

INTERIM REPORTHonduras:RURAL HOUSING IMPROVEMENT  
522-0171I. BACKGROUNDA. The Problem

The rural population of Honduras is poorly housed. This conclusion is demonstrated by several studies. The Honduran Population and Housing Census of 1974 shows that over 22% of all rural inhabitants live in one room houses while 51% have two room shelters, leaving only 27% of all rural inhabitants occupying a house with more than two rooms. With an average family size of 5.7, the average rural house has 2.6 people/room compared to 2.1 people/room in urban areas.

The Census shows the following characteristics of rural housing in Honduras:

<u>Structure</u>	<u>Type</u>	<u>Occurrence</u>
Roof	clay tile	54%
	thatch	30%
	tin roofing	14%
	other	2%
Exterior walls	mud or adobe	46%
	cane or sticks	12%
Floors	dirt	83%

A recent study conducted for the National Planning Council (CONSUPLANE) indicates that only 30% of the rural population have easy access to some type of water system, while only 18% are provided with latrines or an alternative human waste disposal system. These figures correlate with some of the worst health indicators anywhere in the Western hemisphere. The infant mortality rate in Honduras is 103 per 1000 live births, and it is estimated that 80% of children under five years of age suffer from some degree of malnutrition. Gastrointestinal illnesses are common, with some 24.4% of infant deaths attributed to diarrhea. The contrast between rural and urban health conditions is notable. The general mortality rate in 1977 was 16.5/1000 for rural areas compared with 9/1000 in urban centers. These indicators are considerably worse than the acceptable norms for a developing country established by the WHO.

The prevalence of inadequate and unhygienic housing in rural areas is due to a number of factors. Low incomes and the customs traits of rural Hondurans have led them to place little emphasis on improving their housing.

Likewise, the GOH's preoccupation with concerns such as production, education, and health, which up to now have had higher priority, has resulted in minimal government attention and resources being devoted to improving rural housing. Institutional mechanisms for providing assistance have not been developed, and only those rural residents who had family savings or access to informal credit mechanisms have been able to improve their housing.

B. Demand for Improved Housing

Improvement in income for some rural families, improved communications, and other factors have led increasing numbers of rural residents to desire improved housing. This is evident in requests for assistance to GOH institutions and PVOs, and the warm reception given to ongoing small-scale housing assistance projects at the community level. The desire for this assistance is most evident in areas where the development process has begun. The incorporation of increasing numbers of families into the market economy, scarcity of some formerly readily available materials, improved communications, rising expectations, development of campesino pressure groups for the purpose of gaining resources and engaging in self improvement, and the resulting desire for better living conditions all play a part in promoting a demand for housing assistance. Furthermore, increased incomes, or the expectation of same, make borrowing for investment in housing improvements thinkable and desirable. Rural families have demonstrated their interest, where assistance has been offered, by both applying for loans and carrying out self-help improvements. Where well conceived and planned improvement programs have been carried out, loan repayment rates have been acceptable. Thus although it may be unreasonable to expect rural families to commit themselves to a 20-year mortgage for a finished house, it is within their normal cultural patterns and financial possibilities to repeatedly borrow and pay back small amounts of money in order to carry out small incremental improvements in their homes.

C. Rural Housing Improvement Programs

1. GOH Efforts

As indicated below, only negligible investment from the public sector was assigned for rural housing before 1979.

Public Sector Program for Rural Housing Construction and Improvements, 1974-1978 <sup>1/</sup>

Year	Number of Housing Units:	
	<u>Constructed</u>	<u>Improved</u>
1974	3	*
1975	632	*
1976	208	*
1977	826	*
1978	10	83
1979	0	547

\* No reliable data

<sup>1/</sup> Source: CONSUPLANE, Housing Department.

This investment was realized through several GOH agencies:

a. The National Housing Institute (INVA) was created in 1957 to administer and supervise low-cost housing projects financed through the public sector. Its main activity has been the construction of urban houses, with some 3,550 units constructed between 1974 and 1978. It has had some experience in rural housing and urban home improvement. Following Hurricane Fifi (1974), INVA constructed or supervised the construction of 975 rural houses for organized farm groups. These houses sold for \$500 each and were partially financed with A.I.D. Loan 522-W-028. INVA has provided financing to over 800 individual urban home owners for home improvement loans.

b. The National Social Welfare Board (JNBS) was organized in 1958 to coordinate and assist in the implementation of activities and programs related to the protection and social assistance of the individual family and community. Its rural shelter improvement program consists primarily of providing construction materials for cement floors, reinforcement of existing walls, and new roofing. The projects are undertaken by community groups through self-help participation. The JNBS provides materials, and skilled labor when necessary, to the communities on a grant basis. Since 1974 the JNBS, with UNICEF financing of \$50,000 per year, has assisted rural families with home improvements.<sup>1/</sup> After Hurricane Fifi, the JNBS, working in coordination with several PVO's, provided housing for 700 families with funds from a special UNICEF Grant.

c. The Ministry of Health (MOH) has promoted housing improvement through its Basic Sanitation Program (PROSABA). This program, established in 1974, is centrally funded by the MOH and implemented by rural health promoters working at the village and municipal level. The MOH provides surplus building materials and supervision for home improvement to village volunteers who work on well and latrine construction projects.

d. Integrated Approach. The GOH recently initiated a \$500,000 pilot rural home improvement project. The Project is coordinated through the military, and is being implemented by the Ministry of Natural Resources' Good Housekeeping Program and the JNBS. Under the project home improvements averaging \$150 per dwelling are planned for approximately 3,300 houses. Improvements include concrete flooring, room dividers, reinforced walls, and tin roofing. To date, the Good Housekeeping Program has completed one pilot project consisting of assistance to 40 families. An additional 14 communities, with a total of 400 families, have been authorized for home improvements.

## 2. PVO Response

a. Catholic Relief Services/CARITAS has an ongoing project which has demonstrated the viability of loan financing home improvements in rural areas. In 1979 CARITAS created two rural housing funds totaling

<sup>1/</sup> These improvements are not included in the above Table as the JNBS was unable to provide data on number of families assisted.

\$100,000. The rural housing activity is part of a larger program which begins with the social formation of the farmer, and complements CARITAS' community development efforts. Although the project is coordinated through a central office, its form varies greatly from region to region depending on the felt needs of the participants and the area promoters.

CARITAS works only with families willing to form housing committees. These committees are responsible for determining which families have the economic means to participate in the program, and the annual disposable income of each family which can be used for home improvements. Since the borrowers are mostly small farmers receiving most of their income at harvest time, the collection system is geared to those peak periods. The obligation of collecting is left up to the local housing committee, which in turn pays the CARITAS regional office, not the promoter. The assistance is provided in the form of construction materials rather than cash, and the loans have a relatively short payback period of from 12 to 18 months. In addition, each group must pay 20% down before any construction materials are delivered, and is expected to pay 40% after the first harvest, and the remaining 40% after the succeeding harvest. No interest is charged, but a 20% penalty is added if a participating family fails to pay an installment within the agreed term. After all the home improvement loans within a community have been repaid, CARITAS follows with a second or even a third phase, which allows the initial group of families, and any additional families who wish to join, the opportunity to take advantage of further housing credit to continue improving their shelters. To date, over 5,000 loans averaging \$75 have been made for home improvements. Repayments have exceeded 90%.

b. Campesino Unions - The National Association of Honduran Campesinos (ANACH), a major agrarian reform organization was one of the agencies which assisted INVA in selecting and prequalifying eight of the organized farm groups totaling over 200 families that participated under the A.I.D. Rural Shelter Loan (522-W-028). ANACH now has a program for promotion of rural shelters. Member groups can purchase basic building materials at subsidized prices through the central ANACH office in San Pedro Sula, and ANACH provides skilled laborers to act as instructor/supervisors during construction. This activity has been initiated in the north coast area, where ANACH is assisting two model groups totaling 41 rural families.

c. FEHCOVIL - The institution building component of the A.I.D.-financed Cooperative Housing Loan (522-H-011), which was implemented from 1965 through 1969, assisted in the creation of the Federation of Housing Cooperatives (FEHCOVIL). Since its creation, FEHCOVIL consistently has provided low-cost housing in urban areas, but has provided basic shelters within a few of the agrarian reform communities. These rural projects were implemented in 1975. A total of 62 units were constructed using self-help techniques. FEHCOVIL requires that all communities form housing cooperatives before providing assistance, and it has an excellent record with collections.

### 3. Planned Future GOH Efforts

In recognition of the dimension of the problems and lack of attention to date, the GOH is planning to increase dramatically its efforts in

rural housing over the next four years. Table 1 indicates the goals set for INVA and JNBS as part of the present five-year plan. In a time of budgetary stringency, the large planned increase in housing expenditures is a clear indication of the seriousness with which the GOH views the problem and of the priority assigned to resolving it.

TABLE 1 : Proposed GOH Rural Housing Expenditures, 1980-1983  
(Includes Internal and External Funding)  
(\$000)

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
INVA (new)	50	300	450	450
INVA (Improvements)	115	1,000	4,000	4,300
JNBS (Improvements)	500	300	1,000	4,000
T O T A L	665	1,600	5,450	8,750

D. Rationale for A.I.D. Support

A.I.D.'s role in supporting efforts to improve rural housing is based on several reasons.

First is the complementarity between investment in housing and other A.I.D. supported programs. Perhaps the most direct link is to health and environmental sanitation efforts, which at present are supported by Municipal Development Loan II (522-0165), Rural Water and Sanitation (522-0166), and occasional SDA activities. Many of the health problems which affect rural families are attributable to the conditions of their dwellings. Animals, especially pigs and chickens, frequently wander in and out of open doors. The dwellings are overcrowded; lack privacy; are unsanitary; and offer habitats for insects and rodents. The traditional roofs and walls found in a large percentage of rural houses, while offering basic protection from the environment, are poor barriers against disease vectors and pathogens and in fact harbor them. The thatched roofs are infested with a variety of insects including the insect which transmits the feared Chagas disease. Dirt floors, which are difficult to clean adequately, provide moist areas conducive to the growth of parasite larvae and fungi resulting in the transmission of diseases to barefoot children. Space is used in common for food preparation, sleeping, and other activities, and the absence of sanitary facilities can negatively affect family attitude and health. Consistent and steady improvement in health status will only come about as a result of orderly and progressive improvement in housing, education, health, environmental sanitation, income, and other areas together on a community level. Little improvement in health status will result from the cementing of floors if children will still get parasites by walking barefoot outside. Conversely, if other improvements are made and housing is still inadequate and infested with vectors, progress in health will be limited. Thus, the housing improvement mechanism to be developed through this Project will contribute to improvement in the health of rural Hondurans.

Second, improving rural housing is a logical next step in supporting the GOH's rural development efforts. Ongoing and planned programs in

agriculture, health, and education are improving incomes, opportunities, and selected aspects of living conditions for increasing numbers of rural residents. A.I.D. is providing and will continue to provide substantial support for these major program thrusts. At the same time, the orderly, progressive development of rural areas requires attention to the second generation problems such as housing, energy, and technology. The Mission has developed, or plans to develop, appropriate institutional mechanisms to ensure that a start is made in these areas. Housing is important to improved living conditions for rural Hondurans and is necessarily part of a comprehensive support package for Honduras' rural development.

Third is that the Project has certain innovative aspects which should increase A.I.D.'s and the GOH's knowledge of methods for improving rural housing. Previous projects, in Honduras and elsewhere, have not been very successful. This Project has been designed based on moderately successful models, and takes into account the mistakes of the past. Approaching this difficult area a more realistically increases the chances of success and the possibility of contributing to the Agency's knowledge of rural housing development.

A final reason is the fact that the GOH has become increasingly concerned about the level of unrest in rural areas, and has therefore made housing improvement a high priority in part to provide tangible and material improvement in living conditions to rural residents. Assistance to it in accelerating that effort and in achieving a program likely to be sustainable at reasonable cost is in the interest of the United States Government, which also sees the need for tangible improvement in living conditions in the near term as necessary to support the transition to a democratically elected, moderate government. This particular rationale is based on the probability of achieving near and medium term social benefit to A.I.D.'s target group. However, our concern for longer term development impact has guided design of the Project, whose activities will be concentrated in areas that are more highly productive; will assist stable families; and will complement ongoing community development programs and activities.

## II. PROJECT DESCRIPTION

### A. Goal and Purpose

The Goal of the Project is to provide healthier and more comfortable living conditions for the rural poor. For instance, it is expected that the incidence of Chagas disease and other health problems will be reduced among the approximately 120,000 Project beneficiaries (approximately 18,400 rural families). In addition, housing quality indicators, such as the number of persons per room and the percentage of houses with solid floors, should show significant improvement for the beneficiaries in comparison to the rural population taken as a whole.

The Purpose of the Project is to establish a system for the sustained improvement of housing conditions for the rural poor. By the end of the Project, the National Housing Institute (INVA) will have developed its capacity to provide technical and financial assistance to intermediaries, such as private voluntary organizations, cooperatives, and other Government institutions, which serve as housing improvement sponsors and facilitators in Honduras' rural areas. It is expected that at least five of the intermediaries that participate in the Project will have decided to continue and to expand their home improvement programs as a result of their successful experiences under the Project. Finally, the credit program initiated under the Project will have a total portfolio of over \$1 million and be capitalizing at a rate of 2% per year.

### B. Target Group and Project Strategy

The target group for the Project is the approximately 280,000 families with below median income who live outside of the urban areas of Tegucigalpa, San Pedro Sula, and La Ceiba. Reaching these families with assistance in housing improvement is an extremely difficult task. In general, these people do not have access to institutional sources of credit, and, when they do borrow, prefer to limit loans to small amounts and short payback periods. For some, housing is not a high priority investment -- it is largely something to be attended to, if at all, after other more basic needs, such as food, clothing, and productive pursuits, have been met. Despite these attitudes, the experiences of several small-scale programs described in the background section show that housing improvement programs can be successful if they are developed with an understanding of these attitudes and promoted by people and institutions that have good reputations and are known to target group families through previous work in the community.

The strategy for the Project has emerged from these considerations. In order to develop a system for sustained housing improvement, sponsors known to the communities and willing to work with them at the community level are essential. In any case, the small loan sizes would preclude direct lending or administration by large organizations, such as INVA and private or public banks, as they would find such a venture highly unprofitable or demanding of too much time and effort. In contrast, the private voluntary organizations and GOH community development programs are relatively low-cost operations, but their level of accountability to financing sources often has been less than

the minimum necessary to enable them to qualify for more than occasional small donations. The Project's strategy is to make greater resources available to those agencies willing and able to demonstrate financial responsibility and accountability, and to help them to increase their activities in housing improvement as they demonstrate greater responsibility and accountability to the funding source. The Project design includes incentives for the intermediaries to encourage them in this direction.

The financing source will be INVA. Although this will be INVA's first experience as a secondary-level financier for rural housing improvement, its recent progress in establishing itself as a developer of low-cost housing, its so far successful experience with an urban housing improvements project and its willingness to create the necessary institutional infrastructure for this Project bode well for its success in this venture.

### C. Project Activities

#### 1. Summary

The Project consists of two activities: Home Improvements and Institutional Development. INVA will create a Project Coordination Office (PCO) which will contract with private voluntary organizations and other intermediaries to sponsor home improvement programs for target group members. The intermediaries will make home improvement subloans to individual and solidarity group borrowers, collect the subloan repayments, and use the collections to make additional home improvement subloans. The Project will be financed by an A.I.D. Loan of \$2.3 million, an A.I.D. Grant of \$200,000 and host country contributions estimated at \$900,000. It is expected that over 13,600 subloans at a total cost of \$1.5 million will be made with the first use of A.I.D. Loan funds. The remaining \$800,000 of Loan funds will finance institution building activities for INVA, the intermediaries and participating community groups and a small amount of commodities for INVA. The \$200,000 Grant will finance the services of an INVA/AID Project Coordinator and short term technical assistance. INVA will pay all of the administrative costs not already included in its budget and not financed by the interest earned on its loans to intermediaries. These costs are estimated at \$300,000. The borrowers will contribute their down payments and self-help labor, estimated at a total of \$600,000 to the improvement of their homes. To ensure the continued financial viability of the Project, the GOH will ensure the maintenance of the investment fund level during Project implementation and contribute an additional \$200,000 annually in sub lending capital to INVA for five years after the Project activities are completed.

#### 2. Home Improvements

a. INVA-Intermediary Relationships - INVA's criteria for acceptance of potential intermediaries are that the organization must:  
organization must:

- Have an existing rural development delivery mechanism in the communities in which it intends to work,

- Have the ability and willingness to manage a loan collection system,
- Have legal status (personeria juridica),
- Be willing to accept responsibility for repaying its loans from INVA, if called on to do so,
- Demonstrate acceptable managerial competence and administrative procedures,
- Have a good reputation among the target group.

More detailed criteria for each of the above are included in Annex H.1. Intermediaries which want to participate in the Project will contact INVA directly. The PCO will evaluate the intermediary's capability based on informal discussions and a review of the organization's operating procedures, staffing, logistical capability, and bookkeeping practices. Where the organization's capabilities do not clearly satisfy the above criteria, PCO staff will work with the organization to help it qualify as an intermediary. It is quite possible that some potential intermediaries will not be willing to make the effort, and will eliminate themselves from consideration. For those intermediaries accepted by INVA, an initial allocation of funds will be approved, based on the number of communities in which the organization expects to work during a two-year period. The amount may be increased (or decreased) by INVA subsequently based on the intermediary's performance, plans for expansion and availability of funds.

The intermediaries accepted by INVA will sign a formal agreement (See draft in Annex H.2) governing their participation in the Project. The agreement form provides for a flexible implementation arrangement whereby INVA agrees to lend a certain amount to the intermediary, and sets forth certain limits which must be observed in making subloans. As long as INVA is satisfied with the housing improvement activities of the intermediary, repayment will not be required and the loan amount can be increased, if warranted, by a simple amendment.

The intermediaries will pay INVA 5% interest on the disbursed balance of their loan. Each intermediary will set up a separate bank account for the Project. All disbursements received from INVA, interest payments to INVA, disbursements for Project costs and subloan repayments will flow through the bank account. Disbursements of the loans to the intermediaries will be made either as advances or reimbursements. INVA will make advances to intermediaries based on written requests giving a list of communities in which the organization expects to develop activities and the estimated financeable cost of the improvements to be made. Reimbursement requests will be submitted to INVA accompanied by copies of signed subloan agreements, a list of subborrowers and disbursements on each subloan, and evidence that disbursements have been received by the subborrowers. INVA will make all disbursements to the intermediaries within fifteen days of the receipt of the requests, and conduct post audits of all transactions.

Intermediaries will reimburse INVA for any disbursements they have made for ineligible loans or materials and for improperly completed improvements which are found in the post audits. The loans to the intermediaries will remain in effect as long as INVA is satisfied with their performance. INVA will have several remedies should it determine that an intermediary is having implementation difficulties, or experiencing a high rate of subloan defaults, or otherwise not adhering satisfactorily to the agreement. It can provide assistance to the intermediary to help improve its operations; suspend disbursements; declare some or all of the loan due and payable, require the intermediary to make no new subloans, and turn over all future collections to INVA; and even take over subloan collection responsibility. The intermediaries will be asked to make best faith efforts to ensure loan repayment and pledging of assets other than those provided through the Project will not be required.

Project activities will commence with six intermediaries who already have formally expressed interest in participating and agreed in principle to the model Implementation Contract. These intermediaries are CARITAS, Save the Children Foundation, San Jose Obrero (PVO), Coordinating Group for Development Resources (ACORDE), the Federation of Savings and Loans Cooperatives (FACACH), and Meals for Millions (MFM). All of them are private voluntary organizations. Additional organizations, including GOH institutions, may enter the Project at any time, subject to INVA and A.I.D. approval.

b. Intermediaries-Beneficiaries Relationships - Up until now, CARITAS has been perhaps the most successful of the organizations which have sponsored housing improvement in rural areas of Honduras. Its success is due to long years of working in community development and to the knowledge about campesinos that this experience has provided. Thus, although each intermediary will be free to work in its own way, we expect their operations to be similar to CARITAS', and the Project will encourage that by involving CARITAS personnel in training the employees of other intermediaries, and by incorporating key elements of CARITAS' approach into the Implementation Contract which each intermediary will sign with INVA (See Annex H.2).

Generally intermediaries will organize or work through a local housing committee or patronato organized and run by target group members. The committees will identify which community members want to improve their housing and when they are ready to be helped; and will develop, with the assistance of the intermediaries, rough cost estimates of the housing improvements desired. The community members will select from among themselves groups of at least five people who agree to be jointly and severally liable for loan repayments (solidarity groups). CARITAS' experience with repayment from solidarity group loans has been excellent, and similar results have been documented with solidarity groups in El Salvador. Community members with mortgageable property (e.g. land title) will be allowed to apply for loans as individuals.

The housing committee or patronato will collect payments from the interested community members until a down payment equal to 20% of the estimated cost of the improvements has been raised. The intermediaries will then collect the down payments, bring in the materials needed for the improvements, and sign repayment agreements with the individual and solidarity group borrowers for the amounts it is financing. During construction, the housing committees will organize mutual self-help efforts. At times specified in the repayment agreement, the committees will collect the repayments from the community members, and remit them to the intermediaries. In general, beneficiaries will be required to pay off existing loans before becoming eligible for new financing. The intermediaries will be responsible for attempting to infuse new life into any committees which fall into a state of somnolence.

c. Typical Improvements - The kinds of improvements which will be financed under the Project, and the estimated cost of materials for a 20 square meter house are shown below:

<u>ITEM</u>	<u>Estimated Cost (\$)</u>
Concrete Floor (cap, 4 cm. thick)	22.00
Fired Tile Floor	22.40
Fired Brick Floor	25.00
Cement Fiber Tile Floor	14.40
Asbestos Roof	180.00
Cement Sheet Roof	90.00
Galvanized Sheet Roof	94.40
Clay Tile Roof	90.00
Pan Tile Roof	236.00
Roof Trusses and Cross Supports	200.00
Lumber Preservation Treatment	5.00
Stabilized Soil Block Walls, Entire House	176.00
Concrete Block Wall, 5 m. wide x 2 m. high	44.00
Concrete Block Wall, Entire House	176.00
Reinforced Adobe Walls	41.60
Door Frame	6.00
Window Frame	3.00
Window Shutter	6.00
Wooden Door	11.00
Screens, 2 Doors and 2 Windows	16.00
Room Divider	27.00
Exterior Plaster, Entire House	32.00
Lorena Stove, Installed	30.00
Lorena Stove, Materials	18.00
Rain Water Catchment	55.00
Water Sealed Pour Flush Commode	14.00

In addition, financing may be provided for basic furniture, such as beds, chairs, tables, sinks, and shelves, and for fencing around the house.

