

**2008 BASELINE SOCIO-ECONOMIC SITUATION  
OF THE MUNICIPALITY OF SAGÑAY  
Camarines Sur**

Final Report

*Prepared by  
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*DIOS MABALOS SAINDO GABOS!*

## 1 INTRODUCTION

### Background and Rationale

Sagñay is a fourth class municipality located in the Third District of the Province of Camarines Sur. It is located west of Lagonoy Gulf. It is bounded on the north by Tigaon, on the west by Ocampo, on the southwest by Baao and Iriga City, on the South by Buhi, on the southeast by Tiwi, a municipality of Albay. It has a population of 29,082 people as of August 1, 2007 and has 11,902 registered voters as of 2004 (National Statistical Coordination Board [NSCB], 2008).

Sagñay has a total land area of 10,819 hectares. It is partially urban with two urban barangays (San Antonio and San Isidro) of the total nineteen barangays. The other seventeen barangays, all categorized as rural areas, are Aniog, Atulayan, Bogñalon, Buracan, Catalotoan, Del Carmen, Kilantao, Kilomaon, Mabca, Minadongjol, Nato, Patitinan, San Roque, Sto. Niño, Sibaguan, Tinorongan, and Turague. Of its total land area, 64.27% is devoted to agriculture. Agricultural production activities include crop production, fishing as well as livestock and poultry raising. The crops produced include corn, sugarcane, abaca, and seaweeds. Fishing is mostly carried out in Lagonoy Gulf which extends to Maqueda Channel. However, freshwater and brackish water fishing which concentrates on the production of tilapia and bangus, respectively, also exist in the municipality (Municipal Planning and Development Office [MPDO] Report, 2000).

Sagñay's current opportunities lie in its rich natural resources. In 1993, in order to conserve Lagonoy Gulf which is the municipality's major fishing ground, the first Marine Fishery Reserve-Sanctuary in Atulayan Island was established by the Local Government Unit (LGU) of Sagñay, through the initiative of the Bureau of Fisheries and Aquatic Resources (BFAR). It also continues the Coastal Resource Management project initiated by the Partido State University in 2003 and has put up *Bantay Dagat*, a measure to enforce Fishery laws and regulations (Bradecina and Nieves, 2006). It taps its beautiful natural sceneries to attract tourists. Five beach



resorts are located in the barangays of Sto. Niño and Nato as well as in Bungalan Falls and Atulayan Island which has been named a national tourism zone.

On the other hand, the municipality also faces a number of challenges. One of its two major ports, the Bogñalon Port, is still up for rehabilitation. In 2000, as reported by the MPDO, only 30 percent of the national road and 60 percent of the barangay roads are passable during rainy season. Only eight of the nineteen barangays are being served by the local water supply facilities. Three barangays are still not reached by the electric power cooperatives and LGU-provided power generators. While there is one municipal hospital, however, there are no permanent personnel managing the facility but only volunteer physicians who come occasionally. Health-related needs are responded to mostly through the five Barangay Health Stations and the Municipal Health Office.

The most recent of these challenges is the presence in Bgy. Mabca of Safeco Environmental Services, Inc., a large 30,000 square-meter industrial waste stabilization and solidification facility which hauls in the industrial wastes of some manufacturing companies from Metro Manila.

At present, Sagñay has been identified as one of the four pilot communities of the Ateneo de Naga University (ADNU). ADNU, through its Social Involvement Council, desires to work in partnership with Sagñay to come up with a feasible development plan given its existing opportunities and challenges. For this to materialize, there is a need to look at its current realities especially that the MPDO was created eight years ago. It is also timely that the current socio-economic assessment be brought to the level of global standards. Thus, an important part of this socio-economic evaluation is the monitoring of the progress of Sagñay using the worldwide Millennium Development Goals (MDG), particularly Goal 7, Target 11.<sup>1</sup>

### **Objectives of the Study**

Generally, this study aimed to provide an updated profile of the Municipality

<sup>1</sup> Adopted in September 2000 by 189 member-states including the Philippines, the United Nations' MDG are a set of time-bound (1990-2015) and measurable goals and targets for combating poverty, hunger, diseases, illiteracy, environmental degradation, and discrimination against women (See Appendix A for an enumeration of the 18 targets and 48 indicators).

of Sagñay. This profile covers the socio-demographic characteristics of the respondents and their household members; their migration; income, expenditure, and saving patterns; an assessment of the poverty situation using self-rated poverty techniques; their accessibility to credit; communication facilities, media, and other basic social services; the housing situation; environmental and population management; the people's participation in local governance and government action on local services; their level of entrepreneurship; the incidence of violence against women and children as well as the community problems and aspirations in life. This study also attempted to measure Sagñay's advancement towards the attainment of Goal 7, Target 11 of the MDG.

## **Methodology**

### **Research Design**

The study employed descriptive research design in describing the situation as it existed at the time of the study. It utilized the survey descriptive research design form through personal interviews with the aid of an interview schedule as a technique for gathering information.

A sample size of 300 was obtained from the total number of the voting-age population, generating sixty spots with each spot representing five sample respondents. This sample size of 300 is equal to a +/- margin error of 5.63 percent at 95 percent confidence interval.

The study utilized a two-stage probability sampling. The first stage involved allocating the 300 samples or the sixty spots proportionately to the nineteen barangays of Sagñay, leading to the identification of the sample barangays. The second and final stage was the identification of the household respondents employing systematic random sampling.

The target respondents for this study were the household heads (HH) or their spouses. In the absence of both, an adult who was knowledgeable on the affairs and conditions of the household was interviewed.

## **The Interview Schedule**

The interview schedule was divided into twenty blocks; namely, the socio-demographic characteristics, estimated household income and livelihood source, household expenditure and savings pattern, access to credit, poverty and hunger situation, diet and nutrition, access to water, access to sanitation, security of tenure, durability of housing, environmental management, access to other basic services, organizational participation, access to communication facilities and media, population management, abuse of women and children, disaster preparedness, government action on local services, community problems and aspirations in life, and entrepreneurship.

## **Encoding, Coding and Data Processing**

All responses from the interview schedule, pre-coded and non-coded, were encoded using the EPI-INFO Statistical and Data Base Program. The encoded data were then printed for editing to ensure its accuracy. To avoid varying interpretations of the multiple responses from open-ended questions by a number of encoders, coding of responses was done prior to data processing. The generation of pre-specified data requirements was facilitated with the use of the Statistical Package for the Social Sciences (SPSS) software.

## **2 PROFILE OF THE RESPONDENTS AND HOUSEHOLD MEMBERS**

### **Socio-Demographic Characteristics of the Respondents in Sagñay, Camarines Sur**

The socio-demographic characteristics of the respondents in Sagñay, Camarines Sur are presented in terms of locale, sex, age, educational attainment, marital status, work status, socio-economic status, household size, primary source of household income, ethnicity, and religion. The data are found in Table 2.1.

Table 2.1. Selected Socio-Demographic Characteristics of Respondents, Sagñay, Camarines Sur, 2008

<b>Socio-Demographic Characteristics</b>	<b>Percent</b>
--	----------------

<b>Locale</b>	
Urban	10
Rural	90
<b>Sex</b>	
Male	19
Female	81
<b>Age</b>	
19-24 years	6
25-34 years	25
35-44 years	23
45-54 years	24
55-64 years	12
65 years & over	10
Mean	44
Standard Deviation	15
<b>Educational Attainment</b>	
None/Elementary	59
High School	28
Vocational/College	13
<b>Household Head</b>	
Yes	33
No	67
<b>Marital Status</b>	
Single	3
Married	79
Widowed	8
Separated	2
Living-in	8
<b>Work Status</b>	
Working	40
Not working/had worked before	47
Never worked before	4
Self-employed	10
<b>Socio-Economic Status</b>	
AB	0
C	2
D	58
E	40
<b>Household Size</b>	
1-3 members	25
4-6 members	47
7-9 members	25
10 members & over	3
Mean	5.2
Standard Deviation	2.4
<b>Primary Source of HH Income</b>	
Wages/salaries, agriculture	15
Wages/salaries, non-agriculture	18
Entrepreneurial, agriculture	50
Entrepreneurial, non-agriculture	10
Other sources of income (remittance, pension)	6

A substantial majority of the respondents live in the rural areas (90%). They are mostly females (81%) and married (79%). Their mean age is 44 with a spread of fifteen years around the mean age. The age distribution of the respondents which was arranged into six age groups with a ten year-interval, except for the first and

last classes, shows that a substantial majority of the respondents (90%) belong to the age group considered as economically active population and they are almost evenly distributed among the age ranges of 25-34, 35-44, and 45-54 years. Only 10 percent belong to the age group considered as old dependents.

The respondents are generally not highly-educated as shown by the downward trend of the level of education relative to their number. More than half (59%) either have no formal education or at most have graduated from elementary education. Only 13 percent have attended vocational or technical school, or at most have graduated from college.

Only a third of the respondents are HH, the rest which compose the majority (67%) are either the spouse or an adult knowledgeable child of the household.

The work status is described using four categories; (1) working, (2) not working but had worked before, (3) not working and had never worked before, and (4) self-employed. It is important to note that in this study, home-makers are classified as working individuals.

Since majority of the respondents are not HH and most of them belong to the age group of economically active population, as expected, the number of not working individuals (51%) is greater than that who are working (40%). It is interesting to note that 47 percent have experienced working before with only 4 percent never having worked at all. Only 10 percent are self-employed.

To describe the respondents' socio-economic class, housing characteristics are utilized. Specifically, the status of the respondents are approximated based on the housing construction materials of their house, quality of construction, type of neighborhood, and quality of indoor furnishings, among others. Respondents are then classified according to upper class (AB), middle class (C), poorer class (D), and poorest class (E).

The results of the housing characteristics evaluation show that almost all respondents come from the poor socio-economic status. More than half of them belong to class D (58%) while two-fifths (40%) belong to class E. Very few can be considered materially-able with only 2 percent falling under class C.

The respondents' households are relatively medium-sized with a mean size of five household members which has a variation of two persons around the mean. The distribution of the household size is described further by grouping the data into four classes with intervals of three except for the last class. With these classes, data show that nearly half of the respondents' households in Sagñay (47%) have four to six members. One-fourth of the respondents (25%) have either one to three or seven to nine household members. Only few respondents (3%) have a very large household size of ten or more members.

The primary source of household income was categorized according to the scheme followed at the National Statistics Office (NSO). The classification includes: (1) salaries and wages from employment in agricultural and non-agricultural industries, (2) entrepreneurial or family-operated activities in agricultural and non-agricultural enterprises, and (3) other sources of income in the form of net share of crops, livestock and poultry, cash receipts from foreign or domestic source, rental from non-agricultural land, buildings and spaces, interest from bank deposits and loans, pension and social security benefits, and dividends from investment, among others (NSO, 1997).

Using this classification, the survey shows that one-half of the households (50%) rely on agricultural enterprises as their primary source of income. These include fishing, farming, coconut wine making, piggery, and charcoal making. Nearly a sixth (15%) sources their income from wages and salaries from agricultural industries and nearly a fifth (18%) from non-agricultural industries. Non-agricultural wage-workers are mostly employed in low-skilled jobs serving as waiter, gasoline boy, laundry woman, utility worker, construction laborer, pedicab driver, and manicurist. Only a few are employed in skilled jobs, working as electronics technician or mechanic, electrician, sewer, and government or private employee. There are 10 percent of the households who rely on non-agricultural enterprises while some 6 percent rely on remittances, pension, land rentals, and lending.

The respondents' ethnicity and religion are conventional. Almost all respondents claim to be true-blue Bicolanos (94%) and Roman Catholics (96%). A negligible few claim that they are Tagalogs (3%), Visayans (2%), Ilocanos (0.7%), and Kapampangans (0.3%). The other religions of the respondents include Seventh

Day Adventist/Reform (1.6%), Pentecostal/Born Again (1.3%), Iglesia ni Cristo (0.3%), and Jehovah's Witness (0.3%).

## Migration

Almost two-thirds of the respondents (65%) originally dwelt in Sagñay. Of these, 18 percent had experienced inter-barangay movements (Table 2.2).

Table 2.2. Migration, Sagñay, Camarines Sur, 2008

Migration	Percent
<b>Place of Origin</b>	
Same barangay	47
Another barangay within Sagñay	18
Outside Sagñay, within Camarines Sur	21
Outside Camarines Sur	6
Outside Bicol	8
<b>Length of Stay in Sagñay</b>	
Average	35
Standard Deviation	17
<b>Last Place of Residence</b>	
Same barangay	47
Another barangay within Sagñay	17
Outside Sagñay, within Camarines Sur	22
Outside Camarines Sur	5
Outside Bicol	8
<b>Reasons for Migrating to Sagñay</b>	
Marital	46
Presence of family	15
Job or work	16
Free housing or has own lot	22

More than one-fifth (21%) are migrants from other places in Camarines Sur while 6 percent come from places outside the province. Only 8 percent of the respondents are not original Bicolanos. The shortest period of stay in Sagñay by a respondent is two months and the longest period is eighty-one years. The average length of stay is 35 years which varies around the average by 17 years.

The information on the last place of residence of the respondents show that they have migrated from outside of Sagñay: almost one-fourth (22%) come from other places within the province, 5 percent come from other provinces within the region, and 8 percent have originated from places beyond the boundaries of the region. Cultural factors such as marital fulfillment (46%) and presence of family



(15%) topped the reasons for transferring to Sagñay. The rest, such as better income-earning opportunities (16%) and the advantage of free housing or lot ownership (22%) are income-related.

### **Socio-Demographic Characteristics of the Household Members**

Sagñay is composed of an equal number of men and women and a very young population (Table 2.3). The households' mean age is 25 years yet half of the households are aged 0-17 years (50%). By Philippine Labor Code standards, 44 percent or 679 persons can be considered young dependents.

Similar to the characteristics of the respondents, the household members' educational attainment is low and assumes a downward trend relative to their number. Two-thirds of Sagñay folks have at least no formal education or at most have graduated from elementary education (67%). Only 9 percent are able to get training from vocational schools or at most have graduated from college.

More than half of the household members are single (59%). One-third is married (33%). The rest are widowed (4%), living-in (3%), or separated (1%). Both the pattern in education and composition of marital status are influenced largely by the presence of a very young population.

Data on work status show that more than two-thirds of Sagñay folks are economically dependent upon one-third of the household members who are productive. These two-thirds include 15 percent who are not working and who do not look for work, 4 percent who are not working but looking for work, 30 percent students, and 20 percent who are below fifteen years old but not attending school, and the old dependents. On the other hand, those who are considered productive include 24 percent who are gainfully employed, 7 percent who are inadequately employed, and 0.1 percent working students.

Table 2.3. Selected Socio-Demographic Characteristics of Household Members, Sagñay, Camarines Sur, 2008

Socio-Demographic Characteristics	Percent
<b>Sex</b> (n = 1557)	



Male	50
Female	50
<b>Age</b>	
0-17 years	50
18-24 years	9
25-34 years	13
35-44 years	10
45-54 years	8
55-64 years	5
65 years & over	6
Mean	25
Standard Deviation	21
<b>Educational Attainment</b>	
None/Elementary	67
High School	24
Vocational/College	9
<b>Marital Status</b>	
Single	59
Married	33
Widowed	4
Separated	1
Living-in	3
<b>Work Status</b>	
Not working, not looking for work	15
Not working but looking for work	4
Working, not looking for additional work	24
Working, still looking for additional work	7
Student	30
Working student	0.1
Not Applicable	20
<b>Primary Occupation (n = 478)</b>	
Wages/salaries, agriculture	27
Wages/salaries, non-agriculture	27
Entrepreneurial, agriculture	35
Entrepreneurial, non-agriculture	11
<b>Skills (n = 864)</b>	
Personal services	31
Farming, fishing, & forestry	28
Recreational services	13
Production, construction, & extraction	10
Office & administrative support	9
Transportation	7

Approximately three out of ten household members in Sagñay have occupations (31%). In absolute number, this refers to 478 individuals out of the total 1,557 household members. The classification of the household members' occupations is similar to that of the primary source of household income of the respondents. The largest number of individuals (35%) has occupations classified under agricultural entrepreneurial activities. Entrepreneurs in the agricultural enterprises are engaged in rice, coconut, corn, and vegetable farming, fishing and fish vending, charcoal making, hog and other animal raising.

