. Also lines of communications become complicated and cumbersome, causing the institution to justify their participation by developing bureaucratic mechanisms and complications. It is also difficult at times to determine who is responsible for what, especially when breakdowns occur. It is too easy to say "that is not our responsibility". Who is orchestrating all of these organizations? These and other issues are addressed in a latter section.

2. Physical Resources Contribution or Participating Institutions

Table # 2  
INSTITUTIONS PROVIDING RESOURCES TO THE PROGRAM

Institutions	Finances	Food	Tools & materials	Labor	Machinery & Equipm.
1. Municipal Governmt.	x				
2. Neighborhood residents	x			x	
3. Construction companies	x		x	x	x
4. ADRA (ONG)	x	x	x		
5. USAID/B	x				

Here, there does not seem to be an excessive overlap or duplication in institutions providing resources to the Program and lines of communication and responsibilities seem clear.

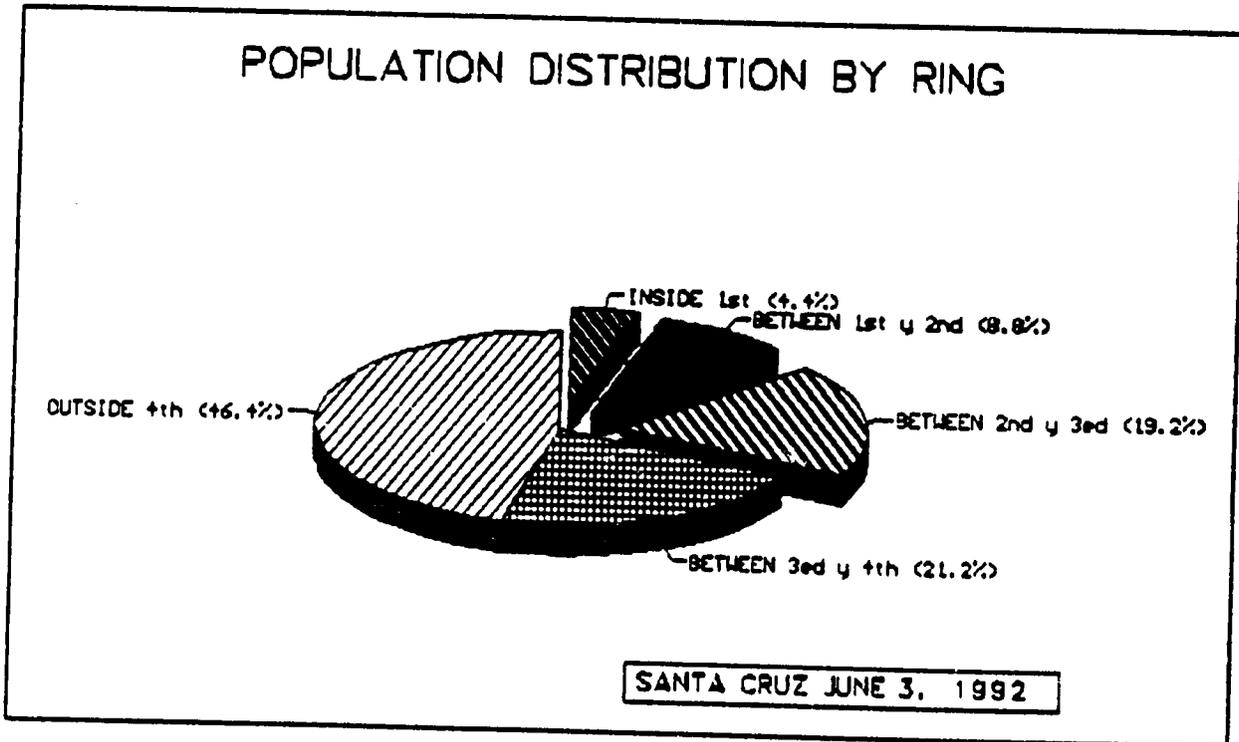
II. BRIEF ANALYSIS OF URBAN BENEFICIARIES AND CONDITIONS

A. COMPARATIVE CONDITIONS OF INTERCITY URBAN RINGS AND MARGINAL GROUPS

The 1992 Census Data of the National Institute of Statistics (INE) has published the following:

Santa Cruz city population distribution by urban "Rings" (anillos):

Total city population	694.616
First Ring	4.4 %
Within First and Second	8.8 %
Within Second and Third	19.2 %
Within Third and Fourth	21.2 %
Outside Fourth Ring	46.4 %
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	100.0%



**Table 3**  
**POPULATION DATA BY URBAN RINGS, AND GROWTH AND HOUSEHOLD DATA**

Urban Rings	CENSUS DATA:		GROWTH 1976/1992	PERSONS PER HOUSEHOLD	NUMBER OF HOUSES
	1976	1992			
First Ring	38,837	30,640	- 1.50	4.37	7,016
Within 1st. & 2nd rings	65,146	60,934	- 0.43	4.90	12,441
Within 2nd & 3rd. rings	89,942	133,457	2.55	4.72	28,265
Within 3rd & 4th rings	49,833	147,237	7.15	4.77	30,883
Outside 4th	11,810	322,340	23.47	4.71	68,379
Total	254,682	694,616	6.61	4.73	146,995

Source: INE 1992

## 1. Conditions of the Poor

The greatest number of indigent and poor people<sup>6</sup> are found in areas outside and farthest away from the center of the city. However, between rings two and four, neighborhoods are heterogeneous, with pockets of poor in this area. Nevertheless, the largest percentage of indigent and poor are found outside the fourth ring. Of the total population of the city of Santa Cruz in 1992, 46 % or 322,340 persons live outside ring four, with a population growth rate of 23 %.

In 1988, over 40 % of the total households in the city were without sufficient income to meet their basic needs. Outside ring four the indigent group had a monthly family income of Bs. 220 per month, for an average per capita income of Bs. 30 per month. For the same year the poor group average monthly income per family outside ring four was Bs. 371, for a monthly per capita average income of Bs. 66.<sup>7</sup>

Ten years ago, with the high rate of population growth and living conditions of the poor in a lamentable state, the city began a process of "self urbanization". The process was slow and disproportionate in its development, but in effect streets were opened, sidewalks built, centers of recreation and other infrastructure created. Action from the neighborhoods was the determining factor in this development, especially in infrastructure. Under these conditions, the neighborhoods began to request services such as sewage, expansion of the water networks, electricity and began paying for these services on time payments. In this process of development, some sections of the city had luck, while others with more limited resources were left behind. Outside the fourth ring, for example, over 70 % of the houses were adobe and straw or tile roof. Today, most of these houses outside the fourth ring are made of cheap brick structure with tile roof and limited

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<sup>6</sup> Indigent = Income does not cover enough to acquire essential food for a minimum adequate diet.

Poor = Income does not cover a minimum essential budget that includes food, clothes, housing and other fundamental essentials.

<sup>7</sup> "Vivienda, Pobreza y Condiciones de Vida"; Unidad de Planificación y Proyectos. Departamento de Planificación Regional. Serie de Documentos N° 8, Santa Cruz, 1991.

hygiene facilities, if any.

For example, 75 % of these houses are classified as "unacceptable", and most are "illegal", i.e., 90 % do not have titles to the land. 90 % of the houses outside the fourth ring do not have bathrooms, water to the house, sewage, nor electricity.<sup>8</sup>

Each year, the city has increased the construction of streets and avenues with asphalt and cement bricks, but the proportion of houses that have this type of street is less each year due to the expansion of urbanization. In 1988, 73 % of all City streets leading to houses in urban areas were dirt. The proportion of the streets with pre-fabricated cement brick (losetas) or asphalt are exclusively in the central zone out to the second ring. Streets are now under construction in the third ring using cement brick under the present Municipal Government. Some principal avenues leading into the third ring residential areas are presently being paved with asphalt. However, outside the fourth ring 95 % of streets leading to the residences are dirt. The remaining streets are covered with rock.

**B. WHERE PRESENT MUNICIPAL INFRASTRUCTURE PROJECTS ARE BEING BUILT AND GLOBAL FINANCING**

**1. Pavement**

The objective of the Municipal Program of Urban Pavement<sup>9</sup> is to pave the city of Santa Cruz out to the fifth ring over the next 5 years, 1991-1996. This would cover sixty neighborhood units (unidades vecinales) for an area of 4,800.000 square meters of pavement and would require an investment of \$US.86.4 million dollars. This is a very ambitious objective. Financing for this ambitious objective has not been obtained.