Most of these improvements will be affordable by very poor rural families. A few will require family incomes slightly higher on the income distribution scale. The controlling factor in which improvement or

combination of improvements can be financed will be the subborrower's ability to pay. The affordability question is discussed in detail in the Social Soundness Analysis.

d. Eligible Subborrowers - Individuals and families who live in one or two room houses (excluding covered storage areas and outside kitchens) in rural areas will be eligible subborrowers. We believe that this criterion provides a reasonable test of income. To require a more rigorous selection procedure, such as income checks, would be too difficult for the probable intermediaries. Furthermore, the high costs of carrying out the income checks in relation to the loan size probably would upset the financial viability of the Project. For purposes of this Project, rural areas includes the entire country except for the urban areas of Tegucigalpa, San Pedro Sula and La Ceiba. It is expected that the majority of beneficiaries will live in communities that are already part of the country's more productive areas. The problems of getting materials to remote areas and isolated communities (high transportation costs, roads too small for trucks) and low prevailing incomes make the feasibility of housing improvements in these areas doubtful.

e. Subloan Terms and Conditions - In developing subloan terms and conditions, INVA and the Mission have tried to balance our concern for the financial condition of INVA, the intermediaries, and the beneficiaries, and to allow for different modus operandi on the part of likely intermediaries. We believe that the following terms and conditions meet these criteria:

<u>Terms and Conditions</u>	<u>Limits</u>	<u>Probable</u>
Minimum Borrower Downpayment	20%	20%
Maximum Interest Rate	20%/yr.	15%/yr.
Maximum Individual Subloan	\$500	\$250
Maximum Solidarity Group Subloan	\$300 x No. of Members	\$110 x No. of Members
Maximum Repayment Period	36 months	18 months
Maximum Grace Period	0 months	0 months

The Project costs and analyses are based on the probable terms and conditions shown above. The limits have been included as an indication of what would be acceptable in the case of any specific intermediary. The above terms and conditions may be modified during implementation.

f. Subloan Guarantees - Individual subborrowers may be asked to provide collateral of up to 100% of the loan amount. Following the principle of peer pressure as the major factor in ensuring repayment of unsecured loans, solidarity group subborrowers will simply agree to be collectively responsible for the entire debt of the group. It is expected that this normally will be evidenced by their jointly signing a single subloan agreement. This mechanism also should contribute to ensuring that the great majority of beneficiaries are stable families. Few target group families will want to accept newcomers or unreliable persons into the group.

g. Financeable Items - In general, subloans will finance construction materials, tools, and transportation of tools and materials not

locally available. As all construction will be done through self help, no labor costs or locally available materials such as sand and gravel will be financed. Intermediaries will be allowed to add a loan origination fee to the amount financed. This fee may not exceed 25% of the subloan amount (which is equivalent to 20% of the total cost of the improvement). The loan origination fee is intended to allow the intermediaries to quickly recover their promotion expenses.

h. Use of Reflows - The intermediaries will use subloan reflows for making additional loans to beneficiaries, and, should the circumstance arise for repayment of its loan and interest due to INVA.

i. Budget - The budget for this activity is as follows:

ITEM	AID LOAN	(\$000)	
		COMMUN- ITIES	TOTAL
Subloans	1,500		1,500
Subborrower Downpayments		375	375
Self-help Labor		225	225
<u>TOTAL</u>	<u>1,500</u>	<u>600</u>	<u>2,100</u>

### 3. Institutional Development

In order to achieve the level of housing improvements projected above, a concerted and cooperative effort will be needed by INVA, the intermediaries, and the beneficiaries. The institutional relationships between these different actors have been designed to ensure that each plays an appropriate role in implementing the Project, given the nature of the tasks and the limitations inherent on each of the parties. These relationships will be developed through implementation of the institutional development tasks described below. The areas in which the capabilities of each of the entities will be strengthened through the Project are also discussed.

a. Promotion of the Project with Potential Intermediaries - INVA's Project Coordination Office (PCO) will be responsible for stimulating interest of potential intermediaries in participating in the Project. The Project has been discussed in detail with sixteen potential intermediaries, and so far six have agreed to participate in the Project. Follow-up with the remaining ten is needed; and, in order to ensure the widest possible access of the assistance to the target group, additional organizations should be contacted. Furthermore, difficulties are sure to arise during implementation and special efforts will be required to keep intermediaries who are performing well in the Project.

b. Supervision of Housing Improvement Activities - Supervision of housing improvement activities will be carried out by the key field personnel of the PCO. There will be at least five rural housing technicians included in its staff. These technicians will be assigned to specific regions of the country, and will spend at least 60% of their time in the field. At the outset of the Project, they will receive special training in bookkeeping

and supervision of simple construction tasks. The technicians will be responsible for such tasks as:

- attending promotion sessions carried out by the intermediaries;
- observing the construction of improvements;
- reviewing materials purchasing practices;
- reviewing loan disbursement requests (INVA to intermediary);
- auditing records of collections, the use of subloan reflows, and the intermediary's bank account for Project funds;
- assessing training needs and the effectiveness of Project funded training courses for community members and the intermediaries' employees; and,
- advising the PCO director and INVA management when additional assistance to the intermediary is desirable, and when further investigation and actions are needed to ensure adequate Project implementation.

c. Training and Technical Assistance - It is expected that INVA's technicians, the personnel of some of the intermediaries and the beneficiaries will need technical assistance in several areas to enable them to carry out the Project effectively. These areas are: improved management and bookkeeping practices, construction techniques, and local materials production. INVA will be responsible for ensuring the provision of this assistance by: contracting with a consulting firm to develop course materials for management improvement and bookkeeping systems; training the rural housing technicians in the use of these materials; contracting for development of a video tape course on basic construction techniques; and contracting with the Professional Formation Institute of Honduras (INFOP) for training services in both basic construction techniques and local materials production. INVA will purchase the necessary hardware (video tape equipment, generator, etc.) which will be needed to provide the training. The rural housing technicians will be responsible for scheduling the training courses and coordinating the use of Project hardware.

Three kinds of training will be carried out under the Project:

i. Management and Bookkeeping - Some of the intermediaries may be weak in one or both of these areas. During Project implementation, INVA, possibly with the assistance of CARITAS, will offer one week courses in these areas using the course materials developed by a consultant. It is expected that a total of seven courses will be offered.

ii. Basic Construction Techniques Training - Since the self-help nature of the Project means that labor will not be financed, some training in basic construction techniques will be needed at all levels -- INVA technicians, intermediaries promoters, and beneficiaries -- to ensure that improvements are properly carried out. During Project implementation, INFOP will be contracted to provide training in basic construction techniques for INVA's rural housing technicians and approximately 160 promoters of the intermediaries. It is expected that approximately eight such courses with 15-20 participants each will be offered. INFOP has agreed to provide these

services. The promoters, in turn, will use the video tape course and equipment to provide training for community groups in the same subject.

iii. Local Materials Production - During the last year, INVA, with financial and technical assistance from the Industrial Development Center (CDI), formed a local materials production unit. This Unit, which was financed through A.I.D.'s Rural Technologies Project, provides assistance in developing and promoting the use of low cost, locally made materials in response to community requests. Examples of materials already developed include: light weight roofing tile; a thick, sturdy brick which requires less expensive lime mortar; inexpensive cement roofing sheets; and stabilized soil blocks for walls. Instead of expanding the materials production unit to meet Project needs, INVA will contract with INFOP to provide similar services to the intermediaries and benefitting communities. By contracting INFOP, INVA will be able to concentrate on its major responsibilities, minimize its costs and create the needed capability within an institution that can continue to support it after the Project ends. It is anticipated that INFOP will form three teams, each consisting of a skilled laborer and an assistant and having its own transportation, tools and equipment to provide the needed services.

These training activities and their costs are discussed in more detail in the Technical Analysis.

d. PCO Staffing and Administrative Functions - The PCO will be the GOH's Project accounting station. It will assemble documentation needed to request disbursement of the A.I.D. Loan, receive and account for such disbursements, and in turn make all disbursements to the intermediaries and other providers of goods and services. In order to carry out adequately its function and its above responsibilities, INVA and the Mission have agreed that INVA will need the following minimum staff:

- 1 Office Director
- 1 Administrative Officer
- 1 Accountant
- 5 Rural Housing Technicians
- 1 Auditor
- 1 Secretary
- 1 Driver/Messenger

INVA plans to fill the first three positions with current employees and hire the others. In addition, a second auditor may be needed starting in the third year of implementation. INVA's additional operating costs attributable to the Project and not covered by interest income will be counted as a counterpart contribution. These costs are estimated at \$300,000 during the planned five year implementation period. A Grant funded INVA/AID Project Coordinator will be contracted by A.I.D. to ensure smooth Project implementation. Seven vehicles will be purchased for the PCO at a total estimated cost of \$84,000.

e. Budget - The budget for this activity is:

ITEM	AID		(\$000)	TOTAL
	Loan	Grant	INVA	
<u>Course Preparation:</u>				
Consultants to prepare Management/ Bookkeeping and Video Courses		12		12
Preparation of Construction Techniques Course and 10 copies	52			52
<u>Training:</u>				
Management/Bookkeeping Courses	16			16
Basic Construction Techniques	229			229
Materials Production Teams	355			355
<u>Operating Costs:</u>				
Additional PCO Operating Costs <sup>1/</sup> Vehicles	84		300	300
INVA/AID Project Coordinator		164		164
Evaluation Assistance		24		24
Contingencies/Inflation (15%)	64			64
Activity Total	800	200	300	1,300

1/ Not covered by interest income.

### III. PROJECT ANALYSES

#### A. Technical Analyses

##### 1. Technical Specification and Costs of Illustrative Improvements<sup>1/</sup>

Most rural dwellings are built by their owners. They are rudimentary structures whose primary function is to provide protection from the elements. The size of such shelters are restricted by the locally available materials and the understanding that exists within a community on positioning and stabilizing heavy uncut poles to support the roof structure. As a result of such limitations a twenty square meter (20 M<sup>2</sup>) single room dwelling is the approximate size of an average low income rural dwelling. A description of improvement and expansion options for a house of this size follows:

a. Floors - The need for improved floors is apparent since over 80% of all rural dwellings have tramped earth floors. A number of alternative solutions for improving dirt floors are within the economic means of most of the beneficiaries. Several of the alternatives use materials produced locally in many rural communities. The alternatives are:

Material	Dimensions	Number of Units/M <sup>2</sup>	Cost/Unit	\$Cost/M <sup>2</sup> *	Total Cost 20 <sup>m</sup> House*
Fired square tile	20 x 20 cm.	25	0.045	1.12/m <sup>2</sup>	22.40
Fired bricks	14 x 29 cm.	25	0.05	1.25/m <sup>2</sup>	25.00
Cement fiber tile	8 x 10 cm.	125	0.0055	0.72/m <sup>2</sup>	14.40
Cement cap (plain concrete)	4 cm. depth	1	1.10	1.10/m <sup>2</sup>	22.00

\* Costs include only materials brought in from outside the community. Labor and local materials such as clay, sand and gravel are not included.

b. Improvement of Existing Walls - 46% of the rural shelters' walls are constructed of mud or adobe. The useful life of these walls can be significantly increased by protecting the walls from filtration of moisture. Methods which can be used to improve them are:

i. Extending roof overhang to a minimum of 3 feet to prevent excess moisture from damaging the walls;

ii. Plastering the outside mud wall at least one meter high at the bottom to prevent wall deterioration during the rainy season. The plaster mixture should consist of 6 parts sand, 2 parts cement and 1 part lime. The estimated cost per M<sup>2</sup> is \$ 0.80;

1/ Sketches of improvements may be found in Annex H.3.

iii. Constructing an open drain lined with rocks at the base of the wall directly below the roof's overhang to reduce erosion caused by rain run-off at the base of the walls. Estimated cost for cement is approximately \$0.60 per m<sup>2</sup>. The beneficiary must furnish the rock and gravel.

iv. An outward slope of the window sill will greatly decrease the possibility of filtration. The estimated cost for this improvement is estimated at \$0.70 lineal meter.

c. New Wall Construction - For the construction of new adobe walls the Project can assist with strengthening the foundation using local rocks and cement to ensure increased stability. The foundations should have a minimum depth of 50 cm. and a width of 40 cm. Rural recipients can be shown how to construct such foundations using locally available rocks and the cement will be approximately \$2.00 per lineal meter. Also, solid walls of cement, block, brick or even wood can be built. The cost of new wall construction will depend on the building materials used. A brick or cement block wall five meters long and two meters high costs about \$44.00, and for a 20 m<sup>2</sup> house about \$176.00.)

d. Roofs

i. Clay tile: 54% of rural shelters have clay tile roofs. A large number of these are in a state of deterioration. To replace the deteriorated clay tile for a 20 m<sup>2</sup> shelter if 50% of the tile were bad would be about \$45.00. There are 35 clay tiles for each M<sup>2</sup>. Where the clay tiles have been placed improperly, leaks are common and often the weight of the clay tile exceeds the recommended safe bearing weight of the existing wooden trusses. Thus, before improving clay tile roofs the following norms should be followed:

- The retaining walls must be strong enough to justify the reconstruction of the roof.
- If the distance between the outer walls is such that the existing trusses are inefficient or weak, the construction of supporting columns and installation of a center cross beam will have to be undertaken before the roof can be equipped with clay tile.
- As a result of extensive termite damage the useful life of untreated lumber, used for the trusses, may be as low as three to four years. Such a situation is easy to resolve by merely painting all exposed lumber used in the trusses with drain oil. The estimated cost is approximately \$5.00 for an average 20 M<sup>2</sup> rural shelter.

ii. Cement Roofing Sheets: Where clay tile does not exist or is not available at a reasonable price an alternative solution would be to install cement-fiber sheets. Such material can be fabricated locally, and has a longer durable life than clay tile. INVA, as well as a few of the PVO's,

have experience in fabricating cement-fiber roofing sheets. The cost for a 1m<sup>2</sup> lamina is \$2.25. Cement-fiber roofing sheets or clay tile require much stronger roof supports than either thatch or tin. While the trusses generally can be constructed of uncut poles the cross supports should be sawn lumber. The trusses should be debarked and then painted with drain oil, and the sawn cross supports should be dried for one month then treated before fastening to the trusses. Second grade lumber can be used for these supports.

iii. Galvanized Roofing: Where the wooden cross supports are insufficient to support the weight of either clay tile or cement roofing sheets, or where the participants cannot afford more expensive roofing, galvanized corrugated laminas, generally made of zinc, sometimes of tin, may be an appropriate solution. Generally 20 laminas will completely cover a 20 M<sup>2</sup> rural shelter at a total cost of \$94.40.

e. Doors and Windows (shutters) - Doors and wooden shutters are subject to rapid deterioration due to both weather and insects since they are generally constructed with untreated lumber. It is not advisable to install a new wooden shutter if the original frame is deteriorated, or if the window sill does not have the proper outward slope. The estimated material cost to replace the window frame and shutters is as follows:

i.	Material cost of frame*	
	90 cm x 110 cm.	\$ 3.00
	Material cost of wooden shutter*	
	80 cm. x 100 cm.	\$ 6.00
	Total cost of window and frame	\$ 9.00
ii.	Door	
	Material cost of frame*	
	90 cm. x 210 cm.	\$ 6.00
	Material cost of door*	
	80 cm. x 200 cm.	\$11.00
	Total cost of door	\$17.00

\* Costs include sawn lumber, nails and hinges.

f. Room Dividers and Additions - In over 40% of the rural dwellings facilities for food preparation share space with living and sleeping areas. Part of the improvement program can consist of providing materials for the installation of interior room divisions, or the construction of three additional walls to form a separate room. The cost of a room divider consisting of a wooden frame covered with plywood is \$27.00 and the same type of frame covered with plastic is approximately \$16.50.

g. Lorena Stove - Over 90% of all rural dwellings use a traditional stove which can be upgraded to be more fuel efficient, and incorporate a chimney allowing the smoke to escape from the house. These stoves can be constructed primarily from local materials over a block or bricks base. When families upgrade their stoves educational materials should

be provided to stress the importance of proper use of the improved stove. The Lorena stove can be purchased already constructed for \$30.00, or the materials can be supplied at a cost of \$18.00.

h. Rain Water Catchments - It is possible to collect and store rain water with individual catchment tanks. A covered tank, which has a faucet near the bottom, can be constructed of a variety of materials including cement-fiber polyester or reinforced concrete. The catchments must be installed in such a manner as to enable easy cleaning since the initial rains of each season will inevitably wash an accumulation of dust and dirt from the roofs. The drain canal can be constructed of tin roofing sheets supported by wooden posts. The estimated cost per catchment is approximately \$55.00.

i. Wells and Latrines - As previously indicated a large number of rural families lack basic sanitation services. Therefore, latrines and pour-flush commodes may be financed under the Project. A pour-flush commode is essentially a toilet without a reservoir. It can be installed inside the house or in an outhouse, with a pipe connection to a latrine type pit. Excreta are flushed into the pit by pouring three quarts of water into the commode after use. In an outdoor installation, the pit requires a concrete top and the total cost, including the commode, is about \$30.00. If installed inside the house and connected through the wall to an outside pit, the pit must be concrete lined to avoid wall erosion and the total cost is about \$60.00.

j. Summary of Unit Costs of Typical Improvements - The following table summarizes the unit costs of improvements for a 20 m<sup>2</sup> house:

<u>Item</u>	<u>Units</u>	<u>Cost Per Sq. Mt. (\$)</u>	<u>Total Cost (\$) 20 Sq.Mt. House</u>
Foundation beam (15x15 cm)	1.m.	2.69	53.80
Asbestos roofing sheets	1 sheet	4.50	180.00
Cement roofing sheets	1 sheet	2.25	90.00
Galvanized roofing sheet	1 sheet	2.36	94.40
Sawn lumber (trusses)	board foot	0.30	200.00
Brick walls	m <sup>2</sup>	3.90	156.00
+ Cement	m <sup>2</sup>	.50	20.00
Reinforced adobe walls	m <sup>2</sup>	1.04	41.60
Concrete block walls	m <sup>2</sup>	4.10	12.00
+ Cement	m <sup>2</sup>	.30	2.80
Screening (window)	m <sup>2</sup>	2.00	16.00
Exterior plaster	m <sup>2</sup>	0.80	32.00

## 2. Appropriateness of Technology

Locally produced building materials will be used to the extent possible to reduce problems of delivery and to reduce costs to the homeowners. Although brick and tile makers and carpenters are numerous, production is minimal due to a limited demand for their products. In the rural areas such trades are generally practiced to supplement the income of a subsistence farmer/part-time tradesman. The expansion of their existing small

rural industry is directly related to the localized demand, which this Project should increase. The Project will encourage and complement local production by making available improved, known, low-cost building technologies such as blocks of compacted stabilized soil (using small amounts of cement or asphalt) for wall construction, cement roofing sheets, low cost containers for rainwater collection. The use of these improved technologies can be taught in a short period of time to relatively unskilled villagers or to interested promoters.

Assistance in developing local production processes for low-cost building materials will be provided by INFOP's Materials Production Teams. The intermediaries will identify candidate communities where local production of construction materials may be feasible. Upon request, INVA will send one of the material production teams to study the feasibility of local production, both in the terms of the availability of manpower and the quality of existing natural materials such as clay, sand, soil for stabilized blocks, and timber. If all the necessary conditions are favorable the team will organize the interested individuals and provide the assistance required to locally fabricate quality construction materials to be provided to subborrowers in the recipient and adjacent communities. Assistance will be provided to the community or rural industry in all phases of pre-construction, construction, proper use or installation, and the method of most effectively transporting the finished product. The importance of quality control will be stressed to ensure that the final product is acceptable to meet the standards of the Project. These teams will remain in a given community until the participants are sufficiently trained to supervise and carry out production on their own. As the Project will concentrate on improving existing production techniques rather than developing new products, one or two weeks of supervision and training should be sufficient for the fabrication of most construction materials. In general, new materials will not be introduced into communities unfamiliar with them. A notable exception would be the production of cement roofing sheets, for which INVA has already developed a simple production process.

It is anticipated that three teams will be formed and each team will be expected to conduct an average of one course per month. Each team will have a skilled laborer, who will act as team leader, and one semi-skilled assistant; and will be authorized up to 180 days per diem annually, one pick-up per team, a complete set of construction tools and equipment, a CINVA-RAM machine (for stabilized soil block production), and vehicle operation and maintenance costs. The cost of the three teams during Project implementation is estimated at \$354,600, and will be financed with Loan funds.

### 3. Feasibility of Self-Help Construction

All of the intermediaries which will be involved in this Project have broad experience in promoting community participation and the use of village volunteers as a means in obtaining their project goals. They have concluded that the reliance on self-help labor is feasible, since rural housing is now largely a self-help operation, in which family and friends erect shelters without the use of paid contractors.

Although rural families construct their own shelters, their knowledge of and experience with permanent construction materials may be limited in some cases. This has been taken into consideration in designing the Project. The majority of the likely improvements are simple, and will present little difficulty to beneficiaries with no previous construction experience. The proper mixing and pouring of cement and the construction of roof structures using sawn lumber are exceptions, and training will be provided in these areas.

In most rural communities there is at least one person with basic building skills who would be willing to assist his neighbors, when improvements can be completed in a relatively short time. This person may already have provided skilled labor on other small community projects. The intermediaries will encourage local housing committees and patronatos to include such persons among their members in order to share his skills with the other beneficiaries. The essentially multi-family nature of present rural house construction makes this feasible. Bartering arrangements, whereby skilled services may be traded for goods or other forms of compensation, e.g. labor to assist with agriculture production or work on the houses of other community members, are also quite possible. Where a family does not have the necessary skills and is unable to obtain the assistance on a barter basis, the housing committee will be responsible for encouraging the family to select alternative solutions that they are capable of completing. For instance, there are several alternative solutions to a full cement floor - fired square tile, bricks, or cement fiber tile - which are all relatively simple to install. The CARITAS experience has indicated that with minimal supervision an unskilled person can be easily taught to properly construct the trusses with sawn or uncut lumber.

In addition, the intermediaries will encourage the development of construction "know-how" within the target villages. Audio-visual training courses, mainly in basic carpentry and masonry skills, will be conducted in participating communities to ensure the availability of sufficient skilled human resources. Follow up promotional materials, such as pamphlets containing simple graphic instructions for building techniques, will be provided. The key to construction success is in the quality of the intermediaries' promoters and in the cohesiveness of the community. Promoters will receive training in building skills, and be available to guide the construction effort of the participants. Previous self-help construction projects have shown that, with minimal training and supervision, unskilled volunteer laborers can learn to properly improve their dwellings, and cooperate with their neighbors in the process.

#### 4. Materials Pricing Policy of Intermediaries

Although the intermediaries involved in the Project's execution will be highly socially oriented, their continuation in this Project will depend upon establishing a realistic materials pricing policy, and their ability to recuperate their investment. As the loans to the intermediaries will finance subloans, the costs of promotion, subloan administration and bad debts will have to be recovered through a combination of adding those costs to the price of the materials financed and charging interest on the subloans.

Each intermediary will determine what mark up and interest rate will be required to ensure acceptance of subloan terms by the beneficiaries and ensure its financial stability. The method of explaining such increases to the beneficiaries will be left to the implementing agencies. They may choose to provide only a list of materials to be supplied and a total price. In some geographic areas it is possible that pricing policies may be affected by prices offered by local commercial outlets.

Still, the CARITAS experience indicates that because of the availability of credit, rural families are willing to participate in the home improvement program providing that materials can be delivered at competitive prices, not necessarily cheap prices. In general, even with the above "service" costs included in the amount financed, the cost of the improvements will still be competitive with the cost of construction materials procured in small quantities through a local retail store.

#### 5. Technical Capability of Intermediaries

The variation in the intermediaries' capability has been identified as a potential constraint to successful project implementation. In order to alleviate this constraint, the Project includes funds for training and technical assistance needed to increase their capabilities by upgrading promoters and improving bookkeeping. Courses in management and bookkeeping practices for community projects, the use and application of audio-visual equipment and basic construction principles and methods will be provided for field promoters, and in a few instances selected members of participating communities. The description of these activities, for which a cost breakdown is included in the Detailed Project Budget (Section IV.A.), is as follows:

a. Management and Bookkeeping Courses - INVA and CARITAS will provide seven one-week basic managerial and bookkeeping classes for personnel of the intermediaries that INVA determines need to strengthen their management systems. The numbers of such participants for each course will be limited to between seven and ten persons to ensure maximum effectiveness. The course materials will be developed by a local consultant contracted by INVA, at an estimated cost of \$6,000. The seven courses are estimated to cost \$16,450. Eligible expenses will include honoraria for the training staff, and travel costs and per-diem for the intermediaries' administrators/bookkeepers.

b. Basic Construction Course Preparation - Loan funds will be used to prepare video tape instructional materials for a course in basic construction techniques. The course will cover the major aspects of basic construction methods to be utilized under the Project, the use and proper care of construction tools, and the method of estimating construction and improvement costs. The instructional materials developed will include pamphlets, video tapes, and construction guides covering the major home improvement options. The cost of preparing the course, purchasing ten video-tape machines, and reproducing ten copies of the instructional materials is estimated at \$52,200. As INVA has no experience in developing audio visual courses, a short term consultant will assist INVA in identifying areas where training is needed and in developing the course. The estimated cost of the consultant's services is \$6,000. Although the initial costs of producing this

type of instructional material is expensive, in the long run it appears to be more practical than financing outside technical assistance to conduct routine training courses explaining basic construction methods for each participating community. The video equipment will be the property of INVA, and will be loaned to intermediaries to enable their promoters to provide courses to interested communities. INFOP will be responsible for developing the course and may contract for the services of SIPCAR, a specialized office of the National Agrarian Reform Institute (INA) which has special expertise in the development of audio-visual courses.

c. Training in Basic Construction - Although construction will be carried out by the beneficiaries, the intermediaries' promoters must be able to act as an "instructor-supervisor" where needed. To develop the promoters' capabilities to provide this assistance, INVA will contract with INFOP for an initial two-month training program for all intermediaries' promoters in basic construction skills and in the use and preventive maintenance of audio-visual equipment. It is expected that up to eight such courses will be conducted with an average of 15 to 20 participants for each course. Loan funds will finance honoraria for the training staff, and travel costs and per-diem for the promoters. The total cost of the basic construction courses is estimated at \$228,800.

