

PRODUCTIVITY EFFORTS IN BAIS BAY BASIN

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INTRODUCTION

During the first year of implementation of this project, we focused on the facilitation of the formation of associations of residents in the project site, the beginning of agricultural projects managed by the newly organized group of residents, and the enhancement of learning by the residents about the environmental concerns. As facilitators in the community, we maintain the view that the associations we helped organize are learning organizations and we are therefore co-learners throughout the process of project implementation. It is our belief that through conscious organizational learning, informed actions and decisions can be made; and particularly for this project, this would help us achieve the goals and objectives defined both by the members of the associations and by us.

This report presents a narrative description of the activities during the first year of the project (November 1991 to October 1992), the strategies used and their underpinnings, and finally our reflections about the project goals and the strategies used.

PROJECT GOALS AND OBJECTIVES

This project was conducted as an action research. It was aimed towards the identification and development of a conceptual model (and its validation in real world situation) of a specific appropriate farming system that will raise the awareness of the farmers about resources management and sustainability as they adopt and adapt improved farming technologies and practices viewed by them as leading to increased productivity and economic growth. Specifically, this project aims to:

1. develop a strategy to enhance a local community's capacity for resource management as new and improved technology and practices in farming are adopted and adapted by the farmers in the community;
2. identify and develop a conceptual model of an appropriate sustainable farming system for specific farming communities;

3. identify and develop a conceptual model of some existing farming systems and understand their impact on resource management and sustainability; and
4. improve agricultural productivity in the project area as consciousness for resource management and sustainability are being enhanced or developed among the people in the community.

IDENTIFICATION OF PROJECT SITES

To identify project sites, it was decided that the development of micro-watersheds would have a better impact and would clearly establish the link between our upland undertakings and environmental studies being done by the marine studies group at the Bais Bay basin. Barangay Tagpo, and sitio Amalao within it, were chosen as our pilot project sites. Tagpo and Amalao were the identified micro-watersheds. Both have water tributaries to Tamogong river, a major river that drains into Bais Bay. We planned that following our establishment of productivity activities together with fitting environmental management practices and reforestation, we would monitor soil erosion, water quality and quantity along the tributaries of Tamogong river that drain from our project sites. The environmental monitoring at the above-mentioned points would be matched with the environmental monitoring data that would be gathered at the project sites and Bais Bay basin.

BRIEF PROFILE OF BARANGAY TAGPO

An Overview of Barangay Tagpo

Tagpo is one of the 35 barangays in Bais City. It became a barangay in the early 1960s as a response to the petition made by its residents. Tagpo is approximately 17 km north of Bais City. It has an elevation of approximately 300 to 600 m above sea level. The total land area of Barangay Tagpo is 2800 ha. There are 15 sitios within Barangay Tagpo which accounts for a total population of 1,716 (May 1990 census). The residents are engaged mostly in agricultural farming. The main crops produced are sugarcane, corn and rootcrops.

Access from the provincial road to Tagpo is poor. The existing roads leading to and within Tagpo are usually passable only during the dry months of the year. A four-wheel drive vehicle is necessary when driving through these roads during wet season. The residents normally walk 4.5 km to reach the Bais - Mabinay highway where they take a ride on public utility vehicles going to Bais City. It is in Bais City where the residents sell their produce and buy their basic needs such as salt, soap, kerosene and dried fish. A few families in Tagpo use horses or carabaos to carry loads to the Bais-Mabinay highway.

The Biophysical Conditions in Tagpo

Tagpo is one of the watershed areas of Bais City. It falls within the climatic Type C of two pronounced seasons. Dry season is from December to March, and the rest of the year is considered wet season. The peak rainfall is during the months of July to November (200 mm). Tagpo is exposed to both Northwest and Southeast wind. Water sourced from the creeks is very limited.

The area is a sloping hilly terrain with an average slope of 35%. There are areas with very steep terrain which are not suitable even to contour farming. These areas, which are too steep for terracing, are a limiting factor to the expansion of farms and are left unattended by the residents of the area. There are numerous patches of eroded areas and gullies formed due to run-off water during rainy season. Some rocky and steep terrain with occasional flat areas are planted to sugarcane and food crops. In these areas there are evidences of attempts to put up rockwalls and hedgerows. The results of these efforts, however, are minimal. In areas where the soil type is clay-loam, rootcrops are usually planted to serve as supplementary food during lean months.

