LPF/03/2005

PHILIPPINES COUNTRY REPORT YEAR 2



Levelling the Playing Field:

Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

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PHILIPPINES COUNTRY REPORT
Year 2

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I. Background

The First Country Report submitted a year ago presented the status of the different baseline and intervention activities that were conducted in the period 1 March – 31 August 2004.

In the first year, the LPF Philippines was able to finalize the site selection study. Through a resource and resource use survey, the current status of the resources and how they are being used by the communities were ascertained. A 20% household survey was also conducted to assess the socio-economic conditions of communities. Other conducted baseline studies include institution analysis, a study of the different formal and informal agreements entered into by the communities, an analysis of policies that affect the management of the natural resources by the community, and market study phase 1.

The intervention activities included facilitating communities and other stakeholders in coming up with a draft common vision and its statement, discussing ideal future and trends in natural resources, and assessing current conditions against ideal future. Other activities included identification and prioritization of local problems and issues that may hinder the achievement of the vision, and the strategies to address those issues.

This Second Country Report underscores the progress achieved in the period of 1 September – 31 August 2005. To enhance the effective implementation of the activities which are consistent with the research plan and the overall framework of the LPF Project, a logical framework (LogFrame) was prepared this year for the Philippines (see ***Appendix 1. LogFrame for Philippine Site***). Activities reported in this Second Year Report include data analysis and report completion of several baseline studies, i.e. Institutional Analysis, Policy Analysis, and Analysis of Contracts and Agreements). Data collection for these studies took place in the first year, but the reports can only be finalized in the second year.

Under intervention stage, several activities were conducted. These include multi-stakeholders landscape assessment (MLA), market study phase 2, multi-agents systems (MAS) modeling, facilitation of community initiatives (led by community working groups), and coordination of provincial stakeholders. As the communities were considered a part of the bigger system, a steering committee at the provincial level was formed this year to provide guidance and to ensure sustainability of the project at later stage. Through this steering committee, political commitment from various offices, agencies and groups were solicited.

Efforts to maintain coordination within the team were conducted through regular team coordination meetings, regional coordination meeting, and LPF Steering Committee meeting. We also organized several training sessions for community members and other provincial stakeholders. At the same time, several Philippine team members also participated in several training workshops organized by LPF project. The different activities taken place in the second year are summarized in ***Appendix 2. Activity Table***.

We provide in more details below the different activities conducted in Year 2, the methods used, and the findings or results. A full report of different studies, minutes of meetings, workshop reports, and trip reports are attached as annexes to this report.

The progress of the work done in the Philippine site could have not been achieved without the active participation of the team members shown in ***Appendix 3. Composition of the Team in Year 2***.

This report also contains the report of financial expenses for the second year, and the proposed operation plan and budget for year 3.

II. Operations Done in 2004-2005 (Year 2)

II.A. Initialization Stage and Baseline Studies

II.A.1. Analysis of Contracts and Agreements

Methods:

The LPF Team identified 8 formal and informal contracts or agreements that the community members of the three barangays have entered into. They are:

- Agreement between Department of Environment and Natural Resources (DENR) and People's Organization of San Rafael-Tanabag-Concepcion Multi-purpose Cooperative (STCMPC) on the management of Community Based Forest Management (CBFM) area;
- Memorandum of Understanding between Center For International Forestry Research (CIFOR) and STCMPC for the management of CBFM area;
- Agreement between STCMPC and Budyong Rural Development Foundation Inc.(BRDFI) on woodworks operation;
- Informal agreement between Maliliit Na Mangingisda Multi-Purpose Cooperative (MMMPC) of Brgy. San Rafael with Haribon Palawan on coastal management;
- Formal agreement between Haribon Palawan and Palawan Community-Based Fisherfolk Alliance, Inc. in the implementing mechanisms for biodiversity conservation and sustainable development under the Fisher folk Self-Help for Empowerment and Regeneration Project;
- Agreements entered into by Tarabanan Fishermen Association, Incorporated (of Brgy. Concepcion);
- Informal agreement between community groups and Fundacion Santiago (FS);
- Informal agreement between Taytay sa Kauswagan Inc. (TSKI) and various community groups.

Key informant interviews were conducted with 31 people to gather information with regards to the processes to prepare the contracts/agreements and their implementation. The following focused questions were asked to the informants:

1. What were the processes used in developing the agreement?
2. What were some of the pertinent features of the agreement? How were they implemented? Who monitored compliance? Were these arrangements effective? What do you think went well and what went wrong? Why?
3. How were the benefits shared among members?
4. How big was the community's organization, engaged in the contract/agreement, in relation to the whole community of the three barangays?

Key Results:

Contracts and agreements entered into by the different organizations in the three barangays were either formal or informal. Formal agreements came in the form of written contracts and agreements discussed and agreed upon by the parties concerned and to which the representatives of said parties affix their signatures. On the other hand informal agreements do not have written contracts or agreements. Some contracts worked, some did not. The form of the contract (formal or informal), and the process of generating the agreements did not seem to determine the success or failure of the contracts.

The capacity of the community organizations in taking part in the project seemed to be an important factor. For this reason, most of the projects had capacity building component as a part of the project, for example in enterprising, financial management, and resource management. In these areas, the capacities of relevant community organizations were still weak. Nevertheless, due to the limited timeframe of the project, the capacity of the community organizations was not built high enough to contribute to the success of the project.

The participation of the participating community members in defining the rules during the project implementation seems to be a crucial factor in determining the success. This was clear in the case of Fundacion Santiago (FS), Taytay sa Kauswagan Inc. (TKSI) and different saving groups in the community. The size of the groups may also contribute to the ability to self-regulate the group members as they can easily monitor its own performance. In instances when there is an agreed manner of monitoring and evaluating a certain agreement or contract, the implementation was more effective.

There was clear indication from this study that the benefits from the project were not directly shared to many members of the communities. This probably confirms that there is still the culture among people in the barangay along the Pilipino say: "kung sinong nagtanim siya dapat mag-aani" or "whoever planted should be the one who should reap the benefits". This suggested that only those who participated and invested their time and energy would enjoy benefits. They may not have the motivation to share the benefits to wider community especially if the benefits produced from the project were limited. The projects operated in the area were indeed

relatively very small in scale and scope. It would therefore not realistic to expect that such small project could produce positive impacts for the whole community.

Results of this baseline studies are shown in ***Appendix 4. Analysis of Contracts and Agreements.***

II.A.2. Compilation of Policies Affecting the Way the Communities Manage Their Natural Resources

Methods:

Interviews were conducted with 13 community members and 7 members of fishermen association to identify policies, rules and regulations that affect the way the communities manage and use their natural resources.

Key Results:

Community members we interviewed mentioned the following policies and regulations that currently affect the way they manage their natural resources:

1) Memorandum from the Secretary – Suspending the Implementation of DENR Administrative Orders Nos. 2004-04, 2004-34 and 2004-52 - Dated 5 Nov 2004.

Until further notice and after a comprehensive review and assessment, the implementation of the following Administrative Orders and related instructions issued thereafter is hereby suspended indefinitely:

- *DENR Administrative Order No. 2004-04, otherwise known as the "Guidelines on the Utilization and Transport of Planted Trees in Private Lands";*
- *DENR Administrative Order No. 2004-34, otherwise known as the "Guidelines in the Preparation, Submission, Review and Approval of a Multi-Year Operations Plan (MYOP) for Timber License Agreement (TLA)";*
- *DENR Administrative Order No. 2004-52, otherwise known as the "Revised Guidelines in the Issuance of Cutting/Harvesting Permits in Private Titled Lands".*

Meantime, all operative guidelines prior to the issuance of the foregoing Administrative Orders shall be used.

This Memorandum from the Secretary of DENR affected the CBFM People's Organisations (POs) and communities of the three barangays, and limited construction of commercial buildings in the area. For the POs, lumber utilization in CBFM area is their main activities. Since the timber can not be extracted for the time being, the supply of lumber for house and building constructions were not sufficient. Members of the POs who worked as laborers in lumber operations lost their job. Private land in the barangay planted with exotic trees like Gmelina, cannot be harvested although the tree are mature already.

2) ***Foreshore lease agreement (a*** **part of the** ***Public Land Act) or An Act to Amend and Compile the Laws Relative to Land of the Public Domain - Approved on 20 June 1953.***

Implemented by the Department of Environment and Natural Resources (DENR) under provisions of Chapter VI/IX of Commonwealth Act, Agricultural, Foreshore, and Reclaimed Land of Miscellaneous Lease Application.

One of the lease agreements stated and allowed is the lease of foreshores by private individuals. From the point of view of some fishermen in the community, they anticipated that it would be difficult to find proper place for their fish port in the future. This is because the beaches area in the three barangays has been occupied by resorts, owned by individuals and foreigners. Over time, the numbers of private resorts have increased. Once the beach area is purchased by private individuals, they immediately fence their area and nobody is allowed to enter in their area without permission from the owner.

3) DENR Administrative Order No. 96-29 – Section No. 3 – Paragraph IX
Pay forest charges, other than those on timber and non-timber forest products harvested from CBFMA plantations, as well as fees and other taxes required by the government – Published in July 1998.

When San Rafael, Tanabag and Concepcion Multi-Purpose Cooperative (STCMPC) was actively engaged in the utilization of dead and/or salvage trees and Non Timber Forest Products in CBFM area, one of their dilemmas was the high forest charges. The members of the cooperative cited that they wished they could be exempted from paying the charges. Furthermore, rather than paying the charges to DENR, the charges could be given to the cooperative and they would use the money to patrol the whole CBFM area for its protection and conservation.

4) Presidential Decree No. 705 – Revised Forestry Code of the Philippines
Section 52 - Census of kaingineros, squatters, cultural minorities and other occupants and residents in forest lands – Approved on 19 May 1975.

Henceforth, no person shall enter into forest lands and cultivate the same without lease or permit.
A complete census of kaingineros, squatters, cultural minorities and other occupants and residents in forest lands with or without authority or permits from the government, showing the extent of their respective occupation and resulting damage. Or impairment of forest resources shall be conducted.
The Bureau may call upon other agencies of the government and holders of license agreement, license, lease and permits over forests lands to participate in the census

This decree had been implemented strictly in Palawan. This strict implementation of the decree, specifically the section pertaining to kaingin, have left the communities with little options about what upland resources they can utilise.

5) City Ordinance No. 110-94 - Prescribing guidelines for controlled burning in private lands, alienable and disposable lands, ancestral lands and public forest

lands for agriculture, providing penalties for violation thereof, and for other purposes – Approved on 3 February 1995.

In three barangays, the main source of livelihood of some members of the community is kaingin (slash-and-burn agriculture). This year, the bantay gubat (forest guard) of City Government of Puerto Princesa and other concerned agencies are strictly implementing the policy to prevent kaingin. According to the community members, the government allows them to make kaingin in the areas that had been utilized before for kaingin. Generally, the former kaingin areas are belong to the current occupants. Others who want to perform kaingin this year therefore need to open a new area. Since it's strictly prohibited, permit needs to be obtained from the City Government. If the community members open the area without permit, they will be arrested. The community requested for an alternative livelihood options.

6) City Ordinance No. 57 – An ordinance regulating the fishing industries and/or fisheries in the City of Puerto Princesa - Approved on 18 May 1997.

Section 9. Fishermen's Licensing Registration System – All qualified fishermen applicants shall registered with the City Government, and shall be issued Fishermen Identification Cards, upon completing the filling-up application forms and payment of the registration fees, and which they shall carry at all times when engaged in fishing operation and present and surrender whenever requested by the Bantay Dagat personnel and other duly authorized law enforcement officers. Provided, that this fishermen's license shall be valid for one (1) year, renewable annually; upon a favorable review compliance, based upon the guidelines of LRS and MCS as property reviewed and recommended by the Office of Bantay Dagat and the Licensing Division of the City Mayor's Office.

Fishermen's License is a license issued by the City Government that allows the city fishermen to fish in the city waters. The license is valid for a period of one year. According to fishermen who participated in a Focus Group Discussion (FGD) at Brgy. Concepcion, they are affected by this policy since they have to spend time and money in processing the permits.

II.A.3. Analysis of Institutions Involved in Natural Resources Management

Methods:

A questionnaire was designed and distributed to the representatives of the different government offices and non-government organizations who attended the stakeholder analysis workshop held in Puerto Princesa City. Nine respondents took part in answering the questionnaire.

Since responses to some of the items in the questionnaire need to be researched, e.g., budget, staff, mandates, vision, mission, we allowed the respondents to bring the survey forms to their offices. After two weeks, the LPF team members collected the answered survey forms. During their visit to the offices of the institutions, the team

conducted key informant interviews to get more details on the answers provided in the survey questionnaire or to clarify issues not clearly answered.

An analysis to assess the roles, responsibilities, revenues (benefits), and relations of the various institutions (4R Analysis) was also conducted by the team earlier. Through a participatory process, representatives from different institutions were able to identify the roles of different stakeholders, stakeholders who have that most responsibilities, stakeholders that benefit most from the resources in the area, and those that do not contribute much to the proper protection and management of the resource.

Key Results:

The nine organizations surveyed, consisting of 3 NGOs and 6 GOs, have varying mandates, management roles and objectives. The breadth of mandates is reflective of the extent of responsibilities of the organization or agency. For example, the mandate of smaller agencies like National Commission on Indigenous People, Community-level Department of Environment and Natural Resources (CENRO), NATRIPAL, Fundacion Santiago and Budyong are much more directly spelled out and more site specific than the roles, mandates of large organizations like Provincial-level DENR (PENRO), Palawan Council for Sustainable Development (PCSD), and Regional Office of Department of Agriculture (DA). However, while the organizations have wide range of variation in the way these mandates are formulated and expressed, the mandates of these organizations normally do not deviate from the standard umbrella statement of "promotion of the well- being of the Filipino people". Variation comes in when these mandates are geared for more specific and smaller group of people like the indigenous people.

Budgets are obviously proportional to mandates and scope of responsibilities and concerns. The bigger the organization, the heavier its mandates and the wider its scope, the bigger is the budget. Among the organizations, the City Environment and Natural Resources Office (City ENRO) had the biggest budget, followed by the PENRO-DENR and the PCSD. The other organizations were expected to have very small budgets because they are small and their mandates have smaller coverage. NGOs usually depend upon budget from their approved project proposals. Some of the organizations were not able to provide figures on their budget.

The mandates and responsibilities of the organizations or agencies, although very specific, still caused minor conflicts resulting from the overlap of these mandates and functions. In natural resources and environmental management, for example, the organizations with overlapping mandates are DENR, PCDS, and City ENRO. Majority of the respondents perceived that there was indeed overlapping of functions and responsibilities among these institutions.

Cooperation among the various sectors and stakeholders has been improved, for example between PCSD and DENR, with PCSD supporting DENR's CBFM program. PCSD only supported the Community Forest Program (CFP) before. CFP is a forest management program of the DENR, which grants rights to organized communities to manage, develop and utilize forest resources on a sustainable basis. Later they were in

favor of the Communal Forests concept which gave the authorities to LGUs to manage forests.