More than one-fourth of the household members earn wages and salaries from agricultural activities (27%). These are farm laborers, rice mill machine and chain saw operators, hemp combers, and loggers.

The household members who earn salaries and wages from non-agricultural activities have the same percentage as the wage and salary earners from agricultural activities (27%). Most of them come from the service sector and are low-skilled. They are employed either as caretakers, shop and house helpers, manicurists, barbers, butchers, service crew, shoe and umbrella repairmen, and construction workers. A lesser number can be considered blue-collar workers who possess some skills like the machine operators, welders, carpenters, sign painters, and photographers. A few are employed in administrative and supervisory works or as pre-school teachers, electricians, day care workers, and dental technicians.

Two hundred fifty-seven (257) household members or 54 percent of those who have primary occupations also have secondary occupations which can be an indication that majority of the households do not earn enough income to meet their daily living needs that they are forced to look for other means of livelihood. Most of their secondary sources of income are earned by performing agricultural activities, not only working as farm laborers but doing rice, corn and vegetable farming, food and fish vending, and hog and poultry-raising. A few involve themselves in manual non-agricultural activities, such as driving, doing laundry, and working in construction jobs. It is interesting to note that 275 or 92 percent of the households receive income from other sources. The top three other sources of income are remittances (34%), interest from lending (28%), and profit from sale of domestic animals (10%).

In terms of skills, three out of ten persons (31%) are familiar with providing personal services, such as preparing and serving food and giving personal care. This may indicate that not all home-makers who make up the 35 percent of the household members are not knowledgeable in food preparation or have identified other skills outside of home-making. Nearly three out of ten persons (28%) are skilled in agricultural activities, such as farming, fishing, and forestry. Approximately one out of ten persons (13%) has inclinations in artistic, entertainment, and sports activities. One out of ten persons (10%) has inclinations on production, construction, and extraction. Nearly one out of ten persons has skills either on office and administrative support (9%) or transportation or moving of materials (7%).

### 3 INCOME, EXPENDITURE, AND SAVINGS

Household income accounts for cash receipts by all members of the household either from their economic activities (business or outside employment) or non-economic activities (gambling, pension, remittances, etc.). As specified in the earlier part of the report, home-making is regarded as productive work, hence, household income also includes the reproductive activities of the women in the home as imputed by the women themselves. Correspondingly, this valuation is included in the computation of the households' monthly income.

Household expenditure, on the other hand, account for all actual cash outlays and imputed household expenses, which may include house and/or lot rental when housing and/or lot is available for free, fuel when wood is gathered for free, and the like.

Table 3.1 shows the actual and imputed monthly income and expenditure of the households. The actual average or mean monthly family income is estimated at P5,761 which is lower than the average monthly family income estimated for Bicol at P10,417 in 2006 (National Statistics Office [NSO], 2008). The imputed average monthly income is P7,851. This is larger than the actual income by P2,090. This difference may show the average monthly imputed value that women place on their home-making or reproductive activities. The distribution of household income is highly skewed with the lowest monthly household income at P183 and the highest at P59,250 resulting to a range of P59,067 and a standard deviation of P6,052 around the mean. The median income at P4,212 being lower than the mean income signifies that the upper half of the households' income distribution is more spread out than the lower half.

Table 3.1. Income and Expenditure, in Pesos, Sagñay, Camarines Sur, 2008

Statistics	Monthly Income		Monthly Expenditure	
	Actual	Imputed	Actual	Imputed
Mean	5,761	7,851	5,413	8,966
Median	4,212	6,058	4,160	6,772

SD	6,052	6,576	4,389	10,187
Minimum	183	833	182	1,461
Maximum	59,250	62,250	28,613	154,440
Range	59,067	61,417	28,431	152,979

On the average, for a household size of five, the actual monthly expenditure reaches P5,413 which is P3,553 less than the imputed household expenditure of P8,966. The distribution of household expenses is also highly skewed with the lowest monthly household expenditure at P182 and the highest at P28,613. This discrepancy in the highest and lowest figures result to a range of P28,431 and a standard deviation of P4,389 around the mean.

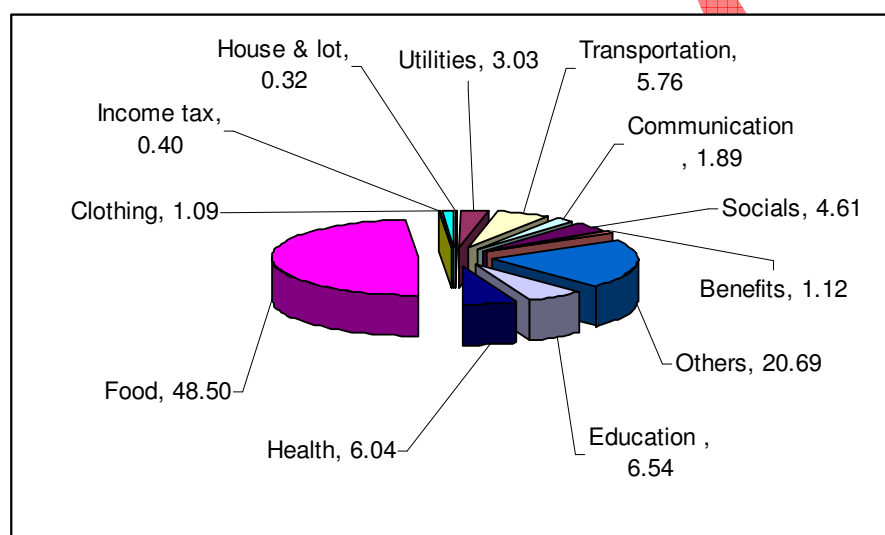


Figure 3.1. Expenditure Items, in Percent, Sagñay, Camarines Sur, 2008

On the average, the biggest portion of actual expenditure is spent on food (49%), thereby indicating that Sagñay households members have very low income with a large chunk of their income allocated to meeting simple biological or survival needs. The low income of households is also indicated by the low taxes (0.40%) paid by them. The low spending on education (7%), which is almost equivalent to their expenses for transportation (6%), can be explained by the age composition of the household members where half (50%) are in their basic education age when schooling is offered for free. Other expenses (21%) are for clothing, personal care, interest payments, house repairs, appliances, gifts, and the like which do not fall under the other categories. The rest of the expenses are found in Figure 3.1.

The saving practice in Sagñay is poor. Only two out of ten households had money set aside at the time of the interview (Table 3.2).

Table 3.2. Savings, Sagñay, Camarines Sur, 2008

Savings		Percent
With savings		19
Without savings		81
<b>Where savings are kept</b>		
Wallet		48
Piggy bank		16
Closet/Drum		11
Bank		21
Cooperative		2
Rotating savings scheme		2
<b>Amount</b>		
Median		1,000
Mode		500

The amount saved is also low. The median monthly saving is P1,000 but the usual amount (mode) saved is P500. Three out of four Sagñay households keep money in the traditional way which is either in the wallet, piggy bank, or closet. On the other hand, almost one out of four households utilizes formal channels like banks and cooperatives. There is a small fraction, two out of one hundred households, that utilizes the rotating savings scheme (or *paluwagan*) (2%).

Using the 2006 NSCB's Region V monthly per capita poverty threshold of P1,219.50 for Camarines Sur as a reference, the monthly household poverty threshold for an average household size of five is P6,097.50. With this poverty threshold, poverty incidence in Sagñay is 68 percent, which is 26.8 percent points higher than the official poverty incidence for Camarines Sur of 41.2 percent in 2006.

To determine whether income is equitably distributed, the mean and median of the household income by quintile income levels were derived (Table 3.3). The distribution of income in the two lowest income ranks shows an almost equal value of median and mean income. This suggests that the two lowest income groups assume a normal distribution which means that the lowest and highest monthly incomes rarely occur within an income range. However, as the income level goes up, that is, from the third to the highest income brackets, the mean income is relatively higher than the median income suggesting that in these income ranges, more households earn relatively lower income but the presence of a number of extremely high incomes

pulls the mean income higher than the median income.

Table 3.3. Household Income by Income Level, Median, Mean, in Pesos, Sagñay, Camarines Sur, 2008

Family Income by Rank	Income Bracket	Median	Mean
Lowest 5 <sup>th</sup>	183 - 2,125	1,363	1,367
Second 5 <sup>th</sup>	2,142 - 3,185	2,617	2,677
Third 5 <sup>th</sup>	3,200 - 5,027	4,142	4,212
Fourth 5 <sup>th</sup>	5,090 - 8,200	6,130	6,343
Highest 5 <sup>th</sup>	8,285 - 59,250	11,094	14,278

Income level by quintile shows that the lowest 20 percent earns a maximum income of P2,125 while the highest 20 percent a maximum of P59,250, reflecting a wide disparity in income distribution.

The disparity in income distribution is further explained in Table 3.4. The lowest 20 percent constitutes only 5 percent of the aggregate household income, while the highest 20 percent shares half (50%) of it. The cumulative share of the aggregate household income reveals that half of the income of Sagñay households is shared by four-fifths or 80 percent of the aggregate households.

Table 3.4. Distribution of Income by Quintile, in Percent, Sagñay, Camarines Sur, 2008

Family Income by Rank	Share of Aggregate Household Income	Cumulative Share of Household	Absolute Equality	Cumulative Share of Aggregate Household Income
Lowest 5 <sup>th</sup>	5	20	20	5
Second 5 <sup>th</sup>	9	40	40	14
Third 5 <sup>th</sup>	14	60	60	28
Fourth 5 <sup>th</sup>	22	80	80	50
Highest 5 <sup>th</sup>	50	100	100	100

A Lorenz Curve is drawn to illustrate how equitably income is distributed (Figure 3.2). The Curve shows the relative sizes of one cumulative magnitude as against the other. The horizontal axis measures the cumulative percentage of the households and on the vertical axis, the cumulative percentage of income earned. The Curve measures the proportion of income earned by specific income groups. The

diagonal line shows perfect equality. This means that at every point on the diagonal line, the percentage of income received is exactly equal to the percentage of income recipients. For example, the point halfway along the length of the diagonal line represents 50 percent of the income being distributed to exactly 50 percent of the population.

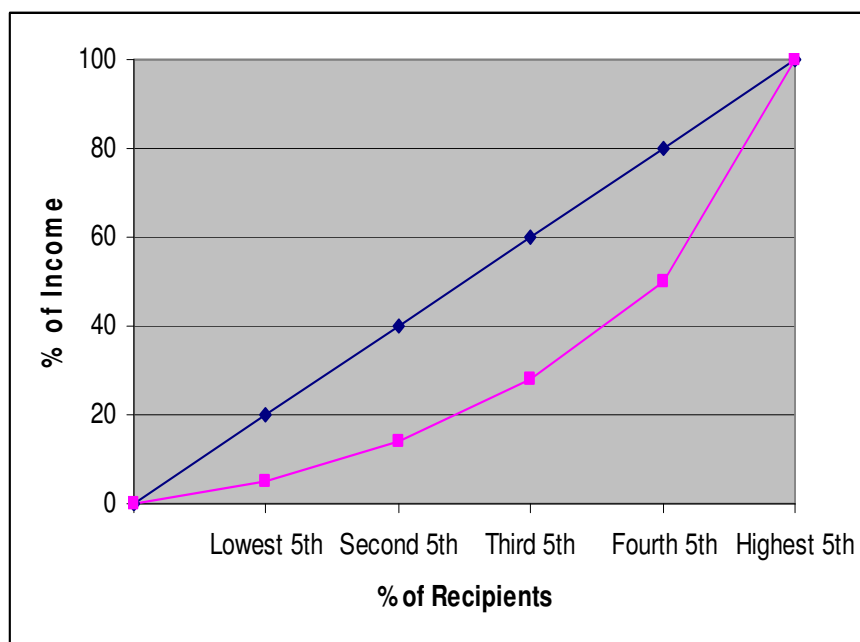


Figure 3.2. Lorenz Curve, Sagñay, Camarines Sur, 2008

Graphically, the more the Lorenz line sags from the diagonal line, the greater is the degree of inequality represented. In this case, disparity is shown by the sagging of the Lorenz Curve from the line of equality. Mathematical computation for this disparity is indicated by Gini coefficient which is shown to be 0.41. This figure falls in a range neither considered as one with highly unequal income distribution (0.50 to 0.70) or one with relatively equitable distribution (0.20 to 0.35) (Todaro, 1996). This means that the disparity or inequitableness of households' income in Sagñay is not so grave. Sagñay's Gini ratio is relatively better than Bicol which is at 0.44 (NSO, 2008). On the other hand, while incomes are relatively equitably distributed, majority of the families earn income below the official poverty threshold.

#### 4 POVERTY AND HUNGER SITUATION

In addition to the income, expenditure, and savings patterns, the poverty situation in Sagñay was also determined using the self-rating approach. Sagñay households were asked to self-rate their experience and degree of hunger felt and the quality of life in the past five years and in the next three years. Through these data, poverty incidence, mean and median poverty thresholds were computed. All questions utilized to draw these data were adopted from the Social Weather Stations (SWS).

### Three-fourths of the Respondents Consider Themselves Poor

Three out of four Sagñay folks rate themselves poor (78%), one out of ten rates himself to be on the line (13%), and one out of ten rates himself not poor (9%) (Figure 4.1). The self-rated poverty incidence is higher than the SWS estimate of 48% for Luzon (less NCR) in March 2008 (SWS, 2008).

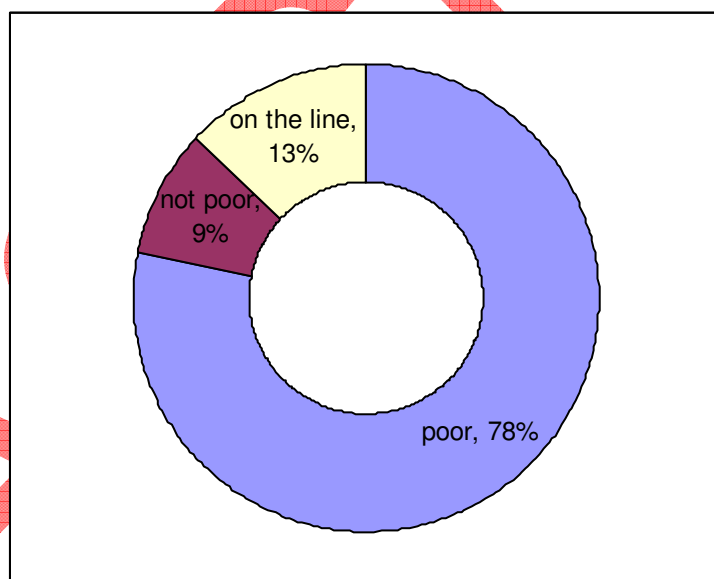


Figure 4.1. Self-Rated Poverty, Sagñay, Camarines Sur, 2008

More females (74%) than males (63%) rate themselves poor (Table 4.1). Poverty is felt by the majority of all types of marital and work status with those separated (100%) and the wage earners in the agricultural sector (79%) as the most affected. The level of poverty decreases as household members' education becomes more advanced.



Table 4.1. Self-Rated Poverty by Background Characteristics,  
Percent of Households, Sagñay, Camarines Sur, 2008

Background Characteristics	Not Poor	On the line	Poor
<b>Sex</b>			
Male	25	12	63
Female	14	12	<b>74</b>
<b>Marital Status</b>			
Single	22	22	56
Married	13	9	78
Widowed	8	8	83
Separated			<b>100</b>
Living-in	13	4	83
<b>Education</b>			
None/Elementary	12	7	<b>81</b>
High School	13	13	74
College/Voc/Post	39	18	43
<b>Source of Income</b>			
Wages/salaries – agriculture	21		<b>79</b>
Wages/salaries - non-agriculture	18	18	63
Entrepreneurial – agriculture	13	12	75
Entrepreneurial - non-agriculture	21	6	73
Other sources of income	21	9	70

A monthly average of P12,411 with a variation of P10,106 around the mean is needed to meet home expenses in order for Sagñay families not to consider themselves poor anymore (Table 4.2). Median poverty threshold is at P10,000.

