Introduction

The purpose of this study is to determine the accessibility of a Nicaraguan housing project, MASINFA (Masaya Sin Fronteras), to low-income women by evaluating the program's inclusion criteria and efficacy in delivering houses. My inquiry will determine if the use of gender planning will improve MASINFA's housing program. My analysis will be formulated through two levels of questions posed to 50 individual women and 10 men:

1. Based on socio-economic status, can women meet the program's inclusion criteria when considering the women's:
   a. income level—financial ability to pay for house.
   b. job stability—security of income generation.
   c. land ownership—legal and social capacity of tenure.
   d. family structure—potential for additional sources of income.

2. How effective is the project in delivering houses to women in regards to:
   a. division of household labor—productive and reproductive roles.
   b. level of participation—degree that women participated in construction.
   c. family structure—family members to aid in construction process.
   d. reliability of project funding—MASINFA's ability to continue project.
   e. timetable for completion—amount of time for gestation of housing.

The above categories of analysis are derived from gender theory perspectives in relation to designing and implementing development projects, MASINFA's participation requirements, and personal observations of women's roles and responsibilities.

The Setting

From pre-Columbian times until the present day, Nicaragua has been subject to a constant and often violent interplay of internal and external forces. Exploitation, rivalry, and conflict are dominant themes of Nicaraguan history. Nature has also contributed to this pattern with earthquakes, volcanic eruptions, and hurricanes disrupting efforts to achieve national development. Also affected by Nicaragua's conflictual past is the role of the state. In Nicaragua the government, amidst international and domestic pressure, has rarely worked for...
the interest of the masses. Instead, it has served the interests, both foreign and domestic, which perpetuated the rule of whatever faction was currently in power while the majority of the population has lived in extreme poverty. As a result, Nicaraguan history is tainted with tragedy and conflict, leaving a feeling of cynicism concerning the government and deep distrust of foreign influences and intentions (LaFeber, 1983: 12).

Located at the geographic center of Central America, Nicaragua is the largest country in the region and its physical characteristics have long drawn the attention and captured the imagination of outsiders. The country has abundant and rich agricultural lands, considerable potential for geothermal and hydroelectric energy, important timber and mineral resources, and conveniently located waterways which have been considered for the location of an interoceanic canal. In addition, Nicaragua, unlike some Latin American countries, is not overpopulated. Although it has an abundance of arable land, Nicaragua’s population is relatively small, consisting of 4 million inhabitants.

Currently Nicaragua is suffering from an economic crisis of an unprecedented magnitude. After over a decade of recession and eight years of a draconian economic reform program mandated by foreign creditors, including the implementation of structural adjustment programs, 70 percent of the population is living in poverty and unemployment and underemployment have risen to 60 percent. Housing conditions in Nicaragua exemplify this economic crisis. In Nicaragua, 83 percent of the existing houses were built through the process of self-help construction and many families live in inadequate one room houses built of wood and cardboard, with tin roofs and dirt floors (Morales, 1996).

Population and Project Description

The city of Masaya is located 29 kilometers southeast of the national capital, Managua, forming an important nucleus of the metropolitan zone of the nation. The municipality of Masaya is the third most populated city in Nicaragua and one of the most densely populated areas of the country, with a population density of 675 inhabitants per square kilometer. Masaya is also the center of Nicaraguan folklore and is nationally famous for its artisan production. The population of Masaya has grown from 45,000 in 1971 to 120,856 in 1996 with 80,051 urban residents and 40,805 rural residents. Of the total population of Masaya, men represent 48.81 percent and women 51.19 percent. These percentages are representative of the national population composition for men and women of 49.01 percent and 50.99 percent respectively (Alcaldia Municipal de Masaya, 1996: 5 and INEC, 1996: 14).

Figure 1 shows the population distribution of women and men for the city of Masaya in 1996. For females the most populous age group is 15–19 (12.9 percent) and for males the most populous age group is 10–14 (16 percent). The large proportion of the population who are 18 years of age or younger indicates that a high demand for housing will continue in Masaya and Nicaragua as a whole.