Opportunities for institutions to communicate, coordinate or cooperate with other organizations and institutions took place in meetings, through email exchange, and during joint project and trainings. If inter-sectoral coordination happened, it is usually achieved through composite team works, technical working groups and sectoral meetings. The levels of participation of the various organizations and agencies in inter-sectoral coordination varied in degree and extent.

Collective actions among organizations usually occurred when resources were scarce and sharing was deemed necessary. Collective action also occurred when the issue or problem being addressed cut across the different mandates or domains of the different organizations. Initiator of collective action included the organization where the concern was lodged, the partners or beneficiaries to the resolution of an issue, or working groups. To solve the problems pertaining to CBFM, the Provincial CBFM Technical Working Group was formed. More details of the methods and results of this study can be found in ***Appendix 5. Institutional Analysis***.

II.B. Intervention Stage

II.B.1. Multi-Stakeholders Landscape Assessment (MLA)

Methods:

Multi-stakeholders Landscape Assessment (MLA) for LPF project in the Philippines was conducted in the Village of Kalakuasan, the village of the indigenous people in Barangay Tanabag, in the period of 16 February – 8 March 2005. This is one of the villages occupied by the Indigenous People of Bataks. The goal of this study was to assess the importance of the forest resources for the Bataks and their priorities in biodiversity management.

The field study took place in 17 days only. Two LPF Consultants, Dr. Manuel Boissière and Ms. Nining Liswanti, worked closely with LPF research assistant, and researchers from Philippine institutions (UPLB University, Palawan University, and City Government). The team formed two groups:

- Village teams: collected socio-economics and demographic data by using methods such as households survey, Pebble Distribution Method (in which the local community assessed the importance of landscape and resources) and focus group discussions
- Field team: assessed the different types of landscape on 12 sample plots and undertaking ethnobotany study of each plant specimens collected in the plots.

Key Results:

The landscape of the area is mountainous. The village is located on a small valley with some forests are partly conserved. Only a few families are staying permanently

in the village compound. Most of the community is staying upstream along the Tanabag river, working at the gardens (swidden rice fields or mixed crops gardens), hunting (wild pigs, wild chicken, monkeys etc), or collecting NTFPs (honey, rattan, resin of *Agathis sp.*, firewood, etc). Bataks are still strongly relying on NTFPs for cash earning, but also for their own consumption.

a. Village teams

Participatory mapping

The participatory mapping was conducted in the second day of the MLA team's arrival. An official map of the area obtained from the Palawan Council for Sustainable Development (PCSD) was used as a basis. At the beginning, the community refused to participate because the boundary of Bataks' territory shown in the official map was different from their perceptions of their territory. But the team managed to clarify that the official map was used just as a basis for discussion. The Bataks later agreed to participate and they provided information about their landscapes, such as rivers, creeks, and the important forest products. They also determined 8 land types, namely: village (*Bario)*, Old village (*Jaringan)*, Garden (*Kalagian)*, Swidden field (*Uma)*, Young and old re-growth (*Lumun and Lumakad)*, River (*Sapa)*, Waterfall (*Parakpahan)*, and Natural forest (*Geba) ;* and 4 forest types, which includes: Natural forest (*Geba or Kagbaan)*, Mountain forest (*Aretet)*, Regrowth forest (*Lumakad*) and Agathis forest (*Mabagteken).*

People, Traditional rules and Regulations

There were 33 households with total population 136 people in Kalakuasan village. During the team's stay, two official activities had been proposed by the local and provincial governments to the villagers. Since January 2005, the government of Puerto Princesa under the Department of Environment and Natural Resources (DENR) established an Agroforestry program by planting one hectare of fruit trees. The project provided seeds and gave incentive. The second activity was an informal education conducted by the National Government in Manila under the Department of Education Culture and Sports. The activity has been conducted since November 2004. This training program aims to teach the villagers to read, write, learn mathematics, etc.

Many traditional customs are maintained in the village, e.g.: old men still only wear G-String (made from tree bark) and about half of the women are top-less. The Bataks marry at young age and they still follow traditional way of solemnizing the marriage.

Before clearing the land, when making swidden farming, growers first test if the "unseen people" bless them. They gather a shellfish, a clam and rice seeds (as many as the number of family members), and bury them all in the center of the future swidden. After three days, they come back to check. If all the seeds are still there, they may proceed with the clearing. If some seeds are lacking, it could be dangerous for them to proceed.

The Bataks do not store their rice seeds in their house but in their previous swidden field to ensure good harvest of the next planting season. They build a small garden house for the storage, called "*raket*". Every year in early March, the Bataks celebrate the "*lambayan*" during 2 weeks to have good harvest of honey and rice. The dead are buried in areas designated by the elders within 24 hours. Bereaved family must leave their house and construct a new one to avoid the ghost of the dead.

The Bataks also traditionally protect some place from disturbance or cutting, e.g.: riverbanks (*sapa*), places for cemetery (*kakaden)*, sacred places in mountain areas (*riagrasan)*, and waterfalls areas (*kamantaneen)*.

Scoring exercise

According to local perception, forest (especially natural forest) is the most important land for them, because it provides many resources for their livelihood. Forest is also a place for their swidden farms. Women group valued village as the second most important land type for food category. According to them, food did not come from plants or animals in the village, but from the visitors. In one year, several visitors came and stayed for at least 2 weeks. During their stay, the visitors provided food for the villagers. Their perception of the importance of forest resources changed with the time. In the past, the most important category for Bataks was light construction. In the present time and in the future, heavy construction would be more important as they need stronger material to construct permanent houses. Villagers like also to buy tools from the district.

Wild plants (*Agathis sp*. and rattan) and wild animals (pigs and bees) were important for both men and women. Most of the top ten plant species were of wild yam family, which was as an important food. The most important animal species were: wild pig (*baboy)*, flying squirrel (*byatat)*, monkey (bakes), palawan peacock (*tandikan)*, and fish (*seda)*. People collected Arecaceae (*rattan*), *Agathis sp.* (*resin*) and honey. They hunted wild pig (*baboy*) to earn cash.

b. Field team

It was not easy for the team to identify the different landscape units that the Batak named and recognized around the Tanabag valley. This was due to the language problem and the Bataks' concepts of primary, secondary, etc. After a considerable number of cross-checking, the team understood that in general, the Bataks differentiated forest type into natural forest (i.e. forest where no garden activity was ever conducted or at least not in the past 50 years), and regrowth. The first category included both primary and secondary forests. This information showed that only a specific part of the Batak territory was devoted to agriculture. Natural forest was protected by the community and was not considered as potential location for gardening activities. Therefore, on the left hand side of the valley (except for a spot of swidden rice field), natural forest was the dominant landscape, with some primary forests near the top of the mountains, even at a close distance from the village. On the contrary, on the right hand side of the valley grew very disturbed vegetation, due to gardening and the former logging activities. Going upstream from the village, both sides of the Tanabag river were used for agriculture all the way up to Kalabayug

creek. From this creek upward, there was no more garden and therefore the forests here were natural and were still used for NTFPs collection.

The team conducted ethnobotanical study on 12 plots with the support from the Batak medicine-men and a midwife. The general knowledge of all Bataks of the plant species is high, especially the trees. When it comes to non-tree species, the knowledge is not shared equally among all the members of the community. Non-trees species have an important value for medicine and magic. Only the medicine-men (Babalian or shamans) have a great knowledge about these plants. Most of the plants collected in the plots had medicinal value. The use of forest for collecting the medicinal plants is still great and the role of the Babalian within the Batak community is still important, even if the villagers have more access to the district village or the capital city to "occidental medicine". Unfortunately the number of Babalian has declined tremendously; only 3 Babalians remained in the whole Batak community.

Local livelihood of the Bataks came from rice fields. The Bataks cultivated rice on the slopes of the mountains. They practice swidden cultivation for all other crops, such as banana, fruits, coffee, etc., on the bottom of the valley. Rattan was collected from the forest for cash income, and was brought to the barangay by the river or carried by men or buffalo. Resin was collected from almaciga trees (*Agathis philippinensis*) and was sold in the barangay. *Pandanus* leaves were used to make mats and roofs. Big baskets were used to store paddy.

Tanabag River played an important role in the Bataks' livelihood. It was not only a place of settlement, but also a means for travelling. Aside from the hunting-gathering activities, fishing was done to complement house consumption.

Details of the activities conducted by the team is shown in ***Appendix 6. MLA Trip Reports***. The comprehensive and more complete report of the study is still being prepared. There were delays in its completion because of the problems encountered by the botanists in completing the identification of collected plant specimens.

II.B.2. Market Study 2

The general objective of this study is to determine what market intervention measures could be facilitated among the community in the project site to improve their lives.

Specifically, the study has the following objectives: a) conduct a market exploratory survey to determine the marketable products in the study sites; b) describe the marketing chain for the identified products; c) assess the market potential of the identified products using primary and secondary data, and; e) recommend agenda for action for improving the living condition of the beneficiaries through marketing strategies.

Methods:

The study area covered the LPF project site in three (3) barangays in Puerto Princesa City, namely: San Rafael, Tanabag and Concepcion. Other areas included in the

study are the DA-ATI Seaweeds Pilot Project in Narra, Palawan, Puerto Princesa City poblacion, and the market outlets in Manila.

During the first year of implementation of LPF in Palawan, market study phase 1 was conducted in October 2004 to determine the potential marketable products that the communities are producing or have capabilities to produce and to test the methodology to be used in phase 2 study. This was done through interviews with community members, traders, farmers, government and non-government organizations. The purpose of the study was to select 3 products which will become the focus of more in-depth study and market analysis in market study 2. In market study 1, seaweed and cashew were selected as products to be studied further based on the following criteria: importance as a source of income for local people, demand (local, national or international market), production technology and its impact to environment, sustainability and volume, access and conditions of the market chain. Almaciga was also identified due to its importance to indigenous people of Bataks.

Once the marketable products were identified, market study phase 2 was conducted in September 2005. Phase 2 analyzed the potential of the industry. It examined the uses of the products, the demand and supply situation, the products' marketing system, value chain analysis, the institutions, and the problems and prospects of the industry. The total available supply covers local production and importation while the domestic demand for the commodity (per capita consumption, processing, seeds, etc) and foreign demand (via exportation) comprises the demand for the commodity. Through the industry analysis, the prospect of the industry in the market could be ascertained.

Data were collected from published and unpublished reports of various private and government institutions (Bureau of Agricultural Statistics, PCAMRD, ERDB, PCARRD, Bureau of Foreign Trade and Export Promotions, Department of Agriculture, UPLB, University of Asia and the Pacific, etc) and through the Internet. The data were analyzed and summarized to obtain the objectives of the study, i.e., to have an exhaustive review of literature for the identified agricultural products.

Key Results:

Cashew

Cashew is the leading nut crop in the Philippines. It is the 3rd most important nut crop in the world after almond and walnut. It is known for its nutritional, medicinal and nutritional uses.

In spite of the local production of cashew in the country, the Philippines still imported cashew from other countries in the form of shelled cashew, cashew nuts (prepared/preserved), and nuts mixed with sugar or honey as confectionery. The raw nuts were imported from Vietnam and India whereas processed nuts came from US, Vietnam and India. At the same time, the Philippines is exporting shelled/peeled cashew, prepared/preserved nuts and cashew nuts mixed with sugar or honey to countries in Asia, Middle East, Europe and the USA.

The steadily growing demand for wholesale food products from the expanding world market for processed and industrially manufactured cashew based food products augurs well for the industry. Likewise, the continuous importation of cashew products from foreign markets showed that there is demand gap that the cashew producing regions like Palawan can fill in.

Technically, cashew can be grown in the country and in the region such as Palawan due to the available expansion areas. Aside from its economic potential as a crop, it can also be used in reforestation as it can adapt in different types of soil even in marginal lands. But for the industry to rise up from its doldrums existence, the production and marketing constraints have to be addressed. Training on cashew production technologies for cashew nuts and apples should be conducted. There is also a need to organize and strengthen cashew growers association and processors' cooperatives once profitable market outlets are identified. Market matching or contract marketing can be explored so farmers can get higher prices for their produce. At the same, there is a need to the lower the production cost so that the local products can compete with low priced imported cashew.

Seaweed

The seaweeds industry is a fairly well established industry not only in the local market but also in the international market. The Philippines is considered the world's largest producer of semi-refined carageenan, also known as the Philippine National Grade (PNG), and the third largest manufacturer of refined carageenan, after the United States and Denmark. The country is the biggest producer of red seaweed next to Japan. The Philippines is also considered the largest supplier of *Euchema* accounting for 80% of total world supply.

The fact that Philippine seaweed industry has already penetrated the world market proved that it can be competitive vis-à-vis other producing countries. The country has the ideal agro-climatic conditions, wide natural grounds for expansion, established marketing and distribution systems, many players, and processing and export sector. Cognizant of this fact, DA-BFAR will address some of these problems with the establishment of additional seaweed nurseries, promotion of seaweed health management, provision of post-harvest facilities, and establishment of processing plant.

Mindanao has the largest potential area of seaweed farming and it accounts for 54% of the country's total seaweed production. However, their production is not enough to meet the demand of the local market. The peace and order condition especially in the ARMM, Sulu, etc. will give other areas like Palawan to fill in the gap. Palawan has also the ideal agro-climatic conditions to become a leading seaweed producer and exporter. With the identified constraints, Palawan can surge ahead by surmounting these challenges to production and marketing.

Almaciga

The dearth of literature on almaciga is a deterrent in assessing the market potential of the commodity. Although this is a source of income for the indigenous people, there

is no clear-cut market for it in the domestic market except for varnish and lacquers. To aggressively export the product in the international market requires an efficient marketing system, good quality of the products, and sustainability of the supply. Given the present situation, this is a tall order to meet.

Details of the methods and results of the market study are shown in ***Appendix 7. Report of Market Study.***

II.B.3. Multi-Agent Systems (MAS) Modelling

Methods:

One of the major challenges in renewable resource management is the complexity of interactions among various social, ecological, political, and economic components. This complicated further with the complexities of human behaviour and their decision-making processes, and the need to have a long-term observation before the impacts of their behaviour and decision-making on common resources can be well understood. These complexities could hinder individuals and institutions in learning about their impacts on renewable resources. As many studies have shown the potential of MAS in modeling individual's behaviour and decision-making process, LPF Philippine team used MAS as the tool to facilitate learning, communication, and negotiation among the stakeholders.

MAS modeling activities in Palawan site began in early 2005. As many studies have been completed by the team in Year 1, MAS modelling process started out by reviewing these different reports. In March 2005, the team started to find out whether local stakeholders would find MAS modeling useful for them, and to get their inputs on what kinds of models should be built. To explain about the concept of MAS and how it will be used by LPF project as a tool for learning, communication, and negotiation among different stakeholders, a series of workshops were organized for different stakeholder groups (GOs, NGOs, and community members) in March 2005. To explain further the concept of MAS modelling, an actual MAS model was presented and a role-playing game (RPG) called Chering Games, developed by CIRAD scientists, was played with the participants.