Once trained, the promoters will provide training in basic construction techniques to the beneficiaries. The concept of using paratechnicals (promoters) to conduct classes using video equipment has been successfully tested by the National Agrarian Institute (INA), whose promoters are authorized to check out video tape machines for instructional purposes after satisfactorily having completed a course pertaining to the operational use of such equipment.

#### 6. INVA/AID Project Coordinator

The Rural Housing Division within INVA is receiving full time technical assistance from the EEC. No additional long term advisory services are required for the Project. However, grant funds will be used to contract an INVA/AID Project Coordinator. This person, who will be Honduran, will be responsible for ensuring that implementation plans and progress are adequate and for maintaining liaison between A.I.D., INVA and the intermediaries. He will assure that interinstitutional contracts conform to A.I.D. and GOH legal and technical requirements and will assist in the preparation of documents related to these actions. His major task will be to serve as an ombudsman for Project implementation. This will entail field inspections to monitor the operations of the intermediaries. His services will be required during the five year implementation period of the Project. A contract with a Honduran national with considerable experience in rural housing is contemplated. The contract will be for two years at the outset, renewable after an evaluation to determine if his services are still required. The estimated cost for 60 p.m. for this Coordinator will not exceed \$164,000.

## 7. Environmental Concerns

The IEE for the Project was reviewed with the PID and a negative determination was subsequently approved. The Project has not changed significantly in areas which relate to environmental concerns. Consequently no further examination of environmental concerns is required.

### B. Social Soundness

#### 1. Subloan Demand by Target Group Families.

In five years, working in one rural county in the north coast region, CARITAS made loans totaling approximately \$215,000 to target group families. In the 1974 Census, that county - Olanchito - had a rural population of 33,930 people which was only 1.5% of Honduras' rural population of 2,193,275. (This latter figure excludes the urban areas of Tegucigalpa, San Pedro Sula and La Ceiba). Honduras' population has grown by over 20% since the 1974 census, but even on the basis of the 1974 figures, and assuming demand holds constant across the country, CARITAS' experience would indicate there is a total demand of over \$14 million for home improvement loans in rural areas. Thus, the Project's Credit fund would be able to attend slightly more than 10% of the total demand indicated. Based on the experience of both CARITAS and San Jose Obrero, where demand for exceeded available funds, we believe the actual demand to be much greater. In its Olanchito project, CARITAS had no problem finding beneficiaries for its rural housing loan program. Before embarking on a full scale program of house construction in Choluteca, the Asociacion San Jose Obrero was inundated with requests from its workers for small loans for home improvement.

The effective demand, of course, is much more limited. Given the nature of the Project, it is restricted to the number of communities that can be effectively reached by the intermediaries promoters. The Project's Financial and Social Analyses have been developed on the assumption that, between all of the intermediaries, there will be an average of 100 full time promoters working 20% of their time on the Project. The realism of this level of manpower is borne out by the Institutional Analysis which has identified about 80 full time promoters among the six intermediaries which have agreed so far to participate in the Project. We expect this number to rise to well over 150 by the time Project activities end, as additional intermediaries decide to participate in the Project and as participating intermediaries expand their coverage. Hundreds of part time volunteer promoters on which some of the intermediaries rely are not included in the above figures and they may wind up being the Project's more effective agents.

In view of the above, the Mission has concluded that both demand and effective demand exceed by a large margin the resources programmed for the credit activity.

#### 2. Affordability of Improvements

a. Target Group Income - The most recent income data collected through a methodologically sound procedure are those of 1977 survey carried

out by CONSUPLANE's Nutrition Planning System (SAPLAN). These data, which are now being tabulated, show for residents of all but the largest 15 cities, the following:

Table I: Income of Rural Population (1977)

Group	Number of		Annual Income (Ave.)	
	Persons (%)	Families (%)	Per Capita	Per Family
1. Population with inadequate nutrition	1,624,194 (79)	259,038 (72)	\$ 109.25	\$ 686.27
2. Population with basic needs satisfied	365,043 (17)	75,836 (21)	280.40	1,349.73
3. Well Off	78,783 (4)	23,518 (7)	546.40	1,830.39
Total Rural	2,068,020 (100)	358,392 (100)		
% of Honduras	68	69		

The survey also provides income by deciles. However, these data are not broken out by urban and rural residents. In an effort to approximate a rural income distribution scale, the Mission has developed the following analysis:

Decile	Monthly Family Income 1977 (\$)		
	Actual Country	Mission Estimate	
		Urban	Rural
0- 10	31.33	60	25
10- 20	49.59	100	40
20- 30	58.10	138	52
30- 40	70.35	155	57
40- 50	76.83	210	60
50- 60	105.44	330	63
60- 70	149.78	390	77
70- 80	168.57	445	90
80- 90	318.74	490	110
90-100	462.41	560	135

These rough calculations indicate that the income for the 50th percentile for the country as a whole (about \$91) corresponds to approximately the 75th percentile for all areas outside the largest 15 cities.

CARITAS' experience with its rural housing improvement project indicates that the very poorest 20-25% of rural residents simply are too poor to pay for the assistance they need. Although CARITAS is trying a loan program with some groups of the very poorest, it has little expectation of recovering the money lent to date. It is doubtful that this group can be helped under this Project without creating an extreme drain on Project resources. Consequently, assistance will be focused on those families between the 25th and 75th percentiles of rural families with regard to income. These families have monthly family incomes of from \$52 to \$90, and they fall roughly in the 18th to 50th percentile for the country as a whole. The median income for families in this group is approximately \$62 per month.

b. Loan Payment Capability - Most expenditure surveys done in Latin America have disclosed that rural families devote about 10% of their income to housing, on the average. According to the last tabulated rural family expenditure survey (1968), rural Honduran families followed this general trend. Thus the range of monthly payment capacity is approximately \$5.20 to \$9.00 with an average of about \$6.20. This latter figure is confirmed by CARITAS' experience to date, in which the average loan has been \$75 with no interest payable over a 12 month period, for an average repayment of \$6.25/month. Allowing for slight improvement in incomes since the survey was taken and CARITAS' figures were compiled, the Mission has concluded that \$7.50 per month is a reasonable amount to expect rural poor families to spend in paying off housing improvement loans, with a range of from \$6.00 to about \$10.00.

c. Affordable Improvements - The kind and amount of improvements which can be built for this level of income depends on the financing terms. For purposes of analysis two different financing arrangements have been analyzed in light of the monthly payment capability calculated above:

- Case 1: Moderate terms. The intermediary includes promotion costs of 20% in the amount financed; charges 13% interest; and allows a 15 month term.
- Case 2: Terms most favorable to the intermediary. The intermediary includes promotion costs of 25% in the amount financed; and charges 20% interest and allows an 18 month term.

The results of the analysis are:

Case/Monthly Payment	Loan Amount 1	Borrower Down Payment 2	Value of Improvements 3(1+2)	Promotion costs 4(1-5)	Materials and Trans. Financed 5(1-4)	Total Value of Materials and Trans. 6(2+5)
Case 1:						
\$6.00	\$ 84	\$ 20	\$ 104	\$ 17	\$ 67	\$ 88
\$7.50	104	27	131	21	83	110
\$10.00	135	34	169	27	108	142
Case 2:						
\$6.00	94	24	118	23	71	94
\$7.50	118	29	147	30	88	118
\$10.00	157	39	196	39	118	157

Averaging Case 1 and Case 2 gives an average monthly payment of \$7.50 on an average loan amount of \$111, which with a 20% downpayment from the beneficiary finances improvements with a total value of \$139. Of this amount, about \$114 is the value of the materials and transportation incorporated into the improvement. A review of the cost of typical improvements summarized in the Project Description indicates that the average borrower will be able to afford almost all of the improvements

eligible for financing under the Project. The most costly improvements (e.g. roof of asbestos or pan tile, brick or block walls) would be affordable only by those at the upper end of the income scale with a downpayment greater than the minimum 20%.

### 3. Beneficiary Attitudes Toward Borrowing for Home Improvements

Although most of the families who seek housing improvement loans have the capacity to repay, they usually are excluded from consideration by more formal channels of credit due to their low incomes and lack of sufficient collateral. Moreover, their level of savings is too low compared to what would be required to accumulate sufficient amounts of funds to make desired improvements. Consequently beneficiary attitudes towards loans seem to be a function of the structure of the lending process. Short payback periods encourage repayment. The requirement of a substantial downpayment appears to positively influence the beneficiary's attitude toward repayment. The beneficiaries apparently feel a greater commitment to the program and its success after having made this initial investment. Also, in discussing repayment terms with the beneficiaries, it appears best to talk in terms of the total payments that will be required rather than in terms of principal and interest, since many rural people appear to have resistance to paying interest on loans, in part because they often don't fully understand the concept of interest. Furthermore, including interest within the total loan figure substantially reduces the level of confusion over the loan terms. The participant is not burdened with elaborate and complex formulas, but is made aware of the essentially loan nature of the construction materials. In projects where this mechanism has been used, default rates have generally been at acceptable levels.

The simplification of the presentation of the offer to the beneficiary is illustrated by the results of an evaluation of an earlier CARITAS home construction program (Merschrod and Coronado, 1976). This study found that all but 1% of the beneficiaries understood that they were receiving a loan. However, although they were aware that downpayments were required, and accepted this fact, there was some confusion regarding how the amount of this payment was calculated.

Moreover, it should be noted that loans are not something new to most of the target population. Although most rural residents attempt to minimize risk with loans representing a classic case of risk taking, this has not inhibited campesinos from taking out loans when the risk to personal property has been minimized. Small farmers in particular acquire agricultural production loans from local moneylenders for short periods of time, usually mortgaging their crops rather than their land. Also, the CARITAS housing projects have successfully relied on peer pressure and community solidarity rather than on collateral to insure repayment. In sum, the attitudes of the beneficiaries toward loans in general and past experience with successful housing loans in particular, indicate that this will not be a serious constraint to successful Project implementation.

#### 4. Relations Between Intermediaries and Beneficiaries

The potential intermediaries are both governmental and private non-profit organizations (PVOs). While functional and structural differences exist between these two types of organizations, they have in common some degree of grass roots contact with the target population. The important linkage between these groups and the intermediaries has been the patronato, which are local committees set up by and for the village to secure assistance from the national or local governments or PVO's for projects such as schools, roads, or water systems. Typically some middle class community members are elected to positions on the committee due to their prestige and influence.

The patronatos often set up committees to deal with specific projects or to meet specific needs. Often a community will have as many committees as there are projects to be dealt with, although it is not uncommon to find many of the same people serving on several of them. Once the need is met, the patronato may become dormant until a new need arises. The municipalities and national government institutions such as the Ministry of Health often work with patronatos carrying out self help infrastructure and nutrition projects.

Church related groups often develop their links to the communities by working with local groups whose purpose is mainly the active social formation of the communities and their members. Usually building on the indigenous social structure of rural society, they attempt to organize the communities around an ideology of solidarity. The goal is to create and nurture a social environment of cooperation and self-reliance in dealing with the developmental problems of the community. These groups are characterized by a close and intense relationship with the people of a village, usually extending over many years. They usually take an integrative developmental approach to the community, attempting to increase the standard of living through production, health, and housing projects organized so as to further the goals of group solidarity, and beneficiary participation. The results of projects implemented by CARITAS, Asociacion San Jose Obrero, and other such organizations, have demonstrated the viability of an integrated development strategy based on long-term intensive work within the target community, and on an ideology of community solidarity and participation.

What distinguishes the patronatos from these church sponsored groups from the patronatos is the goal. The reason for the emphasis on community solidarity is that their objectives are much broader than solely carrying out specific projects. The overriding concern of the organizations is to create the necessary conditions for a more broadly based integrative development of the community that fosters a more general sense of community solidarity to meet continuing development needs.

In the context of a home improvement program this prior and continued work in promoting community solidarity has had very practical results. It has permitted the establishment of an effective decentralized administrative organization for project planning and implementation. This has resulted in the program's greater flexibility in identification and resolution of the particular needs of communities. The high level of participation by

the beneficiaries in the Project design and implementation has created a greater sense of commitment by the beneficiaries to achieve the goals of the Project. This in turn has produced low default rates and acceptable levels of control of materials.

#### 5. Effectiveness of Solidarity Group Lending Process

The public sector agricultural development banks in El Salvador and Honduras as well as a Credit union system in El Salvador have used the solidarity group lending process with good results. The system appears to have been instituted in order to get around collateral requirements under banking regulations, which poor people could not meet. The key factor that makes the process successful seems to be the self-selection of the group members. Campesinos living in close proximity to each other seem to know which community members are serious, dedicated workers and which are unreliable. They will normally pledge to be jointly liable for debts only if they know and have confidence in the other group members. They are apparently willing to exercise sufficient peer pressure to ensure repayment, and may wind up financing each other if one or more members have difficulty meeting their obligations. The programs in which this process has been used have sufficient similarities to this Project to establish a basis for concluding that it will be an effective lending mechanism with high probabilities of achieving loan repayment rates of 80-90% or better.

This probability can be enhanced where the solidarity group is active in the administration of the loan program. In an examination of 12 communities in which housing construction was undertaken through a CARITAS loan program, the effect of local participation and control of project administration was found to be significantly related to the level of community participation. In the various communities where the program was undertaken, it was found that participants often formed work brigades to rotate construction tasks, and that a common fund was set up to meet unexpected additional expenses that might be incurred by community members. Furthermore, in 14 of the 15 projects within these communities, the participants successfully had set up a housing committees for planning, construction and loan repayment based on the principle of collective responsibility.

The housing committees or patronatos that will be established under this Project appear to offer the kind of opportunity for participation that will enhance the solidarity group lending process and encourage loan repayment.

#### 6. Beneficiaries and Spread Effects

a. Number of Beneficiaries - Approximately 75% of the rural population comprise the target population. This represents a population of about 280,000 potentially eligible families of the 375,000 in the country's rural areas. Given the funding level, it is estimated that loans will be received by 31,000 families. Excluding the number of families who are expected to borrow more than once, over 18,400 families will be beneficiaries (see Table 2). This is approximately 7% of the target group.

TABLE 2  
ESTIMATED NUMBER OF FAMILIES TO BENEFIT FROM HOME IMPROVEMENT LOANS

No. of Loans received by beneficiaries:	YEAR					Total
	1st	2nd	3rd	4th	5th	
From Initial Loan	3,600	3,490	2,235	2,155	2,120	13,600
From Loan Reflows	0	2,325	4,310	5,120	5,700	17,455
TOTAL	3,600	5,815	6,545	7,275	7,820	31,055
Total Beneficiaries (excludes previous borrowers)	3,600	3,635	3,635	3,635	3,910	18,415

b. Health Benefits - The improvement of the shelter conditions of the target population will have its primary impact on the health of the members of the participating families. This will be particularly true where the Project is part of a general program of community development aimed at improving the sanitation conditions of the community in general. It is important, therefore, that, whenever possible, the Project be carried out in conjunction with related infrastructure and home improvement programs, such as water systems, latrine building, and interior partitions, as well as developing sanitary practices in the storage and preparation of food. The benefits to improved health can be expected in the following general areas: 1) reduction of gastrointestinal diseases, diarrheal diseases, and infectious hepatitis due to the increased use of latrines, and improved care in the preparation of foods; 2) reduction in arthropod vectors of disease, particularly that transmitted by cockroaches, bugs carrying Chaga's Disease, flies, mites, fleas, and lice due to improved shelter conditions as well as to sanitary care; and 3) reduction in commutability of disease due to a reduction of overcrowded conditions.

c. Effects on Women

Past experience indicates that women's organizations such as housewives' clubs can play important organizing roles in these complementary housing improvement programs. Since participation affects one's concept of self-worth through increased confidence in the ability to control one's environment, and since outlook on life is related in part to the physical conditions of one's surroundings, this Project can be expected to provide benefits in these two areas. Given that women in lower income families spend a greater amount of time in the home than men, it is expected that participation and improved shelter conditions will positively affect women to a greater degree than men. Finally, a number of women hold high level positions in the intermediary organizations, especially CARI'AS and Meals for Millions. The Project should offer them opportunity to increase their feelings of professional accomplishment and satisfaction in helping others.

d. Spread Effects - The Project is expected to generate spread effects both within the beneficiary groups and within the intermediary organizations. The first set of spread effects involve the demonstration

effect to those community members not participating in the initial rounds of lending. As community members gain familiarity with the process of borrowing and repayment of loans, as well as with working on a collective basis, it is expected that they will generate an even greater demand for such loans. The second set of spread effects will result from the demonstration effects to the intermediaries participating in the Project, as well as to those not initially participating. As the viability of this type of program is demonstrated, it is expected that additional institutions will wish to enter into the Project, and that existing participants will wish to expand their operations into other communities.

The most important issue relating to spread effects is the degree to which success under this Project will cause the GOH to alter its present policy of favoring construction of new homes which results in a relatively high benefit for a small number of families. If this Project is highly successful we should expect the GOH to divert some of the resources that its now destines for finished units to this activity. This would ensure that the spread effects of the Project go beyond the already positive projections of additional beneficiaries from the planned use of loan reflows and additional GOH contributions that are built into the project design.

The potential spread effects could be reduced if the Project expands too rapidly. As has been previously pointed out, the success of these kinds of housing loan programs tends to be related to the nature, level and intensity of contact that the executing agency has with the community prior to introduction of a housing program. More specifically, those institutions which have experienced success in this area have been those who have worked long and hard to improve the overall level of development of the community, in a way which encourages a broad base of participation and solidarity, before undertaking a housing program. Where these conditions are not met, the success of the Project and potential spread effects may not reach projected levels.

### C. Financial Analysis

The Project calls for a financial role for INVA, the intermediaries and the beneficiaries. The interest of each party in implementing and continuing the Project will depend to a great degree on the Project's financial feasibility for that party. The financial feasibility for the beneficiaries is essentially a matter of affordability. This was discussed in the Social Analysis. This section analyzes the financial feasibility for the other two parties: the Intermediaries and INVA.

#### 1. Intermediaries

The probable intermediaries have very different ways of working. Some, like CARITAS (a confirmed intermediary), are very low cost operations which rely almost completely on volunteers and religious fervor to get assistance out to the target group. Others, like CARE (a probable intermediary), rely to a much greater extent on paid promoters and have relatively high costs in relation to the assistance that will be provided under this Project.

For purposes of analysis, it is assumed that each intermediary will develop pricing policies that will put its housing assistance on a self-paying basis. The liberal restrictions allowed by the Project design - allowing for the subloans to include up to 25% for promotion costs and permitting a maximum interest rate of up to 20% - should provide sufficient margin to enable all intermediaries to cover their costs, while affording a margin of protection to the beneficiaries against unfair pricing policies.

In analyzing the financial feasibility for intermediaries, a composite of the institutions expected to participate has been developed. This composite is based on data provided by the institutions and USAID assumptions based on informal discussions with some of the individual agencies. The principal factors in this composite are:

- On the average, promoters work in ten communities each year. Five new subborrowers, averaging seven families each, will receive loans each year. Starting in the second year, promoters will generate additional loans to previous beneficiaries, as follows: second year - three loans; third year - four; and, fourth and fifth years - five. Loans average \$800 each.
- The probable intermediaries, in total, have 100 promoters working throughout the country. Promoters have a motorcycle provided by and maintained by the intermediary and receive \$15 per diem while working in the field. Promoters spend 15 days a month in the field. They spend an average of 20% of their time on the Project. The average salary for a promoter is \$150 per month. The overhead of the intermediaries averages 50% of direct salaries and benefits average 20% of salaries.
- Intermediaries adopt a pricing policy of adding a promotion cost of 25% to the cost of materials (making the promotion cost 20% of the loan amount), and charging an interest rate of 13% to the beneficiaries. Loan terms average 15 months. Defaults are equal to 20% of loans made. No interest is received on defaulted loans.
- Intermediaries costs are assumed to increase at a rate of 10% a year during the Project implementation period. In the year after the implementation period ends, costs decrease by 25% due principally to a much higher percentage of repeat borrowers, which reduces promotion and overhead costs attributable to the Project. Thereafter costs increase at 10% per year.
- The average loan size remains at \$800 throughout the Project, as there is little basis on which to assume an increase in disposable income on the part of the target group.
- INVA charges 5% annual interest on its loans to the intermediaries. The GOH makes \$200,000 per year available to the intermediaries for continuing the Project starting the year after the Project activities are completed.

a. Costs - From the above composite, the following costs are attributable to the Project during the first year of implementation:

i.	Promoters Salaries. 100 promoters x \$1,800/year x 20% of time spent on Project	\$ <u>36,000</u>
ii.	Benefits. 20% of Salaries	7,200
iii.	Overhead. 50% of Salaries	18,000
iv.	Per Diem. \$15/day x 15 days/month x 12 months/year x 100 promoters x 20% of time spent on Project	40,500
v.	Vehicle Cost. \$1,200/year x 100 promoters x 20% of time spent on Project	24,000
vi.	Miscellaneous	<u>20,000</u>
	Total First Year Costs	\$145,700

b. Portfolio, Income and Expense - The above assumptions were used as a basis for projecting the portfolio, income and expenses of the intermediaries, taken as a group. The results are shown in Table 3. As is seen, under the above assumptions, the Project is not quite a breakeven proposition from the intermediaries point of view. A liberal advance policy from INVA will be required to keep the intermediaries from dipping into capital in order to cover costs. Nevertheless, the Project does more than break even in the latter years of Project implementation. Continuing GOH capitalization in the five years following the implementation period should ensure steady growth of sublending capital. If costs can be controlled, or defaults reduced, or additional operating cost contributions obtained from the intermediaries' traditional financing sources, the Project could easily be put on a self-sustaining basis.

This somewhat somber picture improves considerably if the intermediaries apply the maximum terms and conditions permitted: including promotion cost recovery of 25% in each loan, charging an interest rate of 20%, and extending the loan repayment terms to 18 months. These results are shown in Table 4. However, even under these assumptions, the yearly surplus generated by the Project begins to decrease in year seven. Greater assurance of continued growth of Project resources could be achieved by INVA's turning the loans to the intermediaries into grants starting in the year after the Project implementation period ends, under the condition that the funds continue to be used for housing improvements and a sustained demand for this type of assistance be demonstrated. The pros and cons of this course of action will be studied further prior to PP approval. This clearly could be a major incentive to the intermediaries and might encourage fence sitters to get in at the beginning thus improving the overall financial feasibility of the Project.

TABLE 3: INTERMEDIARIES INCOME AND EXPENSES (\$000): CASE I

ITEM	YEAR									
	1	2	3	4	5	6	7	8	9	10
<b>PORTFOLIO:</b>										
Portfolio - Beginning of Year	-0-	400	720	848	944	1020	1050	1075	1096	1113
Principal Payments Due During Year	-0-	320	592	704	784	848	874	895	913	927
Defaults	-0-	(64)	(118)	(141)	(157)	(170)	(175)	(179)	(183)	(185)
New Loans (total):	400	640	720	800	860	878	899	916	930	942
Financed with Principal Repayments	-0-	256	474	563	627	678	699	716	730	742
Financed with Project Funds	400	384	246	237	233	200 <sup>2/</sup>				
Portfolio - End of Year	400	720	848	944	1020	1050 <sup>3/</sup>	1075 <sup>2/</sup>	1096 <sup>2/</sup>	1113 <sup>2/</sup>	1128 <sup>2/</sup>
<b>INCOME:</b>										
Recovery of Promotion Costs	80	128	144	160	172	176	180	183	186	188
Interest Earned	<u>21</u>	<u>55</u>	<u>81</u>	<u>96</u>	<u>105</u>	<u>111</u>	<u>115</u>	<u>117</u>	<u>119</u>	<u>121</u>
<b>TOTAL INCOME</b>	101	183	225	256	277	287	295	300	305	309
<b>EXPENSES:</b>										
Administrative Costs	146	160	176	194	213	176	194	213	234	257
Interest Expense	<u>13</u>	<u>33</u>	<u>47</u>	<u>59</u>	<u>71</u>	<u>82</u>	<u>92</u>	<u>102</u>	<u>112</u>	<u>122</u>
<b>TOTAL EXPENSES</b>	159	193	223	253	284	258	286	315	346	379
Difference <sup>1/</sup>	(58)	(10)	(2)	3	7	29	9	(15)	(41)	(70)
Cumulative Difference	(58)	(60)	(62)	(59)	(66)	(37)	(26)	(42)	(83)	(153)

<sup>1/</sup> Negative figures during Project Implementation are assumed to be financed by outstanding advances from INVA.