The actual construction for 1992 is approximately 60 % behind schedule because of the heavy rains, and there is only three months remaining before the "rainy season" starts again in November. Therefore, limited pavement works have been constructed in 1992, basically road preparation for pavement construction has been undertaken. Much of this construction planned for 1992 will have to be carried over into 1993.

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<sup>8</sup> Op Cit. p. 50. 1991

<sup>9</sup> "Fondo de Pavimentación Urbana", Gobierno Municipal de Santa Cruz; Fondo de Desarrollo Municipal, Abril 1992.

The city map of pavement construction prepared by the Fondo De Desarrollo Municipal in May 1992 (see Appendix \*), shows the area of the core city (casco viejo), the second ring and small sections of a few neighborhood units in the third ring as having finished pavement.

Pavement under present construction, i.e., contracts have been signed and in most cases some phase of construction has begun, is totally concentrated inside the third ring and all of the area outside the third ring and beyond are in the stage of looking for financing. Main avenues connecting rings have been paved completely within the third ring, and approximately half of the avenues within the fourth ring have been paved. Outside the fourth ring and beyond very few avenues have been paved, with the majority yet to obtain funding.

For the year 1992, eight pavement projects have been contracted to construction companies for a total cost of \$US.3.5 million. They include 6 neighborhood units (unidades vecinales) and four avenues. Two units are inside the fourth ring and the remaining are inside the third ring.

There are seven pavement projects in 1992 which are out for bids, or bids have been awarded but projects have not started. The total cost of these seven projects is \$us.8.9 million. These seven projects include five neighborhood units which are to be paved, and one avenue and one interconnection within a large neighborhood unit. All of these pavement projects are inside the third ring.

Totals for 1992 are: 15 pavement projects for a total of \$US.12.5 million.

**Financing Sources (in US\$ dollars) for Municipal Pavement Projects include:**

Table 4

Source	Cash	Food	Materials	Donation	Credit
Municipal Government	2,011,080		617,301		
USAID/B	1,016,741	636,266			
BID/FNDR	205,580				
Neighborhood Residents	6,972,729				
Plan International				291,600	291,600
CORDECruz	450,000				

There are 16 drainage canal and sewage projects for which

contracts have been signed, or bidding is taking place. The total cost of these projects is \$us.3.9 million for 1992.

**Financing for sixteen Drainage Canal and Sewage Projects include:**

Table 5

(In US\$ dollars)

Source	Cash	Food	Materials	Donation	Credit
Municipal Government	1,267,830		-		
USAID/B		98,151			
BID/FNDR	2,458,731				
Plan International				50,000	72,108
FSE/Municipal Government	22,260				

Finally, there have been 105 small projects constructed in 1992, for which 35% were outside the 4th ring.

### III. EVALUATION OF KEY PROGRAM COMPONENTS

#### A. FOOD FOR WORK

Section I.A above is a brief explanation of how the Food For Work component operates. This evaluation section addresses how well it works and recommends changes where they seem appropriate.

One of the important objectives of the Municipal Infrastructure Program is putting people to work. The Food For Work component is doing just this. Unskilled and semi skilled workers are benefiting considerably from the Program. The estimated number of workers who will benefit directly from working in the Municipal Infrastructure Program during 1992 is 6,555 per month. This is having a considerable impact on the unemployment figures. On the other hand, unlike the direct administration of projects with communities under the Municipal Infrastructure Program, the neighborhood residents do not receive food for work, and are not themselves working on the construction projects. One direct consequence of this is an elevated cost of construction. When neighborhood residents work on their own pavement projects they only receive food. No cash payment is made, thus lowering costs. The construction techniques presently used in Santa Cruz are more sophisticated in the inter city pavement projects making it difficult for large numbers of residents within

the city to work on municipal infrastructure projects. It was stated that most of the unskilled and semi-skilled workers on the construction works come from outside the fourth ring. Not only are these people more accustomed to manual labor, they are more receptive to receiving food for work. Workers, however poor, who live nearer the center of the city have different living requirements and need to make more monetary payments for these requirements.

It was noted that most of the complaints about the use of food as a substitute for cash come from those storing and distributing, having to pay workers who are controlling payrolls, monitoring, supervising, and providing financial control of the food. The workers talked with, who were receiving food as payment, were not complaining. Also, the point can be made that the workers who are the most needy are those receiving most of the food.

The construction companies and Municipal Government officials were asked the following, and responded as follows: 1) Is the use of food in construction projects an administrative and operational burden? The answer was a strong and uniform Yes. 2) Would you rather have payment in cash as a substitute for food in your construction projects? The answer was a very strong and unanimous Yes. 3) Finally, these individuals were asked if you could not have a cash payment as a substitute for food, would you prefer not to have food at all? The answer was a strong and unanimous No. If we cannot have cash, we prefer to stay with food.

Another important question is if the workers are being paid food what is the value of this food, and does this food have utility for the worker and his family?

One illustrative case example which may shed some light on this question is the construction of a health clinic project. This project was under construction and visited during the distribution of food to workers. Below are the details of the project, including the labor component from which the analysis will be made. The construction company Delta Ltd. provided the details which were later partly verified by ADRA and briefly discussed with the Fondo.

A 130 m<sup>2</sup> covered health clinic (posta sanitaria) was being built in the outskirts of the City. Villa El Carmen UV-76 is a neighborhood outside the fifth ring. It can be located on the map in Annex B. Approximately 2/3 of the clinic was completed when the total food allocation was disbursed and provided to the workers. The contract called for

completion and turn over to the community in 60 days, but the construction company calculated 45 days to complete the project. Calculations for the skilled and unskilled were made using 30 day because workers did not work continuously on the project.

Approximately 26 workers were on the time sheet. But 34 workers participated in the construction, including office workers, and 26 were scheduled to receive food. Actually, 20 were present when food distribution was made, and 6 were to receive their ration a day later. Of the 26 workers to receive food, the company used the following percentages to determine the division between monetary payment and food.

<u>Workers</u>	<u>% cash</u>	<u>% food</u>
Unskilled	30	70
Skilled	40	60
Auxiliary	50	50
Professional	100	0
Helpers (elect. and plumb.)	70	30

The above was the rule of thumb the company stated they used with workers in the Food For Work contracts. However, it does not coincide with what actually happened, i.e., all 20 workers present for disbursement received equal amounts of food and the six on the payroll not present were to receive the same and equal amounts.

The following are the amount of food received by the Company at the warehouse of ADRA, in a rented 350 qq truck paid for by the Company, and the amounts provided to the workers, by actual count and by the order to distribute by ADRA:

Table 6 FOOD FOR WORK DISTRIBUTED TO DELTA CONSTRUCTION CO.

Item	# Bags	Net weight Bag Kgs.	Total net weight Bag/Kgs.
Wheat flour	144	50	7,200
Corn flour	200	20	4,000
Rice	88	46	4,048
Salt	40*	2 per small bag	376
Total:			15,624 Kgs.0 15.6 Tons.

\* Each bag contains 188 small bags.

Full unopened bags of food were directly distributed to each worker, i.e., no weighing of food was performed. The following was given to each worker:

Table 7 FOOD FOR WORK DISTRIBUTED TO WORKERS OF DELTA COMPANY

Item	# Bags	Net weight Bag Kgs.	Total net weight Bag/Kgs.
Wheat flour	5	50	250
Corn flour	7	20	140
Rice	3	50	150
Salt	7	2	14
Total	22	122	554

#### B. FINANCING -REVOLVING FUND

The basic questions are: 1) is the financial system as set up by the Municipal Infrastructure Program functioning as planned? 2) is cost recovery of the pavement project reaching the objective of near total recovery?, 3) is the collection system fulfilling its objective?, 4) are there funds being generated from cost recovery?, and 5) if so, what are the planned future uses of these funds?

##### 1. Financial system of the Municipal Infrastructure Program

The Section I.B.6 above briefly describes how the Revolving Fund operates and how neighborhood residents are paying for pavement and sewage construction. To determine whether the system is functioning as planned, we continue with the brief analysis and present data from SAGUAPAC (the Santa Cruz water cooperative). The analysis addresses the questions above.