By civil status, the singles posts as the group with the highest monthly need of P16,667 for their home expenses, followed by those who are living-in at P13,917; married, P12,346; widowed, P10,750; and separated, P9,643. All these groups need a median income of P10,000 except for the separated whose needed median income is P5,000 only.

Table 4.2. Mean and Median Poverty Thresholds by Marital Status and Sources of Income, Sagñay, Camarines Sur, 2008

Sagñay/Background Characteristics	N	Mean (in pesos)	Median (in pesos)	Std. Deviation (in pesos)
<b>Sagñay, Camarines Sur</b>	300	12,411	10,000	10,106
<b>Marital Status</b>				
Single	9	16,667	10,000	16,956
Married	236	12,346	10,000	9,550
Widowed	24	10,750	10,000	7,963
Separated	7	9,643	5,000	13,659
Living-in	24	13,917	10,000	12,998
<b>Source of Income</b>				
Wages/salaries – agriculture	45	10,000	10,000	8,520

Wages/salaries – non-agriculture	55	14,273	10,000	12,165
Entrepreneurial – agriculture	151	12,591	10,000	9,909
Entrepreneurial – non-agriculture	32	12,594	10,000	8,316
Other sources of income (remittance, pension)	17	10,824	10,000	10,106

In terms of livelihood, those who are earning salaries and wages in the non-agricultural sector would need the highest average amount of P14,273 to get out of poverty. All entrepreneurs, whether coming from the agricultural or non-agricultural sectors, need an average income of almost P12,600 to consider themselves not poor anymore. The least need at P10,000 are registered by those earning through salaries and wages in the agricultural sector.

### One-Third of the Respondents Have Experienced Hunger

The incidence that one experiences hunger and he has nothing to eat is another indication of the prevalence of poverty. Sagñay folks had assessed their poverty situation using this question: "Have you experienced hunger at least once and had nothing to eat in the last three months?" The results of the survey indicate that one out of three affirmed having been in such kind of situation (30%) (Table 4.3). This figure is greater than the SWS estimate of 16% for Luzon (less NCR) in March 2008 (SWS, 2008).

Table 4.3. Experience of Hunger by Background Characteristics, Percent of Households, Sagñay, Camarines Sur, 2008

Background Characteristics	Yes	No
<b>Sagñay, Camarines Sur</b>	<b>30</b>	<b>70</b>
<b>Marital Status</b>		
Single	11	89
Married	28	72
Widowed	38	62
Separated	<b>57</b>	43
Living-in	50	50
<b>Socio-Economic Status</b>		
AB		
C	0	100
D	26	74
E	<b>38</b>	62
<b>Household size</b>		
1-3 members	24	76
4-6 members	30	70

7-9 members	33	67
10 members & over	<b>50</b>	50
<b>Source of Income</b>		
Wages/salaries – agriculture	<b>42</b>	58
Wages/salaries - non-agriculture	34	65
Entrepreneurial – agriculture	30	70
Entrepreneurial - non-agriculture	12	88
Other sources of income	24	76

A look into the characteristics of the households shows that hunger is worst experienced by those who are separated (57%), among class E (38%), belonging to a large household size of 10 members and more (50%), and those who primarily earn wages and salaries in the agricultural sector (42%).

How deep is the problem on poverty? This study follows the assumption that more frequent involuntary hunger implies a deeper state of poverty as hunger directly measures the extent to which basic food needs are not being met. In Sagñay, the survey shows that 3 out of 4 persons say they had nothing to eat when they were hungry only once in the past three months (Table 4.4). More than a tenth (14%) had nothing to eat when they were hungry for a few times in the past three months. This is similar to the few who experienced a hunger situation, although not always but more often (7%). These (always and more often) hunger experiences show that severe hunger in Sagñay is higher than the national rate of 3.3 percent in December 2007 as reported by the SWS. These figures tell that both the magnitude and the intensity of hunger are graver in Sagñay since they surpass the national figure.

Table 4.4. Frequency of Hunger, Sagñay, Camarines Sur, 2008

Frequency (n = 91)	Percent
Only once	78
A few times	14
Often	3
Always	4

### Losers but Optimistic

Has the quality of life of Sagñay folks changed since five years ago? Survey shows that two out of five (42%) find themselves in a worse situation, one out of

three (34%) finds himself in a similar situation, and one out of five (24%) finds himself better off. In general, Sagñay households lose a net score of 18 percent points between those who have become better and those who are worse.

The quality of life at present compared with that of the past five years is relatively worse to females who lose a net score of 18 percent points than the males who lose a net score of 16 percent points, to the widowed who lose a net score of 41 percent points, to the poorest class E that lose a net score of 27 percent points, to households with 10 members and more that lose a net score of 30 percent points, and to those who earn salaries and wages in the agricultural sector who lose a net score of 26 percent points.

The quality of life at present compared with that of the past five years is generally better to males who are married, who have one to three household members, who belong to class D, and who earn income from wages and salaries from the non-agricultural sector and from remittances, interest from lending, and profit from sale of domestic animals. A detailed description of the quality of life of Sagñay's folks is shown in Table 4.5.

Table 4.5. Quality of Life in the Past Five Years, Percent of Households, Sagñay, Camarines Sur, 2008

Question: Comparing your quality of life now to how it was five years ago, would you say that your quality of life now is ...					
Background Characteristics	Better	Same as before	Worse	Don't know	Net Gain
<b>Sagñay</b>	24	34	42		-18
<b>Sex</b>					
Male	29	25	45	2	-16
Female	23	36	41		-18
<b>Marital Status</b>					
Single	33	56	11		22
Married	24	35	41		-17
Widowed	17	25	58		-41
Separated	29	29	29	14	0
Living-in	25	29	46		-21
<b>Socio-Economic Status</b>					
AB					
C	29	29	43		-14
D	30	30	40		-10
E	16	40	43	1	-27
<b>Household Size</b>					

1-3 members	26	38	35	1	-9
4-6 members	23	32	45		-22
7-9 members	25	35	40		-15
10 members & over	20	30	50		-30
<b>Source of Income</b>					
Wages/salaries – agriculture	18	36	44	2	-26
Wages/salaries - non-agriculture	29	27	44		-15
Entrepreneurial – agriculture	23	36	41		-18
Entrepreneurial - non-agriculture	25	31	44		-19
Other sources of income	29	41	29		0

However, even if majority of the respondents find themselves losers, more than half (52%) are optimistic that in the next three years their quality of life will become better, two out of five (38%) think that their quality of life will be the same while only one out of twenty (5%) believes his situation will become worse. One out of twenty persons (5%) does not have any idea on what is going to happen to him in the next three years. Generally, these responses show net gain percentage points of 47 percent which means that there are more households that are optimistic that their quality of life will become better in the next three years. (Table 4.6).

Table 4.6. Quality of Life in the Next Three Years, in Percent, Sagñay, Camarines Sur, 2008

Question: In your opinion, what will be the quality of life in the next 3 years? Will it...					
Sagñay/Background Characteristics	Become better	Be the same	Become worse	Don't Know	Net Gain
<b>Sagñay</b>	52	38	5	5	47
<b>Sex</b>					
Male	55	34	5	5	50
Female	51	39	5	4	46
<b>Marital Status</b>					
Single	67	22	11		56
Married	52	39	5	4	47
Widowed	42	33	17	8	25
Separated	29	43		29	29
Living-in	54	46			54
<b>Socio-Economic Status</b>					
AB					
C	57	29	14		43
D	53	37	6	4	47
E	50	41	3	6	47
<b>Household size</b>					
1-3 members	50	39	7	4	43

4-6 members	52	38	5	4	47
7-9 members	48	41	4	7	44
10 members & over	80	10	10		70
<b>Source of Income</b>					
Wages/salaries – agriculture	51	33	2	13	49
Wages/salaries – non-agriculture	56	38	4	2	52
Entrepreneurial – agriculture	54	38	5	3	49
Entrepreneurial – non-agriculture	38	44	9	9	29
Other sources of income	41	47	12		29

Males (50%) are more optimistic than females (46%). This optimism regarding a better quality of life is generally shared by those who are single (56%), in classes C and E (47%), in households that have 10 members and more (70%), and among those earning wages and salaries in the non-agricultural sector (52%).

## 5 DIET AND NUTRITION

This section describes the diet and nutrition practices of Sagñay households; specifically, the number of meals and snacks in a day, the number of times food is prepared at home, and the number of times lunch or dinner is purchased in a week. It also looks into the food items taken and how these are distributed among the household members.

Sagñay households seem to have a generally healthy lifestyle taking, on the average, sufficient 3 freshly cooked meals and 1 snack per day (Table 5.1). Sagñay households serve freshly cooked food 3 times in a day as indicated by the mean number of food preparation of 20 times in a week and by the practice of at most once-a-week purchase of lunch or dinner from a carenderia or turo-turo. On the other hand, the number of times of food preparation is also indicative of how a homemaker is tied up in cooking chores that restrains her from being more productive outside of the home.

Table 5.1. Diet and Nutrition Practices, Sagñay, Camarines Sur, 2008

Diet and Nutrition Practices	Mean
Number of meals in a day (without counting snacks)	3

Number of snacks in a day	1
Number of meal preparation in a week	20
Times lunch or dinner was bought in a week	1
Class restaurant	0
Fast foods	0
Cafeteria or canteen	0.01
Carenderia or turo-turo	1.28

Food items intake shows that Sagñay folks take relatively ample carbohydrates as rice remains the staple food and is served three times a day (Table 5.2). During breakfast, the household members take a variety of carbohydrates – bread, cereals, oats, noodles, and *pansit*. Protein requirements are mainly sourced from fresh, dried, or canned fish and some vegetables. Intake of protein-rich meat like chicken, pork, and beef is limited. At most, vegetables cover only one-third of the average diet (34%).

Table 5.2. Types of Food Items Taken During Meals, Percent of Households, Sagñay, Camarines Sur, 2008

Food Item	Breakfast	Lunch	Dinner
Rice/rice gruel	23	35	36
Vegetables	3	34	34
Fish (fresh/dried/canned)	9	24	24
Pork/chicken/sausage/beef/egg	7	5	4
Coffee/milk/tea/juice/Milo/soup	28	1	0.2
Noodles/ <i>Pansit</i>	8	0.6	2
Bread/cereal/oats/root crops/coconut meat/banana	23	0.6	0.3

Food distribution within the household suggests some form of patriarchal system and male dominance particularly in providing the largest serving. In four out of ten households the biggest servings are given to the husbands (36%) and in five out of ten households the biggest servings are given to the sons (48%) (Table 5.3). However, this practice is not followed when serving the least or the best part because the sons also get the least servings (56%) since households are no longer particular about whom to serve the best part as evidenced by a relatively high percentage on serving the best part to just any member (61%).

Table 5.3. Food Distribution Within the Household, Percent of Households, Sagñay, Camarines Sur, 2008

Household member	Largest Serving	Least Serving	Best Part
------------------	-----------------	---------------	-----------

Husband	36	7	6
Wife	5	14	4
Son/s	48	56	14
Daughter/s	4	14	16
Any member/shared equally/not applicable	6	9	61

## 6 ACCESS TO CREDIT

Almost three-fourths of the respondents (72%) were able to avail of loans. At the time of the survey, 69 percent had outstanding loans (Table 6.1). More than one-third of those who accessed credit borrowed for their food needs (39%) and capitalization or work-related activities (36%). The rest used credit to finance non-food basic needs (23%) such as tuition, medication, house repair, transportation, and bail payments; purchase of appliances or motorcycle (4%); and election and vice expenses (1%).

Table 6.1. Sources and Uses of Credit, Sagñay, Camarines Sur, 2008

Source of Credit	Percent
<b>With Outstanding Loan?</b>	
Yes	69
None	31
<b>Sources of Credit</b>	
Business person	39
Relatives/neighbor/candidate	37
Cooperative & Microfinance	13
Bank	7
Bombay	3
Employer	2
<b>Uses of Borrowed Money</b>	
Food	37
Capitalization/Job-related	36
Non-food basic needs	23
Appliances/Motorcycle	4
Others ( <i>election campaign, vice</i> )	1

Credit sources are sundry. A large majority borrowed from informal sources, such as business persons (39%); relatives, neighbors, and candidate (37%); "Bombay" (1%); and employer (2%). Only a few utilized formal channels like cooperatives and microfinance institutions (13%) as well as banks (7%).



## 7 ACCESS TO WATER AND SANITATION

Access to safe water is determined by the drinking water source, affordability and sufficiency of water, ownership status of this utility, and quality of water. (98%). The yardstick on affordability and sufficiency of water is a localized standard based on the UN Human Settlements Programme (HABITAT) and Global Urban Observatory (GUO) standards. On the other hand, access to sanitation is defined by the presence or absence as well as quality of toilets and septic tanks.

### Access to Water

The water utilized in Sagñay is generally affordable, sufficient, of good quality, safe, and clean (Table 7.1). Almost all households are able to avail of twenty liters of water per day (95%) while spending less than 10 percent of their income on it (98%). Its quality which is assessed in terms of clearness, smell, and taste is relatively good as a substantial majority of the respondents report that their water is clear (99.3%), does not smell (92%) nor have a strange taste (92%).

Table 7.1. Affordability, Sufficiency, and Quality of Water, Sagñay, Camarines Sur, 2008

Description	Percent
<b>Affordability of Water</b> (n = 300)	
Household spends less than 10% of income on water	98
Household spends 10% or more of income on water	2
<b>Sufficiency of Water</b>	
At least 20 liters/day/ person	95
Less than 20 liters/day/person	5
<b>Clearness of Water</b>	
Clear	99.3
Not clear	.7
<b>Smell of Water</b>	
With smell	8
Without smell	92
<b>Taste of Water</b>	
With strange taste	8

No strange taste	92
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Only three out of ten households have piped-to-dwelling connection either from Sagñay Waterworks (20%) and/or from improved spring/deep well (7%). The rest, except for the 1 percent that purchase water from a tanker, obtain drinking water through self-supply either from surface or ground water: private deep well pump (18%), open well (14%), and spring/river (6%) (Table 7.2). For water not accessed inside the house, the minimum distance to the water source is one meter while the maximum is 200 meters. Safe water is not conveniently available to household members because at most only 70 percent own their respective water sources which may be the Sagñay Waterworks (61%), improved spring/deep well (46%), deep well private pump (70%), and/or open well (20%).

Table 7.2. Source of Drinking Water and Ownership of Water Source, in Percent, Sagñay, Camarines Sur, 2008

Source	Access	Ownership	
		Yes	No
Sagñay Waterworks	20	61	39
Improved spring/Deep well (piped to dwelling)	7	46	54
Deep well (private pump)	18	70	30
Open well	14	20	80
Improved spring/Deep well (public pump)	32		
Spring/river	6		
Purchased from ration/tanker	1		

For the 101 households with in-dwelling water connection, 80 percent have underground connection, 19 percent are connected above the ground, and 2 percent are connected close to a drainage or canal (Table 7.3).

Table 7.3. Water Connection, Sagñay, Camarines Sur, 2008

Description	Percent (n = 101)
Close to Drainage/Canal	2
Above the ground	19
Underground	80

### Access to Sanitation

While the profile on accessibility of water seems to be promising, access to sanitation may not fare as well. Not all Sagñay folks have access to sanitation. Only a simple majority or 69 percent of the respondents have toilets which are mostly water-sealed (87%) with some using the flush-type (1%), Antipolo (7%), and open pit (4%). The remaining nearly one-third of the households (31%) do not have their own toilets. They are content with using the communal toilet or their neighbors' toilets (66%), rivers/lakes (17%), open fields (16%), or plastic bags (1%). In most cases, only two households share one toilet (72%), but sharing can be from three to four (21%) to ten to twenty households (3%) (Table 7.4).

