

Self-help Housing for Homeless People in Rural Areas

Community Participation in Post-disaster Housing Construction in Honduras

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Introduction

Housing for Low-income People in Honduras

Honduras has a population of approximately 6.5 million of which 60% live in extreme poverty, 19% constitute the middle class and 1% the elite.

Historically, housing low-income people has not been important priority for the Honduran government. However the Honduran government worked in conjunction with the United States government in the 1970s, in what was named “The Alliance for Progress”. This project built about 1000 homes, and marked the start of INVA (the National Housing Institute).

The government has contracted out other housing projects to private companies, of which the most recent ones are Mateo City and Lempira City (1992-1993), and the typology has not evolved much since the 70s. These projects usually turn out to be very costly and do not provide the basic services of a community; such as health centres, schools, means of transportation, and in extreme cases they even fail to provide water, electricity and/or sewer system.

When our country was struck by hurricane Mitch in 1998, the already existing situation was made worse, specially since the country was facing the consequences of a growing population that had exploded from 3.5 to 6.5 million in the last two decades.

Aim and Organization of the Paper

This paper consists of two parts: **Part 1** gives background information on Honduran housing situation and specific information about hurricane Mitch. It then gives an analysis of the methods on planning and implementation of an organized small-scale self-help housing project for people who have lost their houses due to a natural disaster. The Italian Red Cross in the city of Juticalpa, Honduras, mainly bases it on the experience of organized self-help housing project. **Part 2** includes information on rural housing in Honduras. A proposal for planning and implementing a similar kind of a project as in part 1 is presented, considering the differences, the changes and the design proposal in order to evaluate the role of the actors and their material acceptance of the project.

Hurricane Mitch

Hurricane Mitch struck Central America at the end of October 1998 with a magnitude never before seen in the region. Torrential rainfall caused rivers to burst their banks, crushing everything in their path, and flooding fertile valleys and plains. Bridges were swept away, leaving entire communities cut off. Some villages were wiped off the map altogether. Landslides engulfed houses and blocked roads. It was considered one of the strongest hurricanes of the season in the Atlantic.



Honduras

Mitch initially headed for Belize, but turned unexpectedly south, sweeping into Honduras. Its winds, peaking at 290 kph, weakened once overland. Mountains then forced Mitch to rise and dump a year's rain (1 to 1.5 m) in 48 hours.

October 27: The eye of the hurricane is stable on Guanaja Island; bridges piers and 80% of the houses were destroyed, towns were left uncommunicated. The island was almost completely destroyed. On the mainland i.e., the northern coast, the amount of rainfall was at least four times greater than hurricane Fifi, which devastated the area in 1974. The hurricane continued on its route inland flooding valleys. At least 40 bridges came down leaving eight main towns incommunicated. More than 300 people were reported dead and 3,500 were left homeless.

October 29: Hurricane Mitch is stationed in Trujillo on the Caribbean coast, 700 cubic millimetres of rain was reported and half a million people were affected by the storm.

October 30: Hurricane Mitch becomes a tropical storm. Honduras suffers its worst catastrophe in years. In the northern-central area an estimate 1,600 Km of roads were destroyed, more than 100 bridges were knocked down, airports were paralysed, cities were devastated; 5,000 people were reported dead and more than half a million people were homeless.

October 31: The heavy rain affects the capital city, Tegucigalpa, in an unprecedented way. The government mobilized 20,000 people to 139 shelters (schools, universities, sport complexes and public buildings). Fifteen bridges were torn apart, 4,069 market shops and 560 businesses were devastated leaving at least 12,000 people unemployed. According to a report, the capital needs at least 250 million US dollars to rebuild its infrastructure.

November 1: The rivers had augmented 14 m above their level, affecting 80 neighborhoods. Seventy percent of the population was uncommunicated.

November 2: Sixteen of the eighteen departments the country is divided into were severely affected. The hurricane had damaged the infrastructure, the economy, agriculture, and cattle rising; but above all it took many lives.

Registered Damages

Dead	6,748
Wounded	11,998
Missing	8,373
Homeless	1,432,721
Evacuated	2,100,721
Damaged homes	233,703

The total damage was estimated to be around 5 billion dollars and the 59 percent of the population was affected.

One of the most important consequences of the hurricane's damage is that, once again the development of housing for low-income people in Honduras is at the forefront for the Honduran government's agenda.



Housing Policy and Organized Self-help Housing

Housing policy in most developing countries has leaned towards self-help housing in the last two decades, and it has become an accepted strategy compared to 30 years ago. This parallels international policies such as the Global Shelter Strategy to the Year 2000 (GS 2000) and the World Bank's document *Housing Enabling Markets to Work*. There seems to be international consensus that solutions based on popular participation are necessary to improve housing conditions for low-income households. (BUILDING issues, Habitat II, 1996, volume 8, No.4).