SAGUAPAC deposits monthly water bills paid by neighborhood residents for pavement and sewage construction in an account in US\$ dollars at the Banco Boliviano Americano, Santa Cruz. Paid and unpaid bills by residents are tabulated monthly by SAGUAPAC. The Controller of SAGUAPAC receives a statement of all accounts monthly, including statements of each neighborhood zone (unidad vecinal.) Although we were told that a summary of late payments by residents (morosidad) had been made by SAGUAPAC, we were

unable to obtain the summary with two trips to SAGUAPAC, a telephone conversation with the General Manager, and a hand carried letter written by the Fondo Executive Director requesting this information. We firmly believe that both SAGUAPAC and the Fondo have this information.

The incomplete information provided by SAGUAPAC is as follows:

Table 9

MUNICIPAL INFRASTRUCTURE PROGRAM, SAGUAPAC STATEMENT OF PAVEMENT ACCOUNT AS OF JUNE 30, 1992 (in US\$ dollars)

Direct Accumulated Pavement payments	Accumulated interest from Bank @ 10%	Other*	Total	Paid out to construction companies	Returns	Total Balance
950,338.33	43,895.54	12,058.56	1,006,292.43	674,825.56	7,538.93	323,927.43

\* Paid directly to Caja SAGUAPAC.

Table 10

MUNICIPAL INFRASTRUCTURE PROGRAM, SAGUAPAC STATEMENT OF SEWAGE ACCOUNTS OF JULY 7, 1992 (in US\$ dollars)

Direct Accumulated Sewage payments	Accumulated interest from Bank @ 10%	Other*	Total	Paid out to construction companies	Returns	Total Balance
1,485,226.59	207,207.55	105,550.37	1,797,984.51	1,092,473.56	2,646.08	702,864.87

These figures do not tell us much other than the first six months of 1992 the neighborhood residents paid into the SAGUAPAC account for construction of pavement and sewage almost three million US\$ dollars. What we do not have here is how much was billed to residents for payment for these two construction activities. This would immediately give us the arrears or late payments by residents for this period. Another important point is that almost twice the amount was paid out to construction companies for sewage rather than pavement. It should be the other way around, but due to the heavy rains, pavement construction could not advance according to schedule.

It seems evident, that with the exception of not being able to obtain information on late payments by neighborhood, the system as designed is functioning properly in relation to collection and accountability. We were told however, that

there is some problem with wrong meter code numbers. Some residents are being billed for construction of pavement and sewage that they are not getting. This problem is of sufficient concern that SAGUAPAC has asked the Fondo to do a census of houses and water meters to correct this problem. The construction companies are verifying this as they work with neighborhoods in other aspects of construction.

2. Is Cost Recovery in the Revolving Fund for Pavement and Sewage Projects Nearing Total Recovery?

To determine cost recovery, adequate data is required on late payments by residents in the Program. The total amount billed to the residents has to be compared with the actual amount paid by these same residents. Although this data is lacking, we do know that a considerable number of residents have complained strongly about the high initial payment bills they have been receiving. We were told that because of these high bills, many are not paying. We have included a copy of a letter received by a construction firm from residents complaining that eight months had past since the company started construction, and the dirt road is worse than before construction started. See Appendix B. Also, attached to this Appendix is a copy of a typical water bill with a payment charge of Bs.154 for pavement construction, which is quite high. SAGUAPAC stated they receive numerous complaints and visits because of high water bills due to pavement and sewage construction.

Receiving these complaints is becoming a burden for SAGUAPAC. They stated, however, "because this is a cooperative we believe we are providing a service to our members." That is why they do not charge either a fee nor an administrative charge to the Municipal Infrastructure Program for these services. The Fondo receives various delegations weekly asking for relief from high water bills. The Fondo is responding by extending the time period for repayment, which lowers the monthly payments. But the question remains whether the burden of payments are too high for a large segment of the neighborhood residents? Are construction costs too high? Are operating costs too high? Is the Program out of reach for some segments of the population? Unless a detailed city-wide analysis of repayment deficit, by neighborhoods and by income group is made, it is not possible to answer these questions. However, by the amount of complaints, and in some cases civic action as mentioned earlier, there are strong signs that it is not only construction delay and weather that is bringing out the protest, it may be directly related to the high costs of the Program.

In a long and informative interview with representatives of one of the largest construction companies in Santa Cruz, which is also one of the companies with various large pavement contracts, some light was shed on this issue of neighborhood resident delay in paying water bills. The meeting took place in the offices of this company with two of the three owners, the head of the office of administration and finance, and the engineer in charge of the Food For Work Project contracts. All of their projects are pavement contracts. At anyone time they have over 200 laborers working in these projects. The conversation ranged over a wide variety of subjects on the topic of Food For Work, but one that especially concerned all those present in the meeting was the delay in payments. It was such a concern that the engineer had spent considerable time, at the encouragement of the owners, in researching and investigating the problem. They were quite open in their motives -"if residents do not pay their bills, the Company does not get paid". Not only had they done considerable research, but they were convinced that sharing their information especially with the Fondo, and with other construction companies as well, was their obligation. Therefore, the engineer in charge of the pavement project spent considerable time explaining his findings.

The company had three very large neighborhood zones (unidades vecinales) to pave. Construction started in September, 1991. Residents were to begin payment immediately, i.e. in September. When it became apparent that a large majority of residents in the zones were not paying their water bill, the company began investigating. The company was to receive a 20 % advance for start-up costs, and these payments were delayed. The company began to investigate through their own contacts and were able to get information from SAGUAPAC, including the specific data on household billing and payments for the three zones.

The November, 1991 results were alarming. 80 % non-payment (morosidad). Why? Christmas, yes. Year end taxes, yes. But there was also major irritation by the neighborhood residents that limited progress had been made and it was just like always all talk and no action. Being astute, the construction company decided to take action. They began meetings with the neighborhood council explaining the delay; rain and general start-up problems. They opened the doors to communication. Residents in the program paid for their own monitoring of projects, and the company made contact with the individuals who were monitoring and serving as contact with the residents. Letters were written to neighborhood councils, and some

residents, explaining the delays. The company even spoke to a priest who in turn encouraged residents during the Sunday mass to pay their water bills, with the possibility of stopping construction all together if bills were not paid.

Christmas passed, more work began on the projects, people began to see some progress and the open communication began to take effect. January past due indebtedness (morosidad) dropped to 30 %. Communication was kept up, the company continually stated not to delay payments so that work stoppage on the projects would not happen. In May the indebtedness dropped to 15 %. There was a 40-50 percent advance on pavement construction in some neighborhoods. The company stated that in these neighborhoods, during the heavy rains which continued through May, June and July, the indebtedness has not risen. "The neighborhood saw results and were ready and willing to pay for these results". The communication and public relations activities certainly paid off. All this information has been shared with the Fondo, including the detail maps and specific and accurate data on all of the houses in the zone of construction that this company painstakingly obtained. They went way beyond their contract obligations to obtain these positive results.

We do not believe other companies as yet have picked up these ideas and are making efforts such as this company, at least in our conversations we have heard nothing to indicate so. How much of what has happened in the neighborhood zones of this company can be transferred to other zones is an open question. But the approach taken proved effective.

The question remains, is the revolving fund covering costs?. Another approach was taken to attempt to find out what percentage of each sewage and pavement project was completed and what percentage of the payments had been made to contractors. That is, are the contractors being paid for work accomplished on time, or is there considerable delay here too?. But again the Fondo did not have this information.<sup>10</sup>

There is considerable concern on the part of the Mayor's Office, as well as the Fondo, regarding the problem of

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<sup>10</sup> Actually, later we found data for 1991 that included percentage of project advance, and percentage of cancellation to construction companies for each project. This data had not been gathered for 1992.

repayment. One suggestion we heard from the Mayor's staff was to reduce the period for repayment of residents by three years. Then re-evaluate the property values after pavement and sewage were completed. The idea then would be to raise taxes. But this would take place five years later, because first the residents must pay for the construction work, which we have shown takes five years, actually six when start-up period is included. There is enough concern on the part of everyone to believe that the revolving fund has problems. How big is the problem? This must be determined with data and analysis. We were not able to obtain enough data to determine the degree of the problem.