<sup>2/</sup> GOH continuing contribution.

<sup>3/</sup> As this is less than the original \$1.5 million put into the credit fund, the Mission will require the GOH to maintain the fund level, if so warranted by demand for subloans.

TABLE 4: INTERMEDIARIES INCOME AND EXPENSES (\$000): CASE II

Diff. Est. Mix Terms/Int.	YEAR									
	1	2	3	4	5	6	7	8	9	10
Cost Recovery	100	160	180	200	215	220	225	229	232	236
Interest Earned	<u>32</u>	<u>83</u>	<u>141</u>	<u>173</u>	<u>190</u>	<u>203</u>	<u>211</u>	<u>215</u>	<u>220</u>	<u>223</u>
Total Income	132	243	321	373	405	423	436	444	452	459
Total Expenses	<u>153</u>	<u>193</u>	<u>223</u>	<u>253</u>	<u>284</u>	<u>258</u>	<u>286</u>	<u>315</u>	<u>346</u>	<u>379</u>
Difference	(27)	50	98	120	121	165	150	129	106	80
Cumulative Difference	(27)	23	121	241	362	527	677	806	912	992

With grant Option Starting in Year 6:

Difference	247	242	231	218	202
Cumulative Difference	609	851	1082	1300	1502

2. INVA

Assuming the Project is fully operational at the outset, INVA's first year costs are estimated as follows:

<u>Item</u>	<u>Monthly Cost (\$)</u>	
<u>Personnel:</u>		
1 Office Director	1,000	
1 Accountant/Office Administrator	500	
5 Rural Housing Technicians	2,375	
1 Accountant	400	
1 Auditor	500	
1 Secretary	300	
1 Driver/Messenger	<u>250</u>	5,325
<u>Per Diem:</u>		
15 days/month x \$25/day x 5 Technicians	1,875	
15 days/month x \$36.00/day for Director/ Auditor/Administrator	<u>540</u>	2,415
Vehicle Maintenance and Operation		1,758
Other		<u>167</u>
Total Monthly Cost		<u>9,665</u>

The total yearly costs of over \$116,000 are based on present prices. A yearly increase of 10% per year is assumed for inflation. Thus the average cost during the five year implementation period will be approximately \$140,000. After the implementation period, a smaller staff will be required to monitor and continue the Project activities and expenses are expected to stabilize as costs are increasingly assigned to other programs.

INVA expects to assign some personnel currently in its employ to the Project Coordination Office. As these personnel account for roughly 25% of the estimated total first year cost, only 75% of the above average of \$140,000, or \$105,000 average per year, will be additional costs to INVA that can be reasonably attributed to the Project.

A projection of INVA's portfolio, income and expenses has been prepared (see Table 5). The income is based on the loan drawdown and interest expense figures in Table 3. As costs start out high in the first year and income starts low and increases throughout the implementation period, there is some shortfall during the Project implementation period. However, as income catches up to and surpasses additional costs about five years after the end of the Project, the Project is viable over the long run. Against the expectation of fully covering the additional yearly operating costs by the year eleven of the Project, INVA has agreed to contribute the difference between income and additional expenses during Project implementation. As shown in Table 5, this difference amounts to slightly more than \$300,000. It will be counted as counterpart for the Project.

### 3. Conclusions

The nature of the Project - small loans, short repayment periods, high default rates - places severe constraints on achieving financial viability. The factors which make approaching feasibility possible are the relatively low-cost nature of the intermediaries themselves and the improved utilization of their already existing infrastructure in the benefitting communities. This has allowed utilization of a marginal cost/marginal returns approach to the financial feasibility issue, and has permitted demonstration of a more or less breakeven operation for this innovative and somewhat experimental Project.

It should be noted that the most serious obstacle to achieving financial feasibility is the presumed default rate of 20% of all loans. Even a small improvement in this rate during implementation will have a large effect on improving financial feasibility. The second most important factor is the small loan size, which has been presumed to remain constant throughout the implementation period. Should the beneficiaries be interested in and capable of borrowing more than the average amount calculated in the Social Analysis, the financial feasibility of the Project would show a significant improvement.

The Mission believes that the financial analysis has been carried out using reasonable and conservative assumptions. The analysis may be viewed as a "worst-case" approach. Even in this scenario, the Project comes close to being viable from a financial point of view - a remarkable situation given the difficulties inherent in the Project design.

TABLE 5: INVA INCOME AND EXPENSE (\$000)

ITEM	YEAR									
	1	2	3	4	5	6	7	8	9	10
Portfolio:										
Loan Funds Disbursed	400	384	246	237	233					
Continuing GOH Contribution						200	200	200	200	200
Cumulative Loan Funds Disbursed	400	784	1030	1267	1500	1700	1900	2100	2300	2500
Income:										
Interest Earned	13	33	47	59	71	82	92	102	112	122
Expenses:										
Total Costs <sup>1/</sup>	116	128	140	154	170	170	170	170	170	170
Total Attributable to the Project	87	96	106	116	128	128	128	128	128	128
Counterpart Contribution										
Excess of Costs Attributable to Project over income	(76)	(63)	(59)	(57)	(57)	(46)	(36)	(26)	(16)	(6)
Cumulative Counterpart Contribution	(76)	(139)	(198)	(255)	(312)					

<sup>1/</sup> Costs are assumed to increase by 10%/yr until Year 5 and then stabilize as the costs of Project personnel are increasingly assigned to other programs.

#### D. Economic Feasibility

From an economic point of view the feasibility and desirability of doing this Project derives from its effect on the national economy through linkages to primary production activity and on the incorporation of the rural poor into a system of saving, borrowing, and investment. The effect on Gross Domestic Product (GDP) is strong and positive given the size of the Project. Effects on the fiscal situation will be favorable as well.

The major linkage effects of this Project will be with domestic production of cement, fiber roofing panels, brick, and door and window products. Of these, only cement production is large and capital intensive, but the GOH is planning on increased demand to make feasible construction of two new plants for which investment funds are now being sought. Most other material inputs will be produced locally, generally in rural areas by small entrepreneurs, generally out of existing plants. The money spent on these inputs will have a multiplier effect on the currently slack building inputs sector that can be estimated conservatively at two to one. Some new investment in industry producing building materials can be expected as a result of the Project; in particular it is likely that the production of fiber cement roofing sheets will be encouraged in a large number of places in response to this demand and the new, appropriate technology being developed under the Rural Technologies Project.

The Project will have the effect of bringing the rural poor into a financial system that should have replicable benefits well into the future. The Project demands that the rural participants save (the downpayment) and borrow to invest in their homes. This system is a first approximation of a financial intermediary arrangement which removes the excessively high risk premium and transaction costs to the campesino borrowers in the only market in which they can now borrow -- the rural "curb" market -- with its observed rate of 6% per month. That is, the Project's lending mechanism will change the trade-off between current consumption costs and investment costs faced by campesinos by reducing the effective cost of investment from some 101% to 20% per annum. It is not surprising that at 101% per annum little borrowing takes place for housing (or other) investment; campesinos borrow at this rate only to meet short term emergency needs and/or high payoff production costs. Thus the Project will point the way towards getting an economically more correct allocation of resources between current consumption and investment in the rural areas. Replication and adaptation of the system could do much to overcome the apparent inability of many poor campesinos to invest to improve their income and life situation.

This Project's major activity, credit for rural housing improvements, is essentially an intermediate credit institution type activity, and therefore the economic decision as to whether the particular investment is worthwhile can be left to the campesino family, with the aggregate economic worth of the Project then depending on a demonstration of effective demand for loans for such housing improvements. The strong demand for participation in this aspect of the Project (see Social Analysis) means that we can calculate an estimate of the minimum increase in gross domestic product expected to result from the Project. Remembering that value added by owner-occupied housing in the

national income accounts is estimated by the imputed rental value of such dwellings, we can figure that since the owner is willing to borrow at the 20% rate of interest included in the Project package, this is equivalent to saying that he values the rent of the improved house to be at least equal to the annualized mortgage payment that would be required to amortize the investment at the 20% rate over the (assumed) life of the improvement(s) so financed. If we take 10 years as a conservative estimate of the average life of improvements, then we have a \$0.238 increase in imputed rental value of the house, equivalent to value added in GDP terms, for each dollar of housing improvement. Because of the high cash downpayment plus owner supplied labor and non-cash materials, and because of the rapid payback of the one to one and a half year loans, the benefit/cost ratio is 1.98 when the respective streams are discounted at the 12% rate used by the World Bank as the opportunity cost to capital in Honduras at this time.

This favorable income can be interpreted economically as follows: by eliminating the exaggerated risk premium and thus lowering the perceived cost of financial capital to the campesinos, their desired mix of inputs into their houses changes towards cash cost inputs (cement, windows) relative to embodied labor inputs (adobe, thatch), thus allowing the enjoyment of a much higher than average marginal rate of return on the heretofore scarce cash financed inputs.

In terms of the national economy, no aspect of the Project will cause any undue pressure upon the country's production system or infrastructure, nor would there be any bottlenecks created if the Project were doubled or tripled in size.

The Project will give rise to a small additional increase in the GOH budget. The estimated requirements for counterpart and post PACD contributions is shown in Table 7.

TABLE 6: ECONOMIC BENEFIT COST CALCULATION  
FOR HOUSING CREDIT  
(\$000)

	<u>HOUSING IMPROVEMENT LOANS</u>			Down Pay- ment	Owner, Labor & Materials	Total Invest- ment	Equiv. New "Mort- gage"	Cum. "Mort." Pay- able	Other INVA		Total Net Econ. Costs	Present Values (12%)		Discount Factor 12%
	AID Funds	GOH Contri- bution	From Reflows						Project Costs GOH	AID		Benefits	Costs	
1982	400	-	-	100	150	650	155	155	76	190	916	138	818	.893
1983	384	-	256	160	240	1,040	248	403	63	219	1,066	321	850	.797
1984	246	-	474	180	270	1,170	279	682	59	266	1,021	486	727	.712
1985	237	-	563	200	300	1,300	310	992	57	185	979	631	623	.636
1986	233	-	627	208	312	1,380	329	1,321	57	140	950	749	604	.567
1987	-	200	678	220	330	1,428	341	1,662	46	-	796	843	404	.507
1988	-	200	699	225	337	1,461	348	2,010	36	-	798	909	361	.452
1989	-	200	716	229	344	1,488	355	2,365	26	-	799	955	323	.404
1990	-	200	730	233	350	1,513	361	2,726	16	-	799	984	288	.361
1991	-	200	742	236	354	1,523	363	3,089	6	-	796	1,115	287	.322
1992	-	-	-	-	-	-	-	2,934	-	-	-	842	-	.287
1993	-	-	-	-	-	-	-	2,686	-	-	-	690	-	.257
1994	-	-	-	-	-	-	-	2,407	-	-	-	551	-	.229
1995	-	-	-	-	-	-	-	2,097	-	-	-	430	-	.205
1996	-	-	-	-	-	-	-	1,768	-	-	-	324	-	.183
1997	-	-	-	-	-	-	-	1,427	-	-	-	233	-	.163
1998	-	-	-	-	-	-	-	1,079	-	-	-	158	-	.146
1999	-	-	-	-	-	-	-	724	-	-	-	94	-	.130
2000	-	-	-	-	-	-	-	363	-	-	-	42	-	.116
										PV/B = 10,495	5,285 = PV/C			

NOTES TO THE TABLE: The source of investment flow data is the financial analysis. Only the first ten years of Project investment activity is taken into account; this includes all A.I.D. and GOH cash inputs which are subject to the Project Agreement. Because of the assumed default rate, the annual investment level begins to decline in the eleventh year unless new funds are added to the Project. If we were to calculate out the declining, but still sizable amount of investment beyond Year 11 it would give us a further, substantial increase in benefits since the reflows are not an economic cost to the Project.

TABLE 7  
GOH CONTRIBUTIONS TO THE RURAL HOUSING IMPROVEMENT  
PROJECT 1981-1989 (\$ 000)

YEAR	INCREMENTAL COSTS OF INVA	CONTRIBUTION TO LENDING FUND	TOTAL
1982	76		76
1983	63		63
1984	59		59
1985	57		57
1986	57		57
1987	46	200	246
1988	36	200	236
1989	26	200	226
1990	16	200	216
1991	6	200	206

These amounts are insignificant in relation to the total GOH budget, which in 1981 stands at \$675 million. The size of the GOH contribution is a function of the ability of INVA and particularly the collaborating PVO implementing agents to undertake the outreach activities. Discussed earlier was the high priority attached to improved rural housing by President Paz and the already substantial amount of budget resources that are to be devoted to attempts to mount a rural housing program. This Project moves the GOH away from a giveaway model which has none of the savings, investment, and reflow through the capital fund advantages of the present Project. While some might consider these budgetary costs as a GOH subsidy to rural housing, we think that this is an appropriate role for the GOH in that it reduces the unnecessary cost of risk and the cost is small in relation to the model the GOH would be most likely to follow in the absence of this innovative and somewhat experimental Project.

We conclude therefore, that the Project has an acceptably high benefit/cost ratio, has no negative effects on the structure of production or the economy's infrastructure, and that the Project is a least cost solution for the GOH to meet the compelling requirement of improved rural life. Thus, that Project is economically feasible.

#### E. Institutional Analysis

##### 1. Intermediaries

##### a. Committed and Probable Intermediaries

The Project has been under constant discussion with a number of PVO's starting before the PID was reviewed. Recently sixteen PVO's attended a workshop in which the Project and the draft implementation contract were discussed in detail. As a result six PVO's verbally committed themselves to act as intermediaries under the Project. They have been requested by INVA to express their interest in writing. A seventh PVO is awaiting home office approval. None of the others declared that they were uninterested and may decide to enter at a later date. This section describes the nature and

capability of the six committed and the one probable intermediaries. An expanded description will be included in the PP as an Annex.

i) CARITAS - Caritas started operations in Honduras in 1958 and received its legal status (personeria juridica) in 1969. The Central office coordinates CARITAS' efforts with the Catholic Relief Service (CRS), and provides financial support for the seven regional offices throughout the country. Central office personnel include a director, three secretaries, a messenger, two administrators, a socio-economic advisor and a socio-religious advisor. The regional offices each have an administrator, a secretary and a supervisor who are paid by the central office. Full time, paid promoters are assigned to each region. CARITAS presently has 53 full time salaried promoters throughout Honduras. These promoters rely on the assistance of volunteer representatives to organize the communities, and assure project acceptance and follow through on implementation. At present, CARITAS has 945 part-time volunteer promoters serving their respective villages and nearby communities. These part-time promoters concentrate their efforts on specific projects which are designated by the salaried promoter for the area.

In general, CARITAS operations are highly decentralized. The regional offices operate independently from the central office, and this independence is also evident at the level of diocese and parish. The only programs which CARITAS continues to maintain on a national scale are the Food for Work Program and the Child-Feeding Program.

ii) Save the Children - The Foundation is working in three impact areas, which have a total population of over 50,000 potential beneficiaries. They are: Pespire - a low-lying rural area with extremely hilly terrain; La Esperanza, in the department of Intibuca, a high land rural area populated mainly by Lenca Indians; and, the poor barrios of Tegucigalpa. Activities are promoted through 10 field extensionists who assist in developing small industries, weaving cooperatives, fish ponds and sawdust log production. In addition to the ten salaried field promoters, Save the Children relies heavily on Peace Corps Volunteers. The central office staff consists of a director, an administrator, an accountant, 2 secretaries, an urban projects coordinator and a rural projects coordinator. Save the Children coordinates effectively with other agencies and receives in return, program support such as food from CARE, credit from CEDEN and transportation of materials from the JNBS.

iii) Asociacion "San Jose Obrero" - The Association was granted personeria juridica in 1974. It operates a commercial and industrial center which provides work for the unemployed in the municipality of Choluteca. In response to requests from its workers for small home improvement loans, the association now includes the construction of a low-cost housing project within its activities. Training for this project was conducted through the cooperation of INFOP and Peace Corps Volunteers assigned to the Asociacion. A.I.D. is supporting the overall development efforts of "San Jose Obrero" with a \$325,000 OPG to promote income generating projects. I.D.B. has recently approved a \$500,000 loan to "San Jose Obrero" to expand its current industrial operations and to provide credit for agricultural training and production projects.

The Association sponsors both profit making and non-profit activities. The profit-making factories donate their profits to the Asociacion so that it can provide social services. One such service is a small health clinic at which patients are charged minimal fees and medicines are sold for about half the market price.

iv) The Asociacion Coordinadora de Recursos para el Desarrollo (ACORDE) - ACORDE was founded in January of 1974, and received personeria juridica in April of 1975. ACORDE initially worked mainly to channel funds and technical assistance from international organizations to local institutions, which then channeled the funds to individual communities or projects. In 1978, ACORDE entered directly into the implementation of projects, such as sponsoring a small handicraft project in Colomocagua, through the provision of credit for raw material purchases and assistance in developing marketing contacts. In addition, ACORDE is working in several rural communities in the department of Francisco Morazan to improve small family agricultural plots.

ACORDE has a board of directors composed of six members and a board of approximately 20 advisors who have a voice but no vote in the board of directors. The staff consists of an accountant, a secretary, a messenger, a training officer, two full time community organizers/promoters, and three part time volunteer community organizers/promoters.

v) The National Federation of Savings and Credit Cooperatives (FACACH) - FACACH is an association of 95 affiliated credit cooperatives. It began its operations in 1966, and has grown to become one of the strongest and most effective of the cooperative institutions in the country. As an intermediate credit institution, FACACH has mobilized (through grants and loans) a total of L. 12,600,000 for the use of its urban and rural members. In addition to its credit services, the Federation also provides its member cooperatives with training and educational services. A substantial portion of the credit mobilized by the Federation (66%) has been channeled through 57 rural cooperatives for the purpose of relending to members for agricultural production and related purposes.

FACACH is likely to lend mainly to individual subborrowers. It does not have a community development program of the kind that has been identified as being key to Project success, and special arrangements will have to be made to ensure that the objectives of the program are achieved. One possibility would be obtaining local level cooperation with the JNBS promoters who are active in many of the towns where there are FACACH cooperatives.

vi) Meals for Millions (MFM) - MFM has as its objective the relief from and prevention of malnutrition. It sponsors nutrition training programs, and production of low-cost, highly nutritious foods that can be grown locally. Self-help is stressed for all sub-projects and program methodology varies from community to community in response to the specific

situation. MFM is now assisting the Ministry of Health to strengthen its rural services to the rural poor in the department of Olancho. Training is provided to both the MOH village health promoters and community leaders.

To support these efforts, MFM maintains a staff of a director, a part time secretary, and three salaried field promoters. It has activities underway in nine rural communities of Olancho. MFM relies on part time village volunteers to conduct follow-up supervision upon completion of the training provided by the promoters.

vii) CARE - CARE is not yet counted as an intermediary because its participation in this Project has not yet been approved by CARE's New York office. The CARE representative in Honduras, however, hopes to obtain this approval and to participate in the Project. CARE is one of the best known PVO's in Honduras. It maintains a permanent staff of 7 field promoters that work in all areas of the country. The promoters are responsible for specific geographic areas and have utility vehicles, which facilitates efficient project supervision. CARE's major programs are school construction and potable water systems, which are built by community volunteer groups. When CARE obtains Central office approval, it intends to request funding to sponsor home improvement loans in one or two communities on a pilot basis. CARE would then determine the feasibility of continuing in this Project based on the results of those efforts.

b. Intermediaries Management Capability

The PVOs' management systems and capabilities vary a great deal. Three of the seven probable intermediaries -CARE, Save the Children, and Meals for Millions- are Honduran affiliates or offices of worldwide assistance programs largely funded from U.S. sources. FACACH has developed very competent management over the years, although some of the individual cooperatives may be weak. San Jose Obrero and ACORDE are well run national organizations who receive significant assistance from abroad. CARITAS is a large, highly decentralized organization, which is quite appropriate given the community level focus of its programs. In general, the degree of sophistication of management systems correlates positively with the size of the PVO and management capability is more than adequate for the purposes of this Project. The Project includes training activities intended to improve the intermediaries' bookkeeping, home construction, and promotion capabilities. Any other weaknesses observed during implementation will be addressed through the combined efforts of INVA's technicians and the rest of the PCO staff working together with the PVO to improve the PVO's performance under the Project.

c. Bookkeeping Practices

Based on information from a local public accounting firm that has extensive experience in working with PVO's, both in conducting mandatory audits and in providing accounting assistance, most PVO's maintain minimum accounting records and documentation. Generally the quality of the bookkeeping and administrative procedures vary with the size of the PVO and the scope of its activities in each geographic area. The Project design

includes training in bookkeeping systems for those PVO's that need it. It is expected that most of the PVO intermediaries will require assistance in the following areas:

Cash Accounting: Making disbursements using a simplified voucher system; completion of documentation required for reimbursement; collection of borrower payments; and retention of documentation.

Subloan Accounting: Establishing subloan cards and files; posting a subloan control sheet; posting individual subloan disbursements and collections; calculating and posting interest accruals; sending payment due notices to subborrowers; closing loan records; and retention of records.

Materials Accounting (for those PVO's who stockpile materials in warehouses): Establishing materials record cards; posting transactions for receipt and issuance; taking periodic physical inventories; reconciliation of material issuances with subloan disbursements, and retention of records.

Reporting Procedures: Completion of periodic reports to INVA including format, content and preparation procedures.

Delinquent Loan Procedures: Defining delinquent loans; identifying alternative corrective actions; documentation of collection efforts; and preparation of special reports to INVA.

INVA will set forth the above procedures in a manual which includes a step-by-step explanation of the entire process for each of the above activities. Additionally, INVA will provide the PVO's with samples of all the preprinted forms and documents that may be required.

#### d. Purchasing Practices

The potential intermediaries, in general, do not follow detailed procurement regulations. Normally, however, they do seek the lowest available competitive price. The larger organizations occasionally request competitive bids for major purchases, but usually purchase materials from sources previously identified as the lowest priced supplier. Because of the purposes of their programs, several of the PVOs have arrangements with larger commercial dealers to provide materials at a little below the market price. While all the private and volunteer organizations feel that they do "shop" before buying, supporting documentation attesting to such is seldom obtained unless required by a financing source.

The PVO's in general are sensitive to AID's concern for following good commercial practice and obtaining the lowest price on materials purchases. They will be asked to document the price comparisons (phone or written quotations, pro-forma invoices) on materials purchases under the Project. All of the probable intermediaries have had experience in managing an A.I.D. OPG, matching or outreach grant. They have had little difficulty in satisfying AID's concerns in these areas in past projects. Given the nature of this program, their procedures are considered to be acceptable.

e. Capability of Likely Intermediaries

This analysis has demonstrated that the PVO's have the capability to carry out the project, identified the areas that need strengthening and shown that these areas will be addressed under the Project. In sum, the intermediaries maintain a lean but efficient management, have an excellent relationship with the target group, have a commendable record in carrying out development projects, and have an adequate outreach capability for this Project.