Information gathering on the livelihood activities of the community of the three barangays and the Indigenous people of Bataks, and the activities of government institutions and NGOs in the natural resource management stakeholders was done in May and August 2005. They were collected through focus group discussions (FGD).

Results:

Some of the key findings obtained so far:

1) Most of the community's livelihood activities were seasonal; an individual engaged and carried out more than one livelihood activity in a year. Because of this, some community members did not perceive themselves as having one main source of living (farmers, fishermen, etc). Rather, they perceived themselves as resource users.

2) Most activities, programs or projects funded by government and non-government agencies, sprang from the proposals submitted by community members themselves. This indicates the need to strengthen the capability of community members in producing sound proposals.
3) Farming and fishing activities were done mostly for subsistence or food security. However, for those engaged in fishing, they were more likely to sell their catch given the opportunity. For those engaged in farming, they would sell some of their harvest if there was an immediate need for money. Livelihood activities such as copra production, roof shingles-making, nito-weaving, ornamental and flower plants gardening, charcoal-making, bangus fry catching and animal-raising were usually done for commercial purposes. Most of these activities were done with other members of the household.
4) Gathering of non-timber forest products (NTFP) such as almaciga resin and rattan is viewed by community members as a reliable source of income because these NTFP are viewed to be always available and there is an available market for such products within and outside the community. However, due to difficulties in carrying out such a task, only men are able to perform such an activity. Furthermore, current restrictions in gathering NTFP, have made this activity more difficult to do. This have more implications on the Bataks who rely mostly on forest resources for their survival.
5) A livelihood activity is prioritized in terms of the needed investments or capital, how quick one could earn money, and the amount of money that could be earned.
6) Products were sold thru middle-men who were also members of the same community. Those engaged in ornamental plants had regular clients in the city but they also sold them at the local markets or to buyers that passed by their gardens (which were normally located at the road side).

Some of the information gathered from FGD sessions were then translated into activity diagrams. These activity diagrams were further validated in August 2005 through the interviews. These interviews were conducted in August 2005 with some of the previous FGD participants from the barangays. During validation sessions, we also clarified some matters and filled-up the gaps in the activity diagrams.

In Year 3, we will complete the analysis of the FGD and interview results. We will then develop the conceptual MAS model. Data on bio-physical processes needed in the model will be collected as well. Once the model is developed, we will start programming the simulation model and the development of the role playing game (RPG). The RPG and the simulation model(s) will be used in learning and negotiation process among relevant stakeholders.

A more detailed information with regards to MAS modeling-related activities is provided in ***Appendix 8. Progress of MAS Modelling.***

II.B.4. Facilitating Community Initiatives and Provincial Stakeholders Coordination

Community Groups

Besides undertaking the above activities, LPF Philippines Team also facilitated community groups to address their identified local problems. Four community or technical working groups (TWG) at the community level were formed in the first year of the project. They have been addressing four groups of problems, i.e. a) low productivity in the lowland; b) low productivity in the upland; c) low productivity in the coastal areas; and, d) lack of livelihood and access to markets. The TWGs had put together several proposals and submitted them to other agencies. They also have successfully sought the political support from barangay officials.

In Year 2, the team facilitated many activities of the TWGs. We described below those activities, the methods we used in facilitating TWGs, and some of the key results or outcomes observed so far.

	Activities and Methods Used	Key Results or Outcomes
1.	**Workshops** Identification and validation of priority problems in the three barangays. Revisit and review identified local issues and strategies, based on the scientific evidence feedback by LPF project and Steering Committee.	These activities provided the opportunity for the community members to participate and interact with each other. These resulted in collective planning and action. Problems were also prioritized.
2.	**Bi-weekly meetings** The TWGs meet twice a month to discuss updates on the major issues that affect the three barangays. Participatory Action research was used by TWG during their monthly meeting in updating the progress of each problem and for planning of their next action. The process consists of reflection, planning, action and monitoring.	The TWGs have focused on the following issues: low productivity in upland, low productivity in lowland, low productivity in coastal, livelihood and marketing. The processes include: 1) TWGs discussed the problems. 2) Strategies were developed to address the problems. 3) Actions were carried out. Everyone was given a chance to participate in the discussion.
3.	**Informal discussion** Informal discussions with 2 to 3 persons were conducted. There were free flowing ideas from the participants.	Interests of the TWG to raise flowers and ornamental plants as alternative source of livelihood were discussed.

	Activities and Methods Used	Key Results or Outcomes
4.	**Ground working** In Concepcion where the LPF and the works of the TWGs were not readily accepted by Barangay officials, the Brgy. Councilors decided to let the community to make a decision whether or not they would accept LPF project through public hearing. The members of TWG did the ground work to ensure that the community understands what LPF project is about so they can support the project.	1) Some problems arisen in the community like issues about Brgy. Councilors in Brgy. Concepcion who not support the LPF project during presentation in their barangay, because of several reasons based on the observation from the community; such as i) Politics, and ii) Experienced on the San Rafael Tanabag Multi-Purpose Cooperative (STCMPC). 2) The next step done was to win barangay captain of Tanabag's support on the LPF project. Since according to him he had also an unforgettable experience on STCMPC management. The latest focus group discussions taking place in 5 Aug 2005 in Brgy. Concepcion was inspiring since three Brgy. Councilors were attended and participated in the discussion.
5.	**Trainings** LPF project organized and implemented a training on facilitation skills, 24-29 November, to improve or enhance the capability of the TWG in facilitating discussions, meetings, etc. Through the effort of the TWG, three trainings conducted through linkaging and coordination with the different institutions to address the identified problems and projects. The trainings were: 1) Training on Ornamentals and Food processing in Brgy. Tanabag (25 May 2005) and Concepcion (19 May 2005). 2) Orientation/Training on nursery management of rubber tree (20 May 2005)	12 community members and 4 representatives from government institutions attended the training. The trained community members are observed to have developed courage and confidence in facilitating activities to solve identified problems**.**
6.	**Coordination and Linkage** To address the problems and projects	1) Practiced and enhanced coordination,

	Activities and Methods Used	Key Results or Outcomes
	identified by the TWG, coordination and linkage to the different institution (Government Organizations and Non-government organizations) for the possible funding of projects. These resulted in the training provided by different government organisations.	communication and negotiation skills of TWG; 2) Gradually learned how to do, where to go, who to discuss different concerns in their Barangay.

The Provincial Stakeholders and Steering Committee

Consistent with the project implementation framework, the formation of Provincial Steering Committee (PrSC) will provide direction and guidance in implementing Levelling the Playing Field Projects' activities programs in the province of Palawan. The creation of the steering committee also aims to ensure the sustainability of project activities in the three barangays after the project.

In relation to this, during the project staff coordination meeting in January 2005, we discussed the organization of the Provincial Steering Committee in more details. The LPF Palawan team came up with a tentative list of members of the steering committee.

The organizational meeting of PrSC was held on 29 March 2005 at Café Tribu, Puerto Princesa City.

In general terms, the objectives of the PrSC are:
1. To enlist the support of the various agencies and organizations in Palawan that can provide material and moral support;
2. To identify and link the LPF to other vital resources in the local community and beyond, and;
3. To facilitate, support and provide direction to the communities in solving problems related to resource sustainability in the three barangays.

Specific objectives pertaining to four major roles of the committee were identified. The identified four major roles of the committee are:
1. Direction Setting: PrSC can help the LPF in identifying priority activities consistent with the provincial priorities.
2. Policy formulation to enhance the attainment of objectives: Because most members can influence policy formulation, PrSC can serve as a venue to identify and discuss policies that can, at the same help, achieve the objectives of the project.
3. Oversight function: PrSC can also serve as venue to resolves conflicts among agencies and organizations in the province.
4. Resource generation: The PrSC can also assist in generating funds for the projects of the communities.
5. PrSc can assist in forming the Provincial Resource Learning Center by using the LPF project as model in natural resources management.

The minutes of the Provincial Steering Committee and the progress of TWG in year 2 are shown in details in ***Appendix 9. Minutes of Provincial Steering Committee Meeting and Progress of TWG in Year 2.***

II.C. Coordination and Capacity Building

II.C.1. MAS Training

Since Multi-Agent System (MAS) platform will be used as a tool for learning and negotiation among stakeholders, LPF project staff and three representatives from provincial-level government agencies attended the MAS training in Bangkok, 11-23 December 2005. The training was titled "Companion Modeling and Resilience of Ecosystems in Southeast Asia: Principles and Tools". The training introduced MAS modeling and its different applications. Experiences of different resources persons who have applied MAS in different places were presented and shared with training participants.

The LPF staff who attended the training were the National Coordinator Teodoro R. Villanueva, and Computer Scientist Paolo Campo. Paolo also shared his experiences in the use of the tool in his previous project in the Philippines. The participating government officials were: Felizardo Cayatoc of the Provincial Environment and Natural Resources Office of DENR, Wilson Pambid of the Palawan Council for Sustainable Development (PCSD) and Daniel Tejada of the City Planning Office. All three offices are expected to play a major role in the development of MAS model in Palawan, by providing information and material, logistical support, expertise, and political support. The three staff have indeed been very active from the beginning of the activities preliminary to the development of the MAS model.

II.C.2. Facilitation Training

Computer Scientist Paolo Campo, Field Assistant Azucena Gamutia and a staff of the Palawan City Environment and Natural Resources Office (ENRO) participated in a facilitation training which was conducted in Kuala Lumpur, Malaysia,. 31 January – 5 February 2005.

Together with the other members of the LPF team from Indonesia and Malaysia, they were trained in the principles of multi-stakeholder facilitation, different facilitation skills such as how to listen, how to ask questions, how to record discussions properly, as well as the basic guidelines a facilitator should follow when conducting multi-stakeholder activities. They also learned the principles of designing multi-stakeholder activities, which was called process design, to guide the facilitator in conducting a specific activity.

II.C.3. Facilitation Training for TWG Members

LPF Philippines project also organized and implemented a training on facilitation skills to improve or enhance the capability of the community groups (TWG) in facilitating discussions, meetings, etc. The training took place in San Rafael, 24-29 November 2004. This training was led by Ms. Anita Frio, a Los Banos-based international consultant, who has extensive experience in conducting similar training. A total number of 25 community members and 5 representatives from government institutions attended the training. The report of this training is attached in ***Appendix 10. Facilitation Training Report.***

TWGs have also successfully got the support from City and Provincial Department of Agriculture in getting three training sessions conducted for their members. LPF project contributed to the implementation of those training sessions. They were:

- Training on Ornamentals and Food processing in Brgy. Tanabag (25 May 2005) and Concepcion (19 May 2005).
- Training on management of Para rubber plantation in Brgy. San Rafael (20 May 2005).

III. Operation Plan for 2005 – 2006 (YEAR 3)

III.A. Activities to be carried out in Year 3

The following list of activities is based on the LPF Implementation Framework. If properly and successfully conducted, in addition to what have been achieved in the first two years, they will contribute to the achievement of the overall objectives of the Project.

1. Providing the results of Baseline Surveys to the Community
   a) Results of MLA study
   b) Results of market study phase 2

2. Interventions
   a) Site level facilitation and Supporting community development initiatives
   b) Model development (using MAS)
   c) Negotiations, including revisiting and refining common vision
   d) Development of management plans at different levels
   e) Facilitate agreement establishment among relevant stakeholders
   f) Monitor the implementation of those agreements

3. Monitoring and Evaluation

III.B. Financial Expenditure Report of Year 2

The total expenditure for the implementation of different activities in Year 2 is US$ 41,718.22. The breakdown of this expenditure according to different budget line is provided in ***Appendix 12. Financial Expenditure of Year 2.***

III.C. Proposed budget for Year 3

The proposed budget for year 3 implementation of the LPF Project in Palawan is based upon the activities enumerated above. The total budget requested is US$49,740.90 The details can be found in ***Appendix 13. Budget for Year 3***.

Appendix 1

Levelling the Playing Field:
Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Logical framework for Philippine Site

University of the Philippines Los Banos (UPLB)

Centre de Cooperation Internationale en Recherche Agronomique pour le Developpment (CIRAD)

Center for International Forestry Research (CIFOR)

Logical Framework of Philippine Site (Palawan)

Project Description		Indicators	Source of Verification	Assumptions
Overall Objective	To contribute to the enhancement of natural resources sustainability for the improvement of quality of life of local people	Number of local livelihood programs developed Number of projects and programs for natural resources management	Yearly project reports; Community level assessment report Yearly project reports; Community level assessment report	
Purpose	Improved management of natural resources (forest, lowland, coastal areas)	Accepted resource management plans; reduced number of illegal activities;	DENR reports	Collaboration and support available from other stakeholders
	Improved capability of stakeholders (agencies, LGUs, local people) to properly manage natural resources	Increase in benefits from natural resources	Project reports	Willingness of stakeholders to cooperate
	Improved livelihood in the project site	Number and kind of livelihood projects developed	Project reports	
	Good governance and conflict solving processes useful for stakeholders	Results of six different baseline studies conducted and information from scientific studies are being inputted in decision making and problem solving	Project reports	

Project Description		Indicators	Source of Verification	Assumptions
	Improved processes for communication, negotiation, agreements, contracts between and among different stakeholders	Number and kind of contracts and agreements entered into	LGU barangay reports; POs reports	
Results	Capacity built to source funds, to access services, to communicate and share information to other stakeholders, and to prepare local development plan	Trainings conducted for the improvement of capabilities of stakeholders; Number of project proposals funded; ComMod model developed; Three barangay development plan formulated	Proceedings of trainings conducted; Project report; Barangay development plans	
	Identified and clarified roles and responsibilities of relevant stakeholders	Stakeholder analysis results feedback to stakeholders; Number of conflicts reduced; Roles of TWGs defined	Project reports; Local and project monitoring report	Stakeholders accept their roles and perform them
	Processes for stakeholders to share view over livelihood issues	Forums and meetings conducted; ComMod model developed; Livelihood training programs conducted	Minutes of meetings; Project report	Stakeholders use the ComMod model for discussion of issues that affect natural resources management and livelihood
	Improved decision making processes	Processes discussed and accepted; Local level and project monitoring instruments designed and being used; ComMod model developed	Minutes of meetings; Local monitoring report	Stakeholders use the ComMod model for discussion of issues that affect natural resources management and livelihood

Project Description		Indicators	Source of Verification	Assumptions
	Agreement on short- and long-term goals	Common vision formulated; Acceptance of vision and action plans by concerned offices and local government units (barangay councils); Four action plans by the the TWGs formulated and accepted by concerned stakeholders and institutions	Proceedings; Minutes of meetings	Political will to plan; Local existing institutions willing to participate and cooperate
	Processes for negotiation and discussion about natural resource use and management	Local problems and issues prioritized; Local facilitators of the four TWGs identified; Provincial steering committee members expressed willingness to participate in carrying out action plans	Minutes of meetings; Project report	Willingness of stakeholders to negotiate
	Agreed and acceptable management plans	At least one plan or program implemented by each of the TWGs; Agreements or plans in three barangays entered into by the LGUs and the POs are revisited and revised by the concerned stakeholders	Barangay record of activities; Minutes of meetings; Copies of agreements	Resources are available to implement plans