Table 7.4. Presence of Sanitary Toilet and Septic Tank, Sagñay, Camarines Sur, 2008

Toilet/Septic tanks	Percent
<b>Presence of toilet</b>	
With	69
Without	31
<b>If without toilet</b>	
Communal/Neighbors' toilets	66
River/lake	17
Open fields	16
Plastic bag	1
<b>Type of toilet</b>	
Flush	1
Water-sealed	87
Antipolo	7
Open pit	4
<b>Presence of septic tanks</b>	
With septic tanks	86
Without septic tanks	14
<b>Where waste flow</b>	
River/sea/Canal	46
Pit/soil	37
Fields	16
<b>Frequency of cleaning</b>	
Never been cleaned	84
Once in five years/when full	8
When full/Don't know	8

Of the 86 percent who have their own septic tanks, 84 percent admit that these have never been cleaned. An insignificant number cleans the septic tank when it is full or approximately once every five years (8%) while there are a few who do not at all bother knowing if their tanks have ever been cleaned (8%).

## 8 DURABILITY OF HOUSING

Durability of housing is shown by the kind of construction materials used for roofs and walls. It is also suggested by adhering to the building standards and demonstrated through the safe location and condition of the house.

### Quality of Housing

More than half of the households use durable roofing materials: mixed galvanized iron and aluminum (50%), mixed concrete and galvanized iron (2%), mixed concrete/tile/brick/stone (2%), and mixed tile/concrete/wood (2%) (Table 8.1). Some 27 percent have a mixture of nipa, galvanized iron and aluminum. However, almost one out of seven households still makes use of the traditional combination of bamboo, sawali, and nipa (15%) while there are 2 percent that utilize makeshift materials.

Table 8.1. Construction Materials Used, in Percent, Sagñay, Camarines Sur, 2008

Construction Materials	Roofs	Walls
Galvanized iron/aluminum	50	1
Mixed concrete & galvanized iron	2	.3
Concrete/tile/brick/stone	3	28
Mixed tile/concrete/wood	2	25
Wood/plywood	0.3	2
Nipa/galvanized iron/aluminum	27	3
Bamboo/sawali/nipa	15	30
Makeshift	2	5

More than half of the households also use durable walling materials: mixed galvanized iron/aluminum (1%), mixed concrete/tile/brick/stone (28%), and mixed tile/concrete/wood (25%). Still, one-third of the households have utilized light materials for walling like bamboo, sawali, and nipa (30%), and makeshift materials (5%).

## House Location and Safety Condition

Even if majority of the houses are made of durable materials, a substantial majority of the respondents are not aware of the regulations on building standards (92%) hence expectedly, only a few 4 percent were able to observe these regulations. At the time of the survey, majority (65%) knew that their houses needed major repairs (Table 8.2).

Table 8.2. House Location and Safety Condition, Sagñay, Camarines Sur, 2008

Location/Condition	Percent	
	Yes	No/DK
Respondent is informed about building standards	8	92
Observes building standards	4	83/13
House needs major repair	65	35
House is located in a safe place	73	27
<b>Unsafe location of houses</b> (n = 83)		
Close to sea/river/canal	64	
Under a coconut tree/ bridge/on landslide-prone area	15	
By the side of a road	12	
Open fields	2	
Near dump site/with air pollution	6	

Added to this, 27 percent claim that their houses are not built in safe places. They find that being situated close to the sea or river (88%), by the side of a road, in low farm areas, open fields, and under the bridge place their lives at risk.

## 9 DISASTER PREPAREDNESS

The well-roundedness of a community is measured by how its residents manage themselves in times of stress or natural calamities. This section describes the way the respondents deal with urgent situations and prepare for disasters.

Almost all respondents claim that they are prepared in times of calamities (99%). When necessary, 95 percent of Sagñay residents are amenable to evacuate their abode.

Table 9.1. Disaster Awareness and Preparedness, Percent of Households, Sagñay, Camarines Sur, 2008

<b>Disaster Preparedness</b>	<b>Yes</b>	<b>No</b>
Prepared to face natural calamities	99.3	0.7
Amenable to evacuate when necessary	95	5

Preparations made in times of calamities are mostly personal or familial: packing or securing things (27%), repairing the house or securing the roofs (25%), transferring to safe grounds (21%), preparing personal belongings, food, and utilities (23%), others (4%) which include talking to or assembling the children, praying, listening to the radio, securing plants and animals, and trimming trees and branches for safety (Table 16.1).

Table 9.2. Preparations Made in Times of Calamities, Sagñay, Camarines Sur, 2008

<b>Form of Preparation</b>	<b>Percent</b>
Pack/secure things to keep them from getting wet	27
Secure roof/repair house	25
Transfer to safe grounds	21
Prepare personal belongings/food/water/light	23
Others	4

The manner of preparations also reveals that families of Sagñay make short-term and immediate preparations only with focus on things to do before and during strikes of calamities. No response was given that concerns long-term preparations or those that should be done after calamities struck.

## 10 ENVIRONMENTAL MANAGEMENT

The level of awareness of regulations, issues, and practices concerning environmental and waste management and disposal practices of Sagñay households was likewise determined in this study. Specifically, an assessment was made of their observance of waste management regulations, manner of garbage disposal as well as the presence, type and regularity of drainage cleaning.

There is a relatively low awareness of environmental issues in the municipality (35%). The top three of these problems include forest denudation (30%), garbage management and disposal (22%), and flooding (20%) (Table 10.1).

Table 10.1. Environmental Problems, Sagñay, Camarines Sur, 2008

Environmental Problems	Percent
Forest denudation	30
Garbage management and disposal	22
Flooding	20
Water pollution	13
Air pollution caused by surrounding piggeries and absence of latrines among some residents	8
Illegal fishing	4
Quarrying	2

With the low percentage of households that are aware of the existing environmental issues, it is not surprising that there is at least one out of two (57%) that does not observe any of the regulations specified under R.A. No. 9003 on ecological solid waste management. Only four out of ten practice waste segregation (40%) and three out of one hundred inhibit from and prohibit burning (Table 10.2).

Table 10.2. Manner of Garbage Disposal, Sagñay, Camarines Sur, 2008

Practices/Regulations	Percent
<b>Manner of Garbage Disposal</b>	
Burning	53
Collection by garbage trucks	18
Disposal in a vacant lot/river/canal	14
Burying	12
Composting	2
Segregation	2
Sale to junk store	1
<b>Waste management regulations</b>	
Segregation	40
Non-burning	3
None of the above	57

More than half of the households continue to burn their garbage (53%), 14 percent throw theirs in vacant lots, rivers or canals, and 12 percent simply bury their garbage – practices which are environmentally unsound as they cause air, water, and soil pollution. Such ill-practices might be attributed to the small number of houses reached by the garbage collection truck (18%). Only one out of twenty households practices sound garbage management and disposal which include composting (2%), segregating (2%), and selling to junk shops (1%).

The drainage system is available only to 31 percent of the households and these are mostly open canals (92%) (Table 10.3).

Table 10.3. Drainage and Flooding, Sagñay, Camarines Sur, 2008

Status of Drainage and Flooding	Percent
<b>Presence of Drainage</b> (n = 300)	
With drainage	31
Without drainage	69
<b>Sufficiency of Drainage</b> (n = 93)	
Sufficient	90
Insufficient	10
<b>Kinds of Drainage</b>	
Open canal	92
Covered canal	8
<b>Place being flooded</b> (n = 300)	
Yes	9
No	91

Of this one-third, 90 percent find the drainage system sufficient and 82 percent affirm that the canals have been cleaned. While the drainage system is not available to more than two-thirds of the households (69%), flooding is a rare occurrence in Sagñay (9%). Flooding occurs mostly as a result of water flowing to the low-lying areas from the fields (21%) or clogged or shallow drainage (24%).

## 11 SECURITY OF TENURE

Security of tenure is indicated by one's ownership of and income allocation for the house he lives in or the lot where his house is constructed. In addition, secure



tenure is also evaluated through a households' experience of and perceived protection from demolition.

Majority (65%) have no security of tenure in the lots where their houses are constructed. Even if one hundred percent claim that they spend less than 30 percent of their income on lots and housing, they occupy the lots simply through the consent of the owners (Table 11.1). Some (7%) are squatting in the lots even without the owner's consent. While 24 percent of the households own the house where they stay, 17 percent only can be considered fully secured because they also own the lots. Most homeowners do not have proofs of payment for the houses where they stay (70%).

Table 11.1. Housing and Lot Tenure, in Percent, Sagñay, Camarines Sur, 2008

Status	Lot	House
Owner with proof of payment	17	24
Owner without proof of payment	12	70
Installment payment	3	0
Renting	2	1
Squatting with owner's consent	65	4
Squatting without owner's consent	7	0

The low incidence of house and lot ownership is offset by the low experience of demolition (5%) (Table 11.2).

Table 11.2. Experience of Demolition, Percent of Households, Sagñay, Camarines Sur, 2008

Question: In the past 10 years, have you experienced being demolished in your previous places of residence?	
Yes	5
No	95
Question: What were the reasons for the demolition?	
Needed by the owner	56
Road-widening	44

At most, 88 percent of those who experienced demolition encountered it only once. Demolitions occurred due to the reacquisition of the lots by the owners (56%) and the road-widening projects by the government (44%).

Households are also optimistic that demolition is not foreseeable in the near future (85%). The 15 percent who foresee demolition point to the following possible reasons: claim of the owner or his siblings of the land (61%), failure to pay rentals (17%), house and lot being located in danger zones (13%), and road-widening (4%) (Table 11.3).

Table 11.3. Possibility of Demolition, Percent of Households, Sagñay, Camarines Sur, 2008

Question: Do you foresee any possibility of being demolished in the near future?	
Yes	15
No	85
Question: What are the reasons for possible demolition?	
Needed by the owner	65
Failure to pay installment	17
Located in danger zone	13
Road-widening	4

## 12 ACCESS TO OTHER BASIC SERVICES

In this study, other basic services cover access to electricity, kinds of fuel used, and health services.

### Access to Electricity

Sagñay as a partially urban municipality has a relatively weak access to electricity. Table 12.1 shows the summary statistics on the households' access to electricity.

Table 12.1. Access to Electricity, Sagñay, Camarines Sur, 2008

Indicators	Percent
<b>Connected to CASURECO</b> (n = 300)	62
<b>Ownership of the connection</b> (n=185)	
Sole ownership	94
Shared	6
<b>If shared, number of co-users</b> (n = 12)	
2 households	92
3 households	8

Table 12.1. Access to Electricity, Sagñay, Camarines Sur, 2008

Indicators	Percent
<b>Source of house lighting if not connected to CASURECO (n = 115)</b>	
kerosene lamp	95
Candle and flashlight	5

Only a simple majority (62%) are connected to the service provider, CASURECO. The substantial majority (94%) of the households with electricity connection enjoy sole ownership while a small percentage (6%) share, at the minimum, with 2 households (92%) and, at the maximum, with 3 households (8%). Those who are not able to avail of the CASURECO services use kerosene lamps (95%) or candles or flashlights (5%) for household lighting.

### Cooking Fuel

Although each household uses multiple types of energy as cooking fuel, a substantial majority (93%) still rely heavily on the use of biomass energy for cooking: 67 percent use firewood while 26 percent charcoal (Table 12.2). Firewood is a more popular fuel than charcoal to both classes D and E. Eight out of ten class D households (77%) and nine out of ten class E households (92%) utilize firewood while four out of ten class D households (38%) and two out of ten class E households (22%) use charcoal. Only 6 percent of the households utilize LPG and 57 percent of these users come from class C.

Table 12.2. Kinds of Fuel for Cooking, Percent of Households, Sagñay, Camarines Sur, 2008

Fuel for Cooking	User	AB	C	D	E
Firewood	67		29	77	92
Charcoal	26		43	38	22
LPG	6		57	11	0
Kerosene	0.5		0	0	2

Note: Multiple response; total responses = 365

## Health Services

Nine out of ten respondents (87%) are aware of the presence of a health center in their barangay but only eight out of ten respondents (84%) claim having availed of their health services for the past one year. An even lesser number, that is, six out of ten households (63%) are aware of the existing health programs in the municipality.

Table 12.3. Access to Health Services, Percent of Households, Sagñay, Camarines Sur, 2008

Health Services	Yes	No/None
Presence of a nearby health center	87	13
Took advantage of health services for the past one year	84	16
Aware of health programs offered by the local government	63	37

Of the 251 households that availed of the barangay health services (BHS), 82 percent found no problem with these services (Table 12.4). The other 18 percent encountered problems like unavailable drugs (9%), long waiting time (6%), and no trained professionals, unsanitary facilities or expensive treatment (3%).

Table 12.4. Problems Encountered in Availing of BHS, Percent of Households, Sagñay, Camarines Sur, 2008

Problem	Yes
No problem	82
Unavailable drugs	9
Long waiting time	6
No trained professionals/unsanitary facilities/expensive treatment	3

While most of those who availed of the BHS encountered no problems, still a substantial majority of the households do not avail of this facility (86%). They prefer a doctor (57%), *albularyo* (26%), or *parahilot* (3%). Only 14 percent seek the BHS for treatment. They seek health services to avail of routine check-ups (43%), treatment of illness or injury (22%), immunization (16%), free medication (16%), and other services (3%) which include pre- and post-natal care, child delivery, feeding, and family planning (Table 12.5).

Table 12.5. Health Services, Percent of Households, Sagñay, Camarines Sur, 2008

Health Services	Percent
Routine check-ups	43
Treatment of illness/injury	22
Immunization	16
Provision of medicines and clothes	16
Other services	3

The top five most frequent illnesses of the household for the past one year are fever (38%), colds and coughs (21%), hypertension (12%), diarrhea (6%), and asthma (4%) (Table 12.6).

Table 12.6. Top 5 Health Problems for the Past One Year, Sagñay, Camarines Sur, 2008

Health Problems	Percent
Fever	38
Colds and coughs	21
Hypertension	12
Diarrhea	6
Asthma	4

### 13 ACCESS TO COMMUNICATION FACILITIES AND MEDIA

Access to communication facilities is measured in terms of access to telephones and cell phones. Access to media is described in terms of source of information, its utilization and popularity.

#### Communication Facilities

Although majority of the respondents come from class D with poor socio-economic status, almost half of the households (45%) own at least one cellular phone. There are households with two cell phones (16%). The average ownership of mobile phones is one unit per household. Only two households or 0.7% have landline telephone connections.

Table 13.1. Access to Landline and Cellular Phone, Percent of Households, Sagñay, Camarines Sur, 2008

Communication Facilities	With	Without
Landline	0.7	99.3
Cell phone (Ave. No. = 1.4)	45	55

## Media

Sagñay folks rely mostly on TV (47%) and radio (43%) as sources of information. Very few rely on other means of collecting information, such as broadsheets, tabloids, and magazines (5%), and other sources (3%) like books, encyclopedias, cell phones, and neighbors (Table 13.2).

Table 13.2. Media or Sources of Information, Sagñay, Camarines Sur, 2008

Media	Percent
TV	47
Radio	43
Broadsheet/ Tabloid/Magazine	5
Others	3
None	1

Media utilization cuts across age brackets as shown in Table 13.3. Getting information from the TV is highest among the 18-24 years age group (82%). The 24-34 years age group is the largest in terms of sourcing information from radio (72%), broadsheet, tabloid or magazine (12%) and other means like cell phones and neighbors (9%). Media utilization exhibits an increasing trend as one advances in education. While TV and radio utilization is a more popular means of sourcing information, it is noteworthy that one-fourth of the households with vocational and college background read the broadsheets, tabloid, and magazines (27%).

All types of media utilization follow a decreasing trend as one goes down the economic ladder. The direct association of media utilization and socio-economic status is expected not only because access to TV and radio is determined largely by one's capacity to acquire a unit and pay for its electrical consumption but also

because people at the lower end of the socio-economic ladder are more concerned with meeting their basic survival needs than attending to sourcing of information.