Animal production is of secondary importance to crop production among the residents of Tagpo. The animal raised by the residents are mostly draft animals. Some chickens and pigs are being raised under a backyard raising scheme. Chickens account for the highest number in animal population, followed by hogs. These animals are sold when an emergency need for money arises (i.e. sickness in the family) and are also used as food during festivities, particularly fiestas.

For each household, land use is a function of household resource access and food procurement. The steep fields far from homes have low soil fertility and are usually left barren. However, some farmers can manage to grow rootcrops in these areas, such as *karnabal* and sweet potato. The land areas with gentle to level topography are planted with sugarcane and corn which is the main source of livelihood.

The Socioeconomic Condition in Tagpo

The average household size in Tagpo is six (6) and the average educational attainment is grade four in the elementary school. From this data we tentatively conclude that population migration from the area could be low. One implication of a low educational attainment is less chance to move outside the community to seek employment, and we suggest insufficient skills for employment as a reason. The effect of the population increase together with little mobility towards outside communities could be an additional pressure on land use.

A typical farmer resident owns an average of 1/2 ha of land. From this piece of land the farmer aims to produce the food for household consumption. We observe that there is an abundance of laborers in all stages of production in the farms. All the household members in a family are involved in working on their land. Practically the whole household is engaged in every stage of farm production. In instances where a farmer has a "large" (more than five ha.) farm land, an added source of labor are members of other households in the area.

To add to their meager earning from their own farms, some of the farmers seek employment as workers in sugarcane plantations especially during the sugar cane milling season. Other off-farm income comes from working as skilled labor, i.e., as carpenter or driver operator.

April to June are called "lean months" because it is the time when not much could be produced in the farms due to the very dry weather conditions. It is not uncommon at this time for some of the farmers' children, especially the teen-age and adult females, to move out of their farms and work as househelp in the city. However, they try their best to go back to their farms during the planting season. It is also during the "lean months" when the farmers sell their animals, and the income is used to buy food and other necessities. It was observed that rootcrops become more of the staple diet during "lean months".

Very few subscribe to bank loans. The farmers are afraid that since their land would be used as collateral for their loan, they might lose their land because they are not sure and confident about their productivity and their capacity to pay loans. Informal loans from friends and relatives are more common.

Some Observations and a Tentative Analysis of Tagpo

The farmers in Tagpo are engaged in sugarcane production in spite of low productivity in their farms as compared to productivity in lowland areas. They belong to the low-income group of sugarcane planters. We have yet to find a validated explanation of why, in spite of the low income from sugarcane farming in Tagpo, the residents have not looked at other options in farming.

It is a challenge upon us to help these farmers learn more about other options in farming and at the same time raise their consciousness about sustainable farming practices. The farmers in Tagpo tend to grow sugarcane even in steep sloping areas as long as the site can be reached by trucks that would haul their cane harvest. There are cases where sugar cane is planted in areas that could not be reached by hauling trucks. Most of these farmers do not practice land terracing. Undoubtedly, there is a

significant soil loss even during the cultivation of the land. The resulting soil run-off during rainy season could account for the loss of the top soil in about 20% of the area. The areas with very steep slopes remain uncultivated and are covered with cogon grass. Many of the tree seedlings are destroyed by spontaneous fires that occur in cogonal areas during the summer months.

The Department of Agriculture (DA) and other non-government organizations have initiated some programs to improve the residents' understanding of farming. Technicians from the DA are available to give assistance in the technical aspects of farming and also in some other livelihood activities. However, we have yet to find valid indications of the effectiveness and impact of the above mentioned activities.

During our initial contacts with some members of the community, we noticed that they were reluctant to attend the meetings we organized. They were suspicious about our presence in their community. We discovered later a possible explanation for such attitude. We learned from one of our key informants that there was a time when a certain non-governmental organization offered them some help. All of the residents were very enthusiastic about a proposed organization of residents. Every time a meeting was called everybody was present, even during meetings held at night time. After a while, the residents realized that they were being introduced to ideologies which they perceived to be against the government and the Constitution. Such experience caused anxiety and posed threats to their security. This experience on the part of some of the residents was a factor we had to reckon with during the planning of our strategies in the area.

BRIEF PROFILE OF SITIO AMALAO

An Overview of Sitio Amalao

Amalao is one of the many sitios of Barangay Tagpo. It has a total land area of 92 ha. The residents are mostly engaged in agriculture. Sugarcane, corn and some rootcrops are the main crops being produced. Amalao was once a portion of a cattle grazing land and ranch (an unclassified public forest) managed by a certain Don Gaspar Vicente.