Project Description		Indicators	Source of Verification	Assumptions
Activities	Initialization to get justification to work in the site, get expression of interests from community and stakeholders			Commitments are respected even if there are changes in people who occupy high positions
	Undertake baseline studies such as stakeholder analysis, socio-economic survey, resource and resource use survey, institutional analysis, policy analysis, analysis of formal and informal agreements			Peace and order situation; Cooperation from government institutions and NGOs
	Facilitate development of common vision			
	Facilitate the identification and prioritization of local issues			
	Assist stakeholders to establish formal commitment			
	Facilitate action planning to achieve common vision			
	Identification of local facilitators and institutions/organizations who can participate to carry out action plans			
	Institutional strengthening			
	Facilitate collective action to implement plans			
	Monitoring			

Project Description		Indicators	Source of Verification	Assumptions
	Organize activities to revisit and revise previous agreements or plans			

Appendix 2

Levelling the Playing Field: Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Activity Table

University of the Philippines Los Banos (UPLB)

Centre de Cooperation Internationale en Recherche Agronomique pour le Developpment (CIRAD)

Center for International Forestry Research (CIFOR)

Activity Table - Palawan Site (Year 2: September 2004-August 2005)

Date	Activity type	Methods used	Team involved	Main results	Report status
BASELINE STAGE					
Oct. 2004 onwards	Demographic and Livelihood Survey	Questionnaire (125 households) Seasonal calendar	Fe Mallion, Ma. Eduarda Devanadera, Azucena Gamutia	Data collected include data on socio-economic status of the households (income, expenses, etc.), income-generating activities, source of income from different resources (forests, lowland, coasts), etc.	Completed
Oct. 2004 onwards	Resource and Resource Use	Questionnaire (125 households) Community mapping	Fe Mallion, Ma. Eduarda Devanadera, Azucena Gamutia	Information on resource and resource use were gathered at the same time with the information on livelihood. Other information collected were what resources are being used by the community, the location of those resources, rules and regulations with regards to natural resource management, etc.	Completed
Oct. 2004 onwards	Institutions	Questionnaire (staff of key institutions in Palawan), followed by interviews	Ted Villanueva, Azucena Gamutia	Data collected include the institutions' mandates, roles, responsibilities, resources (staff, financial resource), etc. Data have been collected from the key government institutions and NGOs.	Completed
Oct. 2004 onwards	Analysis on formal and informal agreements	Analysis of secondary data; key informant interview	Ted Villanueva, Azucena Gamutia	The team has been collecting the hard copies of 4 relevant agreements. Analysis would be carried out soon. Heads of POs and LGU leaders will be interviewed on the various contracts they have entered into.	Completed

Date	Activity type	Methods used	Team involved	Main results	Report status
Oct. 2004 onwards	Policy framework		Azucena Gamutia and Ted Villanueva	LPF team members have put together a list of different policies related to natural resource management. Those policies will be compiled and used as references.	Completed
16-29 Oct. 2004	Fieldwork for Market Study 1	Socio-anthropological approaches; market chain analysis	Marina Goloubinoff and Ma. Eduarda Devanadera	Methodology discussed and adopted; visited various persons and institutions to identify the primary products that can be marketed by the community. Was able to identify the primary products as cashew and seaweeds.	Report submitted and incorporated in report of market study 2
16 Feb. - 8 March 2005	Natural Resource Assessment	Multi-stakeholders Landscape Assessment	Ted Villanueva, Azucena Gamutia, Nining Liswanti and Manuel Boissiere	MLA team had conducted village study, botanical study and ethnobotanical study of a Batak village in Kalakwasan, Tanabag, Puerto Princesa using MLA. Plant identification has been completed.	Technical report to be completed. Delay was caused by problems in plant identification
Sept. 2005 onwards	Market Study 2	Socio-anthropological approaches; market chain analysis	Eden Piadozo, Marina Goloubinoff, Ma. Eduarda Devanadera	To conduct literature review on seaweed and cashew (primary) and almaciga (secondary) by searching the internet and getting reports from relevant government agencies. To structure and compile relevant parts of the report and produce a final report of high quality.	Draft report submitted for comments and finalization

Date	Activity type	Methods used	Team involved	Main results	Report status
INTERVENTION STAGE					
Sept. 2004 onwards	Site Level Facilitation	Formation of community working groups (TWG), facilitating working groups	Ma. Eduarda Devanadera, Azucena Gamutia, Ted Villanueva	Four existing community working groups continue the identify activities and undertaken teem in order to solve the problems affecting them in the area upland, coastal, and lowland productivity and livelihood. They met to review their strategies at the following dates: 12 February, 17 March, and April 28.	Minutes of meeting submitted
24-29 Nov. 2004	Facilitation training	Participatory approaches: learning by actually doing things.	Ted Villanueva, Ma. Eduarda Devanadera, Azucena Gamutia, Anita Frio	16 members of community working groups were trained in the use of various techniques in facilitation. Part of the actual practice is the presentation of the vision and the various problems and issues affecting the achievement of the vision of the communities.	Completed
13-22 Dec. 2004	Capability building	Training on MAS for partner institutions and project team members		Representatives from partner GOs were sent to training to make them familiar with the tools to be used by the LPF. Three government staff from DENR, City Planning Office and PCSD were able to attend the training on Companion Modeling and Resilience of Ecosystems in Southeast Asia: Principles and Tools held in Thailand.	Trip reports submitted

Date	Activity type	Methods used	Team involved	Main results	Report status
31 Jan. - 5 Feb. 2005	Capacity building	Training on facilitation skills for partner institutions and project team members	Azucena Gamutia, Paolo Campo, city ENRO staff	The training took place in Malaysia. One staff from the City ENRO also invited to attend this training.	Trip report submitted.
29-31 March 2005	Introduction of MAS and Role play exercise	Chering game	Paolo Campo, Ted Villanueva, Azucena Gamutia, Ma. Eduarda Devanadera, Daniel Tejada, Wilson Pambid, Felizardo Cayatoc	Chering game was played with various stakeholder-groups: government organizations, NGOs and communities. The different stakeholders appreciated use of the game to enable them realize through a game how they affect the state of natural resources as they utilize it. They also appreciate how natural resources consumption or harvesting may be made sustainable if stakeholders talk and plan the use of a resource.	Documentation report submitted
29 March 2005	Provincial Steering Committee	Meetings, action planning	Azucena Gamutia, Ted Villanueva, Ma. Eduarda Devanadera	The different government agencies and non-government organizations reiterated their support to the initiatives of LPF to assist the communities in their natural resources management. The roles of the PrSC were identified. The PrSC was organized and plans were formulated	Minutes of meeting prepared; Manual of Operations of the committee finalized

Date	Activity type	Methods used	Team involved	Main results	Report status
19 & 25 May 2005	Supporting community development	Training on ornamentals and food processing	Azucena Gamutia, community members	The training took place in Brgy, Concepcion on 19 May, and in Brgy. Tanabag on 25 May. The two training sessions were attended by 99 people. This training was conducted by City Agriculture.	Reports and minutes finalized
20 May 2005	Supporting community development	Training on para rubber plantation	Azucena Gamutia, community members	The training took place in Brgy. San Rafael. The trainors came from Palawan State University. A total of 18 people attended the training.	Reports and minutes finalized
23 May - 23 June 2005	Supporting community development	Participation in Baragatan Festival 2005	Azucena Gamutia, TWG members	Eight TWG members participated on the Baragatan Festival 2005. This is a yearly activity of the Provincial government where all municipalities, private sectors, NGO's and individuals display and sell their products at the Provincial Capitol Square Park. TWG displayed and sold the products from three barangays such as: fruits; Banana, Mango; Processed foods; spicy dilis, fried cashew, sampalok candy; honey, and flowers.	
1-6 May, 1-8 Aug. 2005	Data collection and synthesis (activity diagrams)	FGDs, interviews, activity diagrams,	Paolo Campo, Ted Villanueva, Azucena Gamutia, Ma. Eduarda Devanadera, Daniel Tejada, Wilson	Most livelihood activities of the community members are seasonal; Farming and fishing activities are done mostly for food security; Most activities, programs or projects by government and non-government agencies, sprang from proposals submitted by community members themselves, which gives the idea that the capability of community members to produce sound proposals should be strengthened; Farming and fishing	Progress report submitted

Date	Activity type	Methods used	Team involved	Main results	Report status
			Pambid, Felizardo Cayatoc	activities are done mostly for food security; A livelihood activity is prioritized in terms of how quick you could earn money and the amount of money that could be earned; Goods sold for commercial purposes are usually sold thru middle-men who also belong to the community. Ten activity diagrams have been developed; they need to be further validated.	
COORDINATION					
24-25 Jan. 2005		Coordination meeting of LPF Philippine team	Ted Villanueva, Azucena Gamutia, Ma. Eduarda Devanadera, Paolo Campo, Fe Mallion, Herlina Hartanto, Philippe Guizol	Activities of the project for the remaining period of year 2 were evaluated and planned. The team made sure that there is coordination among the different activities to be undertaken so that the use of staff and resources will be efficient.	Documentation completed
7-11 May 2005	LPF Project Coordination Meeting		LPF team members from 3 countries and LPF regional project staff		See Regional Report

Date	Activity type	Methods used	Team involved	Main results	Report status
11-13 May 2005	LPF Project Steering Committee field trip to Palawan site		LPF team members from 3 countries and LPF regional project staff		See Regional Report
14 May 2005	LPF Project Steering Committee meeting in Manila		LPF team members from 3 countries and LPF regional project staff		See Regional Report

Appendix 3

Levelling the Playing Field:
Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Composition of the Team in Year 2

University of the Philippines Los Banos (UPLB)

Centre de Cooperation Internationale en Recherche Agronomique pour le Developpment (CIRAD)

Center for International Forestry Research (CIFOR)

Composition of the Team in Year 2

No.	Name	Role in LPF	Position and Office
1.	Herlina Hartanto	Philippine Coordinator	Scientist, Center for International Forestry Research (CIFOR)
2.	Teodoro R. Villanueva	National Coordinator	Professor, College of Forestry and Natural Resources, University of the Philippines Los Banos (UPLB)
3.	Azucena E. Gamutia	Field Assistant	Full time Field Asst., LPF Project, Palawan
4.	Ma. Eduarda E. Devanadera	Facilitator	Director, Budyong Resources Development Foundation Inc.
5.	Paolo A. Campo	Computer Scientist (Modelling)	Freelance Consultant
6.	Daniel Tejada	Site Level Facilitator (Modelling)	City Planning Office, Puerto Princesa City
7.	Felizardo Cayatoc	Site Level Facilitator (Modelling)	DENR, Provincial Office
8.	Wilson Pambid	Site Level Facilitator (Modelling)	Palawan Council for Sustainable Development Staff
9.	Anita L. Frio	Facilitation Expert	Freelance Consultant
10.	Fe K. Mallion	Social Scientist	Researcher, Forestry Development Center, UPLB
11.	Ma. Eden Piadozo	Economist/Market Specialist	Assoc. Professor, College of Economics and Management, UPLB
12.	Marina Goloubinoff	Market Specialist	Consultant
13.	Manuel Boissiere	Multi-stakeholder Landscape Assessment (MLA) Specialist	Scientist CIFOR
14.	Nining Liswanti	MLA Specialist	Research Assistant CIFOR
15.	Reymar Castillo	Forester (MLA study)	Freelance Consultant
16.	Elizabeth Gironella	Taxonomist (MLA study)	Associate Professor Palawan State University, Puerto Princesa, Palawan
17.	Erlinda Medina	Secretarial Support	Administrative Assistant IRNR, CFNR, UPLB

Appendix 4

Levelling the Playing Field:
Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Analysis of Contracts and Agreements

Authors: Theodora Villanueva & Azucena E. Gamutia
Editor: Herlina Hartanto

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Analysis of Contracts and Agreements Entered by the Community of the Three Barangays of San Rafael, Tanabag and Concepcion, Puerto Princesa City

I. Introduction

In the Levelling the Playing Field (LPF) project site in barangays San Rafael, Tanabag, and Concepcion, there are many government and non-government agencies that have provided assistance and support to the communities. The support and assistance usually take the form of projects, and they are usually aimed at uplifting the socio-economic condition of the communities, and improving the conditions of natural resources through proper management and protection of those resources. In some cases, the communities and the institutions or agencies formally set out the terms and conditions of their partnerships in an agreement or contract.

LPF project plans to assist the communities to get technical and/or financial support from different institutions and agencies by entering into contracts or agreements with those institutions. It is therefore necessary for LPF project to review past and existing contracts and agreements that the communities have entered into, to understand who were engaged in those contracts and agreements, the process used in developing the contracts and agreements, and to assess the effectiveness of those agreements and contracts.

II. Methods

The LPF Team identified 8 formal and informal contracts or agreements that the community members of the three barangays have entered into. They are:

- Agreement between Department of Environment and Natural Resources (DENR) and People's Organization (PO) of San Rafael-Tanabag-Concepcion Multi-purpose Cooperative (STCMPC) on the management of Community Based Forest Management (CBFM) area;
- Memorandum of Understanding between Center For International Forestry Research (CIFOR) and STCMPC for the management of CBFM area;
- Agreement between STCMPC and Budyong Rural Development Foundation Inc. (BRDFI) on woodworks operation;
- Informal agreement between Maliliit Na Mangingisda Multi-Purpose Cooperative (MMMPC) of Barangay San Rafael with Haribon Palawan on coastal management;
- Formal agreement between Haribon Palawan and Palawan Community-Based Fisherfolk Alliance, Inc. in the implementing mechanisms for biodiversity conservation and sustainable development under the Fisher folk Self-Help for Empowerment and Regeneration Project;
- Agreements entered into by Tarabanan Fishermen Association, Incorporated (of Barangay Concepcion);

- Informal agreement between community groups and Fundacion Santiago (FS);
- Informal agreement between Taytay sa Kauswagan Inc. (TSKI) and various community groups.

Key informant interviews were conducted with 31 people (Annex 1) to gather information with regards to the processes to prepare the contracts/agreements and their implementation. The following focused questions were asked to the informants:

1. What were the processes used in developing the agreement?
2. What were some of the pertinent features of the agreement? How were they implemented? Who monitored compliance? Were these arrangements effective? What do you think went well and what went wrong? Why?
3. How were the benefits shared among members?
4. How big was the community's organization, engaged in the contract/agreement, in relation to the whole community of the three barangays?