Table 13.3. Source of Information by Selected Characteristics, Percent of Households, Sagñay, Camarines Sur, 2008

Selected Characteristics	What sources of information do you use?			
	TV	Radio	Broadsheet/ Tabloid/ Magazine	Others
Age				
18-24 years	82	47	6	0
25-34 years	66	72	12	9
35-44 years	77	55	7	4
45-54 years	61	60	8	1
55-64 years	64	53	0	3
65 years and over	53	67	7	3
Education				
None/Elementary	58	60	3	2
High School	77	56	8	4
Voc/College/Post	80	75	28	18
Economic Class				
A				
C	71	86	43	29
D	67	62	9	6
E	66	58	4	0

Note: Totals do not add up to 100% due to multiple responses

For news reports, almost all are tuned in to ABS-CBN channel (94%). The low popularity of GMA station (4%) can be attributed to its poor reception in the area (Table 13.4).

Table 13.4. Popular TV Stations, Sagñay, Camarines Sur 2008

TV Station	Percent
ABS-CBN	94
GMA	4
NBN	1

## 14 POPULATION MANAGEMENT

Population management is viewed in terms of the awareness exhibited by the households on the use of contraceptives, approval of their use, and the family planning methods being utilized.

### Awareness of Contraceptives

Sagñay folks manifest a moderately high level of awareness on the use of contraceptives (78%) but it is still lower than the overall level of contraceptive knowledge at 99 percent reported by the 2003 National Demographic Survey among women of reproductive age in Bicol (Table 14.1).

Table 14.1. Knowledge of Contraceptives by Sex, Education, and Socio-Economic Status, in Percent, Sagñay, Camarines Sur, 2008

Background Characteristics	Aware	Not aware
<b>Sagñay</b>	78	22
<b>Sex</b>		
Male	73	27
Female	80	20
<b>Marital Status</b>		
Single	22	78
Married	84	16
Separated	57	43
Widowed	54	46
Living-in	79	21
<b>Education</b>		
None/elementary	73	27
High School	88	12
Voc/College/post	82	18
<b>Work Status</b>		
Working	78	22
Not working/had worked before	79	21
Never worked before	67	33
Self-employed	79	21
<b>Socio-economic Class</b>		
AB		
C	71	29
D	79	21
E	78	22

The level of contraceptive awareness varies by sex and work status but not by education and socio-economic class. As expected, females (80%) are more likely to be aware of contraceptive use than males (73%). Apparently, those who have no



use for it do not bother about it: the singles are the least knowledgeable about family planning methods (22%) and only half of the separated (57%) and widowed (54%) are aware of contraceptive use.

In terms of work status, respondents who have never worked before know the least about contraceptive use (69%). Those who have worked, are working and self-employed have substantial awareness of contraceptive use with 78 to 79 percent knowledgeable. This indicates that knowledge may be increased through exposure in institutions and through the informal grapevines of workers' huddles.

In Sagñay, awareness of contraceptive use is not directly related to the educational attainment and socio-economic class: all respondents under the different educational levels and different socio-economic classes have substantial awareness on contraceptive use with 71 to 88 percent of the households knowledgeable.

### **Use of Contraceptives**

Even if a large majority of the respondents (78%) know the ways on family planning, there is a lesser number that approve of the use of artificial methods of birth control (Table 14.2).

Seventy percent (70%) of the 235 respondents who are aware of contraceptive use also approve it. More females (71%) than males (66%) approve of the use of artificial methods. The singles is an aggressive group in terms of approval of contraceptive use (100%).

Approval of the use of artificial methods is directly related to the educational attainment of the respondents. Those with a higher educational level tend to have a larger percentage of approval of artificial family planning methods. On the contrary, approval of contraceptive use is inversely related to the socio-economic status of the respondents. The upper socio-economic class C has the least number giving its nod on contraceptive use (40%) while the lowest socio-economic class E has the highest number that gave its nod of approval (72%). The prevalence of the Catholic religion among the respondents might be the reason for this behavior. The members of class E who are materially-deficient may view controlling household population more important than adhering to the teachings of their faith.

Table 14.2. Approval on the Use of Artificial Methods, in Percent, Sagñay, Camarines Sur, 2008

Background Characteristics	Do you approve of the use of artificial method to prevent pregnancy?	
	Yes	No
<b>Sagñay</b> (n = 235)	70	30
<b>Sex</b>		
Male	66	34
Female	71	29
<b>Marital Status</b>		
Single	100	0
Married	74	26
Separated	25	75
Widowed	38	62
Living-in	63	37
<b>Education</b>		
None/elementary	66	34
High School	74	26
Voc/College/post	76	24
<b>Work Status</b>		
Working	74	26
Not working/had worked before	68	32
Never worked before	50	50
Self-employed	70	30
<b>Socio-Economic Status</b>		
AB		
C	40	60
D	70	30
E	72	28

Less than half of the 101 married and living-in respondents claim using some family planning methods (43%). The methods used are enumerated in Table 14.3.

Table 14.3. Utilized Methods for Preventing Pregnancy, Sagñay, Camarines Sur, 2008

Methods	Percent
Oral Pills	32
Withdrawal	24
Tubal Ligation	18
Rhythm/Calendar	10
Condoms	7
Self-control	5
Herbal	3
Injectables	2

Of the eight identified methods, half can be classified as artificial and reversible methods: oral pills (32%), withdrawal (24%), condoms (7%), injectables (2%). There are two natural family planning methods which are acceptable to the Roman Catholic Church that are used: rhythm or calendar (10%) and self-control (5%). Other methods used are the permanent contraception method – tubal ligation (18%) and the very traditional or unreliable method – herbal (3%).

## 15 ORGANIZATIONAL PARTICIPATION

The level of the residents' organizational participation manifests the level of community participation. According to a UN document (1981: 5), the level of community participation connotes how the members of a community actively contribute to and influence the development process and how they share equitably in the fruits of development (Smith, 2006). This section describes Sagñay folks' involvement in this arena, as manifested by their membership and roles in community organizations.

### Membership in Community Organizations

In Sagñay, the people's community involvement is low with just nearly one-fifth of the households (17%) being members of at least one organization (Table 15.1).

Table 15.1. Level of Participation, Percent of Respondents, Sagñay, Camarines Sur, 2008

Level of Organizational Participation	Yes	No/DK
Member of an organization	17	83
Holds position in the organization	44	56
Attends meetings	86	14
Organization influences LGU Sagñay	52	46/2

Those who participate seem to be actively involved as 44 percent hold key positions in the organizations, such as president (16%), vice-president (16%), board member (16%), PIO/secretary/business manager (each at 10%), and the like. Another manifestation of the active involvement of the 44 percent is their high

participation rate (86%) in activities particularly in attending the meetings of the organizations. More than half of them think that their respective organizations have influenced the local governance of Sagñay (52%).

Sagñay folks' involvement in organizations are almost equally shared by males (18%) and females (17%) (Table 15.2).

Table 15.2. Level of Participation by Selected Characteristics, Percent of Respondents, Sagñay, Camarines Sur, 2008

Background Characteristics	Are you an officer of any organization in your community? (n = 300)	
	Yes	No
<b>Member of an organization</b>	17	83
<b>Sex</b>		
Male	18	82
Female	17	83
<b>Age</b>		
18-24 years		100
25-34 years	10	90
35-44 years	19	81
45-44 years	15	85
55-64 years	25	75
65 years and over	37	63
<b>Marital Status</b>		
Single	22	78
Married	17	83
Separated	0	100
Widowed	29	71
Living-in	8	92
<b>Education</b>		
None/elementary	16	84
High school	14	86
Vocational/college/post-college	30	70
<b>Work Status</b>		
Working	16	84
Not working/had worked before	20	80
Never worked before		100
Self-employed	17	83
<b>Economic Class</b>		
AB		
C	43	57
D	21	79
E	11	89

Persons nearing or in their retirement age (55 and above) are more actively involved as compared to those in the other age brackets. The widowed (29%) and

singles (22%), who are generally sole decision-makers, are also more involved compared to those who have partners in life.

A high participation comes from those who are not working but have already worked before (20%). This is expected as this group is composed of people who do not have current economic activities but have gained confidence from their past exposures in the institutions where they had worked before.

Participation in organizations is directly associated with education and socio-economic status. In Sagñay, those who have vocational, college or post-college background (30%) and those in class C who are relatively materially-able (43%) are the groups that are most involved in community organizations.

### **Types of Organizations**

The types of organizations participated in are enumerated in Table 15.3.

Table 15.3. Organizations Participated In, Sagñay, Camarines Sur, 2008

Type of Organization	Percent
Civic organizations	36
Religious organizations	32
Private organizations	26
Women's organizations	6

Sagñay people are mostly involved in civic (36%) and religious organizations (32%). Many of these civic organizations are government-related or government-supported like the Barangay Health Workers, Barangay Tanod Organization, Barangay Council, Lupon ng Tagapamayapa, Sagñay Rescue Team, Sagñay Coastal Resource Management, and Disaster Brigade. The other civic organizations identified have a variety of involvement. These include Tribal Organization, Day Care Worker Association, Senior Citizen, Philippine National Red Cross, Bolo Youth Society, Kilantao Patong, and Parents-Teachers Association.

The religious organizations identified, on the other hand, include Barangay Parish and Pastoral Councils, Barangay Youth Ministry, Couples for Christ, Women for Christ, Sagrada Corazon, Catholic Women's League, Medalla Milagrosa, Nurtura

Filipinas, Simon of Cyrene, and Parish Renewal Experience.

The other organizations identified are categorized as private (26%) and women's (6%) organizations.

### Officership in Organizations

Forty-four percent (44%) of those who are involved in organizations are officers (Table 15.4).

Table 15.4. Officership in Organization, Percent of Respondents, Sagñay, Camarines Sur, 2008

Background Characteristics	Are you an officer of any organization in your community? (n = 52)	
	Yes	No
<b>An officer in any organization?</b>	44	56
<b>Sex</b>		
Male	50	50
Female	43	57
<b>Age</b>		
16-24 years		100
25-34 years	50	50
35-44 years	46	54
45-54 years	54	46
55-64 years	44	56
65 years & over	27	73
<b>Education</b>		
None/Elementary	29	71
High School	67	33
Voc/College/Post	58	42
<b>Economic Class</b>		
AB		
C	33	67
D	42	58
E	54	46

There are more male officers (50%) than females (43%). More officers are found in the age range of 25 to 54 years, ages which are prime years for productive economic activities. Officership in organizations in Sagñay is somewhat peculiar as it deviates from the general perception that officership is held by those with higher educational attainment and who are members of the upper economic class. In Sagñay, there are more officers in organizations who are high school level or high

school graduates (67%) and who belong in socio-economic class E (54%).

## 16 ENTREPRENEURSHIP

Sagñay folks have a high propensity for engaging in business (88%). However, the desired businesses are limited to “value-added” types, such as trading (83%) and service provision (6%). Trading businesses on the wish list include *comprada* (buy and sell of *palay*), sari-sari store, grocery, meat shop, and gasoline station. Desired service businesses are auto repair shops, hand tractor or thresher rentals, water filling stations, and beauty parlors. Only a few desire to contribute in actual production, such as animal, bread, and window grill production (11%) (Table 16.1).

Table 16.1. Propensity for Engaging in Business, Sagñay, Camarines Sur, 2008

Indicators	Percent
<b>Desires to engage in business</b>	88
<b>Type of desired business</b>	
Trading	83
Animal production/farming	11
Service	6
<b>Reasons for inability to engage in business</b>	
Lack of capital	93
No stall	3
Preoccupied with household and other tasks	2
Lack of know-how or education	2
Poor utilities, e.g. transportation, roads	1
<b>Reasons for not wanting to engage in business</b>	
Personal difficulties	64
High propensity to mismanage capital	21
Satisfied with current earnings/living condition	9

For business-interested individuals, inadequate capital is the main reason why they are restrained from engaging in business (93%). Others point to personal constraints like being preoccupied with household and other tasks and lack of know-how or education to cope with the demands of business (4%). Other reasons are supply-side factors, such as inability to find business location and poor utilities to transport goods.

The 11 percent who are not interested in enterprises cite personal difficulties

as their main reason (64%). Others are discouraged because they either have outstanding loans or have experienced bankruptcy in their former businesses (21%). Still, there are others who are already satisfied with their current economic set-up, either from their own current salaries or through the financial support given by their children so that they find no need to engage in business (9%).

## **17 ABUSE OF WOMEN AND CHILDREN**

MDG 3 of the UN seeks “to promote gender equality and empower women”. It is one of the eight MDG agreed upon by all the world’s countries and leading development institutions. This section looks at the MDG 3’s operational framework on security in terms of vulnerability to violence of women and children.

### **Knowledge of Children and Women Abuse**

There is medial awareness (53%) of the Law on Anti-Violence against Women and their Children (R.A. No. 9262) (Figure 17.1). A simple majority are also aware that they have the right to interfere or stop a man from hurting his wife or a parent from hurting his child (61%). The middling awareness of the existing law against women and children abuse may be the reason for the very low number of respondents who claim having knowledge of children (4%) and women abuse (7%) in their locality. While it is ideal to hear and see a nil case of abuse on women and children, the low figures reported may not really reflect the actual number but may just be an indication of the culture of silence pervading the family and the larger society.



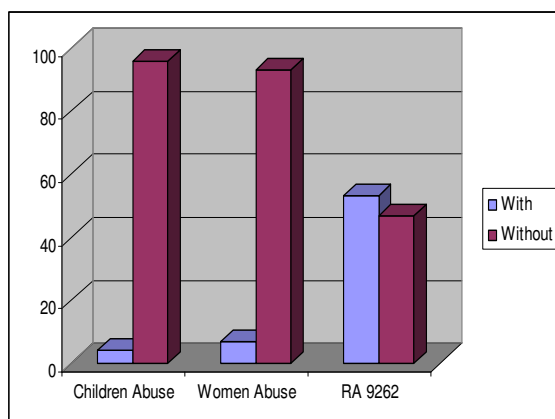


Figure 17.1. Knowledge of Abuse on Children and Women, in Percent, Sagñay, Camarines Sur, 2008

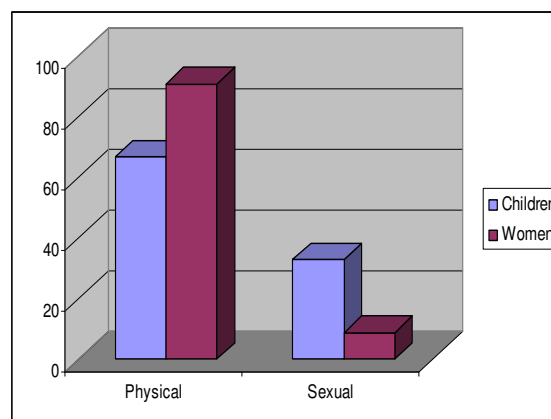


Figure 17.2. Types of Abuse Inflicted on Children and Women, in Percent, Sagñay, Camarines Sur, 2008

Physical abuse is the dominant form of abuse inflicted on women (91%) and children (67%). Physical abuse of women ranges from beating, grabbing, stabbing, and murder. Physical abuse inflicted on children includes spanking, beating, refusal to feed the child, placing the child in a sack, and murder. Following closely is sexual abuse on children (33%) and women (9%) in the form of rape (Figure 17.2).

In terms, of sex, a simple majority of males (62%) and females (51%) are aware of R.A. No. 9262 (Table 17.1).

Table 17.1. Knowledge of R.A. No. 9262 and of Abuse on Children and Women by Socio-Economic Characteristics, Percent of Respondents, Sagñay, Camarines Sur, 2008

Socio-Economic Characteristics	R.A. No. 9262	Children Abuse	Women Abuse
<b>Sex</b>			
Male	62	4	9
Female	51	4	7
<b>Education</b>			
None/elementary	46	4	7
High School	57	2	5
Voc/College/post	75	8	15
<b>Socio-Economic Class</b>			
AB			
C	57		14
D	57	5	6
E	48	3	6

However, both sexes have very little information about abuse inflicted on

children and women. Awareness of the existing law on children and women abuse and the existence of abuse on children and women in the locality is directly associated with the educational attainment and socio-economic standing of the respondents. More vocational, college or post college level or graduates and class C respondents are more vocal in revealing their awareness and information about this issue.

## 18 PROBLEMS AND ASPIRATIONS

### Community and Family Problems

Sagñay folks find lack of income, livelihood, and employment opportunities as the most pressing problem confronting their community (40%). This is attributed to the high susceptibility of their farm-based work to changes in seasons. Their income is much affected during calamities. In addition, they also express lack of capital for alternative livelihood and absence of employment opportunities as another pressing problem.