The improvement in housing for low-income people has not been taken into consideration by our government. Through contracts to the private sector, some settlements have been made aimed at the middle class, most of which is composed of professionals and merchant businessmen.

There are two institutions that are supported in part by the government to finance at low cost housing or home improvements. These institutions were created to provide benefits for Elementary School Teachers (IMPREMA), and Secondary School Teachers (INJUPEMP). These institutions work through bids to realise housing projects for their members. They provide financing for up to 20 years for the total payment of a home. However due to lack of organization and corruption within these offices, the proposed projects, in most cases do not turn out to be as expected. There have been projects that were inaugurated and passed down to the new owners without even electrical accessories in place, or without a proper water system. There is no guarantee that what the studies call for as basis for those bids will actually become concrete projects in reality.

Problem

The existing need of low income housing for the extremely poor sector of the population of Honduras, has led to the development of housing projects within the informal sector. This means that because of the socio-economic status of these families all the building process is in the hands of the people themselves. In conclusion the demand for housing has surpassed the existing planning even in the major cities of the country. The Honduran government has approached this matter in paper, but not in reality. In other words, there exist many proposals to resolve this issue, yet the officials only provide provisional homes without plans for "True Urbanization" (according to minimum standards).

Role of Actors in a Housing Project

In order to develop a system of self-construction in construction it is necessary to determine the responsibility and the role of each of the parties involved:

- Families and communities

- Funding Organizations
- Aid Organizations
- Local Authorities
- Building Professionals

Material Acceptance

In order to determine the specific materials to be utilized the following must be considered:

- Climate
- Ecological Impact
- Environmental Protection
- Building Systems
- Site Characteristics

These, of course, are on the technical level. On a sociological level it would be of great importance to take into consideration cultural and psychological issues, in order to achieve acceptance on the part of the beneficiaries of these projects.

Case Study: Colonia Lomas de Solferino Construction of 31 houses for victim of the Hurricane Mitch

Strategies

In September 1999, a group of members of the Italian Red Cross, the Honduran Red Cross and the municipality in Juticalpa, visited the probable site for the construction of 84 houses. The first obstacle faced in the search for an appropriate site was the fact the municipality did not own land for such a project near the city because it was all privately owned. Fortunately, a person in the community donated the site. However the Rotary Club of Texas was constructing houses on the same site, and could only provide land for 31 homes.

The municipality provided information needed for the evaluation and diagnose of the existing problem by providing the list of people that remained homeless, the name of international organizations working in the area and other important data.

The project is located 5 km from the city, on the road to the village of La Concepción. This road is one of the main means of access to the agricultural and cattle raising areas of the state of Olancho. The project is of easily accessible by bus or walking (approximately a 25 min walk).

Selection Process for the Project's Beneficiaries

The description of process and methodology is the as follows:

1. Identification of the parameters for selecting the beneficiaries of the project.
2. Selection of the people's needs for proper formation and capabilities.
3. Checking the capacity of execution of the local Red Cross
4. Make and adapt a familiar-agreement concerning the rules of communitary participation in the construction
5. Selection of the beneficiaries
6. Communitarian assemblies provide a quorum
7. Personal engagement (*Familiar Agreement*)
8. Understanding and adoption of the project's rules.

Is important to mention that it is a process with communitary participation during the first four steps the direct participation of the beneficiaries did not exist.

For the process of integration of the community it was necessary to take into consideration that these people come from diverse areas of the city and they did not represent a homogeneous community. Therefore this is a stage where if we make

special attention for the creation of the community, we would realize the need for support or for a social worker, a sociologist and a psychologist.

The family selection was made by the facilitating organization (Italian Red Cross), because in our country these projects are often marred by political patronage. The municipality only gave a list based on the needs priorities of the individual families. Then the sociologist of the Honduran Red Cross and the head of the Delegation for Central America made an evaluation and confirmation in a fieldwork about the real situation of the families, where the following were taken into account:

1. Legal ownership
2. Economical situation of the families (to establish priority in the selection)
3. Current living conditions (for example: if they rented a dwelling, lived with their parents, etc.)

One of the contract's clauses established that a family member by each family must work like none qualified workmanship in the construction of the houses.

Evaluation

The participation process has as its principal objective the creation of the *New Community*, not only to provide housing but also to provide a home. Within the different phases of the process of construction this objective is reinforced through assemblies, seminars, and meetings in which the following factors are emphasized: teamwork, community organization, quality of life, human development, individual behavior and social conduct, infrastructure utilization (water, electricity, sewer systems and garbage disposal).