III. Results and Analysis

Past and existing contracts and agreements were entered into by specific organized community groups and "other parties". Specific organized community groups are organizations that have been formed by a group of community members with very specific purpose. These specific community groups include, for example, the STCMPC which is a cooperative that was formed to get the rights from DENR to manage a portion of upland forests under the DENR program called Community Based Forest Management (CBFM). As a cooperative, STCMPC can engage in or implement various business activities.

"Other parties" in this case are either government organizations (like DENR), non-government organizations (funding institutions, research organizations) or private groups that want to assist the specific organized community groups through channeling resources and/or building the capacities of the groups. These institutions usually have the broader goal of uplifting the lives of the community.

Some institutions require agreements with the beneficiaries who will be involved in one way or another in their projects. For example, DENR had to initiate the preparation of the agreement as it is one basic requirement of their flagship program of community based forest management.

In some instances, it is the organized community groups who request that a formal agreement or contract is made, indicating that the community has already reached a certain level of awareness of the importance of formal contracts. This is exemplified by the agreement that the STCMPC requested in relation to their involvement in the action research project of the Centre for International Forestry Research (CIFOR). Normally local government unit or the barangay does not enter into agreement, especially with another government entity. However, specific organized community groups can enter into agreement because they are considered as legal entity and they are registered as organized groups with articles of cooperation or incorporation and by-laws. Any agreements they entered to are considered legally binding.

III.1. Agreement between DENR and STCMPC on the management of CBFM area

A community based forest management agreement is a production sharing agreement entered between a community and DENR to develop, utilizes, manage and conserve a specific portion of the forestland, consistent with the principles of sustainable development. In the case of the DENR and the STCMPC, the agreement was entered into by the People's Organization (PO) upon the initiative of the DENR. The area covered the upland forested areas of the three barangays, and the whole CBFM area is within the jurisdiction of the three barangays. The agreement covers the duration of 25 years, and can be renewed for another 25 years.

According to the interviewed PO members, the agreement went well at the start, since both parties carried out their tasks as agreed. It was also properly prepared because, before the agreement was accepted and signed by the PO representatives, the PO conducted public hearings and consultations with other community members of the barangays. One of the challenges faced during agreement preparation was the existence of permits for almaciga tapping in the same CBFM area. If the permit continued to exist, the rights of the PO over the CBFM area would not be exclusive. The agreement was signed only after it was ensured that all permits of almaciga resin tapping have been cancelled in the three barangays.

Pertinent features of the agreement, according to members interviewed, included the one year permit for utilization of dead logs, reforestation of certain CBFM areas (by planting different species like mahogany (*Swietennia spp.)*, acacia (*Acacia mangium)* and rattan), establishment of agroforestry farm, and forest protection of the whole CBFM area by the PO. The STCMPC Board of Directors (BoD), Provincial Environment and Natural Resources Officer (PENRO), Community Environment and Natural Resources Officer (CENRO), the assisting NGO (Ulugan Bay Foundation) and the employed PO members monitored the operation and activities of the PO to ensure that the agreement between the PO and DENR was implemented properly. Members of PO viewed the implementation of such agreement as effective since all concerned stakeholders did their part and carried out their responsibilities accordingly.

The benefits from the contract were in the form of employment, income from wages for community members who worked as laborers in the comprehensive site development activities, and honorarium for members. Budgets for the operations of the PO came from projects contracted to them by the DENR and earnings from sale of sawn recovered lumbers.

STCMPC has a total of 433 members and during comprehensive site development activities in year 2001, there were 300 members who actively participated in the various activities and benefited through the wages paid to them. About 12.03 percent out of the total populations of the three barangays are the legitimate members of the Cooperative.

The STCMPC is currently faced with problems as far as the management of the contracted area is concerned. Currently, they do not have projects and they do not

have the resources to continue the works that have to be done in the CBFM area. They also face problems in terms of organization management as many of the officers and directors are inactive. Consequently, even the financial status of the cooperative is not clear. This is viewed by our informants as shortcomings of the contract since members are not able to get the benefits that were promised coming from the CBFM agreement. Thus the comments we heard was that the benefits were only enjoyed by a few members of the Board of Directors.

III.2 Agreement Between Center for International Forestry Research (CIFOR) and STCMPC on forest management

CIFOR started to conduct research in cooperation with the San Rafael, Tanabag and Concepcion Multi-Purpose Cooperative (STCMPC) in 1999. It continued its activities until 2002.

There was a formal agreement between CIFOR and STCMPC. The agreement was drafted by CIFOR but it was STCMPC who first requested for such an agreement. The agreement was first presented to Board of Directors of STCMPC, who suggested some amendments to be incorporated prior to their signing it.

There were some aspects of the agreement that worked and some aspects that did not work. The agreement emphasized assistance from CIFOR to the PO in the management of CBFM area. Our informant believed that the CIFOR project had impacts on the agencies directly in charge of the management of natural resources in Palawan, i.e. the Department of Environment and Natural Resources (DENR) and Palawan Council for Sustainable Development (PCSD). Specifically the project brought together the PO, DENR and PCSD to discuss issues related to processing of documents with regard to CBFM implementation. This resulted in stakeholders being able to identify and delineate their roles and responsibilities and therefore resulted in efficient processes and better communications between PO and the different government agencies.

Benefits from the projects were given directly to the PO by means of trainings, cross-visits, enhancement of collaboration on the part of stakeholders, writing and producing newsletter to informed and updates the activities of STCMPC. The Board of Directors (BOD) monitored the implementation of Memorandum of Agreement (MOA).

Almost 45% of the 400 members of the STCMPC benefited from the activities of the research project.

There were some variations in terms of what the interviewed BOD members thought about the implementation of different aspects of this project. Regarding project updates, the BOD had requested for regular review of the MOA and monthly and quarterly updates from the project. They lamented that these regular update sessions could have provided an opportunity for them to provide suggestions for better implementation of the research project. They however received written final reports from CIFOR only during the phasing out of the project.

The suggestion of the certain BoD members to CIFOR staff to fully immerse in the community to capture the other important events in the community was not heeded. According to one of the former BOD member, CIFOR project staff only came when there are important things to do. Nevertheless, other BoD members expressed that they were satisfied with the updates by CIFOR staff and for their presence and accomplishments in the area. However, there was a suggestion from concerned individuals before finalizing the report it should be validated first with the concerned persons or agencies.

Some BoD members felt that the trainings that the project provided were not sufficient to help them in implementing various activities. They felt there is a need for follow-up monitoring and guidance. There was a lack of time to implement and monitor the trainings like nito handicraft. Some of the PO members interviewed felt they had limitations to sustain what the project had started like, producing of newsletter, using of monitoring forms and making of nito (*Lygodium spp.)* handicraft. Nevertheless, there are some members who pursued and sustained their nito making until now. If the length of time was extended in assisting the participants maybe the number of women or family who engaged in handicraft making was expanded.

It appeared that there was some disagreement among the BoD members themselves on certain issues with some members felt that they were excluded from decision-making process. For example, the decisions to buy tools for furniture making from the savings of participants from the cross-visit were done without consultations on the big groups. Based on the interview with several participants of the cross visit, planning and decision was made by 2-3 persons only. Other participants were forced to agree on the decision made by these three persons who thought that the tools are needed if the cooperative will engage in furniture making. However the said tools were not received by the cooperative. Some BoD members were trying to find the tools, but until now the tools were not found.

Based on the interview, it appeared that in general, the terms and conditions on the MOA were fulfilled. The above comments indicated a low understanding among some of BoD and PO members of what the action research is about. This was in line with some of the comments of the BoD members who were disappointed that other PO members and BoD members did not understand the project concept as it was very technical for them. They got used to the conventional project approach in which the project should provide updates to them. In action research, it should be the BoD who should share updates among themselves as they were the actors in the research. In a way, this also reflected the challenges and difficulties faced by ACM staff in changing the world view and behavior of the PO members and communicating to them clearly what action research is about within the timeframe of the project.

III.3. Agreement between Budyong Rural Development Foundation Incorporated (BRDFI) and STCMP in woodworks

The BRDFI submitted a woodworks project with a counterpart from City Government. Helvitas funded the project.

The BRDFI started working with PO on year 2002 until 2003. The collaboration was aimed at assisting the PO in woodworks operation.

The formal agreement for the cooperation was worked out by both the STCMPC and BRDFI. BRDFI drafted the MOA and presented it to board of directors. Comments from the BoD were integrated to the MOA before it was finalized. There were series of meetings and discussion between the BoD of the PO and the technical staff of BRDFI before the agreement was finalized. Incorporated in the agreement were the specific roles of BRDFI which include: a) to assist and manage the budget of project which comes from Helvitas amounting to more or less P250,000.00; b) to assist in woodworks operation; c) to assist in constructing a kiln dryer and furniture shop extension; d) to provide technical persons on woodworks; e) to train the interested PO members in furniture making; f) to provide technical persons on woodworks to train the interested PO members in furniture making; g) to provide equipments and trainings on furniture making; h) to help in marketing aspect of furniture products; and i) to help access resources for the PO. On the other hand, the PO will actively participate in the project activities.

Some operational aspect of the MOA did not work. At the PO level, the expected level of participation of the officers of the PO was not realized. The PO Chairman was less involved since he was busy working in the city, and there was no permanent secretary and bookkeeper. Thus during those times BRDFI was the one doing the financial management of the PO.

The BRDFI technical staff and some BOD members of the PO monitored the project accomplishment. For some reasons the project was effective since, there are PO members who acquired skills on furniture making. When the BRDFI started to train people in furniture making, 10 members from the cooperative participated. Presently, 3 out 10 trained members continue to practice the acquired skills, on their own.

Nevertheless, the project was discontinued due to the lack of lumber supply for furniture making, which was due to the temporary ban of lumber utilization of CBFM project in Palawan. Accordingly the suspension on lumber utilization will be lifted after the on-going review on CBFM.

From the perspective of our informants, they thought BRDFI discontinued the assistance of the skilled staff for the reason that the Annual Work Plan was not renewed, limitation on marketing, and there was no mass production of furniture since the project depend only on furniture based orders. The projected purchase order was never materialized. After the project ended, there was no proper turn-over of the remaining budget and other resources. This was due to the unavailability of other BoD members and management staff to receive the remaining cash. But nevertheless the remaining assets and cash were turn-over to the PO Manager later.

Only about 35-40% of the members of the cooperative benefited from the BRDFI project.

III.4. Informal agreement between Maliliit Na Mangingisda Multi-Purpose Cooperative of Brgy. San Rafael with Haribon Palawan on coastal management

The Maliliit na Mangingisda Multi-Purpose Cooperative (MMMPC) or Association of Small Fisherfolks was organized in year 1998 by the local NGO called Haribon Palawan. The MMMPC was legally registered with the Securities and Exchange Commission (SEC) on May 16, 2000. Haribon helped and assisted the MMMPC with initial capital for livelihood, empowerment, management of coastal resources, establishment of marine sanctuary, deputation of fish warden, facilitation in the formulation of business plan, pump boat for fishing and patrolling and others while MMMPC managed the livelihood projects and participated on the different activities conducted by Haribon Palawan.

Livelihood projects by MMMPC which were implemented with the help of Haribon were fish trading and bangus (milkfish) fry gathering. During the implementation of the bangus fry gathering projects, Haribon, Department Of Agriculture (DA)- Bureau of Fisheries and Aquatic Resources (BFAR) and City Agriculture's office monitored the project since the budget came from DA-BFAR Region IV through the Fisheries Resources Management Project (FRMP) projects, and Haribon provided a counterpart. Before the project was approved, the PO submitted a proposals and the DA-BFAR Region IV validated the area. Fish trading was a dole-out project funded through the help of Foundation for Philippine Environment (FPE) with the assistance of Haribon. At the start of implementation of these projects, all members were active in participating. However, throughout implementation of this project some members perceived that there was misuse of money as they suspected that some officers used the money of the organization without prior consent of other members. There was even accordingly double charging of one of the officers of cooperative for his travel expenses.

The policy implemented by the president was also not clear for the members and the president did not know how to acknowledge the suggestions of his members. As a result of these, some members went inactive and they tended not to participate at all in the activities. All of these sentiments came out during audit period of Haribon staff. The treasurer of the organization was called and investigated by Haribon staff in their office where she presented the receipts. Haribon finance officer found out that the receipts were not complete. According to her, some receipts were not surrendered by their president but the Haribon staff did not believe her. Consequently, the PO passed a resolution giving authority to Haribon to manage their funds and the project.

In 2003, when the original members of MMMPC set a schedule for the election of officers, they did not notice that the date they agreed was Holy Friday. They requested their president to re-schedule the meeting, since most of them are Catholic, but their president did not listen. As a result no member came to the meeting, except for the president, and the election had to be postponed. They set another date, but again the election did not happen.

The members of the new organized members of MMMPC who were interviewed, however, did not agree with the above comments. They felt that the above stories were all made up to discredit the president because of envy.

The rest of livelihood and activities was monitored by Haribon Palawan. This assistance of Haribon to MMMPC lasted until 2004.

In 2004, because of the MMMPC experience, Haribon worked on the organization of new PO chapter in San Rafael. The organization was called the Seaweeds Farmers Association (SFA). They used the name Maliliit na Mangingisda Multi-Purpose Cooperative. The SFA started using the name Maliliit na Mangingisda Multi-Purpose Cooperative in year 2005. Seaweeds Farmers Association was composed of 21 members; four members came from MMMPC and the rest were new recruited members from community of San Rafael.

In the fifth year of the project (2003), Haribon started to train a PO member in the area (Barangay San Rafael) to be their local organizers. Through facilitation of Haribon staff, the PO itself formulated the criteria on selection of local organizer. Zernan Teodoro president of Seaweeds Farmers Association or MMMPC was selected as local organizer of Haribon Palawan in Barangay San Rafael.

Original members interviewed stated that Haribon would only provide assistance and support to the MMMPC. However, it was felt that Haribon controlled the MMMPC. For the original members of MMMPC, the common complaint was favoritism by Haribon to some members. In addition, if the PO members assessed that their organization the management was good at the beginning but later, problems occurred in the management of funds. Although they were willing to be corrected, Haribon did not pay attention. Haribon Palawan acknowledged and rendered their assistance on the Seaweeds Farmers Association, since according to the other new member (SFA or MMMPC) some old members were stubborn.

Similarly, according to the old members the project was good for the PO. Its success however was affected by the attitude of some members who were protecting their self interests. When money was involved, problems and conflicts also arose. From the City Agriculture staff point of view, the PO is not ready to handle business and livelihood projects. However, the PO may be very good in the protection of coastal resources.

Presently the new organized PO (SFA) in Barangay San Rafael is the one recognized by the Haribon Palawan and also a current member of Community-Based Fisherfolks Alliance, Inc.

There are around 23 original members of MMMPC which is the organization registered with Security and Exchange Commission.