Table 18.1. Community Problems, Sagñay, Camarines Sur, 2008

Problem	Percent
Lack of income, livelihood, and employment opportunities	<b>40</b>
Lack of infrastructure, access to transportation, & inadequate utilities	<b>31</b>
Many bystanders, thieves, and drunkards	<b>14</b>
Inadequate health and educational services	6
Water pollution and absence of proper garbage disposal	2
Lack of unity in community and problem on peace & order	2
Poor governance	1
None	4

The second most pressing problem in the community is lack of infrastructure, access to transportation, and inadequate utilities (27%). This problem is manifested by the poor drainage, poor water system, poor roads, lack of streetlights, lack of and unfinished bridges, and lack of electricity in a number of houses in Sagñay. This is followed by the problem involving the presence of a number of bystanders, thieves, and drunkards (14%) as well as out-of-school youths, drug addicts, gamblers, and

members of fraternities in the locality. The other problems identified are listed in Table 18.1 above.

Both sex and socio-economic status do not seem to influence the respondents' identification of community problems (Table 18.2). Both sexes in the different socio-economic status pinpoint to lack of income and livelihood as one of the community's top three problems. However, the priorities of those in Class C are different. The relatively richer members of class C are more concerned with their safety and health with all of them (100%) identifying the proliferating bystanders and out-of-school youths, fraternity members, drug addicts, gamblers, thieves, and drunkards as a community problem. The relatively poorer classes D and E have still to address basic survival needs of earning income by having better roads and transportation to enable them to market their produce.

Table 18.2. Community Problems by Sex and Socio-Economic Status, Percent of Households, Sagñay, Camarines Sur, 2008

Problem	Male	Female	AB	C	D	E
Lack of income, livelihood, and employment opportunities	84	91		71	93	87
Lack of infrastructure, access to transportation, & inadequate utilities	75	67		57	61	80
Many bystanders, thieves, and drunkards	48	27		100	36	19
Inadequate health and educational services	14	14		43	17	8
Water pollution and absence of proper garbage disposal	5	3		14	4	2
Lack of unity in community and problem on peace & order	2	5			5	3
Poor governance	2	3			2	4
None	59	46			14	1

Families which are the microcosm of a society also report low income as their top most problem (50%) (Table 18.3). Other income-related problems include ownership of house, lot or better dwelling place (12%). Some other problems identified include sickness in the family, disunity in the family, having no child, and alcohol abuse (6%). The other almost one-third either seem to live peacefully or do not want to report their family problems (32%).

Table 18.3. Family Problems, Sagñay, Camarines Sur, 2008

Problem	Percent
Low income, poverty, indebtedness	50
Do not own house and lot/house is dilapidated	12
Others	6
None	32

## Aspirations

It is interesting to note that while the top problem is lack of income and livelihood, the main aspiration of Sagñay residents is unity and peace in the barangay (68%) (Table 18.4).

Table 18.4. Aspirations for the Community, Family, and Self, Percent of Households, Sagñay, Camarines Sur, 2008

Aspirations	Percent
<b>For the Community</b>	
Unity among residents	<b>68</b>
Work/livelihood for the community	<b>8</b>
Adequate infrastructure, utilities, & sanitation	<b>8</b>
Sustained health and educational services	4
Good governance and reduced illegal activities	3
Community progress/better quality of life	2
<b>For the Family</b>	
Responsible family with peace and unity	<b>46</b>
Get out of poverty	<b>20</b>
Sustained job/better life quality	<b>19</b>
Good health and long life	8
Own/improve house or lot	6
<b>For the Self</b>	
Good health, long life, peace of mind, be good	<b>56</b>
Get out of poverty or have food to eat	<b>26</b>
Good paying job or have own business/go abroad	<b>15</b>

The identified community problems reveal several scattered concerns that drive respondents to aspire for unity and peace. The presence of a number of by-standers and out-of-school youths, members of fraternities, drug addicts, gamblers, thieves, and drunkards might indicate an apathetic community that allow these unwanted personalities to prosper. These reports of illegal fishing, breaking of lamps, illegal cutting of trees, and unfinished government projects call for

community members to be vigilant and to unify their ranks to ward off these incidents.

Eight percent (8%) of the respondents aspire to resolve their problems on poverty through better work and livelihood opportunities. Another 8 percent desire for an adequate infrastructure and utilities either for the improvement of production (irrigation, bridges, and roads), their quality of life (drainage and water system), or of the town in general (streetlights).

Sagñay folks also long for sustained health and educational services (4%), good governance (3%), and community progress (2%).

Almost half of the respondents aspire for peace and unity within the family and to see their family members mature as responsible household members (46%). The other half desires to meet basic survival needs, such as getting out of poverty (20%), acquiring a sustained job (19%), achieving good health and long life (8%), and staying in a decent dwelling (6%).

Half of the respondents' self-aspirations are mostly non-economic in nature. Fifty-six percent (56%) yearn for good health, peace of mind, good deeds, and long life. One-fourth of the respondents (26%) just want to meet their basic survival needs of having food to eat, surviving daily, and not being poor anymore. Three out of twenty (15%) have other economic-related aspirations, such as getting rich, going abroad, having own business, owning land to till, or having additional income.

## **19 GOVERNMENT ACTION ON LOCAL SERVICES**

The respondents rated government performance based on the action of their government officials on local services; namely, road improvement, garbage collection, insurance of available potable water, ban of illegal fishing and illegal gambling, provision of health services, and maintenance of peace and order (Table 19.1).

**Table 19.1. Government Action on Local Services, Percent of**

## Households, Sagñay, Camarines Sur, 2008

Local Services	Has acted on	Has not acted on
Maintenance of Peace and Order	85	15
Availability of potable water	80	20
Road Improvement	78	22
Health services provision	74	26
Ban of illegal logging	65	35
Garbage collection	54	46
Ban of illegal gambling	49	51

The LGU of Sagñay generally appears to be performing well having satisfied at least almost half of the respondents (49%) with regard banning illegal gambling. They are rated top performing in the maintenance of peace and order (85%), provision of potable water (80%), road improvement (78%), and provision of health services (74%). However, they need to improve their efforts in banning illegal logging (65%) and illegal gambling (49%) and on garbage collection (54%) where the approval ratings obtained range only from one-half of the households to a simple majority.

## 20 SAGÑAY'S ADVANCEMENT TOWARDS THE ATTAINMENT OF GOAL 7, TARGET 11 OF THE MILLENNIUM DEVELOPMENT GOALS

It is projected that if the population of slum dwellers is left unchecked, it will multiply threefold to three billion by the year 2050. Thus, in an effort to arrest this alarming situation and thereby ensure environmental sustainability, the UN made a commitment through the MDG, particularly Goal 7, Target 11, that by the year 2020, the lives of at least a hundred million slum dwellers should have been improved.

The UN-HABITAT and the GUO had set forth some global standards and indicators as benchmarks to monitor the progress on the attainment of Goal 7, Target 11 of the MDG. These standards were then localized and other indicators were added to come up with an adaptable and relevant yardstick appropriate to the local setting. These localized standards and indicators are shown in Table 20.1.

### Monitoring Standards

*Access to safe water.* A household is considered to have access to improved

water supply if it has sufficient amount of good quality water for family use at affordable prices and is conveniently available to household members where its availability does not cause excessive effort especially to women and children. Water supply is sufficient if at least twenty liters of water is available for use per person per day; of good quality if it is clear, with no strange taste and smell, and is connected underground; affordable if it constitutes less than 10 percent of the expenditure; and available if it is privately connected to the water system.

*Access to Sanitation.* A household is considered to have adequate access to sanitation if an excreta disposable system (flush/pour), used either privately or shared with a reasonable number of people, is available to the household members and connected to an appropriate septic system made of concrete.

*Durability of Housing.* A house is considered durable if it is built in a non-hazardous location, has a permanent structure adequate enough to protect its inhabitants from extreme climatic conditions such as rain, heat, cold, and humidity and if its construction has complied with the government regulations. A house can protect its inhabitants if it is constructed with durable materials and does not need major repairs. As a protection to inhabitants, housing durability is found adequate if the household members are aware and prepared to face natural disasters and have knowledge or strategies prepared for these.

*Sufficiency in Living Space.* A house is considered to have sufficient living area for the household members if no more than two people share the same room. This means that the house and bedroom floor area measures at least two square meters to be large enough for everybody to move around with no more than four individuals sleeping in an open space.

*Environmental Management.* A household is considered observing sound environmental management if it practices appropriate waste disposal, either by composting, segregation or recycling, and has a drainage system with cover and with sufficient capacity to contain heavy rain downpour.

Table 20.1. Localized Global Standard for Goal 7 Target 11, MDG, Sagñay, Camarines Sur, 2008

INDICATOR A. ACCESS TO SAFE WATER	COMPONENT 1. AFFORDABILITY A Water expenses less than 10% of total household expenses IA Water expenses 10% or more of total household expenditures
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A All components are adequate NI Most components are adequate, only "Quality" is inadequate IA Other combinations	COMPONENT 2. SUFFICIENT QUANTITY A Household uses at least 20 liters of water (for drinking + other uses) per day per person IA Household uses less than 20 liters of water per day per person
	COMPONENT 3. EFFORT AND TIME A Private connection to water system IA Household has to fetch or buy water
	COMPONENT 4. QUALITY A Underground connection of water pipe + Clear and Pure water IA Inappropriate connection of water pipe and impure water
	COMPONENT 1. ACCESS TO SANITARY TOILET A Household has own water sealed toilet shared by no more than 2 families NI Adequate toilet shared by more than 2 families/private alternative toilet IN No toilet/alternative toilet shared by more than 2 families
INDICATOR B. ACCESS TO SANITATION  A All components are adequate NI One component is adequate + one component needs improvement IA Both components need improvement/ All components are inadequate	COMPONENT 2. SUFFICIENT SEWERAGE SYSTEM A Connection to appropriate septic system (all-concrete septic tank) NI Connection to inappropriate septic system (semi-concrete septic tank) IN No septic system
	COMPONENT 1. NON-HAZARDOUS LOCATION A House is built on a safe location and its structure is adequate IA House is built on an inappropriate or hazardous location
INDICATOR C. DURABILITY OF HOUSING  A All components are adequate NI Most components are adequate IN Other combinations	COMPONENT 2. MATERIALS USED/ PROTECTION FROM EXTREME CLIMATIC CONDITIONS A House constructed of durable materials and not in need of major repairs IA House constructed with recycled or salvaged materials and needs major repairs
	COMPONENT 3. COMPLIANCE WITH BUILDING CODES AND ORDINANCES A Construction complies with regulations IA Construction does not comply with regulations
	COMPONENT 4. DISASTER AWARENESS AND PREPAREDNESS A Household is aware and prepared to face natural disasters IA Households do not have any knowledge or strategy about natural disasters
	COMPONENT 1. OVERCROWDING A House and bedroom floor area are large enough for everybody to move around with at least two sq. meters per person and no more than four persons are sleeping in an open space IA House and floor area are less than two sq. meters per person and more than four persons are sleeping in an open space/ Other conditions
INDICATOR D. SUFFICIENT LIVING SPACE  A "Overcrowding" component is adequate IA "Overcrowding" component is inadequate	COMPONENT 1. SOLID WASTE DISPOSAL A Appropriate waste management (composting/segregation/ recycling) NI Truck or push-cart collection only. IA Garbage burning/ Garbage thrown in sewer, river, or vacant lot
	COMPONENT 2. DRAINAGE SYSTEM A Covered drainage system with sufficient capacity (no flooding) NI Open drainage with sufficient capacity (no flooding) IN No drainage/ Other type of drainage/ Insufficient capacity (flooding)
INDICATOR E. ENVIRONMENTAL MANAGEMENT  A All components are adequate NI One component is adequate + one component needs improvement IA Other combinations	COMPONENT 1. DOCUMENTATION OF SECURE TENURE STATUS A Owner/Ownership process (with documents) for both land and house IA Stopped making payments/ No documents/ Renter/ Other status
	COMPONENT 2. DE FACTO PROTECTION FROM EVICTION A Household has not been evicted in the past 10 years IA Household has experienced eviction within the past 10 years
	COMPONENT 3. PERCEPTION OF PROTECTION FROM EVICTION A Household does not foresee the possibility of being evicted in the next 5 years IA Household foresees the possibility of being evicted in the next 5 years
	COMPONENT 4. AFFORDABILITY A Housing and land expenses less than 30% of total household expenses IA Housing and land expenses 30% or more of household expenses
INDICATOR F. SECURE TENURE  A All components are adequate IA One or more component is inadequate	

*Secure Tenure.* Secure tenure is the right of all individuals and groups to effective protection against forced evictions by the government. People enjoy secure tenure when there is evidence of documentation that can be used as proof of this status, when there is either a *de facto* (household has not been evicted in the past



ten years) or perceived protection from forced evictions (household does not foresee a possibility of being evicted in the next five years), and the price of securing the house and lot is affordable (the land and housing comprise less than 30 percent of their expenditure).

Depending on the components, indicators are measured on either a scale of two (adequate or inadequate) or three (adequate, needs improvement or inadequate).

### Sagñay's Performance

Using the above index, it appears that only thirteen out of one hundred households in Sagñay have adequate access to safe water (Figure 20.1). These few households are able to satisfy all the requirements of having access to safe water, that is, they acquire affordable, sufficient and quality water at less effort and time.

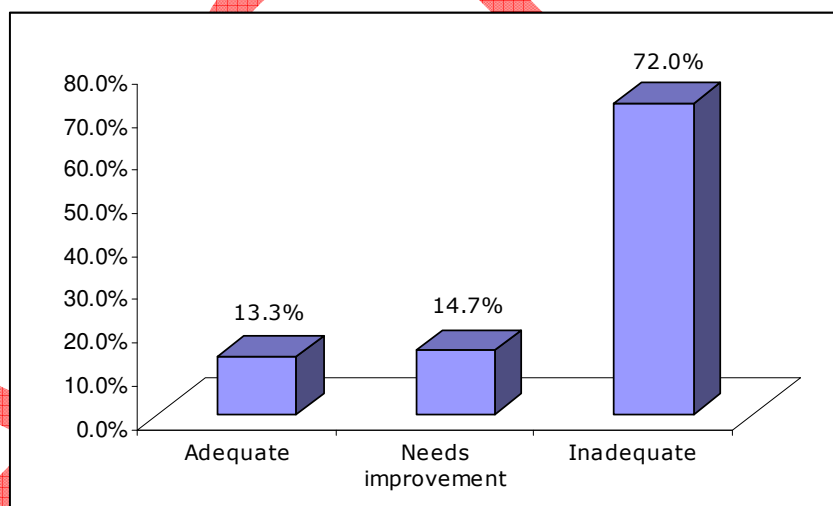


Figure 20.1. Localized Global Standard on Access to Safe Water, Goal 7, Target 11, MDG, Sagñay, Camarines Sur, 2008

Three out of twenty households (15%) need to improve their access to safe water and three out of four households (72%) are found inadequate. This figure of inadequacy is attributed to the low percentage of respondents fulfilling the requirements on water quality (24%) and because of an inappropriate connection to the water pipe (Table 20.2).

Table 20.2. Access to Safe Water, Percent of Households, Sagñay, Camarines Sur, 2008

Indicator	Adequate	Inadequate
Affordability	99.7	0.3
Sufficient quantity	94.7	5.3
Effort and time	19.7	80.3
Quality	23.7	76.3

In terms of access to sanitation, Sagñay households are almost equally divided between having adequate access (34%), inadequate access (31%), and those who need to improve in this area (35%) (Figure 20.2).