Housing Policy

The Third World housing situation is characterized by population growth and by the commercial market’s inability to provide affordable housing for the majority of the population. State intervention in this market has in most cases had little effect in improving the housing situation for the majority. As a result, people in need of housing have to provide their own housing through the process of self-help (Harms, 1992: 37).

In the typical laissez-faire response to housing needs common throughout Latin America, the state limits itself to regulatory actions and provision of enough public sector housing to quiet social unrest (Williams, 1985: 383). The result is that the private sector reaps the direct profits from the construction of private housing and much of the subcontracted public housing. The private sector also benefits from the reduced labor costs and the increases in land value that are generated by public sector investments in infrastructure. The informal private sector, primarily the poor, is left to provide for itself (Williams, 1985: 383).
Of the women interviewed their age range is 25-76 and the modal age is 39, indicating their physical potential to participate in the construction process of the project. The age range of the men interviewed is 28-65 and the median age is 46, again of the age physically capable of building houses. In terms of marital status 58 percent of the women are partnered, signifying that they are either married or have a companion, 38 percent are single, and 4 percent are widowed. These percentages are higher than national averages in regards to marriage/stable partner—47.89 percent, but similar in terms of the number of single women—38.34 percent, and number of widowed women—4.67 percent (9.1 percent were listed in INEC survey as being divorced) (INEC, 1996:16). Of the men surveyed 90 percent (9) are partnered and 10 percent (1) are single.

Knowing the marital status of the sampled female population illuminates either a potential for financial and domestic support or a possible socio-economic burdening caused by additional responsibilities. Thus, a woman’s marital status may explain her ability or inability to participate in the housing project in terms of time commitment and financial resources.

The average number of children of the females interviewed is 4, which is similar to the national average of 4.17 (Morales, 1996:15). The average number of children in the household of males interviewed is 3.

For the entire sampled population, the average number of persons per household is 6, which is slightly higher than the national average of 5.7 (INEC, 1996:18). Again, the importance of knowing the structure of the family lies in determining members of the family who can participate in the construction process or assist with domestic chores to enable the woman to participate in the construction process. My data challenge the concept of the male-headed nuclear family norm. Although 58 percent of the women are partnered, 68 percent are the head of their household, discussed below.

Project Description

MASINFA—Masaya Sin Fronteras (Masaya Without Borders)—is a non-governmental organization that was created in 1990 by former members of the Sandinista mayoral staff of Masaya after the electoral defeat of the FSLN. Although MASINFA was originally located in a room of a solidarity worker’s house with only one paid staff position, today MASINFA is a well known organization with eleven full time staff members, including an armed guard.

After the triumph of the Sandinista revolution in 1979, Nicaragua received a substantial amount of technical and monetary aid from sympathetic governments and international solidarity organizations. The mayoral office of Masaya benefited from this support when a “círculo de amistad” was established with cities in Europe and the United States. However, with the election of the conservative UNO coalition in 1990, there was uncertainty as to the future of the solidarity movement in Nicaragua. In an effort to maintain the relations formed between the mayoral office of Masaya and international solidarity organizations, the “círculo de amistad” was legalized as the association MASINFA.

The requirements to participate in MASINFA’s housing project, which began in 1992, are 1) to have title to land; 2) capacity to pay for the house; and 3) and to need a house. In addition, project participants must give their land as collateral against the debt for the house and agree to pay the cost of the house by signing a legal contract. There are three house models—41 meters, 32 meters, and 20 meters—which cost $2,600, $2,200 and $1,600 respectively. An applicant’s income and thus ability to pay determines the size of house she/he may receive. The payment term is sixteen years and, depending on the size of the house, the participant pays the equivalent of $13, $11, or $8 each month.

MASINFA refers to the construction process as “ayuda mutua” by which families are divided into groups of five to form a brigade. Each brigade builds five houses under the direction of a mason and brigades are grouped by five and supervised by a “mano de obra.” An engineer who is a MASINFA staff member supervises the entire project and provides technical assistance. Project beneficiaries are required to participate in the construction two days a week until their brigade has completed all five houses. If beneficiaries are unable to participate in the construction, they are able to hire a worker to represent them at the construction site.