#### 4. Are funds being generated from cost recovery?

The answer is no. The only immediate possibility for this would be the interest paid by the Bank on the use of these funds, the 10 % commercial rate the Bank is paying into the revolving fund. This is not affecting the Fund appreciably. Funds do not remain in this account long enough for interest to increase the fund significantly. The Municipal Government could be making contributions to the Fund through taxes from the city.

However, the payment of taxes to the city is also in considerable arrears. This also affects the contribution of the Municipal Government to the Municipal Infrastructure Program. Arrears are as high as 75 % in some cases (e.g., taxes on automobiles and licenses), and 45 % on property taxes.

One major attempt to replenish the fund and increase construction of municipal infrastructure is to obtain new funds from other donor institutions. This is being accelerated by the Municipal Government and the Fondo.

#### C. ORGANIZATIONAL DIAGNOSIS

In the Section I.C above, the functions of the organizations participating in this Program are listed and some are briefly discussed.

In this Section, an evaluation of important functions, together with resource availability will be discussed. Also a comparison will be made with small projects directly administered by communities and ONGs.

Reviewing Table 1, there are seven principal functions listed: policy, planning, promotion, execution, finance, monitoring/supervision and evaluation. These functions

cover the basic project cycle and seem quite adequate.

Which organization is to carry them out is another question. In its simplest form, the small projects directly administered by the communities consist of three basic institutions: 1) The neighborhood and their council, 2) private voluntary organizations or the cooperating agencies and, 3) the municipal government. USAID is included of course, as a funding agency.

In the Santa Cruz Municipal Infrastructure Program, the Municipal Government and the Fondo have been listed separately in Table 1. That is because the Board of the Fondo consists of the key administrative staff of the Mayor's office which set policy and approve contracts, their two basic functions. These two basic functions should remain with the Mayor's office, but we would suggest authority be given to the Fondo to approve projects up to \$us 50,000, with periodic monitoring of the contract approval process coming from the Board.

Most activities regarding finance are closely held by the Mayor's key advisors, including authorization for payment to construction companies, which is done by the Mayor's Administrative Office. This latter task could be administered by the Fondo, since the authorization goes to the Bank through SAGUAPAC, and can be easily verified. The funds generated from Municipal incomes would continue coming from the Municipal Government's, Department of Administration. If the Fondo had authorization to approve projects up to \$us 50,000, they should also have small projects moved under their responsibilities. It makes little sense to have a separate unit executing Municipal Infrastructure whose authority comes directly from the Oficial Mayor Técnico of the Mayor's Office.

The basic functions now carried out by the Fondo seem appropriate. It also seems appropriate that they continue with the philosophy that anything that can be done by the neighborhood councils, the construction companies, SAGUAPAC, PVOs or contractors should be done by these entities first. Only as a last resort should the Fondo take on additional functions. The danger is that this Fondo could grow very quickly into an enormous bureaucratic organization making it very difficult to respond to the needs of the neighborhood. Management and administrative training and technical assistance now would be very helpful to the Fondo staff, but with the focus of streamlining, simplifying and looking for ways to reduce functions and staff not increase them. Even the Promotion Program, which seems to be increasing rapidly within the

Fondo, should be turned over to the construction companies or neighborhood councils when possible. Initial contact with the neighborhoods and verifying real interest of residents in participating in the Program could be done by people hired from the neighborhood. Their task would be to canvass the neighborhood and verify house location, verify meter codes, measure lots and map neighborhoods. The Fondo does not have to hire new staff to do these tasks, it could train and pay individuals from the barrios to do these tasks.

The internal organization of the Fondo could be reduced to three technical units, 1) paving, 2) all other projects including drainage, special and small projects and 3) fiscal control and monitoring. That leaves administration, which should include finance, information and data analysis, personnel (to include training), project files and correspondence. This is presently a weak unit, with limited importance given to it.

If run well, it could take the administrative burden off the technical offices. These technical offices want to keep all information close to them and it will soon become too burdensome when more projects are initiated and functioning. The monitoring and supervision technical office is also beginning to increase in size rapidly. Innovative ways to supervise and monitor must be found or this unit will be out of control soon. The construction companies need to be worked with closely. They have the potential of being one of the most innovative and resourceful components of the whole Program. The Fondo should make every attempt to utilize these companies where possible in carrying out its functions.

The Banco Boliviano Americano's role is clear and simple and is probably functioning as well as could be expected. This Bank might be incorporated into the Program in an advisory role, looking at alternative ways to make the rotating fund viable.

SAGUAPAC is a well managed institution for which few other organizations are going to tell them what to do. As long as their cooperative members are satisfied SAGUAPAC will react positively to the Program.

The PVO component has never functioned well up to now. It is because of the food distribution component, which must be better organized to respond to construction company's needs, not the other way around. The construction companies want food delivered to them, and they will handle the rest. It cannot be that way. But the

construction companies must be provided food at convenient times for them with the least amount of control that assures proper handling and use of food. An innovative PVO which is willing to sit down with the companies and work out mutually beneficial arrangements will find, with few exceptions, that these companies are cooperative. If the construction companies are satisfied, the Fondo will be better served as it relates to food control and delivery.

Finally, the neighborhoods and their councils could be doing much more. Without going into the detail, when the Fondo begins to work closely with the councils and opens all means of communication, as the one construction company did in the small case presented above, there are many activities that the neighborhoods could take over which the Fondo would find convenient and helpful.

The concept of the neighborhood mayors (Barrio Alcaldía) could be incorporated into the Municipal Infrastructure Program taking over many of the functions of the Fondo. For example information gathering and analysis, promotion, administration, fiscal control and monitoring, and development of small projects, and street paving where the neighborhood wanted to do some of the labor. This could be a source of much support to the Program. As the neighborhood mayors become technically viable, the Fondo could be used to provide technical assistance to them in executing and monitoring municipal infrastructure and administration.

It needs to be stressed again that the number of organizations are too many, and there is difficulty orchestrating these organizations. There is no need for this Program to be complicated, but it is heading in this direction. Construction costs and techniques could be too costly now. This should be evaluated by a qualified technician who knows simple, economical and innovative construction technologies that can help bring down the costs. If the technical and administrative costs are realistic and within the possibilities of the neighborhood residents, we believe these residents will do their part, including paying for the infrastructure works.

#### D. BENEFICIARIES

The individuals benefiting from the Municipal Infrastructure Program by providing unskilled and semi-skilled labor was discussed above under the Food For Work Section of this Report. Neighborhood residents that are participating in the Program have been discussed in various sections of this Report, and more specifically in C. above.

It was pointed out that their democratic participation in attempting to make the system respond to their needs, as well as requiring the Program to show action, has been a very important accomplishment of this Program.

When one asks the question; Is the manner in which food is used in the Municipal Government Infrastructure Program appropriate, especially when it is compared to the projects directly administered by the communities and PVOs?. The question must then be directed to who is benefiting most from the Program, and are they those who need assistance most.

Section II, "Brief Analysis of Urban Beneficiaries and Conditions", addressed the conditions in the inter city inside ring 4, and the marginal groups outside ring 4. This Section also addressed the issue of where the present infrastructure projects are being built. Summarizing these two findings: 1) the conditions outside the fourth ring are deplorable by almost any standards and, 2) the vast majority of municipal infrastructure projects have been built inside ring three. Presently the Municipal Government is looking for funds to pave and construct sewage connections to houses inside the third ring. It is not that the present Mayor is unaware of the conditions outside ring four, nor is it a situation that he does not wish to build outside ring four. It is the fact that the Municipality has very limited resources, and the plan is to gradually build out to these marginal areas from the center, using funds from the rotating fund that are to be created from construction and repayment from the inner city projects.

This may very well happen as planned. But as we have seen, the Program is getting off to a very slow start. It is even questionable whether the revolving fund will cover costs. Even more questionable is whether the fund will generate a surplus to be used to help supplement the cost of construction outside ring four. When the Fondo staff were asked to show when the Program will be able to begin constructing municipal infrastructure projects of any magnitude to have a real impact on the living conditions of the marginal groups, the optimistic projection was five to six years. The realistic projection was eight to 10 years.