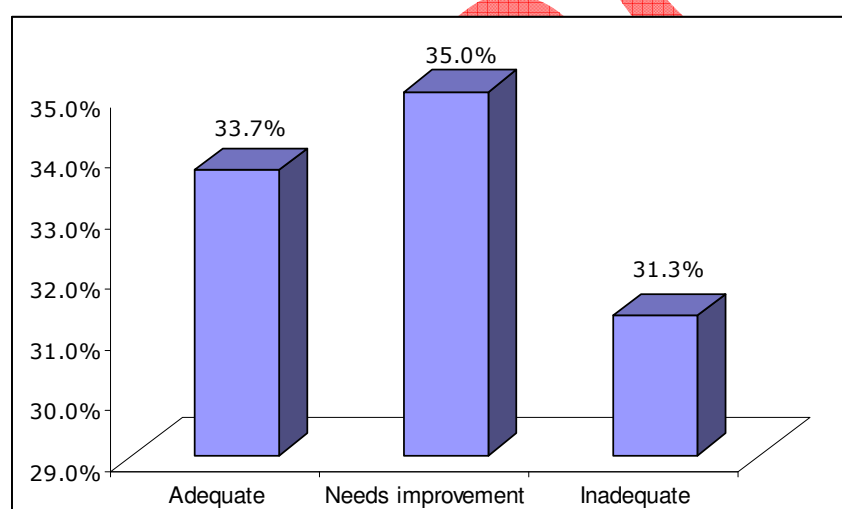


Figure 20.2. Localized Global Standard on Access to Sanitation, Goal 7, Target 11, MDG, Sagñay, Camarines Sur, 2008

The simple majority (61%) who have their own flush or pour flush toilet shared by no more than two families contribute to the relative adequacy in this area (Table 20.3). On the other hand, the almost half (45%) who are connected to an inappropriate septic system contribute to the relatively inadequate access to sanitation.

Table 20.3. Access to Sanitary Toilet and Sufficient Sewerage System, Sagñay, Camarines Sur, 2008

INDICATOR	PERCENT
<b>Access to Sanitary Toilet</b>	
Household has own flush/pour flush toilet shared by no more than two families	61

Household has adequate toilet shared by more than two families	23
No toilet	16
<b>Status of Sewerage System</b>	
Household is connected to appropriate septic system – all concrete septic tanks	41
Household is connected to inappropriate septic system – semi-concrete septic tanks	45
No septic system	14

Housing durability appears to be a grave problem as 82 percent of the households either live in dangerous locations, have houses constructed outside building regulations, live in houses that need major repairs, or are not aware and prepared to face natural disaster or do not have prepared strategies to tackle these disasters. Only 4 percent have adequate housing with the other 14 percent needing to improve on this area (Figure 20.3).

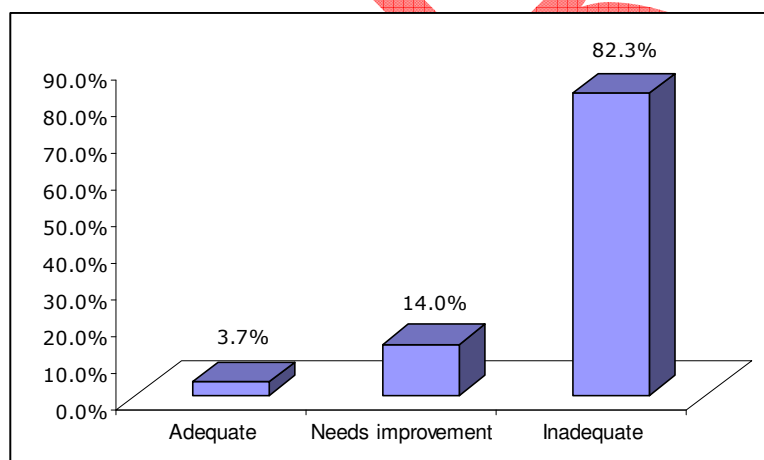


Figure 20.3. Localized Global Standard on Durability of Housing, Goal 7, Target 11, MDG, Sagñay, Camarines Sur, 2008

As shown in Table 9.2 above, while there are three out of four households who live in safe and adequate home lot locations, there is still one out of every ten households that lives in inappropriate and hazardous locations. It is also shown in the same table above that while a substantial majority of households are prepared and have strategies readied in times of calamities, there is also a substantial majority that do not comply with the building codes and ordinances thus exposing their abodes to high risks. In addition, a substantial majority of the households (89%) have houses constructed with recycled or salvaged materials and need major repairs (Table 20.4).

Table 20.4. House Condition Using MDG Standards, Sagñay, Camarines Sur, 2008

INDICATOR	PERCENT
House is constructed of durable materials and not in need of major repair	11
House is constructed with recycled or salvaged materials and in need of major repair	89

Seven out of ten Sagñay households (67%) have sufficient living space (Figure 20.4).

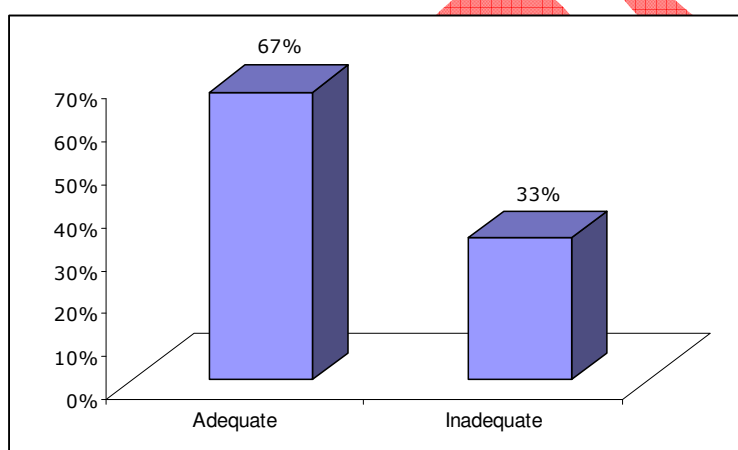


Figure 20.4. Localized Global Standard on Sufficiency of Living Space, Goal 7, Target 11, MDG, Sagñay, Camarines Sur, 2008

This figure is attributed to the substantial majority of households (91%) whose houses have a floor area of at least two square meters per person and to the simple majority (68%) whose houses have no more than four persons sleeping in an open space (Table 20.5). However, there are still 33 percent living in overcrowded areas.

Table 20.5. Status of Floor Area per Person and Number of Persons Occupying a Room, Percent of Households, Sagñay, Camarines Sur, 2008

INDICATOR	PERCENT
<b>Floor area</b>	

At least 2 sq. m. per person	91
Less than 2 sq. m. per person	9
<b>Number of persons occupying a room</b>	
No more than four persons sleep in an open space	68
More than four persons sleep in an open space	32

A substantial majority of Sagñay households (93%) do not practice sound environmental management (Figure 20.5).

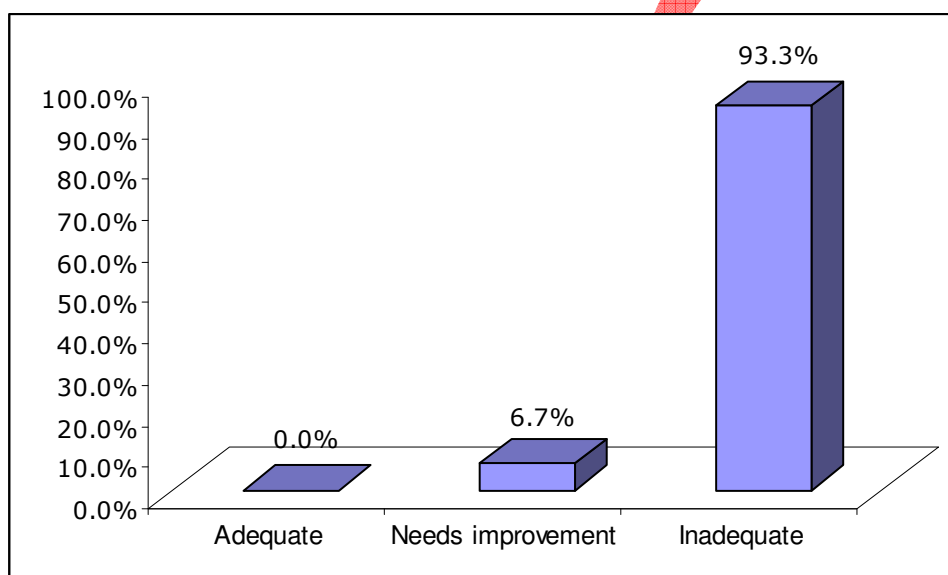


Figure 20.5. Localized Global Standard on Environmental Management, Goal 7, Target 11, MDG, Sagñay, Camarines Sur, 2008

This high percentage of inadequacy is attributed to the high percentage of households that do not have a drainage system or have one with insufficient capacity (74%) or have an uncovered drainage system (23%) (Table 20.6). The high percentage of households (72%) that burn garbage or throw this into sewer, river, or vacant lots also contribute to the very low performance of Sagñay in this area.

Table 20.6. Status of Drainage System and Waste Management using MDG Standards, Percent of Households, Sagñay, Camarines Sur, 2008

INDICATOR	PERCENT
<b>Drainage System</b>	
Covered drainage with sufficient capacity	2

Open drainage with sufficient capacity	23
No drainage or other types of drainage with insufficient capacity	74
<b>Waste Management</b>	
Appropriate waste management	4
Truck or push cart collection only	23
Garbage burning or throwing	72

Eighty-six percent (86%) of the respondents do not have secure tenure. This means that almost nine out of ten households do not have documents showing full proof of ownership of either the house or lot, have experienced demolition in the past ten years, foresee possible eviction in the next five years or are spending more than 30 percent of their income for securing houses and lots. Only 13 percent have fulfilled all the requirements of having a secure tenure.

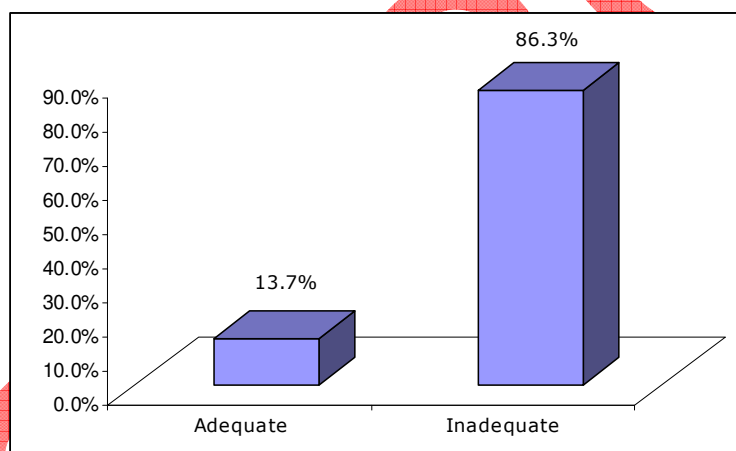


Figure 20.6. Localized Global Standard on Secure Tenure, Goal 7, Target 11, MDG, Sagñay, Camarines Sur, 2008

To sum up, after applying the localized standards and indicators for Goal 7, Target 11 of the MDG in Sagñay, only sufficiency of living space is found adequate; access to sanitation needs improvement; access to safe water, durability of housing, environmental management, and security of tenure are all inadequate and need immediate attention (Figure 20.8).

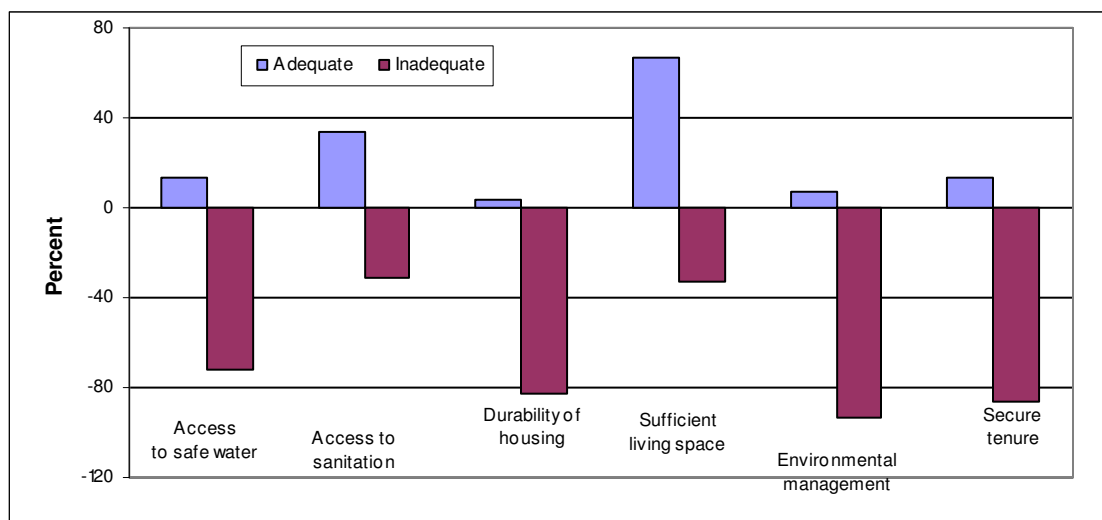


Figure 20.7. Summarized Localized Global Standards and Indicators, Goal 7 Target 11, MDG, Sagñay, Camarines Sur, 2008

## 23 SUMMARY, CONCLUSION AND RECOMMENDATIONS

### Summary and Conclusion

This is a survey study of 300 samples with the objective of providing an updated and comprehensive profile of the Municipality of Sagñay that can be used as valuable information for local development planning. This study also attempts to measure Sagñay's performance in terms of the global standards set forth by Goal 7, Target 11 of the MDG.

### ***Socio-Economic and Demographic Indicators***

*Profile of the Respondents and Household Members.* A substantial majority of the respondents (90%) live in rural areas. They are mostly females (81%) and married (79%). Almost all respondents are Bicolanos (94%) and Roman Catholics (96%). Two-thirds (65%) are original settlers of Sagñay. A substantial majority of the respondents (90%) belong to the age group considered as economically active population with the mean age of 44 years with a spread of fifteen years around the mean age. Only 10 percent belong to the age group considered as old dependents. Only a third of the respondents are household heads.

The respondents are generally not highly-educated. More than half either have no formal education or at most have graduated from the elementary level. A downward trend on the level of education relative to the number of respondents is observed. More than half (51%) of the respondents are not working. Only 10 percent are self-employed. More than half (58%) belong to class D, 40 percent to class E and 2 percent to class C. One-half of the respondents rely on agricultural enterprises as their primary source of income. Nearly a sixth source their income from wages and salaries from agricultural industries (15%) and nearly a fifth from non-agricultural industries (18%).

The respondents' households are relatively medium-sized with a mean size of 5 household members which is spread by two persons around the mean. Household members are composed of an equal number of men and women and a very young population. The households' mean age is 25 years yet half of the households are aged 0-17 years (50%) which explain why half of the household members are single and the largest chunk (67%) have at least no formal education or at most have only attained elementary education.

The data on work status show that more than two-thirds of the household members are economically dependent on one-third of the productive household members. Approximately three out of ten household members in Sagñay have occupations (31%), doing business in agricultural enterprises (35%), and earning salaries and wages from agricultural (27%) and non-agricultural activities (27%). Only 11 percent are involved in non-agricultural enterprises. More than half (54%) have secondary occupations giving a hint that the primary source of income is not enough for decent survival needs. Ninety-two percent (92%) have other sources of income with remittances being the highest source at 34 percent.

In terms of skills, more Sagñay folks are adept in preparing and serving food and providing personal care. They are also skilled in agricultural activities, such as farming, fishing, and forestry. The third highest skill reported is proficiency in artistic, entertainment, and sports activities.

*Income, Expenditure, and Savings.* On the average, for a household size of 5, the actual monthly income is P5,761 which is lower than the official 2006 Region V monthly poverty threshold of P6,097.50 and lower than the average monthly family



income estimated for Bicol at P10,417 in 2006. However, on the average, earned income is able to meet the actual monthly expenditure of P5,413. Giving value to home-making work increases the imputed monthly income to P7,851. Considering that Sagñay is partially rural, there are a number of natural resources being used but not valued, thus when these are valued, the imputed monthly expenditure also increases to P8,966. Food comprises the bulk of the expenditure showing that the average household income is so low that a large portion of it should be allocated for food needs. The median saving reported is P1,000 but the usual amount (mode) of saving is P500 which is kept in the traditional way.