Each phase was evaluated by the beneficiaries (the families involved), construction professional, international aid organizations (the Italian Red Cross), and the Honduran Red Cross.

In the evaluation process for the communitary participation the following aspects were made prominent to the participants:

Communitary Participation:

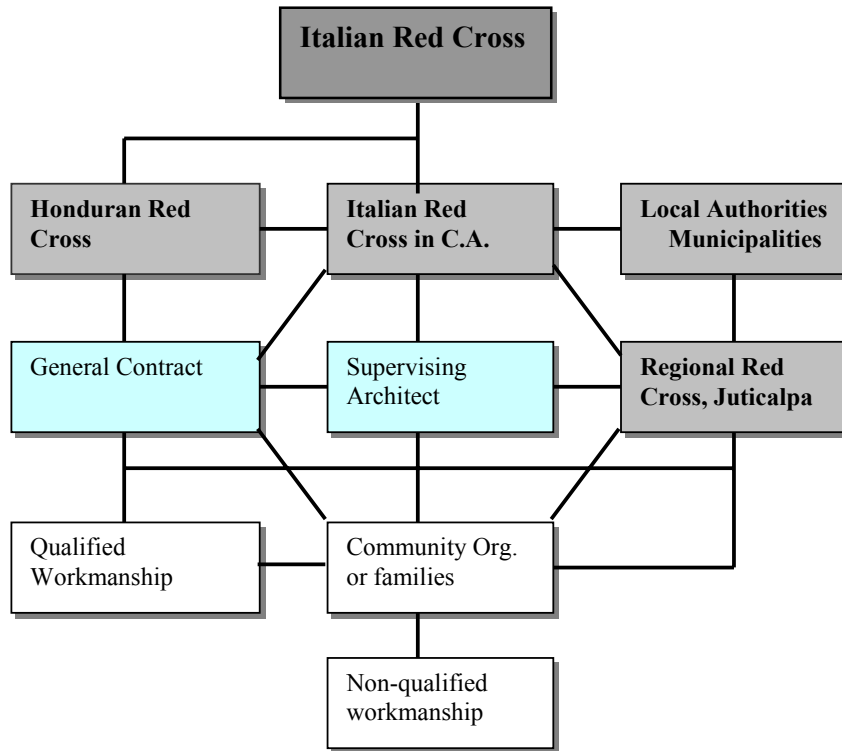
- Is a viable mechanism
- Improves activity coordination (constant capacitating)
- Develops self esteem
- Guaranties the sustainability of the project
- Helps in the capacitating of a trade for the participants
- Promotes work organization (different activities for different actors)
- Helps to reduce construction costs
- Helps to value what they are obtaining
- It is a good mechanism to develop a new community

Limitations and Problems in Communny Participation

The lack of motivation and interest of the people derived from the idiosyncrasy of self-survival and from the absence of a community prior to the hurricane, which allowed mistrust to infiltrate. Fortunately the participant's interest increased, as they got involved in the project.

Because the group was heterogeneous, at the beginning it is almost impossible to avoid emerging conflicts. It is imperative to have a constant supervision of not only the construction itself but also of the social aspect of the project, which points out to the need of a more complex teamwork.

Role of Actors: Work Structure



Italian Red Cross

A part of the International Federation of Red Cross and Red Crescent Societies. Extensive media coverage of Hurricane Mitch in Central America focused the world's attention on how a natural disaster can wipe out years of development.

The Federation played a key role in creating the first set of minimum standards for disaster response, which was launched in December 1998 through the Sphere project.

The standards lay down guidelines for humanitarian organizations, to improve the quality of assistance they provide to people affected by disasters, and increase their accountability. The guidelines make a clear link between technical standards and people's rights, covering food, water, sanitation, shelter and health care.

Red Cross and Red Crescent societies are well placed to play a role, as they are both deliverers of emergency assistance and potential connectors.

The Italian Red Cross was asked by the HRC to jointly finance low-income housing projects in the department of Olancho.

Honduran Red Cross

National

The Honduran Red Cross (HRC) has a clearly defined mission, which is reflected in its statutes and national work plan. The HRC is recognized by the authorities and enjoys full autonomy and independence in carrying out its mission. It maintains good relations with authorities, and carries out many of its actions in cooperation with government bodies and plays an active role within the Federation actually works together with Italian Red Cross, American Red Cross, and Spanish Red Cross.

The HRC has taken the decision, after hurricane Mitch, to assume the responsibility for the reconstruction of the country, in specific in the area of housing. This is a contribution to the national plan for reconstruction, supported by the international community at Stockholm.