As a brief history of the urban development of the city of Santa Cruz shows over the last ten years, the change has been enormous. The population explosion has been documented and continuing immigration outside the fourth ring has resulted in a very high growth rate, one of the

highest in Bolivia, of 23 %.<sup>11</sup>

Under the conditions stated above, the marginal groups cannot wait another five to eight years for their living conditions to improve. One fact alone has caused serious concern in the Municipal Government, the garbage and refuse situation in the outer rings. The magnitude of this problem is such that the inability to collect and dispose of garbage and refuse has caused the pollution of subterranean waters and wells for drinking in large sectors of the outer rings. We were shown a laboratory sample of a well over 50 meters deep that had been contaminated from the surface garbage and refuse in the area.

Two basic conclusions drawn from the above are a) the high cost of constructing pavement projects are out of the reach of a large segment of the inner city population, generally the poorer groups, as well as marginal groups outside ring 4, and 2) the time factor is too long before the Municipal Infrastructure Program will reach the majority of marginal groups outside the fourth ring.

Therefore, consideration should be given to refocusing the Food For Work Program as soon as possible to the city rings outside ring four. The simple fact is that time is against this Program, and if the Municipal Government is not helped to accelerate the Program by reaching the majority of the marginal groups before they begin to demand action, there could be some serious health problems in these outer rings quite soon.

#### E. CONSTRUCTION AND CONTRACTORS

Since this study did not include technical analysis of the construction costs of the technology presently being used in the largest component of the Program, i.e., pavement construction, no opinion can be rendered whether these costs are too high for the type of soil and other conditions in the residential areas of the city. What can be said with some sense of certainty is that these costs are too high for some segments of the inner city population. These residents want pavement and sewage connections to their homes and are willing to pay for it. The protests observed over the past month are not just statements of delays in constructions, although this is a significant problem. Nor is it just another attempt to try

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<sup>11</sup> The population of the urban area of Santa Cruz outside the fourth ring is 322,340. El Alto urban population is 404,367. INE, 1992.

to get the Municipal Government to pay for the projects. It is a clear case that many neighborhood residents cannot make the high payments.

Rescheduling payment conditions is helping, which is the present strategy of the Fondo. But even this is no security that the majority of residents can pay for pavement costs.

What is known is that residents in the poor sections of the inner city, and outside the fourth ring, are not able to pay for pavement and sewage construction as it is presently constituted. Not only construction costs are too high for these residents to be included in the present repayment program, but the bureaucratic apparatus that has evolved in the present Municipal Infrastructure Program would be cumbersome for any innovative program which would attempt to bring municipal infrastructure services to the poor. Especially a program that would have as one of its objectives the participation of the beneficiaries in the planning, execution, supervision, evaluation and repayment of construction of infrastructure in their own neighborhoods.

The construction contractors presently involved in the Municipal Infrastructure Program are one of the most under-utilized resources this Program has. If some, not all of course, of these companies were unleashed and challenged (through contract incentives, etc.) to find innovative ways to reduce costs by new construction technologies, to participate and cooperate with neighborhood residents in innovative ways, to suggest alternatives in the system of repayment by beneficiaries and utilization of funds, and in restructuring the organizational apparatus that has evolved to manage this Program, a major contribution could be made. One suggestion is that one or two of the more dynamic and innovative owners be invited to participate as full Board members in the Fondo de Desarrollo Municipal Directory.<sup>12</sup>

The recommendation for low cost construction, neighborhood participation in municipal infrastructure works outside the fourth ring is an important finding of this evaluation. Construction companies should be called in

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<sup>12</sup> We might also suggest that either the Executive Director of SAGUAPAC and/or the Director of the Banco Boliviano Americano, be invited to participate as Board Members. Also included might be a President or two of the Neighborhood Councils. This Board needs to be opened up more to the public.

when a neighborhood is unable to complete certain components of the project, due to soil factors or complicated construction problems where machinery might be needed. However, low cost construction and utilization of physical resources available in the area and inclusion in the construction of the residents, should be the principal objective of a new approach to the Program.

For a new focus of the Food For Work Program outside the fourth ring, a completely different organizational apparatus must be investigated. PVO participation as organizing catalysts within the neighborhood zones should be considered. Also the Fondo should be utilized to oversee this new component of the Program, supervising and monitoring. Identifying resources and helping coordinate activities between zones is another role for the Fondo. The Fondo de Tierras is needed to solve the problem of lack of land titles and assist in the development of a revolving fund to help residents pay for titles, which presently cost US\$450 to obtain. SAGUAPAC does not operate outside the fourth ring, but various water cooperatives are presently working there and should be brought into the new component of the Program. The PVO brought into the program to control and distribute food should be innovative and flexible in their creativeness to provide food to beneficiaries to motivate them to participate in various aspects of infrastructure projects. Another important component that might be able to utilize food and monetization funds, and should have a major role in the Program outside the fourth ring is the neighborhood mayors (Barrio Alcatia.) One suggestion has been to identify zones around the city whereby the conditions of these zones would be inventoried; health, education, poverty level, housing, infrastructure services, etc. Then different funding organizations could be approached, based upon the Municipal Government priorities of these zones, to help finance a complete zone based upon the particular development interests and priorities of the funding organization. Different PVOs could be approached to work with a particular zone as a catalyst between the neighborhood zone and the Municipal Government, much the same way that Plan International is presently working. Two or three zones have already been discussed as possible candidates for such a program with the present Mayor's staff. Two immediate suggestions for a Food For Work Program in two zones would be the zone where Plan International is presently working, and provide food to Plan International so they could expand their outreach to more residents than they are presently able at this point with their own financing. The other is the zone of "Plan 3000", where the Municipal Government has taken over this

zone and relocated many residents from the fourth ring which were caught in a natural disaster nine years ago. A different PVO would have to be identified to work in this zone. These zones, as tentatively identified, are very large areas with thousands of homes and large numbers of beneficiaries.

The suggestion has also been made that these zones, with municipal infrastructure works are ideal areas to begin setting up the system of neighborhood majors. The PVOs and Fondo staff could begin working directly with newly formed offices of neighborhood mayors to provide technical assistance, help to construct a building for the zone's use, provide training and counterparts for the personnel who might begin to take over, gradually, part of the responsibilities of the Fondo and the PVOs.

#### IV. CONCLUSIONS AND RECOMMENDATIONS

##### A. MUNICIPAL INFRASTRUCTURE PROGRAM: CONCLUSIONS AND RECOMMENDATIONS

###### 1. Food For Work

a) **Conclusion:** The 1992 Census shows that 46.4 % of the total Santa Cruz Population live outside the fourth ring. The growth rate is 23.47 %. The greatest number of indigent and poor are found outside and farthest away from the center of the city. 332,340 people live outside the fourth ring without paved streets, sewage, drainage, hygiene facilities, clean water, nor adequate housing. The Food For Work Program is not adequately reaching these groups.

**Recommendation:** The Municipal Government has committed the Municipal Infrastructure Program to an ambitious paving, sewage, drainage canals and small projects program for 1992. The pavement Program is behind construction schedule by about 60 %, due to uncommon heavy rains. Most probably a large part of these construction projects will have to be carried over into 1993. The recommendation is to continue the present Food for Work Program over into 1993, during which time plans and programs could be developed whereby the Food For Work Program would be completely refocused and brought to bear on the neighborhood residents outside the fourth ring.

b) **Conclusion:** The controls and monitoring of the food distribution and delivery to construction companies and workers is working about as well as can be expected. Tighter controls and more requirements will do little more than overburden and slow down an already heavy administrative responsibility on the principal organizations in the Program.

**Recommendation:** Require the PVO to carry out the existing requirements already in place. This organization should be at as many deliveries of food as possible, always asking questions to the workers. More flexibility on the part of the PVO is needed as to day and time of delivery to the construction company, even if it has to be after working hours or on weekends. The company has to pull off the job 20, 60 and sometimes over 100 workers to deliver food to them. The company should not have to accommodate the hours and days to the PVO. Only in exceptional cases

should the construction company be allowed to store food in its own warehouse for later delivery to workers. The norm should be that the food be delivered directly from the PVO warehouse to the job site and to the workers. If all food is not delivered to the workers, then the PVO must return a second time to observe the delivery.

c) **Conclusion:** There is considerable flexibility in the amount of food provided to workers in relation to type of construction project, and in relation to unskilled, semi-skilled and professional workers. The total amount of food calculated for each type of project should continue to be controlled, as it is.