III.5. Formal agreement between Haribon Palawan and Palawan Community-Based Fisherfolk Alliance, Inc. in the Implementing Mechanisms for Biodiversity Conservation and Sustainable Development under the Fisher folk Self-Help for Empowerment and Regeneration Project

In 2005, Haribon Palawan organized the Palawan Community-Based Fisherfolk Alliance, to sustain the implementation of Community Based Coastal Resource Management Project in Palawan's Marine Biogeographic Regions particularly in Honda Bay and Green Island Bay of Puerto Princesa City. The PO, Haribon and Foundation for Philippine Environment (FPE) first developed Community-Based Resource Management (CBRMF) Framework Plan of the project as guide in the implementation of the project. The agreement was signed by the Alliance and Haribon. The MOA was drafted by the Haribon Palawan and presented with the members of Fisher folks Alliance, Inc. Amendments were considered in the finalization of the MOA. The Project's operation manager of the Palawan Community-Based Fisherfolks Alliance monitored the accomplishment in the site.

This Community-Based Fisher Folks Alliance, Inc. was composed of several PO's from different Barangays of Puerto Princesa City and Municipality of Roxas. Every year, the Foundation of Philippine Environment (FPE) granted one million pesos funds for the Alliance from 2005 until 2007. Based on the formal agreement, Haribon will assist in the technical aspect while FPE will support the funding of Alliance. The 3 government institutions, i.e., Provincial Government, City Government, and Municipality of Roxas give counterpart (funds) to every approved projects of the Alliance. POs could avail funds from FPE through project proposals. Prior to submission of proposal to FPE, said proposal had to be presented to the Provincial Government, City Government and Municipality of Roxas. After the proposal is approved by the Foundation for Philippine Environment, the budget was released directly to the PO and the PO managed the funds. FPE, Haribon, and Alliance monitor the project, the three government institutions furnishes FPE with their reports. The three government institutions had expressed committments to continue to support the sustainability of the Alliance project after FPE contract will be finished.

The current members of Maliliit na Mangingisda Multi-Purpose Cooperative (MMMPC) has a total of 21 members from Barangay San Rafael (18 members were active, and the rest are inactive) or 1.33 percent from the total population of Barangay San Rafael. Whereas, Tarabanan Fisherfolks Association of Barangay Concepcion has 68 members (but only 48 members are active) or 4.34 percent out of the total population of Barangay Concepcion.

The Fisher folk Alliance Inc. is composed of thirty POs from different barangays of Puerto Princesa City up to Municipality of Roxas Palawan. Two POs included in Levelling the Playing Field Project site, i.e. the Maliliit na Mangingisda Multi-Purpose Cooperative and Tarabanan Fisher folks Association Inc. are members of the Alliance.

III.6. Agreements entered into by Tarabanan Fishermen Association, Incorporated (of Barangay Concepcion)

Tarabanan Fishermen Association, Inc. was also organized by Haribon in 1998. This PO has similar objective with that of Maliliit na Mangingisda Multi-Purpose Cooperative at Barangay San Rafael. Haribon helped and assisted the PO with initial capital for livelihood, people empowerment, management of coastal resources, and establishment of marine sanctuary, deputization of fish warden, facilitation in the formulation of business plan, pump boat for fishing and patrolling and others. The PO managed the livelihood projects and participated on the different activities conducted by Haribon Palawan.

Through the efforts of Haribon Palawan, a fish pen project from the Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR-Region IV) under Fisheries Resource Management Project (FRMP) was granted to Tarabanan Fishermen Association, Incorporated. According to DA-BFAR there was a written agreement but it was never signed by both parties. They didn't know what happened since the City Agriculture handled the MOA but City Agriculture stated that there was no Memorandum of Agreement. The project objective is to control degradation of the coastal resources and to help reduce poverty in the Barangay. During the implementation of the project, the agreement between them was verbal or informal. Before the project was given to the PO, the PO had to submit the proposal to DA-BFAR and it was scrutinized by the Technical Working Group, Livelihood Committee. Haribon Palawan assisted the PO in proposal making. They were later invited to come to the BFAR office to discuss the fish pen project further. Afterwards, the DA-BFAR came to Barangay Concepcion to present and explain the concept of the project to the PO members. Pertinent features of the agreement, based on the opinion of persons interviewed, included the management of fish pen by the PO, sharing of harvested bangus, and technical assistance and monitoring from DA-BFAR and City Agriculture.

All throughout the project implementation, DA-BFAR did its part by regularly visiting, monitoring the fish pen, and giving technical assistance. PO members did voluntary work in the fish pen operation as their counterpart. The agreement was that after harvesting, and if they earn profits, the PO who worked voluntarily to the fish pen project could be paid. In the first harvest it went well even though the PO did not met the expected volume.

But on the 2nd operation, the fish pen was washed-out by flood. Our informants perceived that benefits went only to a single family. The PO did not earn profits out from the fish pen projects.

DA-BFAR- RFTC- Provincial level concluded that the project failed because the PO was not mature enough to handle the project. Similarly, the City Agriculture assessed that the PO has enough orientation on protection/ law enforcement but was not ready to handle business/livelihood. The PO also did not have the capacity to manage the fish pen project. City Agriculture also did not usually come to the area for monitoring due to conflict in schedule with their regular functions in the office. Furthermore,

sometimes they received the notification of monitoring schedule too close to the actual date of inspection.

From the point of view of City Agriculture and the interviewed PO member, the failure of the project was due to the failure to follow the management plan of the project, the negative attitudes of some of the PO members, e.g. envy and selfishnes. During introduction and the beginning of the project, only 2-3 PO members voluntarily guarded the fish pen. Afterwards, when they saw that the project was real and that they could benefit out from it, other members were convinced to join/participate.

With regards to the benefits, they were in the form of materials and the budget of fish pen project (which was directly given to the PO). If ever the fish pen become successful, the PO and its members would be directly benefited. The PO has 68 members (but only 48 members are active) or 4.34 percent out from the total population of Barangay Concepcion.

Tarabanan Fisherfolks Association, like the Maliliit na Mangingisda Multi-Purpose Cooperative, is a member of Community-Based Fisherfolks Alliance, Inc. The Haribon's local organizer in Barangay Concepcion was Barangay Councilor Ana Rodriguez. The benefits and roles of TFAI in the alliance was also the same with Maliliit na Mangingisda Multi-Purpose Cooperative.

III.7. Informal agreements between different saving groups and Fundacion Santiago and formal agreement between Mt. Cleopatra Credit Cooperative and Fundacion Santiago in the three barangays

The Fundacion Santiago (FS) started working in San Rafael, Tanabag, and Concepcion in 2004. The staff conducted courtesy call and presented the project objective in the barangay councils and brought the concept of community organizing savings and micro-financing. FS proposed to form informal groups (savings group) for the community to learn how to save and raise capital for preferably for business purposes. According to FS, they let the community members to organize and choose their members with a minimum of 5 members and a maximum of 25 members for each saving group. Three saving groups were organized in San Rafael with a total of 15 members, one group was organized in Tanabag with a total of 6 members, and eight groups were organized in Concepcion with a total of 95 members.

There are two types of agreement, verbal or informal agreements between savings group members and formal agreement between Mt. Cleopatra Credit Cooperative and Fundacion Santiago. Within the group, members formulated their own agreements and policies on saving and lending money to their group members, such as frequency of the meeting (e.g. every week), contribution to be made by each member (e.g. Php10.00/week), the interest rate to be paid by members who will borrow the savings of the group (e.g. 5% interest rate). Each group can come up with different rules, policy and agreements based on the discussions and agreements reached by its

members. There are two types of verbal agreements: i) within members of savings group, and ii) between Fundacion Santiago and the savings groups.

Within 3-6 months all good members of the saving groups are encouraged by the Fundacion Santiago to register and become legitimate members of Mt. Ceopatra Credit Cooperative. This credit cooperative was organized by Fundacion Santiago for eligible members of savings group. It was legally registered in the Security and Exchange Commission (SEC) last January 2005. With regard to the formal agreement between the Mount Cleopatra and Fundacion Santiago, the Fundacion Santiago helped the Mt. Cleopatra Credit Cooperative to borrow money in different funding agencies for microfinance. FS served as a mediator between the cooperative and the funding agency. Last year Mt. Cleopatra borrowed PhP 500,000 the National Livelihood Support Fund (NLSF). They will return the money to NLSF through Fundacion Santiago. Only members of Mt. Cleopatra Credit Cooperative are allowed to apply loan with the Mt. Cleopatra Credit Cooperative with collateral. The members have to meet the requirements and pass the credit investigation conducted by the credit committee of the cooperative. Once the loan is released to the member, he/she will sign a promissory note of payment indicating the mode of payment and interest he/she would pay to the Cooperative.

Besides teaching the saving group members on how to save, FS also gives training on cassava, cashew corn processing, tilapia, seaweeds processing, bookkeeping, accounting, financial management, leadership training, enterprise development strengthening and other topics. Through Mt. Cleopatra Credit Cooperative, the members borrow capital to buy equipment by means of loan to start business.

Only members of Mt. Cleopatra Credit Cooperative are given life insurance and crop insurance for the money that the members borrow. The members of Mt. Cleopatra come from different Barangays of Puerto Princesa City including San Rafael, Tanabag and Concepcion.

Fundacion Santiago follows some criteria in assisting savings groups, such as the members should organize themselves beforehand, the group should have a minimum of 5 members, and each group should have its own officers. The groups should also formulate their own policy on saving and lending money to their group members. The area coordinator of the project monitors the groups. According to members interviewed, the arrangement was effective since everyone has participated accordingly.

The staff of Fundacion Santiago monitors the savings groups and Mt. Cleopatra Cooperative until November 2005. After this time, the monitoring tasks will be transferred to Mt. Cleopatra membership committee. According to the interviewed members and staff of FS, the arrangement was effective since everyone has participated accordingly. After 3 years the Mount Cleopatra Credit Cooperative could directly approach the funding agency without the support of Fundacion Santiago.

The total number of members of the saving groups is 116, from the three barangays or 3.22 percent of the total population of the three barangays.

III.8. Informal agreements between Taytay sa Kauswagan Inc. and community groups of San Rafael, Tanabag, and Concepcion

Taytay sa Kauswagan Inc. (TKSI) is a micro lending organization for the community. This credit organization was started in August 2004 at Brgy. Concepcion, and in 2003 at Brgy. San Rafael. There are approximately 36 members from Brgy. San Rafael and 95 members from Concepcion. The 2 members from Brgy. Tanabag joined in the groups of Bgry. Concepcion. TSKI organized its members in a minimum number of 5 members per groups; each group is allowed to choose its own members.

The agreement between the group and the TSKI was only verbal. The TSKI formulated the agreement and explained the terms and conditions to the group. These include setting arrangement by group, complete filling of billing, wearing ID, wearing t-shirt, updating of passbook, all members allowed to apply for a loan in the TSKI provided that members pass the required documents and credit investigation, the credit should be paid within 25 weeks, the members are required to pay their credit weekly.

According to the members, the agreement has been working well in three barangays, since all of the members cooperated and paid their loans on time. This is because during weekly meetings if one member cannot pay her loan, her group members or the whole group will contribute for the payment of her obligations and the meeting will not adjourn until all members have paid.

Since the agreement within the group members were formulated by the members themselves, different groups have different agreement, for example: a) the amount approved by the group members for the group savings and which can be borrowed by group members with corresponding interest; b) payment of penalty when late; c) payment of monthly dues; and d) payment of fines if not attending special occasions like outing during anniversary of the groups.

The TSKI staff assigned to barangay San Rafael and Concepcion and the group members all monitor if the agreement is being implemented. According to all members interviewed, the implementation of the agreement has been very effective since everyone does his part.

The benefits are directly given to the members such as life insurance. If the members of the group die, automatically the insurance will go the beneficiary of the family. For loans, if the members can meet all the requirements and is approved by the credit investigator, the loan goes directly to the person who applies for that loan.

The total members of TSKI is 3.14 percent out of the 3, 597 total population of three barangays.

IV. Conclusion

Contracts and agreements entered into by the different organizations in the three barangays were either formal or informal. Formal agreements came in the form of

written contracts and agreements discussed and agreed upon by the parties concerned and to which the representatives of said parties affix their signatures. On the other hand informal agreements do not have written contracts or agreements. The form of the contract (formal or informal), and the process of generating the agreements did not seem to determine the success or failure of the contracts.

The capacity of the community organizations in taking part in the project seemed to be an important factor. For this reason, most of the projects had capacity building component as a part of the project, for example in enterprising, financial management, and resource management. In these areas, the capacities of relevant community organizations were still weak. Nevertheless, due to the limited timeframe of the project, the capacity of the community organizations was not built high enough to contribute to the success of the project.

The participation of the participating community members in defining the rules during the project implementation seems to be a crucial factor in determining the success. This was clear in the case of Fundacion Santiago (FS), Taytay sa Kauswagan Inc. (TKSI) and different saving groups in the community. The size of the groups may also contribute to the ability to self-regulate the group members as they can easily monitor its own performance. In instances when there is an agreed manner of monitoring and evaluating a certain agreement or contract, the implementation was more effective.

There was clear indication from this study that the benefits from the project were not directly shared to many members of the communities. This probably confirms that there is still the culture among people in the barangay along the Pilipino saying: “kung sinong nagtanim siya dapat mag-aani” or “whoever planted should be the one who should reap the benefits”. This suggested that only those who participated and invested their time and energy would enjoy benefits. They may not have the motivation to share the benefits to wider community especially if the benefits produced from the project were limited. The projects operated in the area were indeed relatively very small in scale and scope. It would therefore not realistic to expect that such small project could produce positive impacts for the whole community.

Contracts were also found to be helpful in clarifying responsibilities, roles and benefits as was directly experienced in the STCMPC-CIFOR agreements and indirectly in the other agreements.

One of the feedbacks which can be very important in the implementation of the LPF project is the expressed need by the community to be regularly provided with results of studies conducted by the project. LPF should also be aware that the communities wish to first have project reports validated by them before they are finalized. Although this is already being done by the LPF project as what we have done with the results of the socio economic baseline studies, we still have to the reporting of the results of the multi-landscape assessment and the market study, the analysis of institutional arrangements and this analysis of contracts and agreements herin being reported.