Amalao has better roads compared to Tagpo. The roads are passable to public jeepsneys even without a 4-wheel drive. However, public transportation does not reach Amalao. The residents have to walk to the national highway to take a ride to Bais City, where they sell their products and buy their needs.

In 1970, a group of workers of Hacienda La Paz and Hanyad staged a strike against the management of the hacienda. They demanded an increase in their salary,

free hospitalization, and other benefits from their employer. The members of the group that staged the strike lost their jobs in the hacienda. They were then re-settled in the cattle ranch mentioned above and the place was called Amalao. As surveyed under G.S.S. No. 114, Amalao is within a forest zone. It accommodated 84 families with undefined land tenure. Some of the local residents call their area "LAPAHAWA". The name stands for displaced workers from Hacienda La Paz and Hanyad; LAPA for La Paz; HA- for Hanyad; and WA- for "gipapahawa" (ejected).

Biophysical Conditions of Amalao

Amalao has an elevation of 300 to 600 feet above sea level. The soil is generally clay-loam with a depth ranging from 30 cm. to 150 cm. Cultivation of the soil by plow and carabao is quite difficult in some areas due to rocks protruding on the surface.

The slash-and-burn procedure was a common land clearing practice used in the mountain slopes. These clearings were originally grass/shrub lands converted to agricultural use by uprooting the grass/shrubs while simultaneously loosening the topsoil for planting. Rocky and steep terrain with occasional flat areas are planted with sugarcane, corn, and rootcrops.

Some Socio-economic Data from Amalao

The data gathered and presented here were taken from a random sampling of 36 households which represent 40% of the total of 84 households in the area.

1.) Sex Distribution of Household Head

Sex	Frequency	Percentage
Male	35	97.25%
Female	1	2.75%

2.) Age Distribution of Household Heads

Age	Frequency	Percentage
Below 20	none	0%
21-30	9	25%
31-40	9	25%
41-50	8	22.2%
51-60	5	13.9%
Above 60	5	13.9%
Total	36	100%

3.) Distribution of Household Head's Highest Educational Attainment

Education Attained	Frequency	Percentage
Have not gone to school	5	13.9%
Primary	16	44.44%
Intermediate	12	33.33%
Secondary	3	8.33%
Vocational	0	0%
College Level	0	0%

4.) Distribution of Household Heads Based on Occupation

Occupation	Frequency	Percentage
Farming	34	94.44%
Carpentry	1	2.78%
Others	1	2.78%
Total	36	100%

Based on the interviews made with 36 households, the average family size is five (4.97) and the total household members are 143.

With regard to the division of labor and responsibility in farming, the men do the land clearing, plowing, and large animal husbandry. Practically all other responsibilities are shared by both men and women. These activities are: planting, weeding, harvesting, and the care of smaller livestock. Both men and women are in control of agricultural activities once the land is ready for planting. Decision making regarding farming is shared responsibility between the men and women.

5.) Land Use Data (based on actual survey and interviews)

Cultivated: 34% = 31.96 ha

Idle/Fallow: 60% = 56.4 ha

Crops	%	Area (ha)
Sugarcane	20	18.8
Corn	10	9.4
Rootcrops	2.0	1.88
Forest Trees	1.5	1.41
Fruit Trees	0.5	.47
Total	34%	31.96

Vegetation	%	Area (ha)
Cogonal	30	28.2
Shrubby	20	18.8
Other Grasses		
Grazing	10	9.4
Total	60%	56.4

6. Infrastructures: 6% (5.6 ha)

Structure	Area (ha)
House and Lot	3.4
Com. Plaza	0.8
School and Ground	0.5
Road/Trail	1.3

Land ownership problematic. When the residents were resettled in Amalao following the settlement of their problems with Hacienda Lapaz and Hanyad, the 92 hectares of Amalao was divided among 84 households. However, the entire area was classified as corporate land under a cooperative which was registered with the Securities and Exchange Commission. In actual practice the residents till the land individually and there is no semblance at all of a cooperative undertaking. A lot of issues pertaining to control over specific areas by specific households has arisen from this situation.

Some Observations and a Tentative Analysis of Amalao

We rated the quality of life in Amalao low. The residents are not engaged in income-generating activities other than sugarcane farming. However, the income from sugarcane farming in Amalao is very poor compared to production and income from sugarcane farming in lowland areas. Due to Amalao's distance from the urban centers, education, health, and other government and non-government services barely reach the residents.