**Recommendation:** In dividing up the total food among and between workers, more flexibility should be allowed to the construction company between the percentage of cash and food given to the different types of workers. The problem is that the demand for food by workers is variable, depending upon their needs, and the company must have the flexibility to respond to the needs of the workers as these needs change. Finally, the quality for food purchased locally should be controlled, especially rice.

## 2. Financing and Revolving Fund

**Conclusion:** The revolving fund as has been shown on a number of occasions in this Report, not only is it getting off to a slow start, but there is serious question as to whether it will ever cover costs. The Fondo in its new document "Fondo de Pavimentacion Urbana", April 1992, has estimated a 10 per cent deficit in payment of water bills by neighborhood residents. With a new strategy by the Fondo and with considerable help from the construction companies and SAGUAPAC, an innovative and continuous public relations and communication campaign, that is happening almost daily in this Municipal Infrastructure Program, will certainly help lower this arrears rate. But the construction costs and an overly burdened administrative and operational apparatus may be the principal cause of high costs.

**Recommendation:** The impression is that the Fondo staff is aware of the problem, and the Mayor's principal advisors may also be aware of this problem. The question is the degree of seriousness of the problem, and are the technical personnel coming up with realistic and long term solutions. Rescheduling

resident payments may help, but if costs are too high, this approach is only a temporary one. The suggestion is to identify a technical assistance expert in municipal infrastructure finance, and one in low cost urban pavement construction techniques to assist the Fondo in looking for solutions to the problems. Also, more technical assistance to the Fondo and Mayor's technical offices in organizational development, management, finance, supervision and monitoring would contribute substantially to both efficiency and effectiveness.

### 3. Organizational Diagnosis

a) **Conclusion:** There are too many institutions involved in the Municipal Infrastructure Program. Some of the Fondo technical staff are aware of this. If not from an organizational development point of view, from the point of view of lowering costs, the number of organizations must be reduced.

**Recommendation:** Develop a plan by which the minimum staff requirements are identified for the Fondo, and the basic function required to carryout the Municipal Infrastructure Program. Then identify the minimum number of institutions required to carryout the functions. All remaining functions or new tasks most probably could be carried out under subcontracts for set periods of time.

b) **Conclusion:** The neighborhood Mayor concept is an excellent idea, and should be encouraged. If the division of the city, for development purposes, is divided into zonal areas and inventoried as to the basic human and physical needs, it would then be possible to prioritize these areas and approach funding institutions for help.

**Recommendation:** If a new strategy for Food For Work is accepted and emphasis is placed upon the economic development of outer ring marginal groups, the Food For Work Program could identify initially, depending upon the funds available, three or four of the most needy zones and focus the efforts on these.

As results show progress, the Program could be expanded to other zones, and other international funding could be obtained. Also, if two or three zones are selected, two or three different PVOs be chosen to work in the different zones to identify the most effective and efficient approach. Cost factors

will be crucial, if repayment is an objective. Then these PVOs could begin working directly with the neighborhood mayors, reducing considerably the reliance upon a more centralized operational and administrative organization.

c) **Conclusion:** Considering the emphasis that the Municipal Government, the Fondo and the Construction companies have placed upon opening up the channels of communication and dialogue with the neighborhood residents and their councils, the incorporation of these groups into other aspects of the Program will not only assure their contribution, but in all probability will contribute substantially to some of the solutions to problems yet to be solved.

**Recommendation:** Include in the Board of Directors of the Fondo, at least two Presidents of the "Juntas Vecinales", rotating on a yearly bases between Juntas in different parts of the city who are participating in the Municipal Infrastructure Program. Also include one or two Presidents of construction companies. Also, the neighborhood council presidents should be invited to participate as Board members on a rotating basis of the Fondo, the Contract Council and the Technical Commission as voting members.

d) **Conclusion:** There is and will continue to be strong pressures on the Fondo to increase its staff to meet the needs of the Program. Once the number of organizations are reduced, someone will say, who will take over these responsibilities.

**Recommendation:** The objective of the Fondo ought to be with existing functions and tasks, as well as new ones and as the Program expands, how can staff be kept to a minimum while still carrying out its objectives efficiently and effectively. One effective way would be to contract out many of these tasks. The promotion function could be turned over to the neighborhood councils and pay neighborhood workers to carry out these tasks. Another immediate solution would be for the monitoring and control function of the Fondo staff to be contracted out to qualified technical personnel, rather than increase the staff of the "Departamento de Fiscalización y Seguimiento". Also, data collection and analysis of the overall Program could be sub-contracted out.

**B. WHAT COULD BE DONE WITH FOOD FOR WORK TO BETTER SUPPORT THE MUNICIPAL INFRASTRUCTURE PROGRAM?**

To integrate the specific suggestions made throughout the Report on this issue, we briefly synthesize the following:

The commitment to the City of Santa Cruz by the present Mayor to provide infrastructure services to as many neighborhoods as possible given the limited resources at his disposal should be supported through 1993. Projects presently under construction in 1992 must be carried over into 1993 and should have the continuing support of USAID/Bolivia. Technical assistance should be provided where appropriate, e.g. municipal finance and low-cost construction technology. Even though the Food For Work is not the largest financial component of the Program, it is a very important one and is putting to work many unemployed and unskilled workers.

In 1993, funding through Food For Work could be found to finance infrastructure projects in the new proposed zonal neighborhoods, e.g., Plan 3000 outside the fourth ring and the Plan Internacional Program to begin to put into operation the new model for FFW in Santa Cruz. Based upon the success and lessons learned the 1994 Food For Work Program could be completely transferred over to the new approach and focused solely on the outer fourth ring area using all of FFW resources. This approach would also give the Municipal Government the opportunity during 1993 to readjust the Program for the inter city, where appropriate, and would provide time to obtain additional financing.

These Food For Work resources then would assist in accelerating the Program to reach the poorest neighborhoods, and would encourage not only the Municipal Government to place a higher priority on the outer rings, but also may encourage other lenders and national institutions to allocate funds and resources to this large group of rather neglected neighborhood residents of the city of Santa Cruz.

**C. WHAT IS NEEDED TO SUPPORT A REFOCUSED COMPONENT OF THE MUNICIPAL INFRASTRUCTURE PROGRAM?**

In addition to the food and monetization resources mentioned above, the following assistance could be considered.

Providing access to basic infrastructure by urban poor is a complicated and regional specific phenomena.

USAID/Bolivia might wish to start in the Santa Cruz area by supporting a local PVO to begin coordinating the various activities undertaken by the Municipal Government, the Fondo, the neighborhood mayors, and the neighborhood zonal PVOs. This coordinating PVO, or association of urban development PVOs could focus its activities on providing basic infrastructure to urban poor. It could assist in channeling resources to the zonal PVOs such as data and analysis of their zone, providing a network and channel for international and national experiences and technical assistance to zonal PVOs, become a training and staff support center for PVOs and neighborhood mayors and become a center for diffusion and adoption of innovation within and between neighborhood zones. Urban development PVOs could provide the continuity and longevity needed to continue a basic municipal urban poor oriented program through the changes of municipal governments, and changes brought about by policy and strategy changes of international donor organizations.

Institutional support directly to the zonal coordination PVO from the Food For Work Program would be a necessity until both the neighborhoods and Municipal Government could obtain part of these costs. One possibility might be that the zonal PVO and coordinating PVO functions begin to be taken over by the neighborhood mayors, and the Fondo de Desarrollo Municipal. If this did not happen, then the neighborhoods may decide to continue with the PVOs and the neighborhoods themselves develop long term schemes for paying the costs of these PVOs.

Whatever the outcome, incentive resources and action programs are required to motivate public and private support to provide access to basic infrastructure by the urban poor outside the 4th ring of Santa Cruz.

**A N N E X E S**

ANNEX A

SCOPE OF WORK

The contractor will conduct a detailed institutional analysis of the program. The contractor will examine the following aspects of the program, visiting constructors, beneficiaries, the Urban Development Fund and ADRA.