The HRC has played a very important role in caring for victims of national disasters. It has maintained relations with different UN agencies such as PAHO, UNDP, and UNHCR. At the international level it has relations with North American and German organizations and the European Community among others.

Regional

The Red Cross in Juticalpa is one of the 44 branches that cover the entire national territory. Through the National Red Cross, the Red Cross in Juticalpa, solicited the aid for the construction of houses for the people left homeless. From all the Federations present in the country it was the Italian Red Cross that gave the response to the request

Local Authorities

The HRC has smooth relations with the public authorities. It collaborates efficiently with the Ministry of Health and the National Council of Social Welfare. It participates actively in the Standing Emergency Commission in each region, which is in charge of coping with all the disasters affecting the country.

Municipality of Juticalpa

Provided important information about the land for the project and the data related to the people left homeless after Mitch. Participated in the specific project of Colonia Lomas de Solferino, in agreement to help prepare the site for the project and the development of infrastructure: water, sewers and electricity

Construction Professionals

General Contractor

Directly employed by the Italian Red Cross (IRC) in Central America. The selection was made through a bid, the selecting team were integrated by: a group of three architects from the Honduran Red Cross office of planning and projects, the chief of the IRC in Central America and a member of the Juticalpa Red Cross.

The direct relationship to the process of community participation within the construction is with: the head of the IRC delegation, the president of the local Red Cross, construction supervisor, president of the community and his construction personnel.

Supervising Architect

Contracted by the IRC in C.A. as the construction supervisor, as technical assistant in the construction, to supervise inventory control of materials and to assist in construction techniques, besides as a supervisor, over the community's duties and responsibilities. Monthly written reports were required.

The supervising architect is in direct connection to the head of the IRC in C.A., the general contractor, the local and national Red Cross, local authorities and the beneficiaries.

Families

The organization of the families took place in the first community-training seminar in which the community elected its own head, which becomes their legal representative before the civil authorities. This person validates their applications and petitions for requests (for example: the basic utilities). The information is channeled through the community's association and it is with its head that the general contractor plans the schedule for construction.

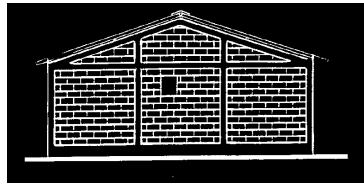
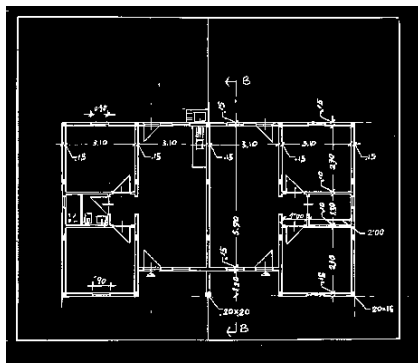
The community association directly depends upon the local and National Red Cross during the construction process and consequently in the maintenance and improvement of the project.

Non-qualified workmanship, these represent the 31 families that work in the project in those duties that do not require a specific skill to be executed.

Design

The Italian Red Cross worked to develop and recommend specific solutions concerning house design, site layout, technical solutions, legal solutions, financial solutions and social development

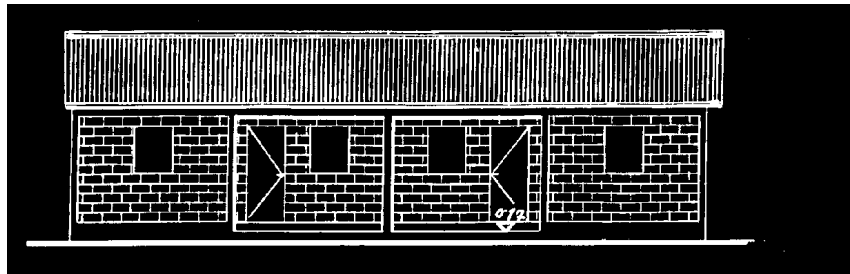
An Italian architect and an Italian engineer, engaged for the Italian Red Cross, made the drawings.



The houses were designed as duplex or for two families. The plot is 8.58 m (width) × 14.00 m (length), and it contains: a small porch, living room-dining-room-kitchen, two bedrooms and one bathroom. The total construction area is 47.34 sq m and the cost per house is 4,450.00 US Dollars approximately. The materials used are: concrete blocks, cement floor, and fibre cement for the roof. The structure has seismic design, and it takes into account in the structural design a possible future expansion to two levels. The structure for the roof is metallic due to the fact that the region has big deforestation problems, as a contribution to the environmental caring, it has been decided the use of wood only for the external doors.