In analyzing their present farming practices, we took into consideration the farmers' historical background (resettled striking workers from a hacienda). We propose the theory that the residents of Amalao are not prepared to be independent farmers. They have been used to being farm workers, thus their skills in farm planning, management, decision-making and marketing need to be fully developed. Their poverty has led them to become survivalist and the "here-and-now" issues of surviving make them less sensitive to community concerns and future planning. Our talks with them indicated that they are aware of environmental degradation resulting from their farming practices, but they seem to take its long-term effects as a reason for putting environmental concerns in the bottom of their life priorities. According to them, they do not have many options for their day-to-day survival.

The farmers of Amalao seem to understand the role of trees and tree planting in environmental conservation. However, most poor farmers do not plant trees because they do not see its immediate benefits to them. They usually use their time and their land for activities that will give more immediate cash returns, however small the amount.

Some do not want to plant trees in their field because they have heard that the presence of plenty of trees on their land would put it under the category of forestal (public land) thus denying them of its ownership. The residents of Amalao are still wrestling with the issue of land ownership. They are well aware of the fact that the land they are cultivating is public land, but since they were resettled there by the City government and were organized as a cooperative, they are hoping that someday a more defined ownership of areas within the cooperative will be granted to them by the government.

AMALAO AND TAGPO: THE LAST 10 MONTHS RE-VISITED

Preparation for Action

Our team's structured interactions with the residents of Amalao and Tagpo cover a span of 10 months. The first two months following the approval of our project proposal was spent in establishing linkage with the local government technicians working in upland Bais. Much care was taken in the choice of the project sites, of which the micro-watershed development concept was a predominant factor. After two months of exploratory discussions with many informants and ocular surveys of the areas, we began a more structured program in Tagpo and Amalao. We began to hire a field technician who would stay most of the time in the project sites. We made formal linkages with the government technicians assigned in Tagpo and Amalao and a program of participation by senior students in agriculture was put in place. The establishment of rapport with the community was the biggest task at hand and it was the cornerstone of our project. Our experiences in the process will be discussed at the later part of this report.

An Inventory of Activities

An inventory of activities during the past 10 months shows the following:

1. The formation of Amalao Landscaper Association Incorporated (ALAI) by residents of Sitio Amalao. The residents of Tagpo likewise organized the Tagpo, Cambayungon, and Malucani Association (TACAMA). These organizations are the core group of residents that interact with the productivity component of the Silliman University Bais Bay Basin - Development Action Program. The formation of the farmers associations was a necessary preliminary step for the conduct of the project.
2. Conduct of seminars/workshops/trainings among the members of the organizations. These covered the following areas of concern raised by the residents:

- a. Leadership training and community organization
 - b. Women in development
 - c. Tree planting and environmental concerns
 - d. Agricultural skills
 - e. Soil and water conservation
3. Conduct of cross-visitations by our farmer-cooperators to different existing ISF projects identified as progressive projects within the area.
 4. Animal dispersal for income-generating projects. Goats and swine were distributed in Amalao and cattle and swine were distributed in Tagpo.
 5. Distribution of forest trees and fruit trees seedlings. The intention was to encourage the residents to plant trees around their residential lots and farms. This was the beginning of their experience in caring for trees.
 5. Organization of *alayon* groups in Amalao and Tagpo. These groups undertake a mutual-help program in building contours, rockwalls and hedgerows in the respective farms of the participants in *alayon*.

OBSERVATIONS, REFLECTIONS AND PROVISIONAL THEORIES

Historical Grounding and Community Entry

The residents of Tagpo and Amalao manifested a distinct contrast in response to the project during our initial contacts with them and also during the organization of their respective associations. The residents of Amalao were able to organize much earlier than the residents of Tagpo. We observed that the residents of Amalao were quick to respond to our request for group meetings while it was difficult to gather together a group of residents of Tagpo.

We propose the following reasons for this distinction:

1. The residents of Amalao are a group of resettled strikers from a hacienda. They shared this common experience which could be the unifying factor among them. Their previous experiences as strikers could be the reason why they could easily organize (they were able to organize before as strikers). They were also more active in interactions and negotiation activities as they organize their group and interact with our project staff.

The residents of Tagpo have had an unpleasant experience with an organization which offered them developmental assistance. Their suspicion of such groups was a

hindrance we had to overcome before we were able to facilitate the formation of an association of the Tagpo residents.