1. Under the pavement program, food is used as capital, i.e., as cash as part of the worker's salary. What is the appropriateness of the use of food with contractors under this system, as compared to direct administration of small projects with communities?
2. Analyze the financial system of the pavement program, including cost recovery aspects, the collection system and planned future use of funds generated from cost recovery.
3. Compare the rations received (composition, specific use, value) of the small projects directly administered by the communities and the pavement projects.
4. If the manner in which food is used in the pavement projects appears, in fact, to be appropriate, how can the program be improved? What changes are commended for a new program in another year?

The contractor will physically be present during the distribution of food under both small projects and the pavement projects., If appropriate, the contractor will recommend any system which should be the subject of a formal financial audit.

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ANNEX B

MAP AND DOCUMENTS

MAP

Fondo de Desarrollo Municipal map of pavement projects completed, under construction or looking for financing,, Also zone of action of Plan Internacional.

DOCUMENTS

1. "Vivienda, Pobreza y Condiciones de Vida", Unidad de Planificación y Proyectos, Departamento de Planificación Regional. Proyecto Bol 87/PO2, Serie de Documentos No. 8, Santa Cruz, Bolivia, 1991. Not attached.
2. "Fondo de Pavimentación Urbana", Ing. Roger Montenegro Leite, Fondo de Desarrollo Municipal, Santa Cruz, Bolivia, Abril 1992. Not attached.
3. Factura, SAGUAPAC, Ulloa D. Albertina, Anillo 3, Exter., UV 37, Febrero 1992. Attached.
4. Estado de la Deuda de Créditos, Barrio Hamacas, 92/05/23 SAGUAPAC, obtained from construction company IASA, Santa Cruz, 22 de julio. Not attached.
5. Orden de Entrega No. 010672, ADRA to Delta Construction Company, Posta Sanitaria, 17 de julio 1992. Attached.
6. Letter from the president, Junta Vecinal "Lucerna" to Gerente General IASA Ltda., regarding delay in pavement construction. Attached.
7. "Contrato de Ejecución de ADRA". Alcaldia Municipal, con Empresa Constructora INTRA Ltda, para obra de "revestimiento del canal, avenida Radial 26. Contrato No. 030/91, 8 de abril 1991. Not attached.
8. "Contrato de Ejecución de Obra", Alcaldia Municipal con Empresa Constructora IASA Ltda. Pavimentación de los barrios Lucerna y San José Obrero UV20. Superficie 44, 196.30 m2, \$US 776,304.70. 27 de septiembre 1991. Not attached.
10. Gaceta Municipal, publicado el 5 de julio 1990, creación del Fondo de Desarrollo Municipal, Capítulo II. Not attached.
11. Agua-Servi, Gobierno Municipal de Santa Cruz. "Análisis e informe sobre Aguas, zona de entierros sanitarios en Santa Cruz, julio, 1992. Not attached.
12. ADRA 1993-1995 MYOP. Not attached.

## REFERENCIAS

Area con pavimento

 Pavimento en ejecución GOBIERNO MUNICIPAL

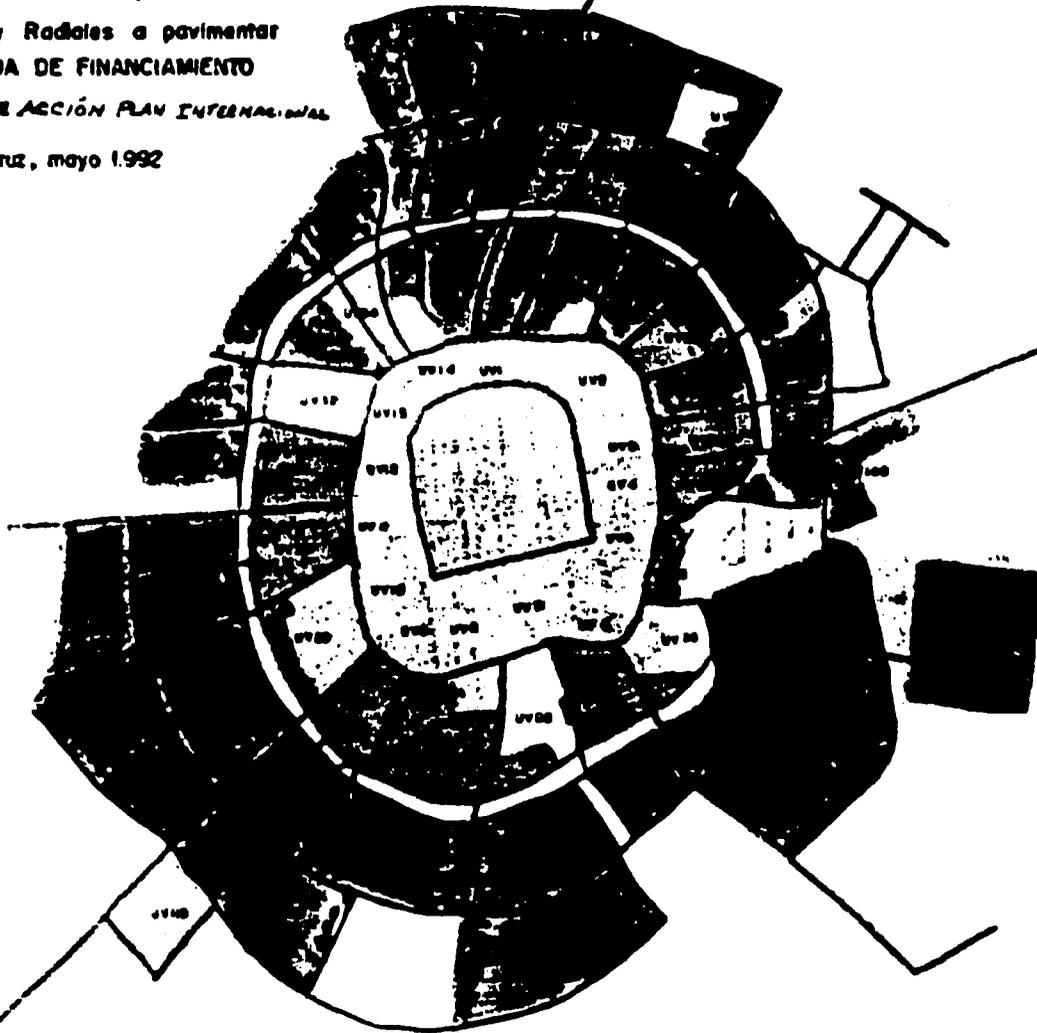
 Area a pavimentar BUSQUEDA DE FINANCIAMIENTO

 Anillos y Radiales pavimentados

 Anillos y Radiales a pavimentar  
BUSQUEDA DE FINANCIAMIENTO

AREA DE ACCIÓN PLAN INTERNACIONAL

Sancti Spiritus, mayo 1992



FONDO DE DESARROLLO MUNICIPAL

COOPERATIVA DE SERVICIOS PUBLICOS SANTA CRUZ LTDA.  
SAGUAPAC

ULLOA D ALBERTINA  
3 ANILLO EXTER.  
ANILLO: 04 UV: 37  
DISTRITO : 04

CATEGORIA : 2

Nº RUC 00671721

MES AÑO  
02 92

CODIGO USUARIO

16009060

LECTURA ANTERIOR

17/02/92

VENCIMIENTO

17/03/92

SAGUAPAC

CODIGO USUARIO D.A.V.

16009060 29

MESES AÑO

02 92

CONSUMO PROM	OBS.	FECHA LECT. ACTUAL	LECTURA ACTUAL	LECTURA ANTERIOR	UF	CONSUMO M3
39		18/01/92	144	99	1	45

COD.	CONCEPTO	IMPORTE Bs.
01	Consumo Agua	45.44
02	Servicio Alcant	40.99
11	Cta. Recup. Inv.	8.64
20	Proyecto Pavim.	152.00
27	FISC. PROYECTO	4.00

DEUDA ATRASADA

Nº MESES CORTE

PAGAR ESTA FACTURA  
ANTES DE SU VENCIMIENTO  
Y EVITE EL RECARGO POR SU  
RETRASO



IMPORTE TOTAL  
SIN VENCIMIENTO

251.07

IMPORTE TOTAL  
CON VENCIMIENTO

MONTO PARA CREDITO  
FISCAL

86.43

IMPORTE TOTAL  
SIN VENCIMIENTO

251.07

IMPORTE TOTAL  
CON VENCIMIENTO

N. FAC. 110 4

AGENTE DE COBRANZAS  
TALON DE CONTROL

CODIGO USUARIO D.A.V.