Production and transportation means are some of the most important factors in the material selection.

Is important to mention that the community did not have knowledge about the housing design, until the first time they met with the Italian Red Cross and The Honduran Red Cross, the municipality, and the construction company that by that time had been selected through a bidding process.



Construction

To start the process of construction, a bid was made with the participation of local companies. The requirements were established by a professional team of IRC (Italian Red Cross). They chose the company that would bid the closest to their economical evaluation. When the company was chosen, they contracted a support professional to help the community members to follow up on their achievements, to reinforce or correct actions as needed, and in this way achieve a higher degree of self-management and efficiency. Regular technical control allows one to correct mistakes immediately and to reduce costs, (Building Issues 1996, volume 8).

The construction process was estimated to last three months. For the first phase the beneficiaries (non qualified workmanship) were under the supervision of the supervising architect, the general contractor and Honduran Red Cross personnel.

This served as the means of evaluation for the communitary participation in the construction, in order to establish their interest in this kind of project. The families' contribution had a direct relationship to the value given to the housing they were receiving.

In our country the ones living under extreme poverty are often accustomed to receiving benefits without enough efforts on their own part, and one of the main aims of this type of project is not only to provide a roof but also to help improve living conditions, reinforcing in people their need for improvement and show them that their efforts lead to self-actualising rewards.

The assistance control was made through striped, which were the responsibility of the supervising architect, a community member, a Honduran Red Cross voluntary and a contractor, who all had the responsibility of finish the project before a specific deadline. It is important to mention that in each family's written contract, the assistance relevance they received was clearly specified in the contract's clauses.

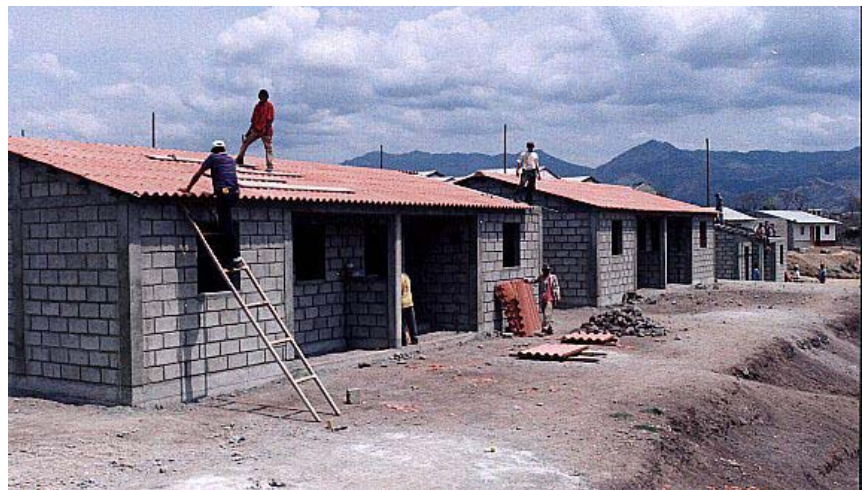
Evaluation

The individual's participation in the construction allows him to value and increase his self-esteem, and additionally his training in a trade; thus an important effort is made to increase the educational level and improve the outlook on life of the least educated segment of the Honduran population. At the same time it gives them specific knowledge regarding the process of building homes (construction system, materials utilization, etc.), which in turn will allow them in the future to give proper maintenance to their own dwellings. In this manner, the whole process makes the project self-sustainable in the long run.

In the project, construction is a community task. The group as a whole needs to learn to coordinate their activities; which favors **good human relations** among them. People are instructed on how to conduct themselves in society and they are provided with the know-how will allow them to identify individual and group needs and how to go about fulfilling them.

Limitations

Due to the economic limitations of our population it is difficult to request to the families involved, that they allow more than one member of the family to participate in the construction. This limits the selection to one member of each family and in some cases; unfortunately, the families contract a person to do their part. The participation of people not directly linked to the project affects the process of formation of the new community.



Current project stage (12 May 2000)

Proposed Project Method

Hurricane Mitch's devastation has greatly increased the housing problem for the poorer sectors of the population, which in the cities is made worse by the constant migration from the countryside.

Most of the foreign aid received by Honduras has been channelled to urban areas, despite the fact that a great deal of damage was reported in the rural communities. As an example, 90% of the people living in the department of Olancho are classified as rural dwellers.

Aspects to Consider

- Economy
- Geography and climate
- Cultural Heritage
- Architectural Typology

Economy

In this region (Olancho) agriculture is the most important sector of the economy and it is mostly a subsistence type of agriculture based upon very traditional and inefficient production methods. Proper irrigation techniques and inadequate plant and seed rotation are amongst the many drawbacks of these methods.