For the initial housing project there were two “etapas” or stages. The first stage, called Vivienda, Progreso, Solidaridad, involved building 214 houses in nine barrios (neighborhoods). The participation criteria of capacity to pay was not strictly enforced when beneficiaries were selected. As stated by MASINFA’s director, “selection of beneficiaries of the first 214 houses was made with the heart, and the capacity to pay of the beneficiaries was not predicted” (Fernandez, 1997: a). With the second group of houses built beginning in 1994, inclusion criteria guidelines were strictly followed in terms of income level and capacity to pay.

MASINFA has facilitated the construction of 268 homes in Masaya. The majority of the beneficiaries, 162 or 60 percent of the participants, have been women. The goal of this project is to create a revolving credit fund from the payments made for the first 257 houses built. However, only eleven houses have been built from the credit fund because 70 percent (180) of the low income participants and 17 percent (7) of middle income participants are not paying for their houses (Ruiz, 1997).

Gender Planning

Women and men have different social and economic positions within the household and varying control over resources. They not only play different and changing roles in society, but also have dissimilar needs. With the emergence of the literature on women and housing during the past decade (Dandekar 1993; Moser 1987), several arguments have arisen for the
need for policy makers at local, national, and international levels to focus on women’s specific shelter needs. The arguments rest on two key points: 1) globally there has been a dramatic increase in women-headed households; and 2) the importance of housing in women’s lives must be considered in housing design.

However, the traditional modernist stance of planning analyzes and practices from a reality that is male, white, and bourgeois. Thus women’s experiences and needs are not considered in the planning process or outcome because their theories and knowledge are not considered legitimate sources of information. This exclusionary tradition, based on white male reality, has resulted not only in errors of analysis in planning theory but also projects detrimental to women because of the failure to theorize and interpret knowledge and reality in a multiple and pluralistic manner. Within this traditional discourse, planning methodology has been characterized as a trans-historic, linear, apolitical, and technical set of procedures in which its institutions are neutral and acting in the public good (Hooper, 1992: 50 and Moser, 1993: 7).

Carol Moser (1993) describes the recent development of gender as a planning discourse. Moser begins her description with the concept of women in development. The term women in development, or WID, was coined in the early 1970s by the Women’s Committee of the Washington D.C. Chapter of the Society for International Development. This committee consisted of a network of female development professionals who were influenced by the work on Third World development undertaken by the anthropologist Ester Boserup. The term was adopted by the United States Agency for International Development (USAID) in their Women in Development (WID) approach for development (Moser, 1993: 2).

The underlying rationale is that women are an untapped resource who can provide an economic contribution to development and thus ensure a more successful process through “productive” participation. WID focuses mainly on women in isolation from development by promoting measures such as access to credit and employment as the means for integrating women into the development process.

Moser continues her discussion by describing a more recent paradigm shift in gender planning which recognizes the limitations of focusing on women in isolation and instead promotes the need to look at gender and development (GAD). This focus on “gender” rather than “women” is based on the concern that the problems of women were perceived in terms of their sex, or their biological differences from men, rather than in terms of gender, the social relationship between men and women (Moser, 1993: 3). The GAD approach maintains that to focus on women in isolation is to ignore the real problem, which remains their subordinate status relative to men. In insisting that women cannot be viewed in isolation, GAD emphasizes a focus on gender relations, when designing measures to “help” women in the development process.

The distinction between WID and GAD is essential for the creation of development policies. To focus on the incorporation of women into the “productive” economic sector is to ignore the reasons why women are not considered to be contributors to this sector. By acknowledging the fact that a male controlled and defined society has subordinated women to men, a first step is made in designing development projects that are appropriate for rather than detrimental to the needs and interests of women.