2. INVA

a. Previous Experience in Rural Shelter Development:  
AID Loan 522-T-028

In the wake of Hurricane Fifi, A.I.D. provided both immediate and long term recovery assistance. A one million dollar Rural Shelter Reconstruction Loan (522-W-028) was implemented through INVA. Of the total authorized amount, \$650,000 was disbursed, and over 1,000 rural shelters for agrarian reform families were constructed. The Project demonstrated that unskilled laborers, with minimal training and supervision, can construct their own houses using permanent construction materials. However, the project was not totally successful. It took too long to complete and the houses built may have been inappropriate. To achieve simplicity, a standard design was offered with little or no construction flexibility. In addition, new housing colonies were constructed rather than attaching new units to existing structures. The beneficiaries were reluctant to abandon their yards which supported fruit trees, shade and other services and conveniences that the new housing colonies did not offer. As a result, a number of houses remained vacant until INVA designed a procedure to pass the provisional titles from the intended beneficiaries to interested families which were being resettled under the Aguan Valley development program.

b. Experience with Urban Home Improvement Projects

INVA has gained some experience in urban home improvement through a small program of loans to poor families in the country's largest cities. Approximately five years ago, INVA created a special unit for urban home improvement loans. This unit, known as the Department of Savings and Loans, has now provided loans to some 800 beneficiary families. This relatively low lending level appears to be due principally to lack of promotion. In part, it may also be due to the focus on providing home improvement loans almost exclusively to beneficiaries of past INVA construction projects. These factors will not be constraints under the present project, and we do not believe the experience of INVA under the urban home improvement program portends difficulties for this Project.

c. Recent Improvements in INVA Management and Organization

Since its creation in 1957, INVA has not enjoyed the best reputation among GOH institutions. Its housing production efforts have been

costly and inadequate. Frequent managerial changes have not helped establish permanency and stability in planning or in operations. However, over the past two years, INVA has made much progress in improving its middle-level management and organizational capacity. A recent evaluation of an INVA urbanization program credits the institution's efforts and dedication, along with appropriate and timely technical assistance from A.I.D., for a successful reorganization effort. Development of strong middle-level management was the major focus of the reorganization, in accordance with the recommendations of the Mexican consulting firm which was contracted by INVA three years ago. The result has been the establishment of a restructured and strengthened institution.

While in the past INVA concentrated almost exclusively on construction of finished houses for lower middle class urban residents, its interest in really low-cost affordable solutions for the poor has been increasing in recent years. Recently, INVA adopted new regulations for urban home improvement loans, which make the institution more responsive to the needs of poorer families by reducing INVA's minimum income requirements in making loans available for shelters in marginal communities.

INVA's planning and management capabilities in organizing and implementing shelter programs has greatly improved in recent years. Greater delegation by the Board to management over key operational details has resulted in greater flexibility in the day to day decision making. This improvement has been made possible in large part by the Board's confidence in the strengthened middle-level management of the institution. The results of this more flexible structure are evidenced by the improvements that have been made in its internal reporting system, particularly on financial matters; the greater effectiveness of the budgeting system; and much improved interagency coordination. Although not all areas of the organization have experienced improvements to the same extent, the results are encouraging and speak well for the more general institutional capacity to effect needed organizational changes.

d. INVA Capability to Carry Out Its Role in the Project

Under this Project INVA will function as a financial institution - a significant departure from its previous efforts in which it attempted to play the role of low-cost, new housing developer in rural areas. INVA management realizes that the costs in originating thousands of small subloans for small, supervised home improvement loans would prohibit it, or any agency that does not maintain a permanent mid-level labor force in the field, from economically providing assistance to rural families. Moreover, INVA does not have the administrative or physical infrastructure to provide subloans and directly supervise construction efforts at the community level. It is within INVA's capacity to function as a financial institution and monitor the implementation efforts of the intermediaries. To keep its costs as low as possible and its functions within those areas in which it has the greatest expertise, INVA will even contract most of the training activities to INFOP.

INVA's administration of the Project will be facilitated through the PCO, which will be established as a separate implementing unit within the Rural Housing Division. This division is presently receiving full time technical assistance from an architectural engineer provided by the EEC. The Office's location and staffing levels should be sufficient to ensure that it is able to carry out its role effectively.

#### IV. IMPLEMENTATION ARRANGEMENTS

##### A. Detailed Budget

The total cost of the Project is estimated at \$3.4 million. This will be financed with A.I.D. resources of \$2.5 million and a counterpart contribution of \$900,000, which is approximately 26% of the total cost. In addition, the GOH will contribute an additional \$1.0 million in equal installments over a five-year period starting the year after completion of project activities. The detailed budget and a projection of disbursements by year are shown in Tables 8 and 9, respectively. Project activities are expected to begin shortly after signature with disbursements beginning in the last quarter of calendar year 1981. Thus, the calendar years 1981-1986 shown in Table 9 are slightly out of time phase with years one to five of the Financial Analysis, which has resulted in slightly different disbursement figures.

##### B. Procurement and Disbursement of Project Funds

###### 1. Procurement

The Home Improvement Activity involves loan financed credit and self-help labor by Project beneficiaries. The credit funds will finance mainly off-the-shelf purchases by the intermediaries acting in the role of Intermediate Credit Institutions (ICI's). The purchasing practices of potential intermediaries other than those discussed in Section III.E above will be reviewed and accepted prior to qualifying the institution to participate in the Project. No prior A.I.D. approval of ICI transactions during implementation is planned - a practice that is consistent with the provisions of Handbook 1, Supplement B, Chapter 19.

The Institutional Development Activity involves six Loan and Grant financed procurements by INVA. These are:

<u>Procurement Action</u>	<u>Approx. Cost (\$)</u>
a. 10 Vehicles	120,000
b. 10 video-tape and three CINVA-RAM machines	17,100
c. Consulting services for design of management/ bookkeeping and video construction courses	12,000
d. Technical services for basic construction techniques course and provision of 10 copies of the course	263,600
e. Technical services of Materials Produc- tion teams	318,600
f. T.A. for informative evaluation	24,000
g. Professional services of Project Coordin- ator	164,000
<u>Total Procurement</u>	<u>919,300</u>

TABLE 8: Detailed Project Budget (\$)

Activity/Item	A. I. D.		GOH	COMMUNITIES	TOTAL
	LOAN	GRANT	(INVA)		
<b>1. Housing Improvement:</b>					
Credit fund	1,500,000				1,500,000
Borrower downpayments				375,000	375,000
Self-help labor				225,000	225,000
<b>Total Activity</b>	<b>1,500,000</b>			<b>600,000</b>	<b>2,100,000</b>
<b>2. Institutional Development</b>					
<b>Personnel</b>					
INVA/AID Coordinator (60 P/M)		164,000			164,000
<b>Technical Assistance</b>					
Evaluation Specialist (4 P/M)		24,000			24,000
Bookkeeping Systems Ad. (1 P/M)		6,000			6,000
Construction Course Preparation Advisor (1 P/M)		6,000			6,000
<b>SUBTOTAL</b>		<b>36,000</b>			<b>6,000</b>
<b>Training (Includes commodities needed in providing training)</b>					
Bookkeeping Courses (7)	16,400				16,400
Basic Construction Courses (8):					
- Preparation and 10 copies of video course	37,240				37,240
- Ten Video Tape machines	15,000				15,000
- 2-month courses (8)	228,800				228,800
<b>SUBTOTAL</b>	<b>281,040</b>				<b>281,040</b>
<b>Local Materials Production Courses</b>					
- Tools, INVA-RAM machines and roofing sheet molds (3 sets)	3,600				3,600
- Vehicles (3)	36,000				36,000
- 168 field demonstrations (Ave. 15 days each)	315,000				315,000
<b>SUBTOTAL</b>	<b>354,600</b>				<b>354,600</b>
<b>Commodities</b>					
Vehicles (7-- 5 pick-ups; 2 jeep type)	84,000				84,000
<b>Operating Costs<sup>1/</sup></b>			300,000		300,000
<b>Activity SUBTOTAL</b>	<b>736,040</b>	<b>200,000</b>	<b>300,000</b>		<b>1,236,040</b>
Contingencies/Inflation (8%)	63,960				63,960
<b>TOTAL ACTIVITY</b>	<b>800,000</b>	<b>200,000</b>	<b>300,000</b>	<b>600,000</b>	<b>1,900,000</b>
<b>TOTAL PROJECT</b>	<b>2,300,000</b>	<b>200,000</b>	<b>300,000</b>	<b>600,000</b>	<b>3,400,000</b>

1/ See Annex H.4 for calculation of INVA costs.

TABLE 9: Estimated Disbursements By Year  
(U.S. \$ 000)

<u>Description</u>	Calendar Years						TOTAL
	1981	1982	1983	1984	1985	1986	
<u>AID Loan Funds</u>							
Credit Fund	100	396	350	243	236	175	1,500
Training	77	218	187	68	68	34	652
Vehicles	84	-	-	-	-	-	84
Contingency & Inflation	<u>-</u>	<u>28</u>	<u>22</u>	<u>6</u>	<u>5</u>	<u>3</u>	<u>64</u>
Sub-total	261	642	559	317	309	212	2,300
<u>AID Grant Funds</u>							
Personnel	16	33	33	33	33	16	164
Technical Assistance	<u>24</u>	<u>-</u>	<u>12</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>36</u>
Sub-total	40	33	45	33	33	16	200
<u>Counterpart</u>							
Borrower Downpayment and							
Self-help labor	40	159	140	97	94	70	600
INVA Operating Costs <u>1/</u>	<u>38</u>	<u>70</u>	<u>58</u>	<u>57</u>	<u>52</u>	<u>25</u>	<u>300</u>
Sub-Total	78	229	198	154	146	95	900
TOTAL	<u>379</u>	<u>904</u>	<u>802</u>	<u>504</u>	<u>488</u>	<u>323</u>	<u>3,400</u>

1/ See Annex H.4 for Calculation.

INVA will carry out the procurement of items a. and b. according to the competitive procedures contained in Handbook 11. Items c., f. and g. require the services of a single individual in each case, and INVA will negotiate personal contracts for these items. There are special considerations involved in the other two items that require variations from normal procurement procedures. These are discussed below:

a. Training Services for the Basic Construction Techniques Course (BCTC). The Honduran Professional Formation Institute (INFOP) is the major training institution in Honduras. During its six years of existence it has developed an excellent reputation among all sectors as a well managed, professional organization. INFOP has significant experience in training low-income residents in all phases of construction. In order to ensure Project replicability, the capacity to train promoters must be available to INVA after the Project ends. INFOP is the only organization in Honduras that can make this service available on a continuing basis and its contract with INVA will obligate it to do so. For these reasons, INVA intends to contract INFOP's services on a non-competitive basis. INFOP's contract will also call for INFOP to provide the instructive materials for the course. INFOP will probably subcontract with the National Agrarian Reform Institute (INA) for development of the course. INA has extensive experience in training campesinos which it has gained through its Campesino Training Program (PROCCARA). It has developed a special office, called the Training Programs Development Office (SIPCAR) which has the necessary equipment, personnel and experience to develop audio visual courses. INFOP, INVA, and AID believe that this office is uniquely qualified to develop the BCTC and INFOP intends to subcontract with INA for SIPCAR's services.

b. Materials Production Teams (MPT's). The Project design requires that the capacity to provide assistance in local materials production also continue to exist after the PACD - a commitment which INVA is unwilling and unable to make in view of the high costs involved. INFOP is the only organization in Honduras, capable of providing this service on a continuing basis. Consequently, INFOP's services will be procured on a non-competitive basis. The contract will provide that INFOP continue to make the services of the MPT's available to INVA after the contract ends.

The remaining funds programmed for this Activity are for financing of training in bookkeeping, for which the Rural Housing Technicians of INVA's Project Coordination Office will be responsible. The training will involve only off the shelf purchases and reproduction costs, neither of which is expected to require procurement.

## 2. Source and Origin of Goods and Services

In accordance with the procurement arrangements described above, the following Source/Origin codes will apply:

- a. Loan - Code 941 and Local, except for procurement of vehicles which must be of U.S. origin.
- b. Grant - U.S. and Local

### 3. Disbursement

No unusual disbursement arrangements are contemplated under the Project. INVA will request reimbursement for credit from A.I.D. on the basis of the lists that the intermediaries send to INVA of subloan recipients, disbursements, and evidence of receipt of disbursement by the beneficiaries. Disbursement for other Project costs will be made on the basis of documentation normally required by the USAID/H Controllers Office. A.I.D. will provide advances to INVA as needed to ensure optimum implementation of the Project. INVA in turn, will provide advances to the intermediaries for the Home Improvements Activity.

#### C. Evaluation Arrangements

Both impact and progress evaluations of the Project will be undertaken. The design of this Project offers an excellent opportunity to conduct a thorough formative evaluation of the Project's impact since the focus is on individual families rather than a general problem, sector, or community. The impact evaluation will be conducted with pre and mid-Project measurement techniques. A socio- anthropologist, assigned to the A.I.D./W funded Mass Media and Health Practices Project, will assist in designing a survey form to be used by the intermediaries' promoters to gather sufficient socio-economic data to provide a baseline measure of target group conditions.

After two years of Project execution, a consultant will be contracted with grant funding, to conduct a survey of the Project beneficiaries to determine the effects of the housing improvements in terms of improved health, attitude on life, and the general living conditions of the beneficiaries. It is anticipated that this consultant will gather the data necessary for assessing the feasibility for the GOH and other donor continuation or expansion in this field.

Progress evaluations will be conducted on a continuing basis by the Project Coordinator who will submit semi-annual progress reports throughout the life of the Project. These reports will focus on the degree to which the implementing agencies are following the strategy and procedures outlined, the types of implementation problems that occur, and the strategies adopted to overcome these problems. A critically important indicator to be monitored and evaluated is the rate of acceptance in recipient communities in relation to the promotion strategies used by different agencies.

In addition, the Project Coordinator will be responsible for submitting general reports describing problems requiring attention as they arise. Both the formative evaluation and informal reviews will provide a basis for adjustments of assistance for the intermediaries and determine if a revision in design is required.

#### D. Negotiating Status, Conditions and Covenants

In order to ensure adequate implementation of the Project, the following special conditions are considered necessary:

1. Conditions Precedent to Disbursement

Prior to first disbursement for credit, INVA will have made arrangements to contract for: professional services of an INVA/AID Project Coordinator; technical services to prepare the bookkeeping and the Basic Construction Techniques courses, and the services of Materials Production Teams.

2. Covenants

The GOH will covenant that it will: contribute the AID funds to INVA; maintain the level of the Credit Fund during Project implementation; provide \$200,000 per year for subblending capital to INVA for five years after the Project activities are complete; and cause INVA to obtain A.I.D. approval in writing of any new intermediary which, after the signature of the Project Agreement, requests approval to participate in the Project.

3. Negotiating Status

The Project has been developed with INVA and discussed with the Ministry of Finance, which is in agreement with the Project and the proposed terms and conditions. A letter of application will be received prior to authorization of the Project.

ANNEXES

- A. PID Approval Cable
- B. IEE
- C. Request for Assistance
- D. Logical Framework
- E. Statutory Checklist
- F. Draft Project Authorization
- G. 611 (e) Certification
- H. Technical Annexes
  - 1. Criteria for Acceptance of Intermediary
  - 2. Draft Implementation Contract
  - 3. Design of Illustrative Improvements
  - 4. Detailed Budget for Training and TA Activities

### Detailed Criteria for Acceptance of Intermediaries

Intermediaries must demonstrate that they:

1. Have an existing rural development delivery mechanism functioning in the specific communities that they intend to work in.

- i). Maintain regional offices, and can obtain the necessary warehouse space to store construction materials and tools.
- ii). Can assure the availability and willingness of manpower to complete the construction efforts.
- iii). Have experience in supervising successful self-help construction projects.
- iv). Are willing to work with non-traditional technologies and participate in construction training programs.

2. Have the ability and willingness to manage a collection system.

- i). Demonstrate that they keep financial records of individual client balances.
- ii). As proof that they have the ability to recuperate their investment, the implementing that must agree to collect a 20 percent down payment from each participating group even before the deliverance of construction materials.
- iii). Have made and will make efforts to collect on loans.

3. Have legal status (Personeria Juridica) and be willing to accept responsibility for repaying its loans from INVA.

- i). Demonstrate legal documents that provide evidence that legal status has been obtained.
- ii). Be willing to sign a contractual arrangement with the coordinating agent, accepting financial responsibility for repayment of loans received from INVA.

4. Demonstrate acceptable managerial competence and administrative procedures:

- i). Demonstrate successful community development projects in the areas in which they will work.
- ii). Provide evidence of maintaining adequate books and records.
- iii). Provide evidence of acceptable purchasing procedures.

IMPLEMENTATION CONTRACT

BETWEEN THE HONDURAN HOUSING INSTITUTE (INVA) and \_\_\_\_\_

WE: JOSE ROBERTO ROMERO LARIOS, adult, married, Civil Engineer, Honduran and a resident of this city, acting in my role as General Manager of the Honduran Housing Institute (INVA) (Coordinator) duly authorized to sign the present document as is recorded under item number \_\_\_\_\_ of act number \_\_\_\_\_ of the meeting of the Board of Directors of INVA on \_\_\_\_\_ of the present year; and \_\_\_\_\_

(Implementing Unit), have agreed to sign the present Contract subject to the following clauses and conditions:

First: Object of the Contract. The object of this Contract is the establishment of a system for the sustained improvement of the housing conditions of poor rural families (Beneficiaries).

Second: The Project. The Implementing Unit will promote interest among individual and group beneficiaries in expanding and improving their housing, provide financial and technical assistance for carrying out specific improvements and expansions, collect loan repayments from the beneficiaries and follow up the activities carried out in order to ensure the development of a process of progressive improvement of the houses of the beneficiaries.

Third: The Loan. The Coordinator will lend to the Implementing Unit up to L. \_\_\_\_\_ (Loan) to finance the Implementing Unit's expenses in carrying out the Project. The Loan will be utilized by the Implementing Unit solely and exclusively to finance subloans to beneficiaries for expansion and improvement of their houses in accordance with terms and conditions of this contract. The Coordinator will make no disbursements of loan funds after \_\_\_\_\_, 19\_\_\_\_.

Fourth: Loan Repayment. The Implementing Unit will pay the Coordinator five percent (5%) annual interest on the amount of the Loan disbursed by the Coordinator. The interest will be paid semi-annually. The principal of the Loan will be payable to the Coordinator in two years, which period may be extended by agreement of both parties unless one of the parties declares to the other in writing its decision to terminate the contract.

Fifth: Eligible Subloans. Except as the parties may otherwise agree in writing, subloans eligible for financing under this Contract will satisfy the following criteria:

A. FINANCIABLE IMPROVEMENTS. These include: floor of cement or other solid and durable materials; roof of asbestos, cement, zinc, tin, tile, or other solid and durable material; walls and internal partitions of block,

wood, brick, or other solid and durable material; trim and wall plastering; prefabricated doors and windows; screens; connections for domestic water supply and sewage; water tanks and catchment systems; Lorena stoves; additional rooms, and similar improvements.

B. **ELIGIBLE BENEFICIARIES.** Families that meet the conditions established in the pertinent INVA regulations and who live in unimproved one or two room houses (not including cover storage areas or outside kitchens) in rural areas. Rural areas include the entire country except for the urban areas of Tegucigalpa, San Pedro Sula, and La Ceiba. Only families that live in their own houses will be eligible. Those that live in rented houses will not be eligible.

C. **ELIGIBLE BORROWERS.** Eligible borrowers will be individual families that can offer the guarantees required by the Implementing Unit, which in no case will exceed the value of the improvements to be carried out; and, groups of at least five families will make themselves jointly and severally liable for subloan repayment, for which signatures on one or several contracts which recognize their mutual obligation will be the guarantee.

D. **MAXIMUM SUBLOAN AMOUNT.** Up to L 1,000 for each borrower. A sub-borrower may receive an additional subloan once the original subloan is paid off.

E. **REPAYMENT PERIOD AND MAXIMUM INTEREST.** The subloan repayment period will not exceed 36 months. Interest will not exceed twenty percent (20%) annually.

F. **DOWNPAYMENT.** Beneficiaries will deliver to the Implementing Unit a downpayment of no less than twenty percent (20%) of the total cost of the improvements before the Implementing Unit makes first disbursement on his or her subloan.

G. **FINANCIBLE ITEMS.** The subloans will finance construction materials, training, and transportation of materials to the site, all of which will not be less than seventy five percent (75%) of the subloan amount. Also the cost of promotion and processing of credit obligations by the Implementing Unit may be financed, but will not exceed twenty five percent (25%) of the amount of the subloan.

Sixth: Eligible Improvements. The Coordinator will inform the Implementing Unit of the acceptable construction standards that the Implementing Unit must observe in carrying out improvements to be financed under this contract. Eligible improvements are those that are carried out in complete accordance with the construction standards established by the Coordinator. Until the Coordinator provides said standards the Implementing Unit will employ those that it generally uses in carrying out projects similar to this.

Seventh: Approval of Subloan Contracts. Except as the parties may otherwise agree, prior to the signature of any Subloan Contract, the Implementing Unit will send for the Coordinator's approval, a standard Subloan Contract that it will sign with Project Beneficiaries.

Eighth: Responsibilities of the Implementing Unit. The Implementing Unit agrees to the following:

- A. Carry out the Project with all due diligence and efficiency, in accordance with technical, financial, and administrative procedures accepted by the Coordinator.
- B. Maintain qualified and experienced management for, and train personnel as necessary for the maintenance and operation of the Project and the confirmation of Project activities.
- C. Sign Subloan Contracts with all Beneficiaries.
- D. Keep and maintain for at least three years after the expiration of this Contract, accounting books, records, documents and other evidence of the use of project funds, sufficient to duly demonstrate and show all of the transactions made pursuant to and in relation with this Contract. The books and records will be kept by the Implementing Unit in accordance with accepted accounting principles applied in a consistent manner.
- E. Not assign its responsibilities, the assets that result from carrying out the Project, or obligations incurred through this Contract to third parties.
- F. Use Subloan reflows solely and exclusively to finance the same type of improvements and expansions that were financed with Loan funds, and if so required by the Coordinator to pay off the Loan and any interest due.
- G. Promptly inform the Coordinator of any difficulty that the Implementing Unit encounters in carrying out the Project and of any circumstance that may impede or make improbable its compliance with the responsibilities and the terms and conditions of this Contract.
- H. Not employ, in the implementation of this Contract, persons who are not citizens of countries included in A.I.D. Geographic Code 935.
- I. Comply with all Labor Laws of Honduras, and obtain and maintain during the life of the Contract insurance for the employees that work in the implementation of the Contract for compensating accident benefits that meet, at a minimum the requirements established by the laws of Honduras.
- J. Pay no more than reasonable price for the goods and services financed by the Loan, and acquire them on a fair, and where possible, competitive basis.
- K. Not subcontract all or part of the responsibility for implementation of this Contract to third parties without the prior written consent of the Coordinator.
- L. Permit representatives of the Coordinator and A.I.D. the opportunity to inspect at any reasonable time, the Project, the use of the goods and services financed under this Contract, and books and records and other documents related to the Project and the Loan.
- M. Present written quarterly progress reports covering the improvements and expansions, the amount of Loan disbursements, interest paid, subloan

amortizations, interest earned, and the status of disbursement and repayment of each subloan financed with Loan funds, and separately, those financed with reflows.

Ninth: Loan Disbursements. The Coordinator may disburse Loan funds to the Implementing Unit based on written requests for advances, which must be supported by a list of the communities in which improvements are expected to be carried out and a cost estimation for those improvements. The Coordinator will make Loan disbursements to the Implementing Unit on the basis of reimbursement requests, supported by lists of Beneficiaries and disbursements made to each. The Coordinator will make said disbursements within fifteen days of the receipt of each application for reimbursement, or at its option, may deduct the amount of the disbursement from any advance previously made.

Tenth: Refunds to the Coordinator. Whenever the Coordinator, through inspections or other information that it receives, determines that the Implementing Unit has received a Loan disbursement for ineligible subloans, or for improvements not built according to acceptable construction standards, or for any purpose other than the financing of eligible subloans and improvements in accordance with the terms and conditions of this Contract, the Coordinator will notify the Implementing Unit in writing that the Unit must return the corresponding amounts, or at its option, that the Coordinator will deduct said amounts from pending reimbursement requests. The Implementing Unit will make refunds requested by the Coordinator within ten days of receipt of said notification, without renouncing its right to request at any moment, reconsideration of the matter in accordance with the terms of the Contract.

Eleventh: Financing Source for the Project. The Project is financed in part with resources from the Agency for International Development (A.I.D.) of the United States Government through Project Agreement No. 522-0171 dated \_\_\_\_\_. The parties hereto understand that the Contract has reserved to A.I.D. certain rights such as, but not limited to, the right to approve the terms of this contract, the Contractor, and any or all plans, reports, specificatins, subcontracts, bid documents, drawings, or other documents related to this Contract and the project of which it is part. The parties hereto further understand and agree that A.I.D., in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure that proper use of United States Government funds, and that any decision by A.I.D. to exercise or refrain from exercising these approval rights shall be made as a financier in the course of financing this project and shall not be construed as making A.I.D. a party to the contract. The parties hereto understand and agree that A.I.D. may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the project with the parties jointly or separately, without thereby incurring any responsibilities or liability to the parties jointly or to any of them. Any approval (or failure to disapprove) by A.I.D. shall not bar the Employer or A.I.D. from asserting any right, or relieve the Contractor of any liability which the Contractor might otherwise have to the Employer or A.I.D.