Income level by quintile shows a wide disparity in income distribution with the lowest 20 percent of the households earning a maximum income of P2,125 while the highest 20 percent earning a maximum of P59,250. The Lorenz Curve further shows that the lowest 20 percent of household incomes constitute only 5 percent of the total respondents' household income, while the highest 20 percent share half (50%) of the total. While Gini ratio at 0.41 falls in a range neither considered as one with highly unequal income distribution or one with relatively equitable distribution, majority of the families earn income below the official poverty threshold. Sagñay's Gini ratio is relatively better than Bicol's estimate.

*Poverty and Hunger Situation.* Seventy-eight percent (78%) or three out of four Sagñay folks rate themselves poor and one out of ten rates himself to be on the line and one out of ten rates himself not poor. The self-rated poverty incidence is higher than the SWS estimate of 48% for Luzon (less NCR) in March 2008. More females than males rate themselves poor. Poverty is felt by the majority of all types of marital and work status. The level of poverty decreases as the household members' education becomes more advanced. A monthly average of P12,411 with a variation of P10,106 around the mean is needed to meet home expenses in order for Sagñay families not to consider themselves poor anymore.

One out of three experienced hunger at least once and had nothing to eat in the last three months. This figure is greater than the SWS estimate of 16% for Luzon (less NCR) in March 2008. According to the survey, this situation was experienced only once by three out of four households. It was experienced often and always by 7 percent of the households.

Families who experienced hunger in the last three months are headed by young married and live-in couples, comprised of 10 or more household members, less educated, reliant on wages and salaries from agriculture, earning an income of less than P6,000 a month, and living in poorly constructed or dilapidated houses.

Even with this self-rated poverty and hunger experiences, more than half of Sagñay folks are optimistic that their quality of life will become better in the next three years, a very positive outlook even if two out of five of the households find themselves in a worse situation at present compared to their quality of life five years ago.

*Diet and Nutrition.* Sagñay households seem to have a generally healthy lifestyle. On the average, they take sufficient three freshly cooked meals and one snack per day. They take relatively ample carbohydrates as rice remains to be the staple food and is served three times a day. Protein requirements are mainly sourced from fresh, dried, or canned fish. Vegetables cover only one-third of the average diet.

While the number of food preparation indicate that freshly cooked food are served three times a day, it may also show that homemakers are tied up with cooking chores that restrain them to participate in economic production outside of their homes.

Food distribution within the household suggests some form of patriarchal system and male dominance because in four out of ten households the biggest serving is given to the husbands and in five out of ten households the biggest serving is given to the sons.

*Access to Credit.* Almost three-fourths of the respondents were able to avail of loans and at the time of the survey, 69 percent had outstanding loans. Meeting food needs, capitalization, and other work-related activities were the prime reasons why Sagñay folks borrowed funds. Credit sources are sundry but most borrowed from informal sources. Only 20 percent were able to borrow from formal sources.

*Access to Safe Water.* The water used in Sagñay is generally affordable, sufficient, of good quality, safe, and clean. However, only three out of ten

households have piped-to-dwelling connection either from Sagñay Waterworks and/or from improved spring/deep well. For water not accessed inside the house, the water source has a minimum distance from the house of one meter to a maximum of 200 meters. Safe water is not conveniently available to household members because at most only 70 percent own their water source.

*Access to Sanitation.* Not all Sagñay folks have access to sanitation. Only a simple majority of the respondents have toilets which are mostly the water-sealed type. The remaining nearly one-third do not have toilets of their own. They have to content themselves using the communal toilet or their neighbors' toilets, river or lake, open fields, or plastic bags. In most cases, only two households share one toilet. But sharing can reach from three to four households to ten to twenty households. Of the 86 percent who have their own septic tanks, 84 percent admit that these have never been cleaned.

*Durability of Housing.* More than half of the total families used durable roofing and walling materials. However, a substantial majority are not aware of the regulations on building standards thus, a few 4 percent were only able to observe them. At the time of the survey, majority knew that their houses needed major repairs. One-fourth of the total families also claimed that their houses were not built in safe places.

*Disaster Preparedness.* Almost all families claim that they are prepared in times of calamities and are amenable to evacuate their abode when necessary. They are aware of certain strategies, mostly personal and familial preparations and short-term and immediate, to be made in times of calamities. Long-term precautionary measures were never mentioned.

*Environmental Management.* There is a relatively low awareness of environmental issues in the municipality. The top three of these issues include forest denudation, garbage management and disposal, and flooding. Proper waste management is poorly practiced. Only four out of ten practice waste segregation and three out of one hundred inhibit from and prohibit burning.

The drainage system is available only to 31 percent of the households and these are mostly open canals. Of this one-third, 90 percent find the drainage system

sufficient and 82 percent affirm that it has been cleaned.

*Security of Tenure.* Majority have insecure house and lot tenure because most homeowners do not have proof of house payment. Only 17 percent have documentation on the ownership of their house. Eighty-eight percent (88%) had experienced demolition once in the past ten years however, they do not foresee any demolition in the next three years.

*Access to Other Basic Services.* Access to electricity is relatively weak where only a simple majority are connected to the CASURECO. Households use multiple types of cooking fuel but a substantial majority relies heavily on the use of biomass energy for cooking. Only 6 percent of the households utilize LPG.

Nine out of ten respondents are aware of the presence of a health center in their barangay but only eight out of ten claim having availed of the health services for the past one year. An even lesser number, that is, six out of ten households are aware of the existing health programs in the municipality. While most of the households availed of and encountered no problem with the BHS, still a substantial majority of the households do not seek this facility for health services. The top five most frequent illnesses of the households for the past one year are fever, colds and coughs, hypertension, diarrhea, and asthma.

*Access to Communication Facilities and Media.* Almost half of the households own at least one cellular phone. Only two households have landline telephone connections.

Sagñay households rely mostly on TV and radio as sources of information. While media utilization cuts across age brackets, it is interesting to note that radio-listeners and broadsheet-readers increase in number as they advance in education. Those who have less in life also have less access to media. For news report, ABS-CBN is the most popular.

*Population Management.* The generally-known artificial contraceptives as a method of birth control are also widely accepted. However, less than one-half of the married and live-in couples who are aware of birth control methods actually use contraceptives with the oral pill as the most popular method.

The level of contraceptive awareness varies by sex and work status but not by socio-economic class and education. Approval of contraceptive use, on the other hand, is directly related to the educational attainment of the respondents but inversely related to their socio-economic class.

*Organizational Participation.* The people's community involvement is low in Sagñay with only nearly one-fifth of the households being members of at least one organization. Those who participate seem to be actively involved as 44 percent hold key positions in the organizations and have high participation rate in the activities of the organizations. More than half think that their respective organizations have influenced the local governance of Sagñay. Civic and religious organizations are the largest in this municipality.

*Entrepreneurship.* Sagñay folks have a high propensity for engaging in business. However, the desired businesses are limited to "value-added" types, such as trading and service provision. Inadequate capital is the main reason given by a substantial number of respondents that restrain them from engaging in business.

*Abuse of Women and Children.* There is medial awareness of the Law on Anti-Violence against Women and their Children. Very few have knowledge on the abuses committed against women and children in their locality. Those who know about existing abuses report that physical abuse is the dominant form inflicted on women and children. Even a low percentage of awareness of violence inflicted on women and children is already an indication that violence do exist.

*Problems and Aspirations.* Sagñay folks find lack of income, livelihood, and employment opportunities as the most pressing problem confronting their community. Lack of infrastructure, access to transportation, and inadequate utilities follows. Families as a microcosm of society also report low income as their top most problem. Notwithstanding these perceived problems, their top most aspiration is for unity and peace in the barangay especially the solution of the problem regarding the presence of a number of bystanders and out-of-school youths, members of fraternities, drug addicts, gamblers, thieves, and drunkards. Reports of illegal fishing, breaking of lamps, illegal cutting of trees, and unfinished government projects call for community members to be vigilant and to unify their ranks to ward

off these incidents. Family aspirations reflect the community aspirations.

*Government Action on Local Services.* The LGU of Sagñay generally appears to be performing well having satisfied at least almost half of the respondents regarding the ban on illegal gambling. They are rated top performing in the maintenance of peace and order, provision of potable water, road improvement, and provision of health services. However, they need to improve on their efforts in banning illegal logging and gambling, and on garbage collection.

### ***Sagñay's Advancement Towards the Attainment of Goal 7, Target 11 of the Millennium Development Goals***

Six global-standards and localized indicators were employed to measure Sagñay's progress towards the attainment of Goal 7, Target 11 of the MDG; namely, access to safe water, access to sanitation, durability of housing, sufficiency of living space, sound environmental management, and secure tenure.

Over all, only sufficiency of living space is found adequate. Access to sanitation needs improvement. Access to safe water, durability of housing, environmental management, and security of tenure are all inadequate and need immediate attention.

### **Recommendations**

The socio-economic and demographic profile of the respondents and the household members in the survey conducted in Sagñay is quite revealing. Its large young population where 50 percent is aged 0-17 years suggests that there is a need for a more aggressive campaign on regulating population increase. The data on population management supports this observation. The singles who will become future parents are generally unaware of the methods in family planning. This implies the need to conduct seminars on contraceptive use. Nevertheless, natural methods should be emphasized to respect the beliefs of almost all the households that are Catholics.

The average household income which is below the official poverty threshold suggests the need for income-improving programs. As confirmed by the households

themselves, their main problem is lack of income, livelihood, and employment opportunities. The data on the skills and entrepreneurship of the residents suggest the types of income-generating projects that can be introduced and supported. Their interests which range from trading, such as *compradas* (buy and sell of *palay*), sari-sari stores, groceries, and meat shops), to service businesses including auto repair shops, hand tractor or thresher rentals, water filling stations, and beauty parlors must be considered. There are also a few who are inclined on actual production such as animal, bread, and window grill production. In particular, the residents of Bgy. Nato, have expressed their desire to acquire skills in fish processing for the production of fish sauce or *patis*, a perceived viable business considering that Nato is reported as a top supplier of anchovies of *dilis* (Ateneo Social Science Research Center [ASSRC], 2008). Business proposal-making can also be taught so that other desired businesses could be proposed to rich businessmen. In Sitio La Purisima, for example, the people's expressed need for an ice plant or cold storage to help fishers regulate fish supply and product prices and beach resort development could be submitted as proposals (ASSRC, 2008).

The wide disparity in income distribution suggests that to effect significant changes in the lives of the people in Sagñay, programs that redistribute income from the rich to the poor sector of the economy need to be implemented.

Self-rated poverty and experience of hunger in Sagñay which overwhelmingly surpass national statistics convey the need for urgent actions on meeting basic food and survival needs. Since 50 percent of the households are composed of youngsters aged 0-17 years, the feeding programs started by the provincial government and non-government organizations can be complemented to fast track the alleviation of the Sagñay folks from this abject situation in addition to the long-range income-improving programs, such as backyard farming and other related income- and food-generating projects. Formation activities and skills training on livelihood are imperatives to enhance positive attitudes toward work and additional skills. The LGU of Sagñay can coordinate with TESDA for the training of out-of-school youths.

Training programs on gender sensitivity is also befitting as only half of the households are aware of the law on Anti-Violence against Women and their Children. The large majority of women rating themselves poor are an indication of their subordination due to their low economic status. The presence of cases of abuse



inflicted on women and children in Sagñay especially in the lower socio-economic status makes gender education and development critical. Women need also to be organized and helped in identifying the needed skills training through workshops. Eventually, with the skills learned, women will become self-confident and strive to become economically-empowered.

For a municipality that is partially urban, the data on access to electricity is inapt. The LGU of Sagñay must have the political will to mediate with CASURECO for the extension of its services to areas not reached by the electric provider. More access to electricity means more opportunities for productivity and robust economic activity.

While a large percentage of the households are aware of the existing health programs, these are also not availed of by a large percentage. Evaluation on health programs and services must therefore, if already implemented, be reviewed to ensure that a responsive health program is in place.

The assessment of Sagñay's performance in meeting Goal 7, Target 11 of the MDG implies the urgency of intervention programs to address inadequacies in access to safe water, durability of housing, environmental management, and security of tenure.

To improve access to safe water, ground water pipes have to be installed and made accessible to the greater number of households.

In addressing inadequacy in housing and lack of security of housing and lot tenure, it is essential to come up with a strong proposal on amelioration program in housing and lot acquisition giving particular attention to payment schemes after considering the economic status of the majority of Sagñay households. Sagñay folks can also be assisted in acquiring strong materials for housing by integrating these in housing programs that can be facilitated by the LGU and through the support of non-government organizations. Relocation of houses from hazardous locations to safer ones is also an imperative.

Households can also be assisted in securing appropriate documentation for their existing and future houses and lots through education on the proper processes on



acquisition and certification. Mediation assistance could also be provided to those who have landlords who are open to selling the lots where the houses are situated.

Communities can be improved by the provision and completion of infrastructure and utilities projects. The numerous organizations in the barangay can be tapped to monitor the utilization of the budget of the municipality. On the other hand, the municipal government can issue regular updates through a general assembly about its projects on roads and bridges, transportation, streetlights, drainage system, electricity services, and water system. This way, a check and balance can be regularly implemented in the municipality. This should not be seen as a hostile and divisive pursuit but a bonding and deepening endeavor that can encourage voluntarism and vigilance in the community and dissuade criminal intents.

Finally, to address the inadequacy on sound environmental management, the LGU of Sagñay must place importance in constructing appropriate drainage system in the community. Open drainage must be covered for protection, safety, and health reasons. Education campaigns on sound environmental management practices have to be conducted in a graduated manner. Initially, training on proper garbage disposal, such as waste segregation and composting can be organized. Eventually, as the income of the people is improved, they should be encouraged to utilize LPG to avoid the use of biomass energy as cooking fuel. Ordinances on appropriate garbage disposal, if not in place, should be given primacy and strictly enforced. The LGU of Sagñay should rethink, make a strong statement, and do something about the industrial waste facility in Bgy. Mabca that could bring long-run damages to the community and to the people of Sagñay.



ASSRC. March 2008. *Participatory Rapid Appraisal of Barangay Nato and Atulayan, Sagñay, Camarines Sur*. Ateneo Social Science Research Center.

Bradecina, Raul G. and Plutomeo Nieves. 2006. "Institutional Arrangements and Processes in Marine Fishery Reserves-Sanctuaries Establishment in Lagonoy Gulf." *Science Diliman*. 18(2) (July-December 2006): 47-56  
<http://journals.upd.edu.ph/index.php/sciencediliman/article/view/6/49>  
 (accessed October 21, 2008).

Millennium Project. 2006. UN Millennium Development Goals.  
<http://www.un.org/millenniumgoals/>. Cited in ASSRC and PHILSSA. (2007).  
 2007 Socio-Economic Situation of Naga City.

National Statistics Office. 2008. *2006 Family Income and Expenditure Survey, Final Results*. <http://www.census.gov.ph/data/sectordata/2006/ie06fr05.htm>  
 (accessed October 24, 2008).

Philippine Standard Geographic Code Interactive. September 30, 2008. *Municipality: Sagñay*. National Statistical Coordination Board.  
<http://www.nscb.gov.ph/activestats/psgc/municipality.asp?muncode=051731000&regcode=05&provcode=17> (accessed October 21, 2008).

Smith, Mark K. 1999, 2006. "Community Participation." *The Encyclopedia of Informal Education*. [www.infed.org/community/b-compar.htm](http://www.infed.org/community/b-compar.htm). (accessed May 31, 2008).

Social Weather Stations. 2008. *Self-rated Poverty and Hunger*.  
<http://www.sws.org.ph> (accessed October 23, 2008).

Todaro, M. 1996. *Economic Development*. 6<sup>th</sup> Edition. UK: Addison Wesley Longman. Cited in ASSRC and PHILSSA. 2007. 2007 Socio-Economic Situation of Naga City.

UN-HABITAT and Global Urban Observatory. 2003. *Guide to Monitoring Target 11: Improving the lives of 100 million slum dwellers Progress towards the Millennium Development Goals*. Nairobi: United Nations Human Settlements Programme (UN-HABITAT)  
<http://www.unhabitat.org/pmss/getPage.asp?page=bookView&book=1930>  
 (accessed July 29, 2008).