Most peasants work for big landlords (through some of the former raise cattle on a small scale), and also are small-parcel owners in which they plant corn, beans, and other basic staples on a very small scale.



Geography and Climate

Throughout western and central Honduras rugged mountains of moderate height, in few places are interspersed with many upland valleys. The seasons are divided not according to temperature variations (for there is very little fluctuation throughout the year) but according to the rainfall distribution.

Between January and May the country experiences summer or dry period, and winter or the wet season extends from June to December.

Winds normally flow westward over the country from the east and northeast. Local wind currents are reknownledge for their consistency of direction. The strongest winds, those are coming from Caribbean hurricanes or Northern cold fronts.

Almost all of the major rivers flow into the Caribbean Sea, reflecting the distribution of the highest mountains in the west and the origins of the moisture-laden winds from the east coast.

In spite of serious deforestation from the mid-1960s onward, Honduras, especially Olancho, remains a wooded land. A vibrant forest products industry and the desire to clear lands for pasture often produce conflicts over the best policy for forestry developments.

Cultural Heritage

Honduras, was first brought to the attention of Europeans in 1502 during the fourth and last voyage of Christopher Columbus. The Spaniards penetrated the interior and subjugated the native Indians; regional towns of Spaniards grew at San Pedro, Gracias, Choluteca, Olancho and Comayagua.

Perhaps 93 percent of the population can be classified as ladinos or mestizos Spanish-speaking persons of Indian-Spanish heritage. Another 5 percent come from six Indian groups: Chorti, Lenca, Tol (Jicaque), Paya, Sumu and Miskito. While many remnants of the native cultures still exist, very few Honduran Indians retain their original languages.

Afro and Anglo-Antilleans who migrated to Honduras more than 100 years ago from the Caribbean islands occupy the north coast and the Bay Islands. The largest components of this community are the Garifuna or Black Caribs.

In the 1970s and 1980s a new population approximately 50,000 “legal” refugees arrived in Honduras to escape the civil unrest in surrounding countries. More live in eastern Honduran territory.

Roman Catholicism is the predominant religion in Honduras. Ornate Churches, some dating from the early colonial period, are often found in sparsely settled rural areas.

Urban planning is directly derived from the Spanish custom of laying newly-founded cities in an orthogonal pattern during the Colonial period, whereas very small and more recent towns show a pattern of growth freed from these constraints and more “organic”



Low-income people



A typical street in the rural area

Architectural Typology

Through the Honduran countryside we discover here and there jewels of traditional Honduran culture: *campesino houses*, adorned with painted designs: birds, flowers, geometric motifs, made with colors derived from the earth. These colours range from rich reds to yellow ochres to soft violets, and even include sea greens and turquoise blues, all of them made from different hues of the Honduran soil. It is possible to find road-cuts, which reveal different strata colours, and caves where the locals have extracted these colours to make paint. The campesinos, then dissolve the earth colours with water, strain them, mix them with slaked lime, and add natural binders such as glue made from the bark of the caulote tree.

Campesinos, have been making their paint from native soils since before the arrival of conquistadors. Their ancestors were the prehistoric artists who decorated caves, and the Mayan artist who decorated their temples, sculptures and ceramics with the same colors. Olancho, is dotted with many small towns where these traditions continue. In the rural area it is not unusual to find painted adobe houses, which resemble little masterpiece.



Painted adobe house

Proposed Strategies

In the rural area it is necessary to provide a solution to the economic problem of the families; action can be taken providing the community of: education centers, health centers, planned recreation areas, and centers of commerce. These are the most important areas to make a contribution to, to provide for the improvement of the lifestyle of the new community. Having in mind that as a priority more than the average of them need to be provided of the basic services, such as: water, electricity and sewer systems.

To achieve a reduction of time and cost in the construction, it would be necessary to implement the participation of more than one member of each family in the project. It has been mentioned above that because of their economic situation this is almost impossible; unless there would be a mechanism that would allow for the rotation of people in the construction process. According to the phase and skills of the individuals the rotation can be accomplished. This way more than one member per family would obtain the benefit of training in a trade; participate in the assemblies in the process of creating the new community, and acquiring the knowledge and esteem of having provided for his home.

It is important to reflect on the culture and ideology of the people involved in the project. In this particular case, the populations from the rural areas differ significantly in ideology from people that live in the city. In accordance, this implies certain regulations: they need for a space of their own, a piece of land that they may cultivate or where they may have farm animals, construction systems familiar to them to promote accessible maintenance, low cost and local materials.