Annex 1. List of persons interviewed on the contract/ agreement entered by the community

Name	Current Position /Organization	Address
Teodoro Zernan	- Local organizer/ Haribon Palawan - Member/ Fundacion Santiago - Chairman/Maliliit na Mangingisda Multi-Purpose Cooperative	San Rafael, Puerto Princesa City (PPC)
Nicanor Fernando	Former Operation Manager/ Maliliit na Mangingisda Multi-Purpose Cooperative	San Rafael, PPC
Crisologo Elesterio	- Former President/ Maliliit na Mangingisda Multi-Purpose Cooperative - Member/STCMPC - Barangay Councilor	San Rafael, PPC
Jessica Patnongon	Former BOD Member /Maliliit na Mangingisda Multi-Purpose Cooperative	San Rafael, PPC
Delia Paclibar	Former treasurer/Maliliit na Mangingisda Multi-Purpose Cooperative	San Rafael, PPC
Evelyn Peralta	Current BOD member/ Maliliit na Mangingisda Multi-purpose Cooperative	San Rafael, PPC
Wilfredo Peralta	Former BOD/ Maliliit na Mangingisda Multi-Purpose Cooperative	San Rafael, PPC
Gina Villon	Current BOD/ Maliliit na Mangingisda Multi-Purpose Cooperative	San Rafael, PPC
Melquiades Rodriguez	- Barangay Captain - BOD Member / STCMPC	San Rafael, PPC
Domingo Solina	- Barangay. Councilor - Former BOD Member/ STCMPC	San Rafael, PPC
Jesus Maquillao	Acting Chairman/San Rafael Multi-Purpose Cooperative	San Rafael, PPC
Capt. Epitacio Abrea	- Barangay Captain - Former treasurer of STCMPC	Tanabag, PPC
Eddie Canete	BOD Member/ STCMPC	Concepcion, PPC

Name	Current Position /Organization	Address
Beatriz Dacles	- Operation Manager/STCMPC - Member/ Taytay sa Kauswagan - Member/Fundacion Santiago	Concepcion, PPC
Merlinda Lumbre	BOD Member/STCMPC	San Rafael, PPC
Roselyn Restar	Former bookkeeper/STCMPC	Concepcion, PPC
Anecia Rodriguez	Member/Taytay sa Kauswagan Inc.	San Rafael, PPC
Lelia Balud	Member/ Taytay sa Kauswagan Inc. and Fundacion Santiago	Concepcion, PPC
Vergie Gasmin	Member /Taytay sa Kauswagan Inc.	Tanabag, PPC
Marisol Ejida	Former member/ Taytay sa Kauswagan Inc.	
Gaudencio Osano	- Barangay Councilor - Member/ Fundacion Santiago	Tanabag, PPC
Dancil	- Barangay Councilor - Member/Fundacion Santiago	Tanabag, PPC
Ana Rodriguez	- Treasurer/ Tarabanan Fisherfolks Association - Brgy. councilor - Local Organizer/ Haribon Palawan	Concepcion, PPC
Edeniel Jalocon	- Former President of Tarabanan Fisherfolks Association - Barangay Councilor	Concepcion, PPC
Cresenciano Cuarez	Caretaker/Tarabanan Fisherfolks Associations	Concepcion, PPC
Proceso Batuto	Operation Manager/ Tarabanan Fisherfolks Association	Concepcion, PPC
Rene Pareno	DA-BFAR	Puerto Princesa City
Benny Postrado	Technical Staff, Budyong Rural Development Foundation Inc.	Puerto Princesa City

Name	Current Position /Organization	Address
Tomas J. Matillano	Project Manager/Fundacion Santiago	Puerto Princesa City
Inocencio Magallanes	Chairperson /Haribon Palawan	Puerto Princesa City
Tutu Almonte	Aquaculturist II/ City Agriculture's office	Puerto Princesa City

Appendix 5

Levelling the Playing Field:
Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Report on Analysis of Institutions

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Analysis of Institutions

Introduction

Institutions affect the way communities manage their natural resources. Institutions are also interrelated with each other and the efficiency by which these institutions deliver the services they should provide to the various stakeholders is also affected by the relationships existing among the different organizations mandated toe assist communities in managing the natural resources. Aside from this, organizations also affected by their internal characteristics and capabilities.

Objectives

The objectives of this component of the baseline studies are:

a. Identify organizations, which have direct and indirect influence in the way the communities are managing their resources;
b. Identify areas of cooperative endeavors and conflict among the various organizations; and
c. To assess resources of the various organizations

Methodology

A survey questionnaire was designed and distributed to the representatives of the different government offices and non-government organizations who attended the stakeholder analysis workshop held in Puerto Princesa City. Nine representatives took part in answering the questionnaire, which was designed to capture the information identified in the workplan under the baseline studies.

Since responses to some of the items in the questionnaire need to be researched, e.g., budget, staff, mandates, vision, mission, we allowed the respondents to bring the survey forms to their offices. After two weeks the LPF field assistants collected the answered survey forms. During their visit to the offices of the institutions, they took some time to conduct key informant interview to get more details on the answers provided in the survey questionnaire or to clarify items not clearly answered in the forms.

4R analysis was also conducted to assess the roles, responsibilities, revenues (benefits), and relations of the various institutions. Through a participatory workshop, the different institutions were able to identify the different stakeholders that benefit most from the resources in the community, the stakeholders who have that most responsibilities, the stakeholders who are not contributing much to the proper protection and management of the resource and the stakeholders. The roles, responsibilities, rights and benefits of the different stakeholders are contained in the discussion of 4R analysis in the ***Proceedings of the Workshop to Identify Major Issues Affecting the Community, Formulate a Vision and Identify Possible Actions to Address the Problems and Issues Identified.***

Analysis

Analysis of the responses of organizations and agencies whose mandates are related to forestry and natural resources showed that with regards to:

- Mandates, management objectives and roles of the various organizations and agencies in natural resources management, particularly forestry

  As can be gleaned from Tables 1, 2, and 3, the nine organizations surveyed, which consist of 3 NGOs and 6 GOs, have varying mandates, management objectives and roles. The broadness of mandates is reflective of the extent of responsibility of the organization or agency. For example, the mandate of smaller agencies like NCIP, CENRO, NATRIPAL, Fundacion Santiago and Budyong are much more spelled out and more site specific than those of large governmental organizations like DENR, PCSD, PENRO and DA Regional Office. However, while these organizations have wide range of variation in the way these mandates are formulated and expressed, the mandates of these organizations normally do not deviate from the standard broad statement of "promotion of well being of the Filipino people". However, variation comes in, when these mandates are geared for more specific and smaller group of people like the indigenous people.

- Resources (budget, funding, staff) of the various organizations and agencies

  Table 4 shows the yearly budget of the various organizations. Budgets are obviously proportional to mandates and scope of responsibilities and concerns. The larger the organizations, the heavier its mandate, the wider its scope, then the bigger the budget. Among the organizations, City ENRO has the biggest budget followed by the PENRO-DENR and the PCSD. The other organizations are expected to have very small budgets because they are small and their mandates are of smaller coverage. NGOs usually depend upon budget from funding agencies based on their approved project proposals. Some of the organizations are not able to provide figures on their budget. Assuming that the figures provided by the respondents were accurate, it was surprising to learn that PCSD, the most powerful government institution in Palawan, had much lower annual budget that those of City ENRO and PENRO-DENR.

  Table 5 shows the staff composition of the various agencies and organizations whose work related to natural resources management. The answers provided by the respondents varied greatly and therefore no proper comparison can be drawn in terms of staff numbers among different institutions and whether the institutions have sufficient number of staff to carry out their mandates. Nevertheless, it was safe to assume the number of staff was not sufficient as most of the respondents from different organizations did identify lack of man power as one of the problems they faced (see Table 6). This was only one of the consequences of the low financial resources the institutions received. Others consequences included insufficient supplies and staff travel constraints. The results also showed that big government institutions, such as CENRO-DENR and PCSD, also faced political constraints.

- Overlap in mandates and responsibilities and the resulting conflicts or problems

  Perceptions of overlapping mandates and functions with their offices or institutions are provided in Table 7. Majority of the respondents perceived that there was indeed overlapping of functions and responsibilities. These overlapping mandates and functions, especially among the Government Agencies related to their wider scope and less specificities mentioned above, caused some conflicts. In natural resources and environmental management for example, the organizations with overlapping mandates that usually resulted in conflicts are, DENR, PCDS, and City ENRO.

- Level of communication, coordination and cooperation among organizations and agencies

  Cooperation among the various sectors and stakeholders were improved in the last few years. Based on the previous institutional analysis conducted by CIFOR Adaptive Collaborative Management (1999-2002), one of the contributing factors was the lack of PCSD support to the DENR CBFM program. PCSD then only supported the Community Forest Program (CFP), a forest management program of the DENR, which grants rights to organized communities to manage, develop and utilize forest resources on a sustainable basis. Later they were in favor of the Communal Forests program which gave the authorities to local government to manage forests.

  Opportunities for an institution or organization to communicate, coordinate or cooperate with other organizations and institutions usually took place during meetings, e-mails, through telephone, joint project and activities such as trainings, conferences or workshops (Table 8).

  Inter-sectoral coordination, if any, usually takes place through inter-sectoral team works, Technical Working Groups, and inter-sectoral meetings. The participation of various organizations and agencies in those inter-sectoral efforts varied in degree and extent (Table 9).

- Collective action: their purpose and initiator

  Collective actions among organizations usually occur when resources are scarce and sharing is deemed necessary. Collective action also occurs when the issue or problem being addressed cuts across the different mandates or domains of the different organizations. Initiator of collective action includes the organization where the concern is lodged, the partners or beneficiaries to the resolution of an issue or problem or by working groups, for example in case of problems pertaining of CBFM, the Provincial CBFM Technical Working Group (Table 10).

- The involvement of the marginalized groups in decision making and collective action

  Several respondents believe that IPs are heavily involved in decision making (Table 11). Based on our observations, however, the participation of IPs had not been significant in decision-making process. The intention of different institutions to engage them may be high, and some efforts to engage IPs in decision-making process have been made. Nevertheless, their participation was still considerable low and extra efforts have to be made in the future to increase the IP's capacity to actively engage in decision-making process, the awareness of different institutions on the IP's way of life and resource management, and their capacity to use different methods and mechanisms in involving the IPs.

Conclusion

The Institutional Analysis study provided necessary information with regards to the institutions' mandates, roles and responsibilities, the potential conflicts among those institutions, and the problems those institutions faced in carrying out their roles and responsibilities. This study revealed that there was indeed some conflicts occurred in the past among the institutions due to their overlapping roles and responsibilities. Nevertheless, there were also some efforts made for coordination and collective action. The information collected through this study would be useful for the Philippines LPF team in designing proper interventions in the near future.

Tables of Responses of the different institutions that participated in the filling up of survey forms for institutional analysis.

Table 1. Mandates of the different organizations.

Organization	Mandate
Nagkakaisang mga Tribu ng Palawan, Inc. (NATRIPAL, Inc.)	• To analyze, choose and prepare all of its officials and staff so that the management of NATRIPAL would be done in an orderly, proper and efficient manner, including the proper use of its resources. • To analyze and choose the programs and projects that it will implement, and ensure that these programs and projects are in accordance with the goals and objectives of NATRIPAL and the common good of the indigenous people. • Initiates the development of its leadership in the federation among the indigenous staff, with adequate and appropriate skills and dedication to the indigenous people. • Supports the dissemination of knowledge, skills and values pertaining to human rights, to ancestral domain and obligations as citizens of the country. • Supports the capacity of the local associations towards autonomy in managing their programs and projects, and the capacity to be involved in the voicing out the opinions and feelings of the indigenous people regarding concerns and issues that directly affect them. • Promotes the care for the environment and development of natural resources so that these would be a source that will support the basic needs of the nation. Concern for the culture of the indigenous people. • Promotes the right, proper and efficient use, management and development of ancestral domain and its natural resources within it.
Department of Environment and Natural Resources (DENR)	• To promote the well-being of Filipinos through the sustainable development of forest resources, optimal utilization of land and minerals, and effective environmental management.
Fundacion Santiago	• Its corporate vision states that all of Fundacion Santiago's efforts are geared towards helping realize the vision of the "complete" Filipino: a person who knows one self and can take care of oneself and to contribute to true, sustainable and equitable national development thru the promotion of social entrepreneurship among economically marginalized Filipinos particularly those in the countryside.

Organization	Mandate
Palawan Council for Sustainable Development Staff (PCSDS)	A. PCSD Staff 1. Shall serve as the regular professional support staff of the Council. 2. Shall provide the machinery to coordinate the policy and functions, implement programs and organization such services as maybe required by the Council. B. PCSD Council 1. Shall exercise the governance, implementation and policy direction of the strategic environmental plan (SEP).
National Commission on Indigenous Peoples (NCIP)	• To protect the rights of the IPs. • To promote the rights of the IPs. • To process CADT/CALT applications.
City Environment and Natural Resources Office (CENRO)	• In accordance with Section 17 of RA 7160, provide regulatory services and functions on forest management, protected area and wildlife, environmental management, mines and geo-science development and land management.
Budyong Rural Development Foundation Inc.(BRDFI)	• Promote man's development economically and socially • Enhance, rehabilitate and develop ecological and environmental integrity • Focus of development is man.
DA (Department of Agriculture) - Bureau of Fisheries and Aquatic Resources, (BFAR) Region 4B, Provincial Fishery Office	• Enforces all laws, rules and regulations governing the conservation, protection and management of fishery resources in the area. • Assist LGU's to organize and strengthen fisherfolk organization (FARMC) in establishing fisheries management in Municipal waters. • Recommend/endorse renewal of expired fishpond with Fishpond Lease Agreement (FLA), Regulation of commercial fisheries. • Gather/provide baseline data on fish and other fishery products for the establishment of a comprehensive fishery information system.
DENR-Provincial Environment and Natural Resources Office (PENRO)	• The DENR, pursuant to Executive Order No. 192 is the primary government agency responsible for the sustainable development of country's natural resources and ecosystems. Its mandate are the following: 1. Sustainable development of forest resources. 2. Optimal utilization of lands and minerals 3. Social equity and efficiency in resource use 4. Effective environmental management

Table 2. Management objectives of different organizations.

Organization	Management Objectives
Nagkakaisang mga Tribu ng Palawan, Inc.	• To aid its members to establish, manage, maintain and operate adequate livelihood facilities and service pursuant to the objectives of the association. • To assist in the formulation and implementation of government programs with the and in view of hastening rural development. • To encourage the effective utilization of local resources for livelihood activities. • To accept donations, acquire properties, obtain loan from government through its various lending institution and from private financing institution in order to attain the objective of the association. • To develop awareness, values and attitudes and harness the participation of its member in every activity towards the development of the community. • To initiate ands support activities and programs which seeks to preserve and enhance the community's right to self-determination as well as their right over their ancestral domain. • To do and perform any other acts and things, and to exercise any other powers which may be necessary, convenient and appropriate to accomplish the purpose and objectives for which the association is organized.
DENR-CENRO	• To promote the efficient and judicious use of natural resources and ensure their sustainable productive capacity.
Fundacion Santiago	• Promotes and supports government, private sector and civil society partnership in the formulation and implementation of community-based development plans and projects. • Works primarily with community stockholders, helping create and strengthen viable local structures with capabilities to plan, implement and sustain development activities.
Palawan Council for Sustainable Development Staff (PCSDS)	• Formulate plans and policies as maybe necessary to carry out the provision of SEP. • Coordinate with the local government to ensure that the SEP plans, programs and projects are aligned with the plan of other national government agencies and local government units.
National Commission on Indigenous Peoples (NCIP)	• To see to it that the rights of the IPs are protected, especially to their ancestral domain/land which includes ancestral waters.