16009060 29

MESES AÑO

02 92

A SOLICITUD DEL DISTRITO Y COMITE IMPULSOR  
SE INCLUYE APORTE PROYECTO PAVIMENTACION

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## JUNTA VECINAL "LUCERNA"

Afiliada al Comité Cívico Pro Santa Cruz y FEJUVE

Tel. 36-0696

Santa Cruz - Bolivia

Of.No. 48/92

Santa Cruz, Julio 21 de 1.992

Al Señor  
Ing. José A. Cuellar Ch.  
GERENTE GENERAL DE IASA.LTDA.  
Ciudad.-

Ref.-La UV-20, solicita se  
Inicien de Inmediato  
los Trabajos de Pavi-  
mentación en la UV-20.-

Señor Gerente:

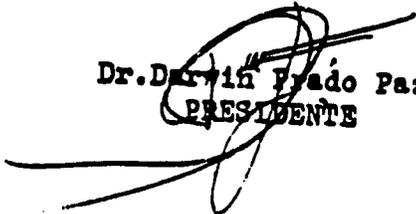
En la sesión ordinaria de nuestro directorio, efectuada el Lunes:20-7-92 a Hrs.20.00; se acordó pedir tanto a la Empresa Constructora a su digno cargo; como al Fondo de Desarrollo Municipal, la "inmediata iniciación de los trabajos de pavimentación en la UV-20"; toda vez, que el tiempo ya ha mejorado y además, porque estamos con un retraso de más de 8 meses .

Por Tanto, señor Gerente, solicitamos a Ud. y a los demás ejecutivos de esa prestigiosa empresa constructora; que Uds. administran, se sirva iniciar dichos trabajos de pavimentación en la UV-20, en forma inmediata;y, sea por la calle:Cañada Larga y Pasillo de la Parroquia "San José Obrero" .

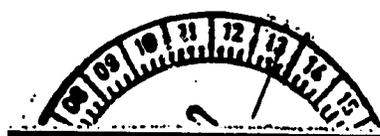
Le hacemos notar, que le estamos enviando con el mismo tenor otra nota al Ing.Raúl Justiniano Aponte, Director Ejecutivo del Fondo de Desarrollo Municipal.

Sin otro particular, salu damos a Uds.

Atte. :

  
Dr. Darwin Prado Paz  
PRESIDENTE

  
Sr. Vicente Farell Gutierrez  
STRIO.DE ORGANIZACION.



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INTERVIEWS

Municipal Government, Santa Cruz  
Fredy Landivar, Advisor  
Jorge Hurtado, Advisor

Fondo de Desarrollo Municipal, Santa Cruz  
Raul Justiniano, Executive Director  
Sofia Samorano, Director, Administration  
Roger Montenegro, Director, Urban Pavement  
Silvio Gómez, Director, Drainage  
Juan Justiniano, Director Fiscal Control and Monitoring  
Gonzalo Garcia, Sub-Director of the Fondo, and  
Director, Special Projects.

ADRA/Santa Cruz  
Genaro Tuesta, Director a.i.  
Alberto Bejarano, Coordinator, Projects  
Iver Melgar, Promotor, in charge of food delivery  
Pedro Atipolo, Warehouse Supervisor  
Laureano Poloaca, Treasurer

Plan International  
Martin Fanghaewel, Field Director  
Roberto Sandoval, Coordinator, Projects.

SAGUAPAC  
Hugo Cuellas, Home Installation  
Oscar Ortiz, Finance  
Juna Dominguez, Client Relations

Fondo de la Tierra  
Antonio Roca, Architect, Projects

Construction Companies  
Eduardo Daza, Concica SRL  
Tomás A. Suarez, Terra Ltda.  
Juan Ardaya, Incop Ltda.  
Luis Fernando Vincenti, ORTIZ  
Delta Ltda.  
Luis Roberto Velasco, Owner and President,  
Cámara de la Construcción, Santa Cruz  
Angel Montenegro, Secretary and time keeper.  
IASA Ltda.  
José Cuellas, General Manager/owner  
José Julio Aguilar, Admin, Finance  
Willy Ustares, Pavement Supervisor

USAID/Bolivia  
Johnathan Sleeper, Deputy Chief, Agriculture  
and Rural Development  
Salvatore Pinzino, Manager, Food Development

Luis Moreno, PL 480 Title II Food For Work Coordinator  
Oswaldo Vega, PL 480 Title III Coordinator

Monetization Program

Adhemar Pinaya, Manager, Monetization Program  
Solares Kent, Engineer Projects

ADRA/Bolivia

Arq. Gonzalo Garcia, National Director Projects

MONTERO

Montero, a city of approximately 60,000 inhabitants, is located north of Santa Cruz, 40 kilometers, a 45 minutes drive by auto.

The city has two staggering problems: 1) an unemployment rate of over 60% and, 2) an enormous drainage problem whereby the whole city, especially outside the main center of town, is completely covered with water during the rainy season, when the Pirai river floods over its banks, and the main road into town acts as a trough pouring water into the center of town.

Very little has been constructed in municipal infrastructure over the years in Montero, with only the center streets paved and with sewage outlets to the houses. Lights and potable water extend from the center of the city a few blocks out into the poorer sectors of town. Drainage canals are dirt and completely inadequate during the rainy season, when they are overpowered by the wash of river water. Cleaning of these canals is a major task with shrubbery and small trees growing up from the canal beds.

The present Mayor, who took office in January 1992, tells of his walk through the neighborhoods after his inauguration, thanking the residents for their votes, literally in water up to his waist. During the trip with the Mayor through the different neighborhoods, and out into the more rural areas, but still within the city, the sewage line was broken, which carried sewage out to a settling pond. The problems of the city were dramatic and in evidence everywhere.

The action program utilizing Food For Work was sweeping the streets. Women worked from 9:00 p.m. until 3:00 a.m. sweeping the center city streets. The men that participated did the pick-up and loadings. The city could use the continuing, if not increased, support of the Food For Work for this activity.

Both men and women were paid 100% with food in street sweeping. Observing the delivery of food to the workers, which was carried out by the Municipal Government, were two individuals from ADRA. No contractors are used. All of the weeks' rations had been weighed and bagged into three groups. These groups of bags were divided into rations of three, four and six days. Most of the women had worked a full six days, or had provided substitutes if unable to work. Others, who were unable to work full time, received one of the group of bags a portion of one ration of 55 kilos. One ration equaled one week work of six days. Since the bags were weighed and bagged by the Municipal Government before the workers arrived, the delivery to more than 30 workers went quickly, with names called and checked off rapidly.

In discussions with the women about the use of the food in

their homes, they were asked how and what they prepared with this food. Most entered into the details of how they prepared food for the family with each of the types of food received. The impression was clear that the majority, if not all, of these women were using the food in their homes. They were the poorest of Montero, it was stated. The women asked on a number of occasions during the distribution of food, when they had to pay the three bolivianos per ration, and were told by ADRA, at a later date. This payment was a burden for these women, since they were poor, and dealt very little with the money economy. It was suggested that perhaps the direct beneficiaries of this street sweeping project, i.e. those who lived in the center of the town might be convinced to pay this amount, to reduce the burden on these women. The technicians of the Municipal Government were willing to look at this possibility and raise the issue with the Mayor.

The week before this visit, the Municipal Government received an allotment of tools for municipal infrastructure projects, valued at \$US 11,000. Total food allotment for 1992 is 599,450 kilos, for which approximately 1,650 workers will be put to work monthly cleaning and cementing canals, making prefabricated cement blocks, planting tree shrubs in plazas and avenues, constructing multi-purpose playground, paving the market, constructing sidewalks, and sweeping streets.

This city is using the food received from PL 480 optimally. They have developed an efficient and effective organization with which to administer the procedures for distribution and control. To increase food and money to the municipal infrastructure program would have a major impact on the city, especially on the unemployed. The Municipal Government would use the increase well.

There has been one major study of the drainage problem developed recently, and the Municipal Government is looking for financing to implement the recommendations. Also, the Municipal Government is moving ahead with a university in Santa Cruz, and a consultant, for a complete census to study housing, house values to begin to re-evaluate the tax base.