Being the state of Olancho mostly rural, the construction system must be suited is the traditional **adobe** homes, which is the most accessible in terms of cost and material. To retake the traditional construction systems promotes the earth painting ornamentation as part of their cultural heritage, favors the acceptance by the people, makes use of local materials that they already possess. In addition it is to be

Considered the climate, orientation of the homes in accordance to the sun and wind currents, and the impact on the surrounding environment.

To involve local authorities in the participation of the projects would benefit in the bureaucratic actions of providing funds, work permits, and planning for: water, electricity and sanitation: But their participation would have to be limited to the above in order to protect the people in the sense of avoiding political favors, and the common corruption and theft of projects funds. Therefore the administration, financing and selection of the beneficiaries should be very restrictive.

It is required the creation of a local center where families could obtain help and information about the process of participation in self-help housing, responsibilities and benefits of such a project.

Proposed Role of Participating actors

- The Community (Families)
- International Facilitating Organization
- Local Organization for the Control and Administration
- Government and Local Authorities
- Constructor
- Supervisor

The main actor is the **community**, or the group of families, at organizational, administrative and executive levels. Being the main actor key also contribute to their own development.

It is important to define clearly the responsibility of the **facilitating organization**. Even though the community should approve all decisions, the facilitating organization bears the professional responsibility for the design of an organized self-help housing project. The facilitating organization must analyse, compare and inform the community about the consequences of different solutions. It is important to specify what is meant by housing improvements and community development, for instance with respect to health, safety, comfort, economic and social development.

National or **local organization**, have an explicit policy to reach low-income households and the most vulnerable groups. Often local authorities are more likely to be influenced by political pressures and social and economical networks.

One of the best ways for regional and **local authorities** (municipalities) to facilitate organized self-help housing is to provide appropriate land at reasonable cost or in the case for self-help housing for homeless, could be free.

Constructor, must be the municipality or a professional of the private sector, it is necessary for to develop the infrastructure: water, sewer, and electricity.

Supervisor. By helping the community members to have complete and current information about all project activities, to follow-up achievements against the plans, to reinforce or correct actions, as needed, the self-management will be more efficient. Regular technical control allows one to correct mistakes immediately and to reduce costs. The regular support consists of continuous analysis, recommendations and instructions on ongoing activities to develop the project and to achieve its objectives. This occurs in several areas: social, legal, technical and administrative.

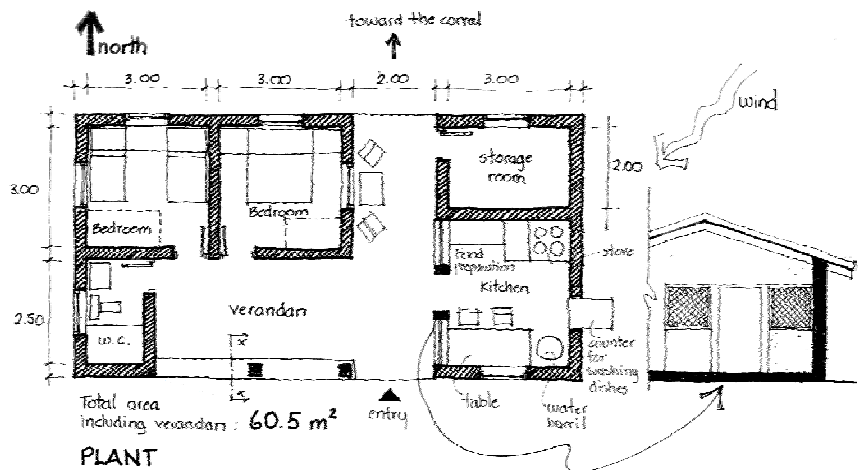
(Reference in Organized small-scale Self-help Housing, Building issues, Habitat II, 1996 volume8, No. 4)

Design Proposal

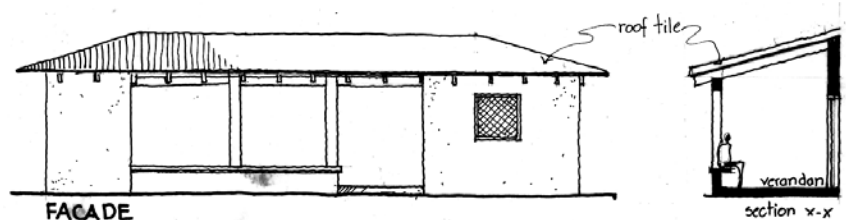
The facilitating organization should develop a preliminary project proposal including site plan, house models and preliminary budget based on the socio-economic conditions of the community. The project proposal should be carefully presented for and discussed with all families concerned, preferably in workshops.