Twelfth: Source and Origin of Goods and Services. The goods and services financed under this Contract will have their source and origin in countries included in A.I.D. Geographic Code 941. In addition, goods (materials,

equipment, etc.) which are available for purchase and immediate delivery in local commercial establishments (shelf items) may be financed if they were imported from countries included in A.I.D. Geographic Code 899 but not in Code 941, and:

- A. The price of one unit (an article, or a ton barrel, etc., if the article is sold in this form) does not exceed the equivalent of \$2,500, which is L5,000; and,
- B. The total purchases from countries included in A.I.D. Geographic Code 899 but not in Code 941, do not exceed ten percent (10%) of all of the goods and services acquired under this Contract and paid for in Lempiras.

Articles produced in or imported from countries not included in A.I.D. Geographic Code 899 are ineligible for financing under the Project. Except as the parties may otherwise agree in writing, the Implementing Unit will obtain Source and Origin Certificates for all goods purchased with Project funds. The Coordinator will provide forms of the Certificates to the Implementing Unit. The lack of forms does not exempt the Implementing Unit from its responsibility. Failure to comply with this provision will make necessary a refund to the Coordinator in accordance with the provisions of Article Ten.

Thirteenth: Items Not Financeable With Loan Funds: Identifiable taxes and the cost of air or sea freight for goods imported into the country for specific use of the Project may not be financed with Loan funds. In its accounting records, the Implementing Unit will attribute such costs to the downpayment made by the Beneficiaries, which is referred to in Article Five, Paragraph F.

Fourteenth: Cancellation and Suspension:

- A. Cancellation by the Implementing Unit. The Implementing Unit may, by giving written notice to the Coordinator thirty (30) days in advance, cancel any part of the Loan that has not been disbursed or committed to third parties, accompanying such notification with a refund of any advance of funds received from the Coordinator that has not been disbursed for subloans.
- B. Termination for Default. It shall be considered an event of default if the Implementing Unit fails to pay when due any interest required under this Contract, or fails to comply with any other provision of this Contract. Should an event of default occur the Coordinator may notify the Implementing Unit that all or any part of the unrepaid balance of the Loan is due and payable within the period stipulated by the Coordinator.
- C. Loan Repayment. In the case of cancellation by the Implementing Unit or an event of default, the Coordinator may require the Implementing Unit to assign the product of all subloan repayments to the Coordinator and to cease using Project funds or subloan repayments for any purpose other than repayment of the Loan and interest due. The repayments received from the Implementing Unit will be applied first to interests due and then to principal. Should the Coordinator so require, the Implementing Unit will inform the Beneficiaries of their obligation to make payments directly to the Coordinator and will help the Coordinator in making effective whatever subloan repayment systems the Coordinator decides to use.

D. Suspension. In the case of an event of default or at any time in which the Coordinator determines that a situation exists which makes achievement of the Project purpose unlikely, the Coordinator may suspend Loan disbursements, advising the Implementing Unit the reasons for said action. In the case of an event of default on the part of the Implementing Unit a period of sixty (60) days will be allowed to eliminate the cause of non-compliance. The Coordinator will lift the suspension on disbursements if the cause is eliminated to the Coordinator's satisfaction.

E. Continued Effectiveness of the Agreement. Regardless of any cancellation or suspension, the stipulations of this Contract will remain in effect until the entire principal and interest of the Loan has been paid.

F. Renunciation of Remedies. Any delay in exercising any right or remedy conceded by one party to the other in relation with the financing under this Contract, shall not be considered a renunciation of that right or remedy.

Fifteenth: Resolution of Disagreements. When in the course of implementing this Contract, one party believes that the other has erroneously or unjustly interpreted the Contract, or has exceeded its stipulations, or is not in agreement with any action taken by the other, he will notify the authorized representative of the other party in writing of the facts and different points of view on the matter. The representatives will meet within fifteen (15) days of the date of such notification and will try to amicably resolve the matter. If agreement is not reached, the only additional remedy will be the cancellation or suspension of the Contract, either for non-compliance as defined in the previous Article or for the convenience of either party.

Sixteenth: Authorized Representatives. The persons who sign this Contract are considered to be authorized representatives of the parties. In turn, each may designate additional representatives by written notification to the other party.

Seventeenth: Contract Amendments. Modifications of this Contract will be accomplished through amendments signed by the parties

Eighteenth: Publicity. The parties agree that they will give publicity to the financing provided by A.I.D. for the Project. Among other things, the subloan contracts signed between the Implementing Unit and the Beneficiaries will make explicit reference to the fact that the funds come from the People and the Government of the United States of America through the Agency for International Development.

Nineteenth: Eligibility Date. Loan funds will not finance costs incurred by the Implementing Unit prior to the date of this Contract.

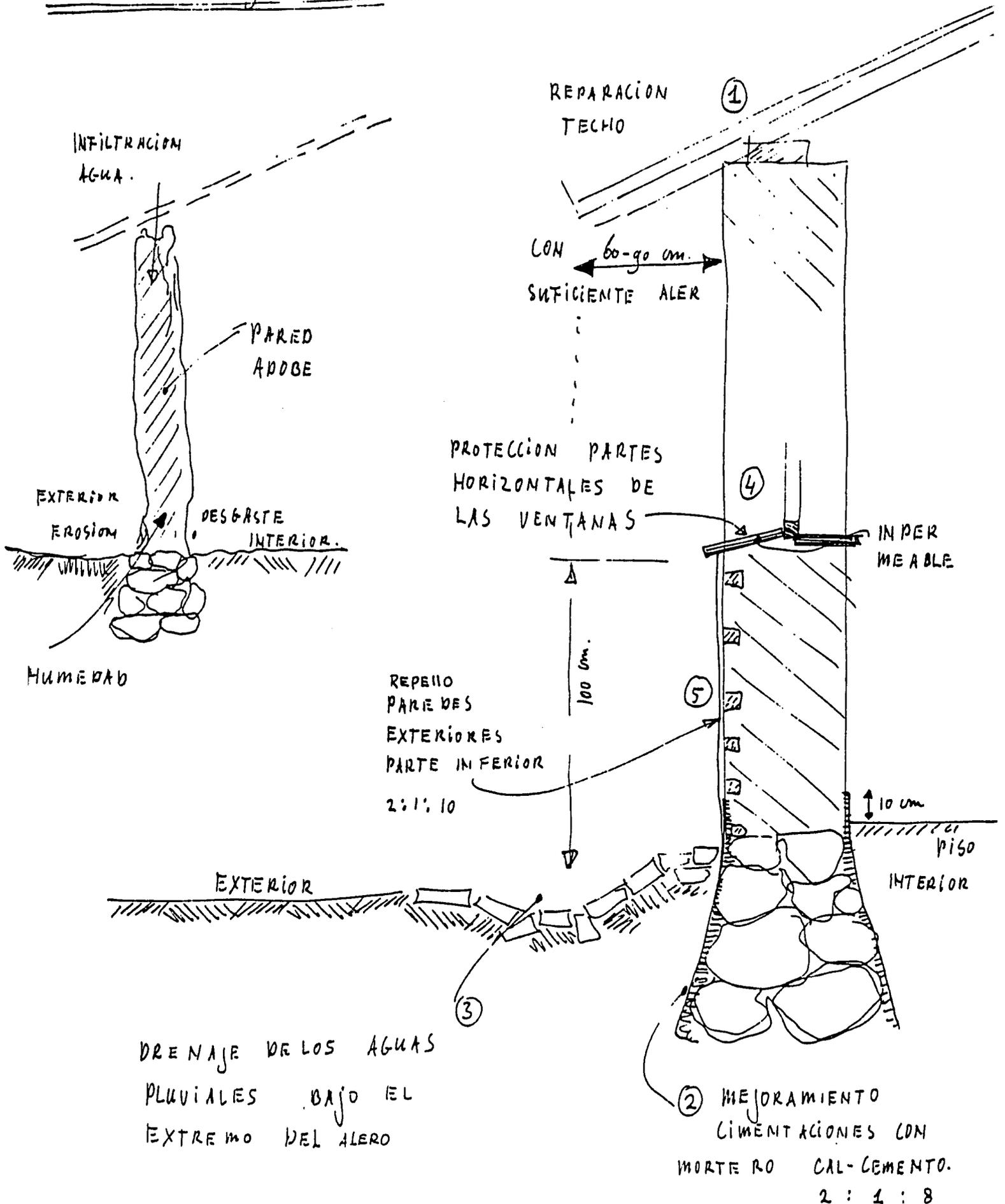
IN WITNESS WHEREOF, we sign this Contract on

\_\_\_\_\_  
Ing. Jose Roberto Romero Larios  
General Manager, INVA

\_\_\_\_\_  
(Name and Title of the Representative  
of the Implementing Unit)

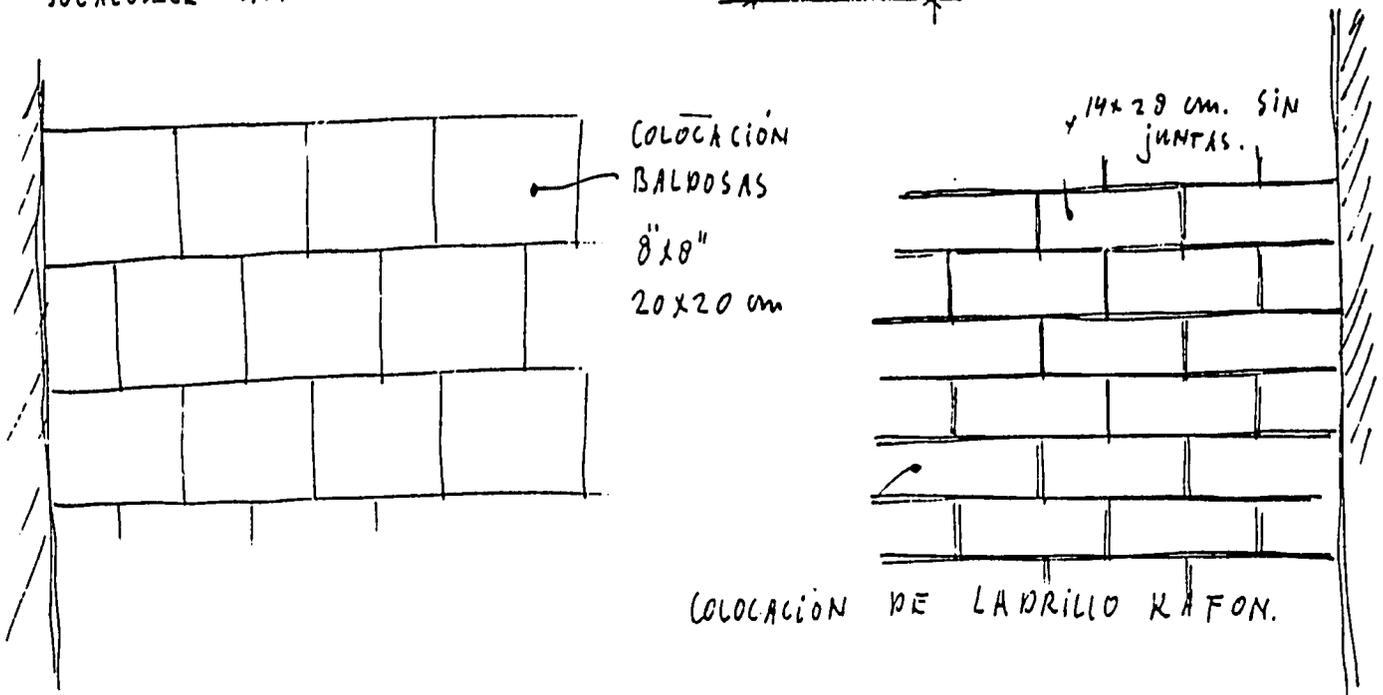
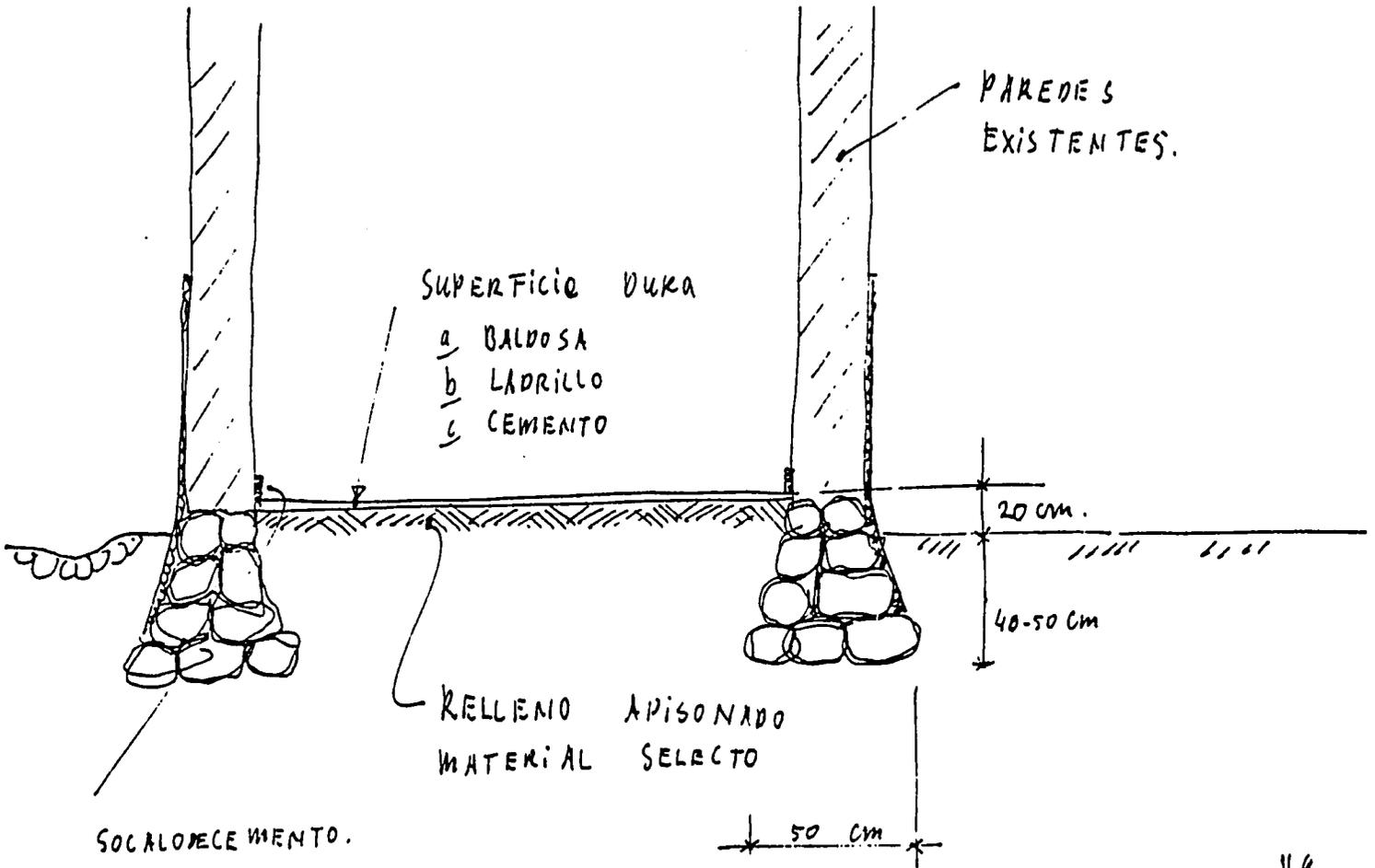
PROGRAMA MEJORA MIENTO

PAREDES ADOBE



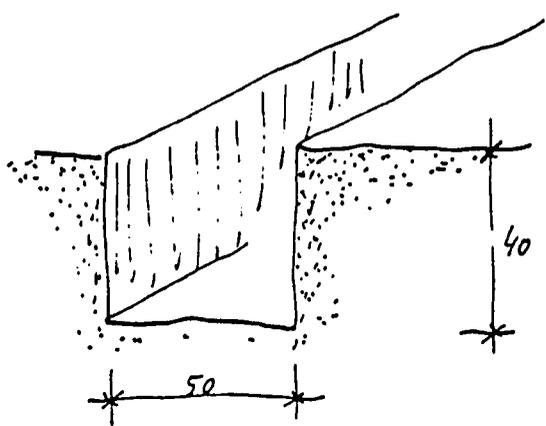
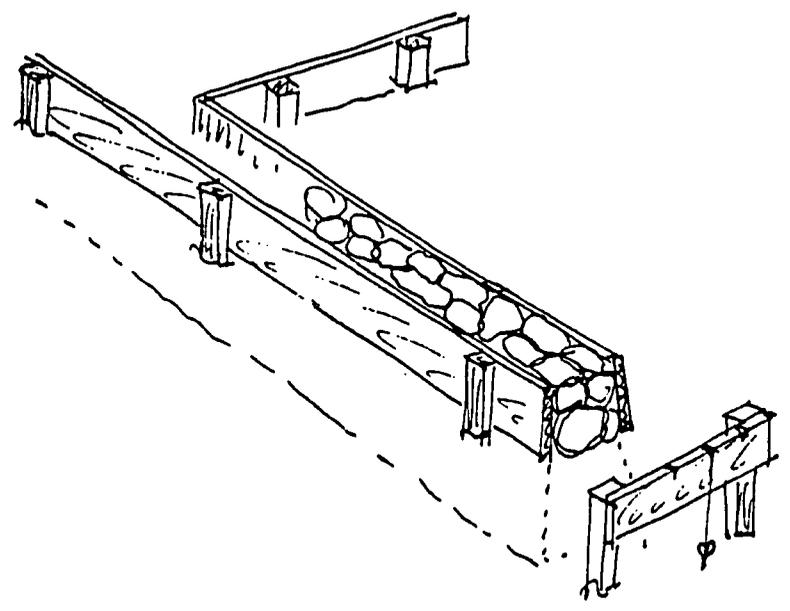
PROGRAMA MEJORA MIENTO

Pisos

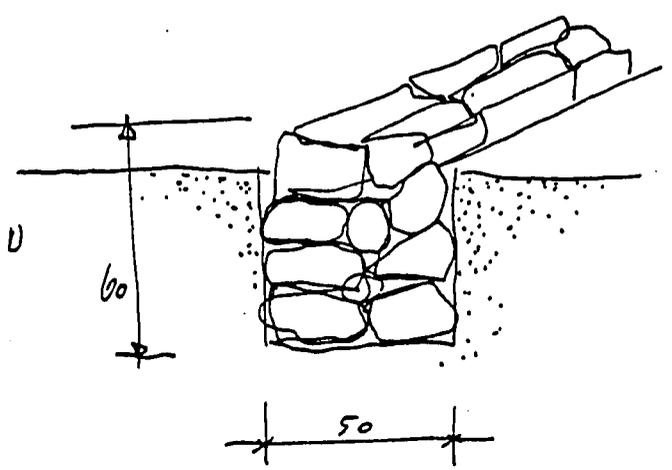


PROGRAMA MEJORA MIENTO

CIMENTACIONES

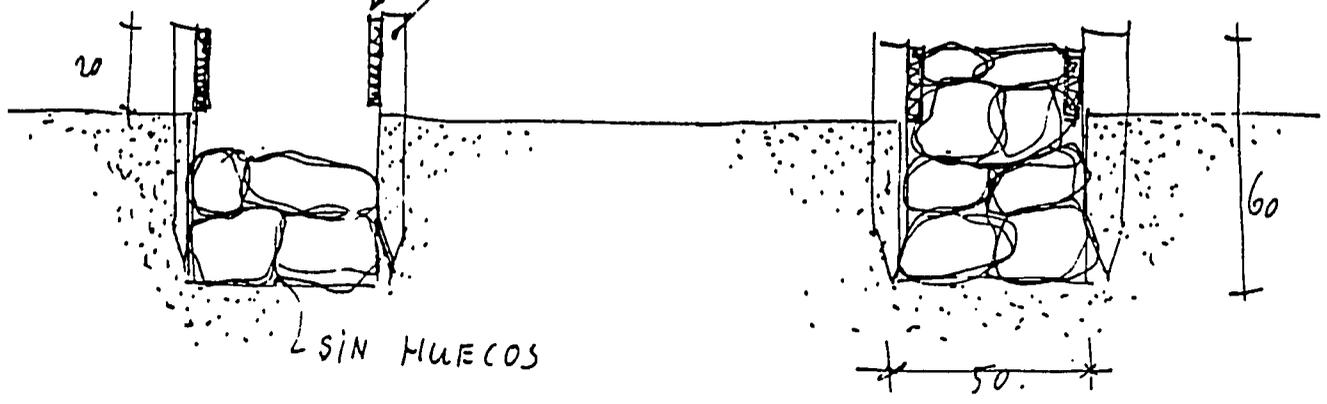


PROFUNDIDAD  
MINIMA.



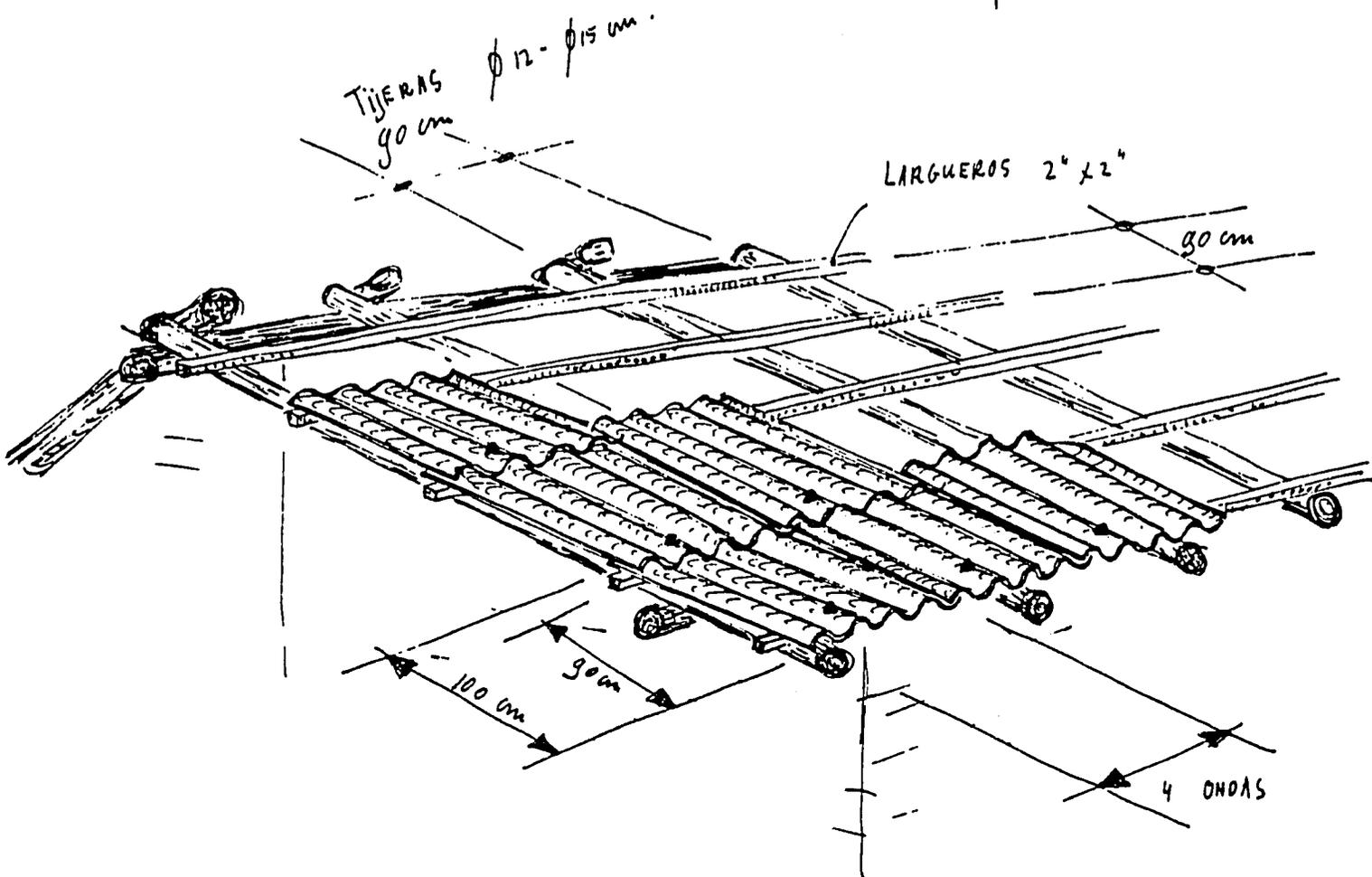
EXCAVACION  
ANCHURA  
MINIMA

TABLON 1"x8"  
ESTACAS 2"x2"

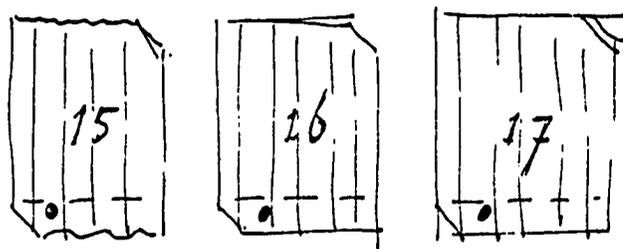


PROGRAMA MEJORA MIENTO

LAMINA FIBRA CEMENTO

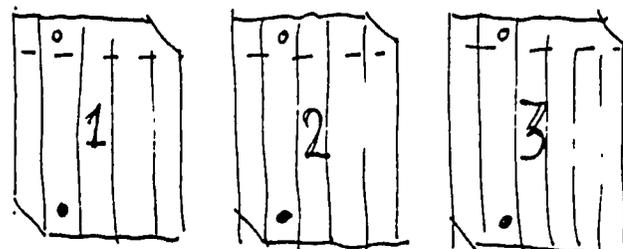


1 AMARRE POR LAMINA EN LA SEGUNDA ONDA  
 HACER HUECO TALADRO PARA EL CLAVO GALVANIZADO.



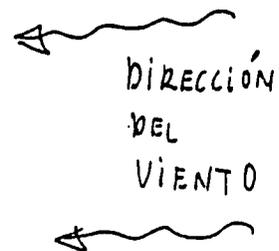
COLOCACION

→ 2ª HILERA.