### The Incorporation of Housing in Gender Planning

This need for gender planning applies to housing. Most governmental and non-governmental housing programs seldom reflect an awareness of the heterogeneity of family structures or the increase of women-headed households. Planning, therefore, must disaggregate households and families on the basis of gender while identifying housing needs. For a housing project to be accessible to low-income women, inclusion criteria must be set in accordance with women’s income level, land ownership capability, job stability, and family structure. For housing to be effectively produced, the division of labor in women’s households, women’s family structure, and their level of participation must be considered in addition to the reliability of projects’ funding and timetable for completion. Accessibility in this analysis refers to not only the women’s ability to participate in the project, but also their ability to sustain participation. The concept of participation includes activities such as attending informational meetings, building the houses, and paying the debt of the house.

Not until 1985 was the connection between women and shelter strongly detailed in a United Nations document when the world conference for the UN Decade für Women (1976–1985), meeting in Nairobi, adopted the “Forward-Looking Strategies for the Advancement of Women.” At this stage in the development of gender planning, it is important to note, the emphasis was on including women in the housing process rather than shaping policy specific to women’s needs (Aliyiar and Shetty, 1993: 18).

During the last decade, however, when most of the literature on women and housing has emerged, several arguments have been put forth for the need for policy makers to focus on specific shelter needs related to women. Work in this domain has detailed the extent to which women have been excluded from housing provision and has shown that the specific needs of women have been disregarded from current housing policy and programs (Dandekar, 1993:14).
The Case for Gender Planning: Inclusion Criteria

**Income**

Accessibility to housing is often assumed by project designers to be equal for men and women, and is only differentiated across income lines. This assumption has served to make income the primary and at times the sole basis for assessing housing needs of family units. The data gathered from the surveyed participants, however, reflect women’s lower socioeconomic status when compared to men.

Figure 2 shows the distribution of income among the sampled population. When averaged, the annual income of the women surveyed is $786 as compared to the men’s average annual income of $1353. Another important observation is that when asked, “How much do you earn a month or each week?”, most of the men responded with a monthly salary, yet most of the women gave a range of weekly salary. This seems to reflect the high number of women who earn an unstable income in the informal sector as compared to the majority of men who earn a stable wage in the formal sector.

**Job Stability**

Related to the issue of income is job stability. With 76 percent of the women surveyed employed in the informal sector, their employment and earnings may be unstable. My assumption that their income is unstable is based on the women responding with a range of weekly income when they were asked “How much do you earn each month or week?”

In terms of job stability or employment opportunities my research results support the concept that women’s access to housing programs is potentially limited because of their inability to show proof of a steady income. With weekly income varying and no formal documentation of employment, women’s participation in the informal sector may prohibit project participation. Although attempting to earn an income in the informal sector may contribute to an unstable income, flexibility of work hours may enable women to more freely participate in the construction of homes.

**Access to Land**

An important issue to consider when planning and designing housing projects is the criterion of land tenancy. Most housing projects, whether public or private, require that the participant own the land on which the house is to be built. However, tenure is traditionally given to men as household heads, even where women have primary household responsibilities (Moser, 1993: 52). A staff member of the Centro de Mujeres in Masaya stated that it was unusual that women own land in Nicaragua because of the machista society and male-oriented laws (Moreno, 1996). However, my data contradicts this notion. As Figure 3 shows, when both female and male participants were asked, “In whose name is the title to the land?”, 82 percent responded that the land was in “her” name while 18 percent responded that it was in “his” name. An important factor in regards to land ownership of the participants is the origin of the land tenancy. The majority of the land where MASINFA houses were built was distributed under Ley 85 and Ley 861 by the Sandinista government in 1990 before leaving office.
Family Structure

Another standard used to measure accessibility of inclusion criteria is the participant's family structure and the potential for economic support. The composition and structure of families has changed dramatically throughout the world, yet, the failure by policy makers to recognize that households are not comprised of a homogenous nuclear family is still widespread (Moser, 1993; 16).

Family structure can show how many potential wage earners are in a household, which affects its ability to pay for the house. Of the women surveyed, the average number of people per household is 6. The average number of children is 4 and their mean age is 17.

For the 50 women surveyed, 58 percent were partnered (either married or had a companion) and 68 percent responded that they were the head of the household (Figure 4).