Once the preliminary project has been reviewed and approved by the community it can be submitted for approval from the authorities concerned.

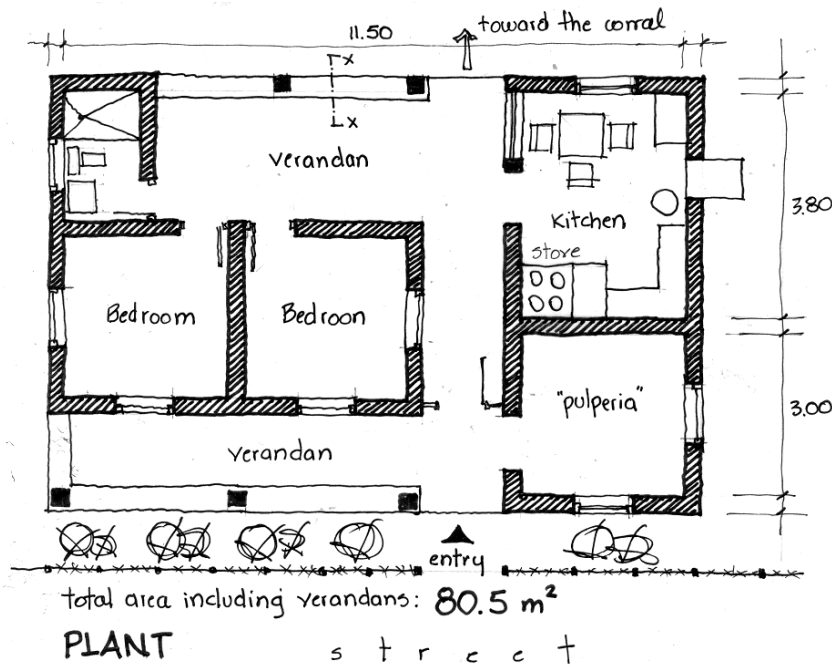
When the project proposal is approved the detailed planning of the project can start and the construction work programme can be developed. (Organized Small-scale self-help Housing, Building issues, Habitat II, 1996, volume 8, No.4) Toward-inside housing exists in the rural area. The families develop their privacy using a space between the public road and their houses.



If in the site exist water system it is possible to have the toilet inside the house, in case of non exist the veranda could be more big and provide for the system sewer a latrine outside of the house.



The use of the road neighbour room as a commercial local is another example of housing. In Honduras, these locals are popularly called as “pulperias”.



Conclusions

Current Project

It is clear that the all actor's appreciation in this community participation project in housing construction is unanimous and remarks the importance of that type of project. This fact can be surprising only for those who never have participated in this kind of programme: *self-help housing with community participation*.

Only the direct participation of the communities in their own sustainable human development with view and particular attention to reduce the risk factors in housing can mark the difference between any housing reconstruction project and a Red Cross project. Furthermore, this induces an improvement not only in the physical space but also in the living conditions of the most vulnerable people.

Proposed Project

It is necessary to add that this type of project is possible to be applied not only for answering the need of people homeless by disaster, but also for improving the housing condition in any situation. In this case, it is necessary to include more actors such as, a financial institution (see Fuprovi programme by Sida in Costa Rica, Central America), besides a civil organization for controlling and coordination of the project. This could be another point of discussion for a new paper.

The self-help housing for rural areas in Honduras is feasible, provided that the construction systems and implemented materials are in according to the construction technique knowledge by the participants. In this case of self-help construction for rural areas in Honduras adobe is the construction system known to the population.

The houses in each project can be different according to the localization or site where they will be developed, and with the infrastructure the site has, and typology of the families involucrate.

It is necessary and so important attribute in daily use the value and mean of the soil like construction material, because is not enough have this only in the mind, is necessary to exceed the negative image of misery behind schedule and economic and social segregation that is linked the soil house in our culture and specified in our country.

Recommendation

It is important to take into account the promotion of this kind of project as regional reflexion in Central America. In this way, general recommendations could be done using the accumulate experiences as a future reference point, in the case of other natural disasters with considerable loss of housing.

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References

Rodríguez Mario and Åstrand Johnny,
1996 *Building issues, Habitat II, Organized Small- scale Self-help Housing*,
Sida and LCHS.

Liuke Laura and Olsson Frida,
1994 *Development of Rural Housing*,
Lund University

Valenciano Alma,
2000 *Adequate Housing for Low-income Families by the National Housing
Authority in the Philippines. Lecture.*
Architecture and Development, Lund University.

Rosenlund Hans,
2000 *Climatic Design. Lecture*
Architecture and Development, Lund University

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