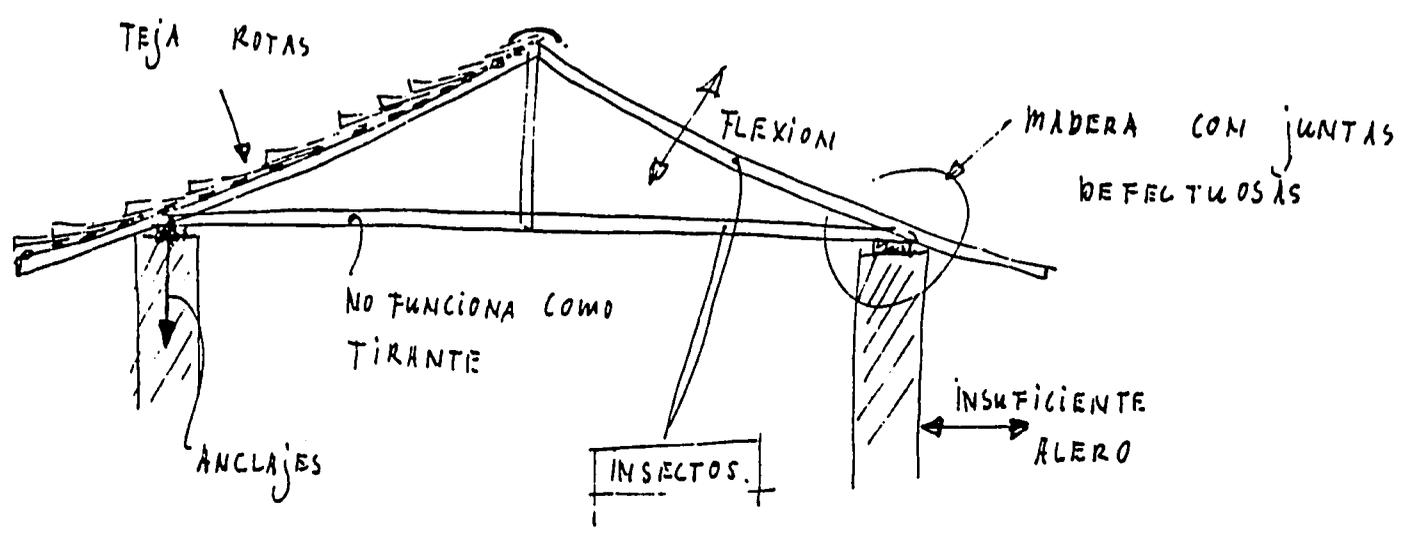
COLOCACION

⇒ 1ª HILERA (1-14)



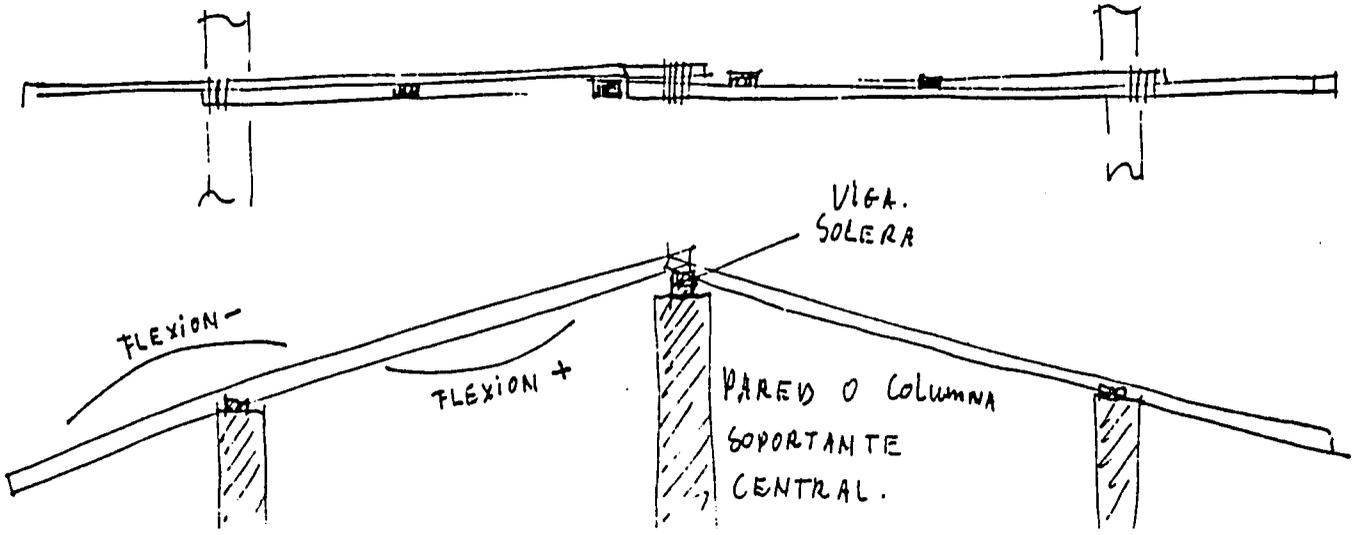
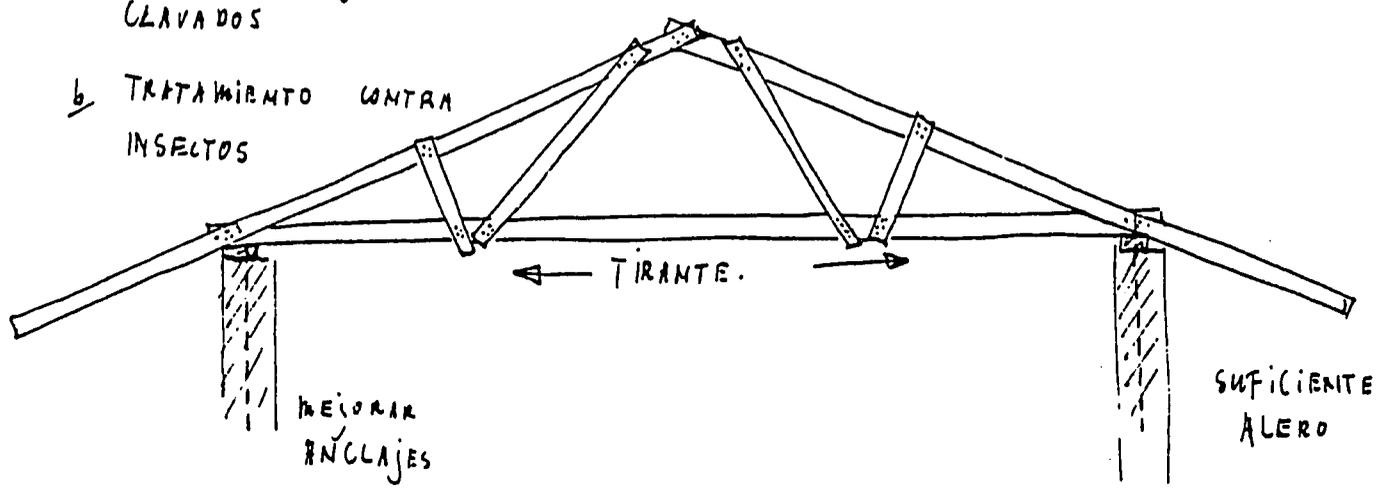
PROGRAMA MEJORA MIENTO

TECHO TEJA.



a ARTEZONES LIGEROS  
CLAVADOS

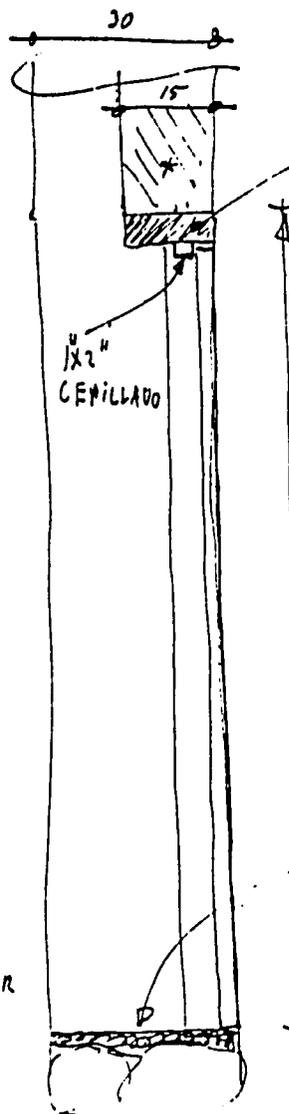
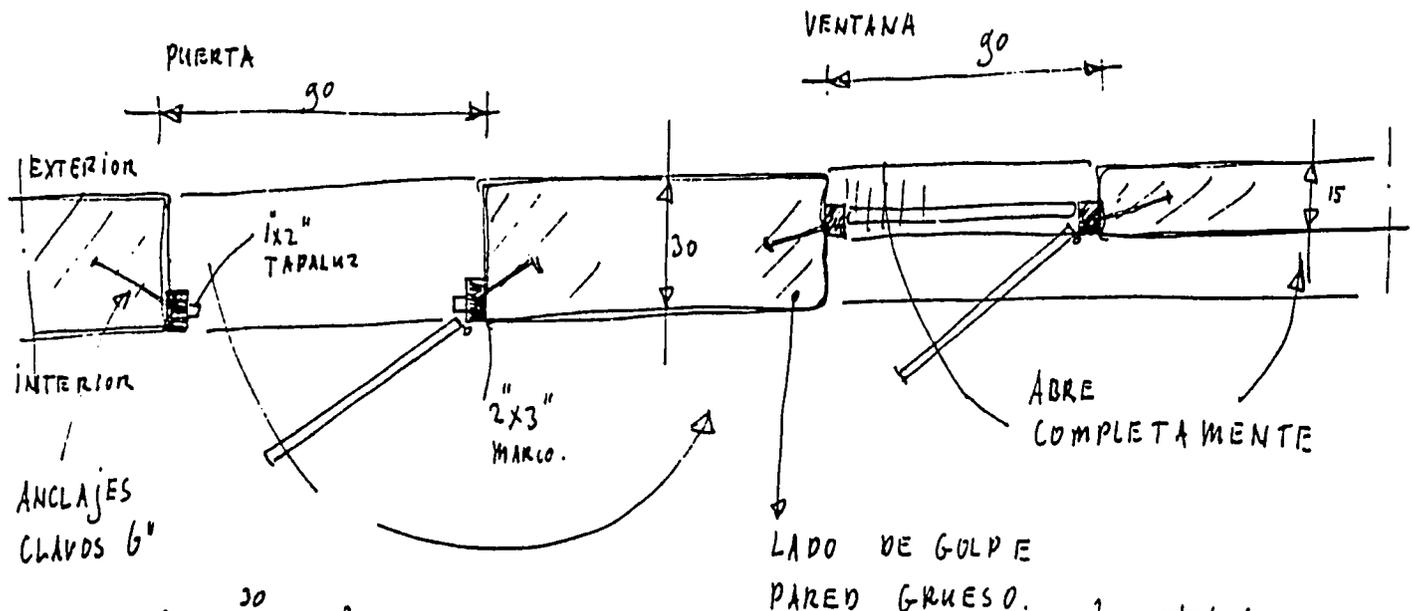
b TRATAMIENTO CONTRA  
INSECTOS





PROGRAMA MEJORA MIENTO

MARCOS  
Puertas Ventanas.



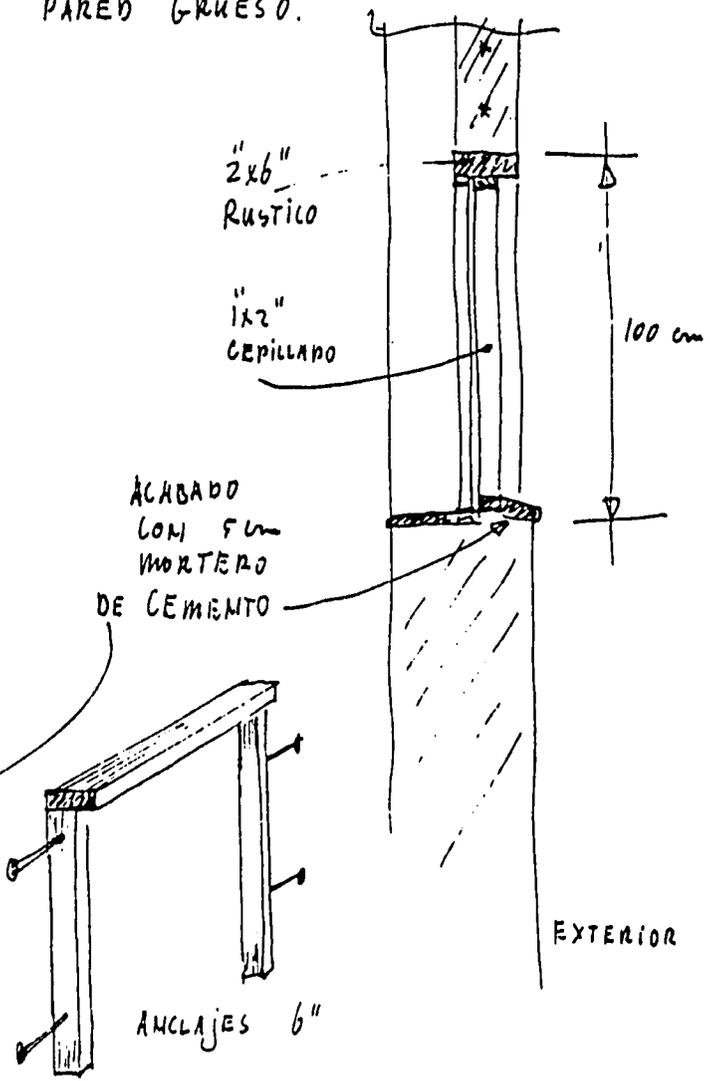
"2x6"  
RUSTICO

"1x2"  
CEPILLADO

TRATAMIENTO  
CON  
ACEITE  
QUEMADO

200. cm

EXTERIOR



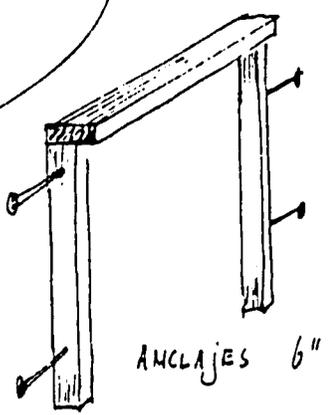
"2x6"  
RUSTICO

"1x2"  
CEPILLADO

ACABADO  
CON FIN  
MORTERO  
DE CEMENTO

100 cm

EXTERIOR



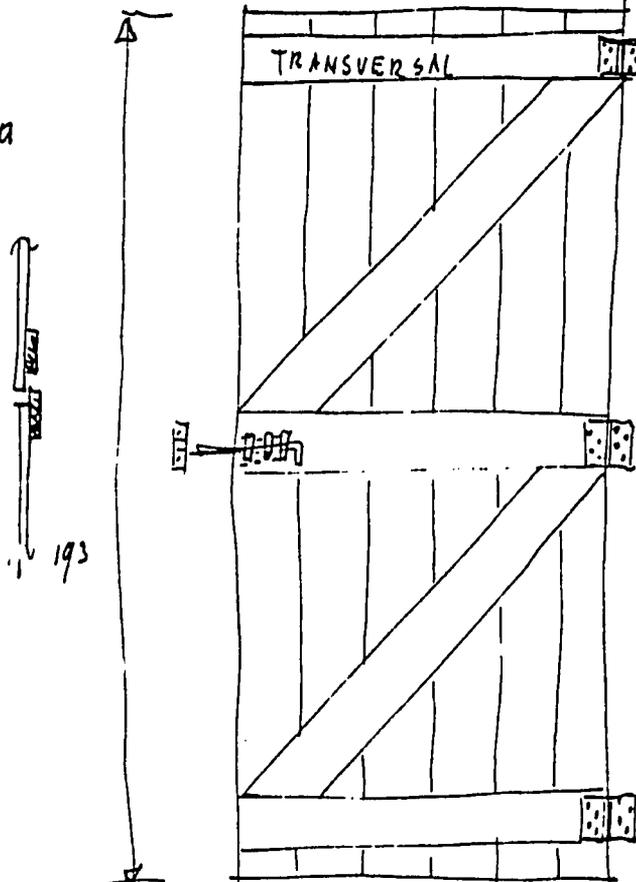
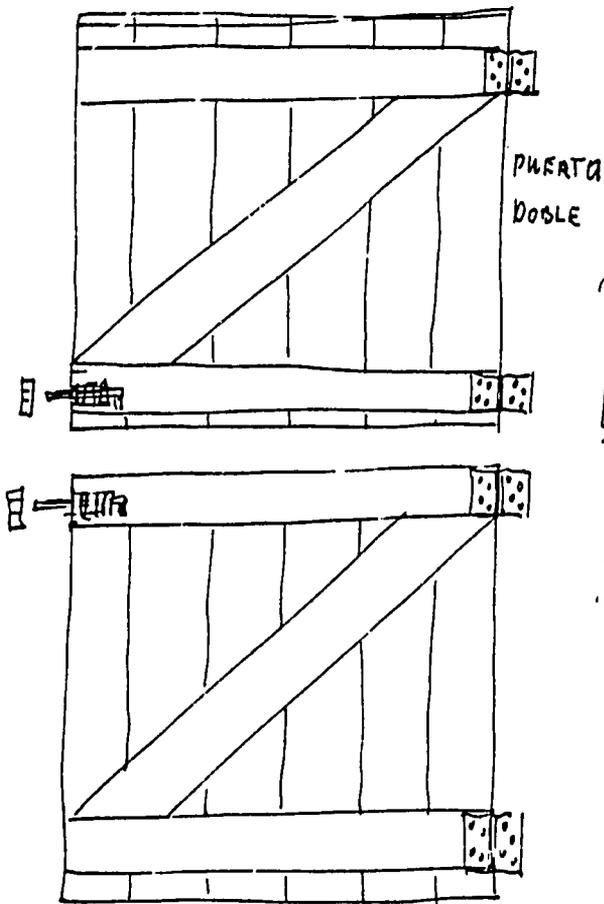
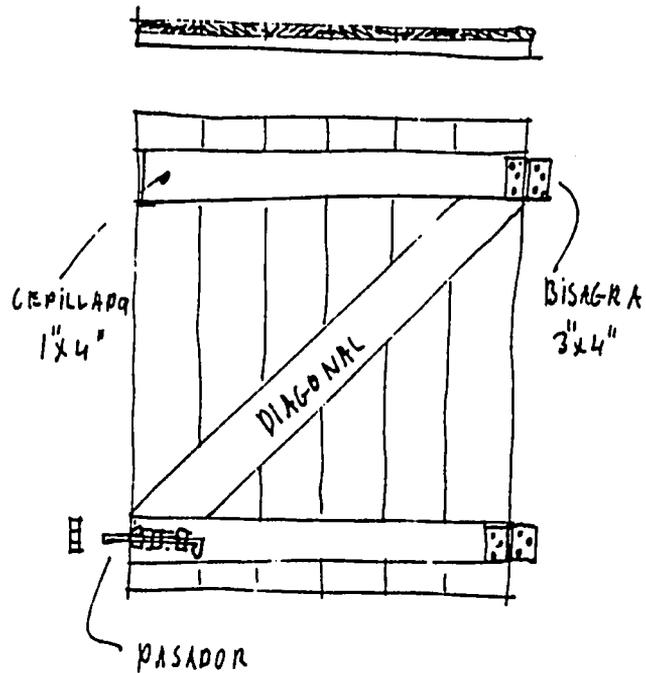
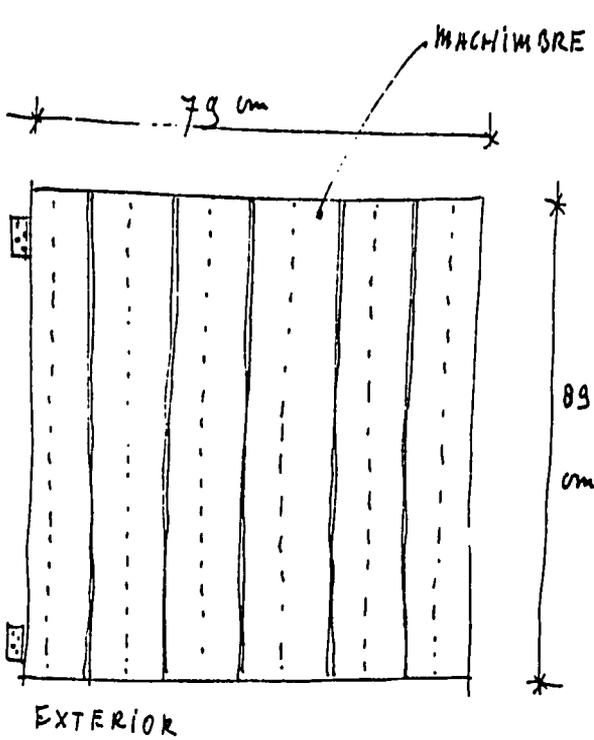
ANCLAJES 6"

LADO DE GOLPE  
PARED GRUESO.