Structural Importance of Housing for Women

Another factor contributing to the importance of women's participation in the design and planning of housing is their income generating work which includes home-based production and food production. With the increase of women in the informal sector, many women support their family through home-based production such as sewing, ironing, washing, and by maintaining a "venta" (store) in the front of their home. As part of the informal sector, street food vending has become a major source of income for women around the world. Home food production is both a source of family food and a source of income. Of the surveyed population, 16 percent of the women use their home for income generating activities such as sewing, child care, and food production.

The importance for women of house design was expressed by the women interviewed. When asked "If you could change anything about the housing project, what would you change?" 36 percent (18) of the women answered "the structure and construction of the house." Other responses included "payment policy" 44 percent (22), "tenure" 4 percent (2), and "nothing" 16 percent (8).

In sum, MASINFA's housing project is accessible to the majority of surveyed women because of their family support and land ownership. However, the majority of women's income levels and job stability do not meet inclusion requirements.

The Case for Gender Planning: Efficacy of Housing

Division of Household Labor

Division of household labor is an important factor in the analysis of efficacy of housing because it is imperative that planners understand the productive and reproductive roles and responsibilities of the beneficiaries.

In regards to productive work, work done to earn an income, the majority of the surveyed women are employed and participate in the informal sector (Figure 5).

The project requirement of participating in the construction process two days a week forces women to choose between income generation or construction participation. In either case, a woman may lose income by missing a day's wage or by having to hire someone to represent her at the construction site. The survey results indicate that 12 (32 percent) out of 38 women who earn a wage missed work to participate in the
construction and 9 (18 percent) of the 50 women hired someone to work in their place.

Women's reproductive role, such as domestic work and child care, is also a key factor in determining accessibility. There is potential for women's domestic work to be negatively impacted when participating two days a week in self-help construction. Of the women surveyed, almost half (46 percent) spend all day doing domestic work and another 26 percent devotes all their mornings to domestic work (Figure 6). These results represent a potential for women's domestic work to suffer from construction participation. Yet, when questioned whether their participation negatively affected their domestic work, 68 percent of the women answered that it did not.

A reason why most participants' domestic work was not affected is the support from family members. When asked "Who does the domestic work" 38 percent said they did the work alone; 44 percent stated that they, with help, did the domestic work; and 18 percent responded that their daughter did all the domestic work.

If women also have to care for their children during the day, project participation may be difficult. When asked, "Quien cuida los ninos," (who takes care of the children) the majority of the women surveyed are the primary care givers for their children. When asked who cared for their children during the building of houses, 48 percent of the women surveyed responded that "it was not necessary" to find alternative child care.

A final analysis of women's productive and reproductive roles (Figure 7) demonstrates that these responsibilities deterred some women from participating in building houses. For instance, 33 percent of the women surveyed did not participate in the construction because of their child-care responsibilities while 30 percent of the women did not participate because of their wage work.

**Participation Level**

One of the most important determinants of efficacy and thus accessibility of a project is the level at which women participated in the construction process. Traditionally women are not employed in the construction field, which may deter their participation or level of participation when building homes. Added to this analysis is women's ability to participate in construction when considering their productive and reproductive responsibilities.

When asked, "What was your role or part in building the houses," 52 percent of the women responded "como ayudante" (as a helper). They described tasks such as carrying blocks, mixing cement, and carrying water. Their participation was equal to that of the men as all workers helped the brick mason to construct the houses. However, 48 percent of the women said they did not participate building houses.

What is pertinent to this...
evaluation are the main reasons why 48 percent of the women surveyed did not participate—lack of child care and wage work. Without a support system, either familial or project sponsored, only half of the women can participate. This is a weakness of MASINFA's project design.

Family Structure
Family structure and composition are important factors when analyzing a project's efficacy in providing houses. The requirement of beneficiaries to participate in the construction of homes could potentially affect the extent to which women can participate in the construction process and the rate at which the houses will be built. With 68 percent of the women surveyed responsible for supporting their families, they may need to rely on a family member to participate in building houses. This was the case with the majority of the females surveyed. When asked, "Did other members of your family participate in the construction process?" 71 percent responded "yes" and 21 percent responded "no."