2. The residents of Amalao are more closely knit as a group than the residents of Tagpo. The residents of Amalao behave more as a community, probably because when they were resettled in the area, they built their houses close to one another and cultivated farms far from their houses. In contrast, the Tagpo residents built their houses usually in the middle of their farms, thus their houses are relatively far from one another and meeting each one everyday is not a normal occurrence. It is also for this reason that calling for a meeting was difficult.

Strategy in Facilitating the Formation of Tagpo Farmers' Association (TACAMA)

Very few people showed up for the first meeting called by the project through one of the community leaders. We sensed that the residents then preferred to assume a "look-and-see" attitude.

A second meeting was called in the hope of getting more participants, at which time the few who were present were informed about the project. They were then asked to suggest a more convenient date and time for a third meeting -- so that more people might be able to attend. Again, it turned out that the attendance was unsatisfactory. So we told those who were present that we could not work with only a few people in the community. If they wished to see what benefits they could gain from the project, they were invited to join the seminars we were conducting in Amalao.

Seven persons from Tagpo trekked four kilometers to attend the workshop in Amalao. After they had gone back to Tagpo and told the others about the workshop, we began to receive requests from Tagpo residents to organize them and put up a project in the area. So we tried for another meeting of Tagpo residents, and this time we got satisfactory attendance. We began to learn about their concerns and apprehensions in dealing with development assistance groups. Subsequently, we were able to help them organize their own association.

The first association formed by the residents was short-lived. They had problems with attendance; there were concerns about officers not being able to live up to the members' expectations. Some members said officers were neither approachable nor available when the members needed them.

We let them alone to sort out the problem in their association. For a period of three months, the association was slowly "dying". Then a group of 10 residents approached us again, asking that we help them reorganize and elect a new set of officers. It was

with this new set of officers that we were able to implement active projects in the area. The *alayon* was revived and reorganized in the area.

In retrospect, we think that we had to leave them alone first to think, following our presentation of our program to the few persons that we first had contact. We did not push our agenda during our first contact with them. We did not promise any material assistance and we consistently emphasized that we were there to extend technical assistance in farming and that we were also concerned about environmental protection.

Working with Government Technicians

We consider it advantageous on our part to work closely with the technicians of the DA and DENR assigned in the area. We had to discuss with the city agriculturists our plans, particularly when it involved an activity parallel to what they were doing. An example was our intention to assist the residents of Amalao in swine production. We approached the city agriculturist and we informed him about our plan because we knew that the city agriculturist's office was conducting a swine dispersal project in the area. During our discussion, we realized that our proposed terms of agreement regarding a swine dispersal project would be looked upon by personnel of the city agriculturist's office as a competition to their work. We finally agreed to just deliver technical assistance in swine raising but not deal with the mechanics of a swine dispersal program. The field technicians however were always working with us. The field technicians of the government assigned in the area were also invited in our project staff meetings.

Organizing Field Activities in Conjunction with Farmer's Activities

During the last two months of our project time table we found out that our farmer cooperators were very active in their *alayon* and that we had to double our time allocation with them because they were having a lot of activities which needed our presence and support. Upon reflection we concluded that during the last two months they had nothing much to do outside of their routine farming activities and had much time to work with the concerns of the association. We then decided to consider the "farming calendar" of our cooperators and to spend more time in the educating process during weekends of the months when they were too busy working in their fields.

A Model Micro-watershed Farmer's Community

We considered looking at an urban subdivision homeowners' association as a possible model for our micro-watershed farmers' community.

A subdivision homeowner's association is a group of persons in a community with specific boundaries. The members of an urban subdivision homeowner's association are concerned about the preservation of a clean and pleasant environment to live in. There are officers of the association who manage the affairs of the community, which range from social functions, cleanliness and security in the subdivision. The association has rules and regulations pertaining to the well-being of the community and its residents. It would, therefore, be worth trying to model the farmers' association in Tagpo and Amalao along that of our perceived model of an urban subdivision homeowner's association.

The members of an urban subdivision homeowners' association are economically stable who do not earn their living from their place of residence. Our farmers' association members are not comparatively economically stable and they earn their living from their place of residence. We would then try to test whether the farmers would be able to appreciate the fact that they should protect their community because it is where they live in and from where they get their economic needs. We would try to test whether increased productivity would increase the farmers concern for their community or whether they would be encouraged to exploit the area some more and transfer to urban centers. As we looked forward to the coming years of our project life, we hope to continue to learn more about the community we are working with and learn more about theories and strategies in our effort to develop and enhance a farming community's ability to manage natural resources and protect their environment from degradation.