ABRE  
COMPLETAMENTE

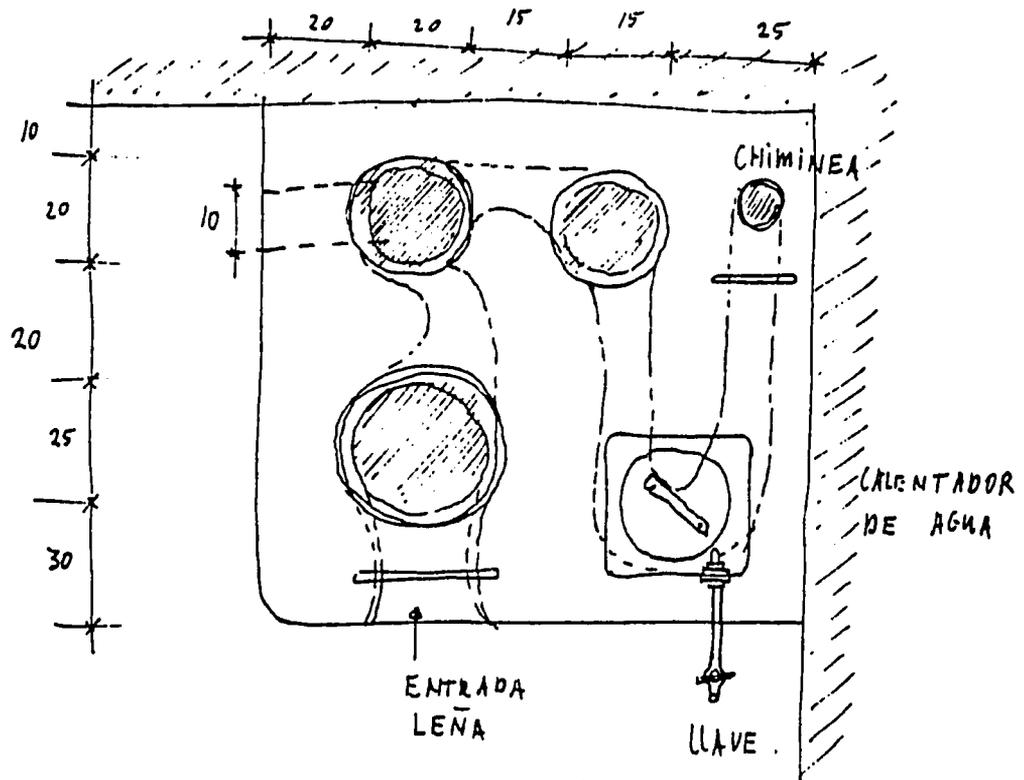
# PROGRAMA MEJORAMIENTO

Hojas  
Puertas + Ventanas

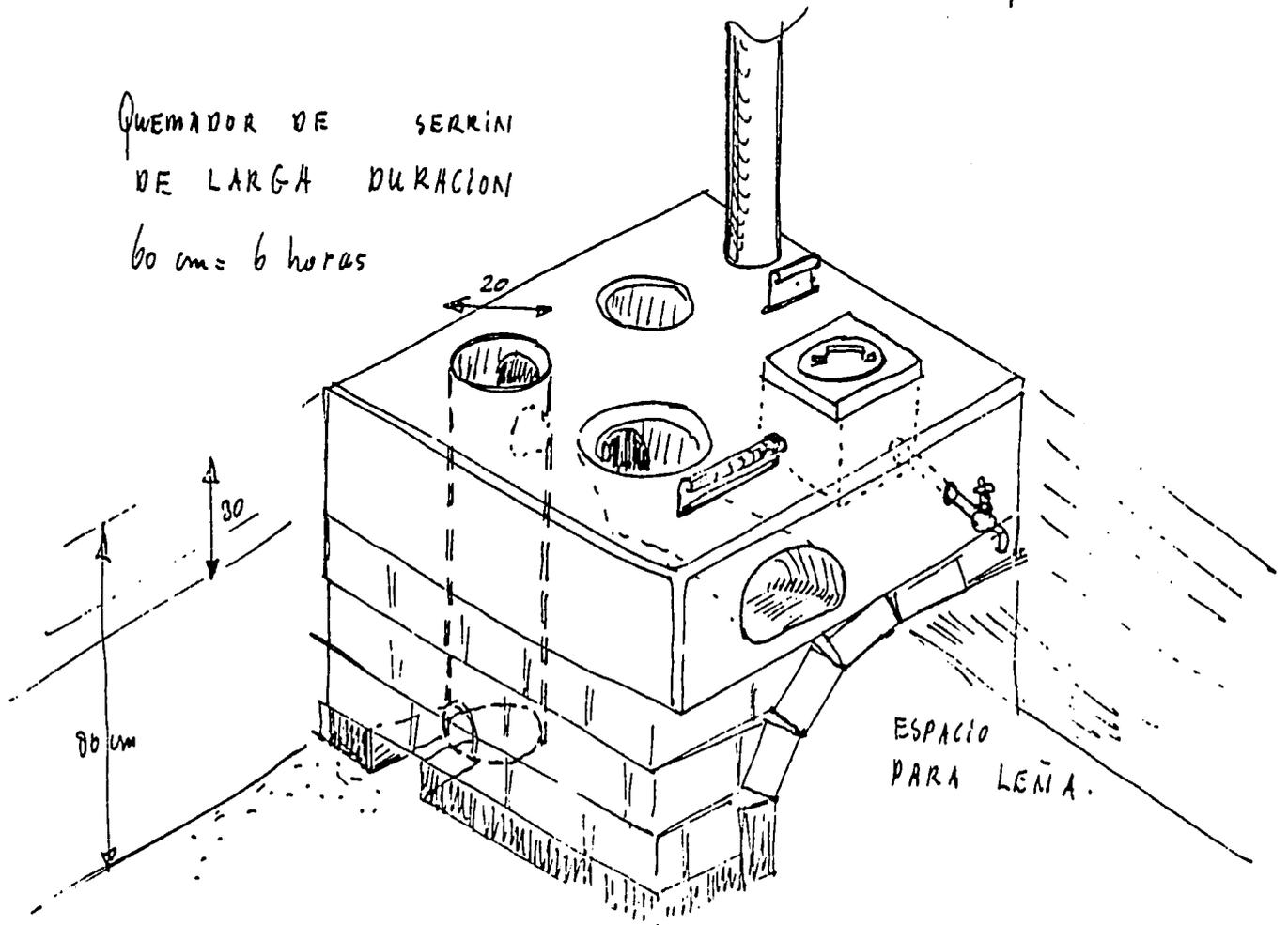


PROGRAMA MEJORAMIENTO

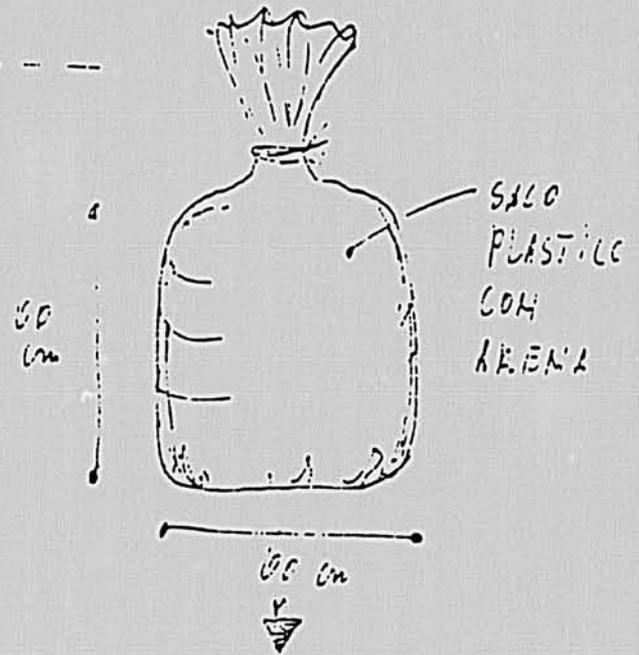
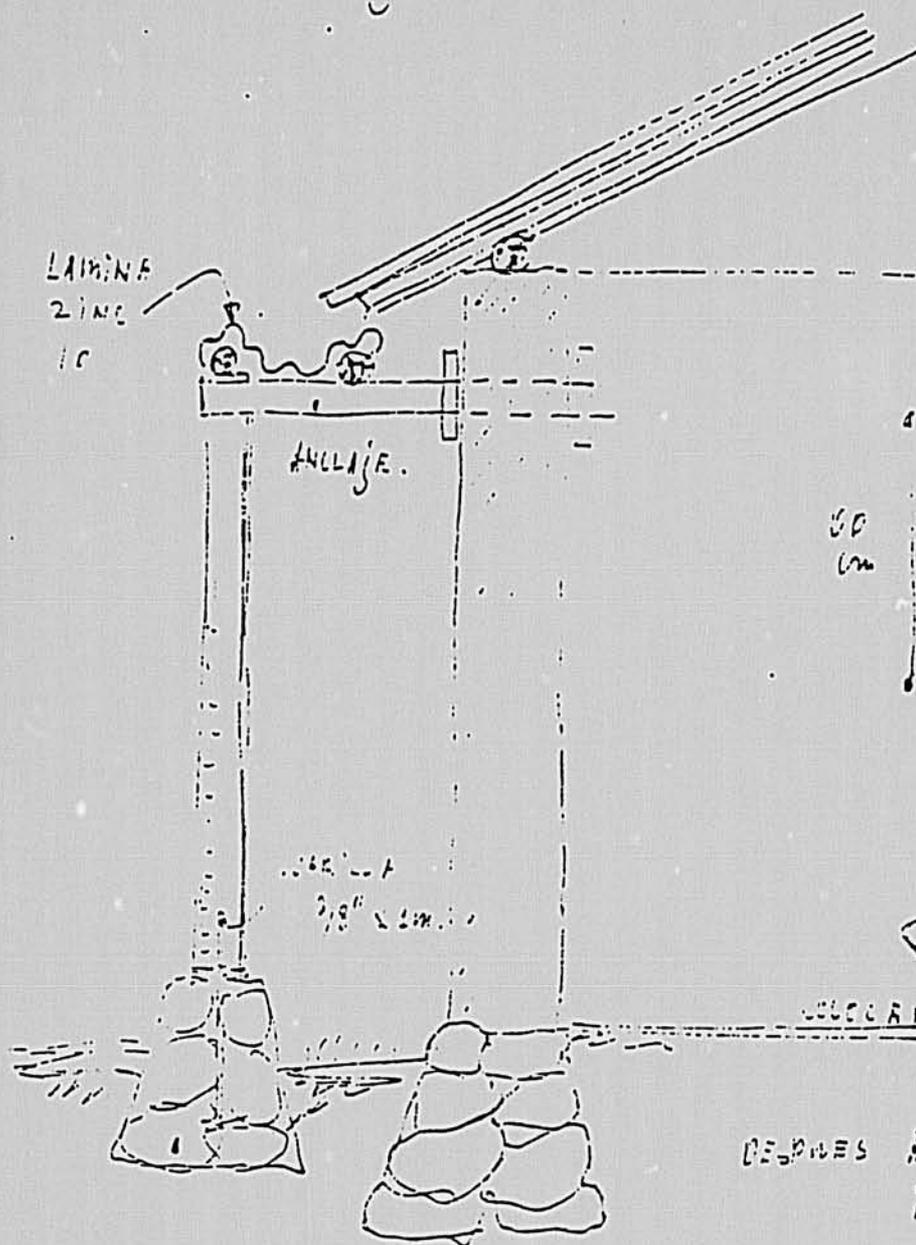
ESTUFA LORENA  
FOGON



QUEMADOR DE SERRINI  
DE LARGA DURACION  
60 cm = 6 horas



1.3.3.3.3

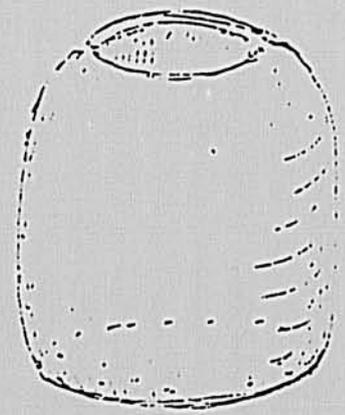


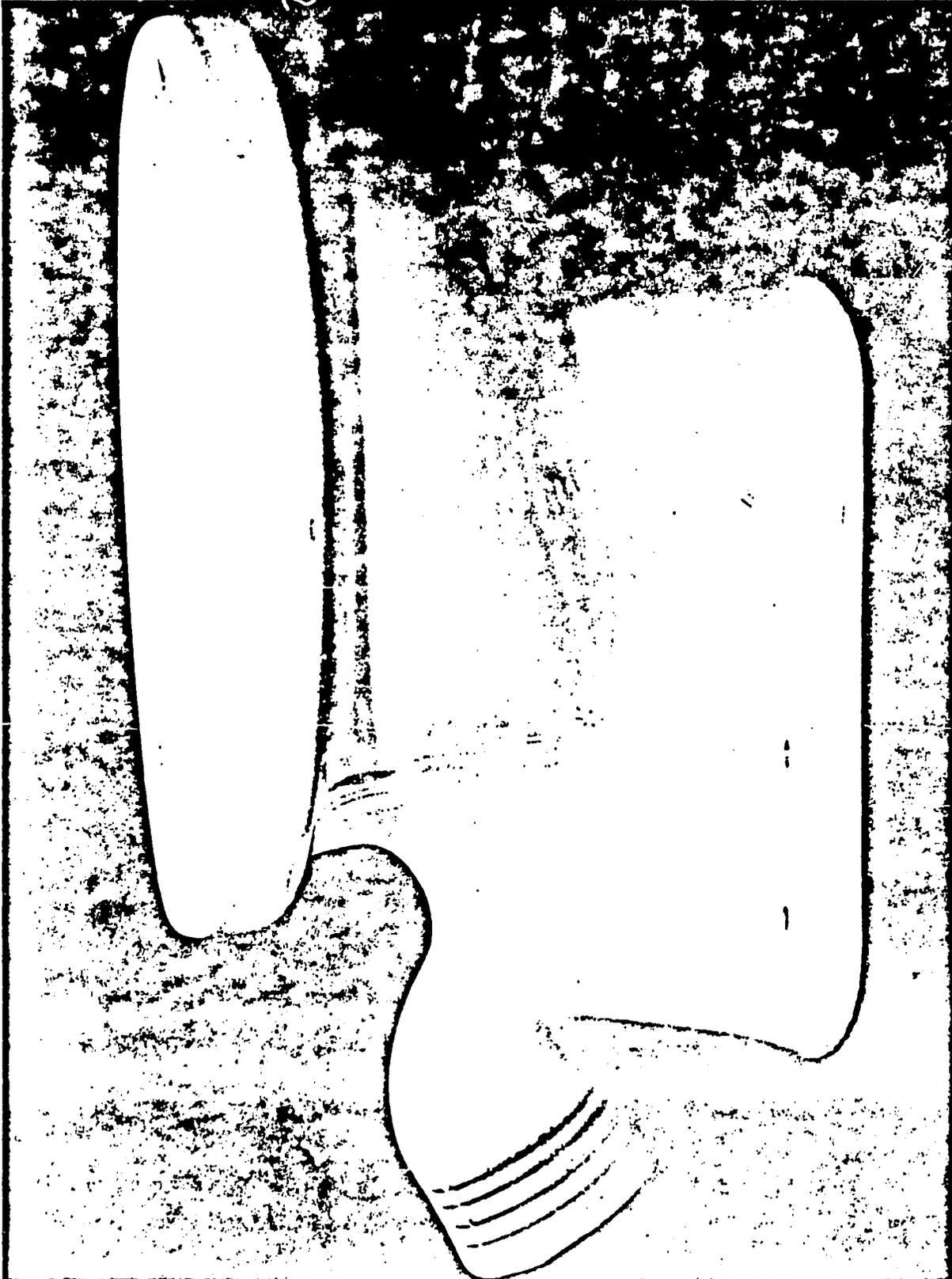
COLOCAR EL CEMENTO PASTA FIBRO-CEMENTO  
 DESPUES APLICAR POR LOS LADOS  
 HASTA EL CUELLO DEL  
 SACO PLASTICO.

— CIMENTACION  
 POSTE CADA 3 m

TANQUE DE AGUA PEQUEÑO. 6. Lit.  
 ESPESOR 0.8 m - 1cm  
 PISO 50 cm.

\* MANTENER EL MANTERO DURANTE 2  
 SEMANA DESPUES DE LA FABRICACION.



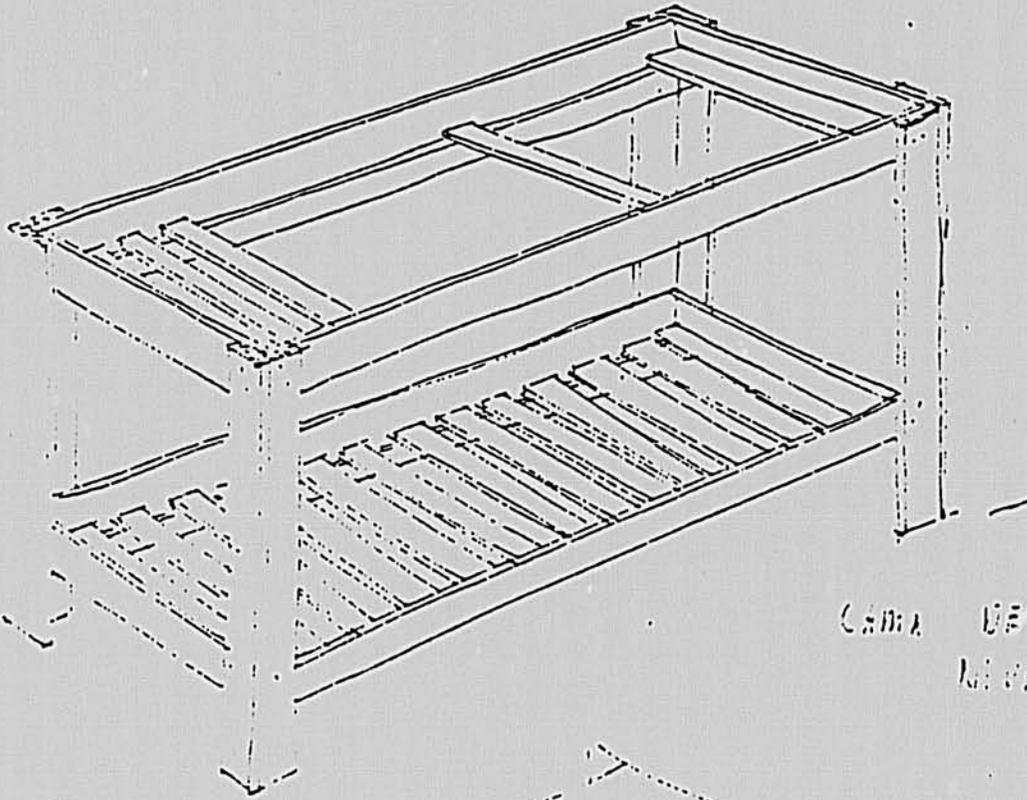


*Pour Flus à Commis*

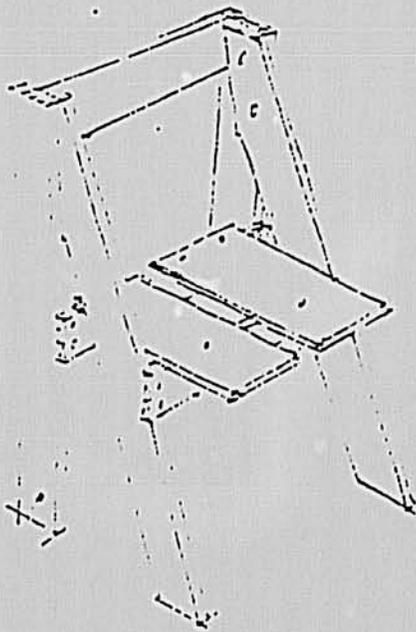


PROGRAMA DE MEJORA AMBIENTE

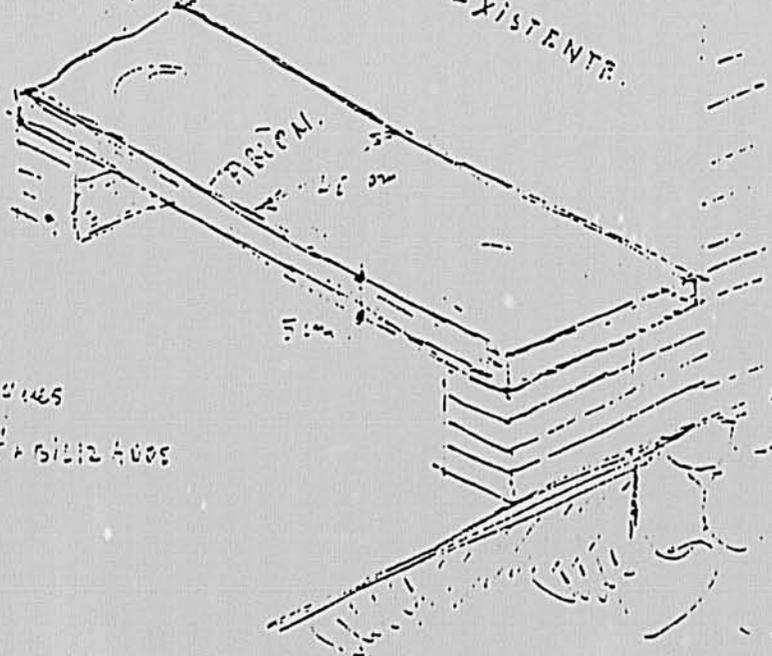
MOBILIARIO



CAMA DE DOS NIVELES



MADERA  
CERILLOS 1/2"



BOQUES  
ESTABILIZADOS

Table 1: Calculation of INVA Counterpart Contribution

A.	INVA Costs	Y E A R					TOTAL	
		1981	1982	1983	1964	1985		1986
	<u>1. Existing personnel assigned to Project:</u>							
	1 Office Director	6000	12000	13200	14520	15970	8790	70480
	1 Administrator	3000	6000	6600	7260	7990	4390	35240
	1 Accountant	2400	4800	5280	5810	6390	3510	28190
	1 Auditor			6000	6600	7260	4000	23860
	1 Driver/Messenger		3000	3300	3630	3990	2200	16170
	TOTAL	<u>11400</u>	<u>25800</u>	<u>34380</u>	<u>37820</u>	<u>41600</u>	<u>22890</u>	<u>173890</u>
		-----	-----	-----	-----	-----	-----	-----
B.	<u>Additional Costs</u>							
	<u>1. New Personnel:</u>							
	5 Rural Housing Technicians	2550	25500	28050	30860	33940	18670	139570
	1 Auditor		6000	12600	13860	15250	8380	56090
	1 Secretary	1800	3600	3960	4360	4790	2640	21150
	1 Driver/Messenger	1500	3000	3300	3630	3990	2200	17670
	Sub-Total Personnel	<u>5850</u>	<u>38100</u>	<u>47910</u>	<u>52710</u>	<u>57970</u>	<u>31890</u>	<u>234430</u>
		-----	-----	-----	-----	-----	-----	-----
	<u>2. Per Diem:</u>							
	Office Director	270	1080	1190	1310	1440	790	6080
	Accountant	450	900	990	1090	1200	660	5290
	Auditors		4500	9450	10390	11430	6290	42060
	Technicians	4500	22500	24750	27230	29950	16470	125400
	Total Per Diem	<u>5220</u>	<u>28980</u>	<u>36380</u>	<u>40020</u>	<u>44020</u>	<u>24210</u>	<u>178830</u>
		-----	-----	-----	-----	-----	-----	-----
	3. Office Furniture	<u>7600</u>						
	4. Vehicle Operation:							<u>7600</u>
	Fuel	1750	7000	7700	8470	9320	5120	39360
	Grease and Oil	350	1400	1540	1690	1860	1020	7860
	Tires	1400	5600	6160	6780	7450	4100	31490
	Repairs/Maintenance	520	2100	2310	2540	2790	1540	11800
		<u>4020</u>	<u>16100</u>	<u>17710</u>	<u>19480</u>	<u>21420</u>	<u>11780</u>	<u>90510</u>
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	5. Other		900	990	1090	1200	660	4840
	TOTAL Additional Costs	<u>22690</u>	<u>84080</u>	<u>102990</u>	<u>113300</u>	<u>124610</u>	<u>68540</u>	<u>516210</u>
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	<u>INVA Counterpart Contribution</u>							
	Total Costs	34090	109880	137370	151120	166270	91430	690100
	Interest Income		13000	33000	47000	59000	36500	188500
	Total Costs After Interest Income	<u>34090</u>	<u>96880</u>	<u>104370</u>	<u>104120</u>	<u>107270</u>	<u>54930</u>	<u>501600</u>
	Less: Costs of Present Personnel	<u>11400</u>	<u>25800</u>	<u>34380</u>	<u>37820</u>	<u>41660</u>	<u>22890</u>	<u>173890</u>
	INVA Counterpart	<u>22690</u>	<u>71080</u>	<u>69990</u>	<u>66300</u>	<u>63610</u>	<u>32040</u>	<u>527710</u>
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	INVA Present Costs = 173890 = 25.1%							
	INVA Total Costs	690100						