Timetable
A project's effectiveness in producing housing is largely determined by the time necessary to complete the construction. The surveyed participants were asked two questions to determine the time necessary for project completion; these included: 1) How long did you wait after submitting your application for the construction to begin?; and 2) How much time was necessary to build the house? Of the 27 women who responded with a numeric answer, the average time spent waiting to begin construction in addition to time spent building the house was 7 1/2 months. Except for one participant, those who did not provide a numeric answer responded that the process "fue rapido" (was quick). The work brigades completed five houses at a standard rate of 3 months (Cruz, 1996:b) so that the average project completion is less than a year. I feel the time frame of the project is effective in delivering houses.

Reliability of Project Funding
The initial 257 houses built were funded by a donation from the European Coordination. It is the programmatic intent of MASINFA that the house payments received from participants be put into a revolving credit fund for continuation of the project. However, the economic situation in Nicaragua, in addition to the "no pago" (no pay) campaign sponsored by the Movimiento Comunal de Nicaragua, has resulted in 70 percent of the first phase participants not paying for their house. As of July of 1997, only eleven houses have been built from the revolving credit fund and no houses have been built since 1996. At this point MASINFA's program is not efficient in providing houses because of a lack of reliable funding creating an inability to provide houses for qualified female applicants.

This analysis illuminates a main point that for many female participants it was the support of their family that made the program accessible. To conclude, MASINFA's lack of gender planning has affected the accessibility of the housing project to many women.

Recommendations
From a gender perspective, different housing systems present various opportunities, constraints, and advantages for low-income women. Project based approaches (as for example, directed by an NGO like MASINFA) have possibly the greatest potential to increase accessibility to housing for women. MASINFA's housing project has existed for only five years and it is at an evaluation stage in the life of the project. The following are recommendations that I suggest MASINFA would do well to consider for increasing its accessibility to low-income women based on inclusion criteria and efficacy of housing.

Inclusion Criteria

Income
- Awareness of the fact that the majority of women work in the informal sector and, therefore, lack solid proof of capacity to pay should be taken into consideration. I suggest that MASINFA needs to be more flexible in an applicant's proof of income which would allow more women to participate in the future.
- MASINFA should establish a micro-enterprise related to
the construction process such as brick making, and wood cutting. This type of business would supplement the women’s incomes during project participation in addition to ensuring that the women have another source of revenue for house payments.

**Efficacy of Housing**

**Division of Labor**
- Because a lack of child care prevented several women from participating in the construction process, I recommend that MASINFA organize child care provision for female participants. By providing a support system for women’s domestic responsibilities more women will be able to participate in building homes.

**Level of Participation**
- Involve women participants in the designing of houses and construction process. Women’s structural housing needs for income generating activities and their domestic roles should be considered.

**Reliability of Project Funding**
- Allow participants to pay for house in a stable cordoba rate instead of U.S. dollars. The default rate of the women beneficiaries will most likely decrease, MASINFA’s revenue will increase enabling provision of housing for women, and project philosophy of requiring participants to pay for their house is maintained.

Through this study, I have determined the accessibility of MASINFA’s housing project to women based on inclusion criteria and efficacy of delivery housing. Problematic aspects of MASINFA’s housing project in regards to accessibility to women have been described. The importance of this research is the proof that gender planning is a legitimate paradigm of planning discourse and the incorporation of gender planning is pertinent to the accessibility of housing projects. Although my analysis and recommendations are specific to MASINFA, this research illuminates aspects of gender planning that should be taken into consideration when planning and designing a housing project.

**Notes**

1 Ley 85 is the law of “Transmission of Property of Housing and other Real Estate Belonging to the State and its Institutions” in which the state guarantees the right of property to all Nicaraguans, occupied by assignment, possession, renting, or any form of ownership. Ley 86 is entitled the “Special Law of Legalization of Housing and Land” in that people who have been occupying lots with the purpose of building homes on the lots, acquire by this law the right of property.

**References**


Cruz, Manuel, Masaya Sin Fronteras, interview 1996.