Organization	Management Objectives
City Environment and Natural Resources Office	• Recommend to the Sangguniang Panlungsod, advice the city Mayor and provide technical assistance on the matters relative to the protection, conservation, maximum utilization, application of the appropriate technology and other matters pertaining to the environment and natural resources.
Budyong Rural Development Foundation Inc.	• Institutional development. • Community development. • Research development. • Training and education. • Livelihood and enterprise. • Community-based resource management.
DA-Bureau of Fisheries and Aquatic Resources, Region 4B, Provincial Fishery Office	• To conserve, protect and manage our marine resources and attain its sustainability through the strong support and cooperation of various sectors/stakeholders.
DENR-Provincial Environment and Natural Resources Office	• Sustainable development and ecologically critical uplands. • Protection of the natural forests principally through participatory community development. • Rehabilitation of denuded and marginal areas. • Determination and management of optimal land uses. • Intensification of mineral exploration and development, including offshore areas without prejudice to the environment. • Expansion of the Integrated Forestry Program. • Establishment of community-based forestry. • Survey, allocation and disposition of alienable or disposable (A or D) lands for the Comprehensive Agrarian Reform Program (CARP). • Rationalization of the disposition of public lands. • Delineation and management of people's mining areas. • Promotion and efficiency in natural resource-based industries. • Preservation of biological diversity. • Improvement of air, land and water quality especially in urban areas. • Generation of data and technologies for the proper understanding and management of natural ecosystems and their interactions.

Table 3. Organization's roles in relation to natural resource management.

Organization	Roles
Nagkakaisang mga Tribu ng Palawan, Inc.	• Advocators, trainors/ facilitators.
DENR-CENRO	• Effective protection, development, occupancy management and conservation of forest lands, watershed areas, grazing lands and mangroves.
Fundacion Santiago	• Serves as a catalyzer and an enabler.
Palawan Council for Sustainable Development Staff (PCSDS)	• Provides good policy environment relative to Palawan's natural resource management in terms of protection, conservations, and sustainable economic development.
National Commission on Indigenous Peoples (NCIP)	• To utilize natural resources in ancestral land/domain in accordance to the traditional practices of the IPs and also in accordance to other existing Philippine laws regarding natural resources.
City Environment and Natural Resources Office	• Provides technical services/assistance in the protection, rehabilitation, and conservation of the natural resources within the city in terms of forest management, environmental management, protected areas and wildlife, mine geo-science development and land management.
Budyong Rural Development Foundation Inc.	• Source out funds for community-based resource, enhancement, development and management.
DA-Bureau of Fisheries and Aquatic Resources, Region 4B, Provincial Fishery Office	• Protect and conserve (i.e. conduct seaborne patrol and surveillance operation).
DENR-Provincial Environment and Natural Resources Office	• Formulate and implement the Department's policies, plans and programs for sustainable development. • Support natural resources-based industries to promote countryside development. • Provide continuing raw materials to meet increasing demands at the same time keeping adequate reserves for (environmental stability) future use. • Encourage and enhance participation of local communities/local government units (LGUs) and non-governmental organizations (NGOs) in environment and natural resources planning, development and management. • Regulate the exploration, disposition and utilization of the country's natural resources. • Conduct inventory, survey and assessment of the country's environment and natural resources. • Provide a holistic approach to the control of environmental degradation through the

Organization	Roles
	implementation of reasonable and acceptable environmental quality standards. • Establish and integrated Protected Areas (IPAs). • Create alternative energy sources for fuelwood.

Table 4. Yearly budget of various institutions.

Institution	Annual budget (₱)	Remarks
Nagkakaisang mga Tribu ng Palawan, Inc.	200,000*	
DENR-CENRO		No answer
Fundacion Santiago	N/A	
Palawan Council for Sustainable Development Staff (PCSDS)	40,000,000	Covers salaries, traveling expenses, supplies and materials, repairs and maintenance of equipment, gasoline, bonuses, insurances, tax, ENR activity cost, etc.
National Commission on Indigenous Peoples (NCIP)		Budget is mostly intended for CADT/ CALT processing
City Environment and Natural Resources Office	14,046,814.87	
Budyong Rural Development Foundation Inc.		Depends upon budget from approved proposal
DA-Bureau of Fisheries and Aquatic Resources, Region 4B, Provincial Fishery Office		Varies
DENR-Provincial Environment and Natural Resources Office	69,877,000	

* Per project duration

Table 5. Composition of staff doing work related to natural resources management.

Institution	Composition of staff
Nagkakaisang mga Tribu ng Palawan, Inc.	15 staff at present • Foresters • Agriculturists • Education • Business management
DENR-CENRO	• CENRO • Chief FMS • Different units such as Forest Protection, CBFM, Utilization, Reforestation, Watershed and Forest Engineering
Fundacion Santiago	• No answer
Palawan Council for Sustainable Development Staff (PCSDS)	• Planning • Policy • Implementation of policies
National Commission on Indigenous Peoples (NCIP)	• The staff are mostly working to IP related problem and to assist the IPs in the utilization of natural resources in traditional way and as per other existing Philippine laws.
City Environment and Natural Resources Office	• (1) Community Development. Officer IV • (1) Community Development Officer II • (3) Environment Management Specialist II • (1) Community Development Assistant II • (2) Community Development Assistant I • Casual employees (designated to every project of the City ENRO)
Budyong Rural Development Foundation Inc.	• Staff has tertiary education and work experience related to forest management, environment science, natural science, community organizing and development, fishery and research
DA-Bureau of Fisheries and Aquatic Resources, Region 4B, Provincial Fishery Office	• A composite team with PCG in the conduct of seaborne patrol in the municipal waters • A composite team with DENR and PCSDS in the conduct of monitoring of mangrove conversion (into fishponds)
DENR-Provincial Environment and Natural Resources Office	• At the higher level, the Secretary is assisted by five Undersecretaries, seven Assistant Secretaries and other officers in the discharges of their functions • The Sectoral Bureaus are Forest Management Bureau, Land Management Bureau, Mines and Geo-Sciences Bureau, Environmental Management Bureau, Ecosystem Research and Development Bureau, Protected Areas and Wildlife Bureau. Three agencies are attached to the DENR. These are the National Mapping and Resource Information

Institution	Composition of staff
	Authority (NAMRIA), Natural Resources Development Corporation (NRDC) and the National Electrification Administration (NEA) • At the field level, the Regional Environment and Natural Resources office is headed by a Regional Executive Director and five Regional Technical Directors in each administrative region. Then at the field level, it is headed by the Provincial Environment and Natural Resources officer at the provincial level and the Community Environment and Natural Resources Officer at the Community level supported by different sectors and units

Table 6. Problems in relation to carrying out of functions.

Institution	Problems
Nagkakaisang mga Tribu ng Palawan, Inc.	• Fund limitations
DENR-CENRO	• Lack of funds • Lack of manpower • Lack of supplies, transportation etc.
Fundacion Santiago	• "Kanya-kanya" attitude of people in the community
Palawan Council for Sustainable Development Staff (PCSDS)	• Not clear appreciation/ understanding of other national government agencies and local government units on the true mandate of PCSD/PCSDS • Institutional arrangements, systems and procedures are not clearly define to every major players of SEP implementations especially on the field level
National Commission on Indigenous Peoples (NCIP)	• Lack of sufficient funds to finance the processing of CADT/ CALT applications
City Environment and Natural Resources Office	• Lack of budget • Lack of manpower • Political constraint
Budyong Rural Development Foundation Inc.	• Unresponsive barangay officials and community members • Delay in fund release
DA-Bureau of Fisheries and Aquatic Resources, Region 4B, Provincial Fishery Office	• Lack of technical manpower • Insufficient funds • Lax implementation of some municipal ordinance (e.g. protection of marine/aquatic resources)
DENR-Provincial Environment and Natural Resources Office	• Insufficient budget support in ENR activities, capacity building, equipments, vehicles and livelihood to People's Organization • Incentives and benefits of employees i.e. travel allowance, salary increase, etc. • Lack of Legal Officer assigned in the field to assist on legal matters

Table 7. Perceptions on overlapping of mandates or functions with other offices or institutions.

Institution	Perception		Other institutions that overlapped
	YES	NO	
Nagkakaisang mga Tribu ng Palawan, Inc.		1	• No answer
DENR-CENRO	1		• PCSD, LGU - City
Fundacion Santiago	1		• Private micro-lending enterprises
Palawan Council for Sustainable Development Staff (PCSDS)	1		• DENR and LGUs – only, on the understanding of implementations especially their staff
National Commission on Indigenous Peoples (NCIP)		1	
City Environment and Natural Resources Office	1		• DENR-CENRO
Budyong Rural Development Foundation Inc.	1		• Other NGOs who have the same mandates • DENR • PCSD
DA-Bureau of Fisheries and Aquatic Resources, Region 4B, Provincial Fishery Office		1	
DENR-Provincial Environment and Natural Resources Office	1		• Other environmental agencies i.e. PCSDS, ENRO or NGOs should focus on their mandate and functions so as to do away with duplication/overlapping of functions. Such ENR functions carried by these agencies/institutions should be harmonized and cleared by them starting from the community level

Table 8. Opportunities for an institution or organization to communicate, coordinate or cooperate with other organizations and institutions.

Institution	Presence of opportunities		Ways institution communicate, coordinate or cooperate with other institution
	Yes	No	
Nagkakaisang mga Tribu ng Palawan, Inc.	1		• Meetings, e-mail and telephone
DENR-CENRO	1		• Meetings, telephone (landline and cellular phones, and seminars
Fundacion Santiago	1		• By networking and linkaging
Palawan Council for Sustainable Development Staff (PCSDS)	1		• Periodic or constant dialogue with them • The true will of the management to clearly communicate
National Commission on Indigenous Peoples (NCIP)	1		• Meetings with other agencies whose projects will affect ancestral domain/land or IP rights.
City Environment and Natural Resources Office	1		• Meetings, conferences, workshops, etc.
Budyong Rural Development Foundation Inc.	1		• Coordinate and work with a joint project • Work with separate and distinct responsibilities in coordination with other agency to attain bigger objectives
DA-Bureau of Fisheries and Aquatic Resources, Region 4B, Provincial Fishery Office	1		• Constant coordination/linkage with LGUs through meetings and participation particularly in the issues on protection of our marine/aquatic resources
DENR-Provincial Environment and Natural Resources Office	1		• Meetings/dialogues • Trainings • Formation of Technical Working Group (TWG)

Table 9. Inter-sectoral coordination happening with a certain institution with other institutions or organizations.

Institution	Presence of intersectoral coordination		Ways where there is intersectoral coordination of an organization with other institutions or organizations
	Yes	No	
Nagkakaisang mga Tribu ng Palawan, Inc.	0	0	• No answer
DENR-CENRO	1		• Technical working group (TWG), Composite teams and partners
Fundacion Santiago	1		• Complementation of resources
Palawan Council for Sustainable Development Staff (PCSDS)	1		• There is intersectoral coordination but not very comprehensive. Roles are not yet defined in specific details
National Commission on Indigenous Peoples (NCIP)	1		• By asking them what can they share or provide to help the IPs especially in the processing of CADT/CALT applications
City Environment and Natural Resources Office	1		• Meetings, seminars, etc.
Budyong Rural Development Foundation Inc.	1		• During baseline survey and community health management and with other agency in a particular barangay
DA-Bureau of Fisheries and Aquatic Resources, Region 4B, Provincial Fishery Office	1		• Through meetings
DENR-Provincial Environment and Natural Resources Office	1		• Meetings • Formation of warm bodies/technical working group

Table 10. Initiation of collective actions and their purposes.

Institution	Initiator of collective action
Nagkakaisang mga Tribu ng Palawan, Inc.	• Board of Directors, General Assembly
DENRCENRO	• DENR being the leading agency for proper action or the TWG. It depends or case to case basis
Fundacion Santiago	• Both, meaning the foundation and the communities
Palawan Council for Sustainable Development Staff (PCSDS)	• PCSD Staff, local leaders
National Commission on Indigenous Peoples (NCIP)	• Staff concerned
City Environment and Natural Resources Office	• City ENR Officer
Budyong Rural Development Foundation Inc.	• The partners or project beneficiary are motivated to initiate collective actions
DA-Bureau of Fisheries and Aquatic Resources, Region 4B, Provincial Fishery Office	• It depends to the concerned topic and issues.
DENR-Provincial Environment and Natural Resources Office	• If the issues and concerns lies within DENR, this agency will be the one to convene or hold meeting/dialogue, however if there is a TWG, they are the one to address any issues related therein. In the community level, participatory process is adopted in resolving issues and concerns.

Table 11. Involvement of Indigenous Peoples (IPs) in decision making.

Intitution	Presence of involvement		
	Yes	No	Other
Nagkakaisang mga Tribu ng Palawan, Inc.	1		
DENR-CENRO	1		
Fundacion Santiago	1		
Palawan Council for Sustainable Development Staff (PCSDS)	-		
National Commission on Indigenous Peoples (NCIP)	-		
City Environment and Natural Resources Office	1		
Budyong Rural Development Foundation Inc.	1		
DA-Bureau of Fisheries and Aquatic Resources, Region 4B, Provincial Fishery Office			It depends on the type of meetings/dialogue being conducted
DENR-Provincial Environment and Natural Resources Office	1		

Appendix 6

Levelling the Playing Field: Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

MLA Trip Report

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MLA Survey in the Bataks of Palawan
16 February - 8 March 2005

Location: Palawan, Philippines
Institution involved: CIFOR and CIRAD (Levelling the Playing Field, LPF)
Highlights: Organize and implement a MLA survey in a Batak village to assess the local priorities in terms of biodiversity management and the local importance of the forest resources.
Trip objective: Organize and implement the study with local scientists in a valley that is a target area for LPF project.

The study aims to:

- Identify the different landscapes, according to local land use and perception
- Size plots to assess these landscapes (study of the landscape/forest typology)
- Conduct an ethnobotanical study of the resources during the plots
- Assess the community demography
- Conduct households questionnaires
- Conduct PDM exercises with the local community to assess the importance of landscape and resources

Schedule:
16/02: travel from Jakarta to Manila. Meet with project coordinator Ted.
17/02: travel to Puerto Princessa (Palawan). Meet with all team members.
18/02: travel to Kalakwasan, the Batak village.
19/02: first community meeting.
19/02 to 05/03: implementation of MLA activities in Kalakwasan.
06/03: travel back to Puerto Princessa.
07/03: travel back to Manila.
08/03: travel back to Jakarta.

Description of MLA activities: For trip diary, see annex.

1. General overview

The field study took only 17 days to be achieved. We conducted it as other MLA studies, with a team working in the village on socio-economics (demography, households survey, PDM, focus interviews) and with a field team assessing the different types of landscape (12 sample plots were sized) and the ethnobotany of each specimen of plant collected in the plots. We were lucky enough to work with a team of valuable scientists from Philippines (UPLB University, Palawan University, and City Government) who quickly understood the aims and the techniques of the MLA method, and who showed a great interest in applying the method.

The first few days in the village were a period of adaptation. Villagers had already bad experiences with outsiders and were suspicious with all outsiders' activities. We had to understand quickly the way the village was organised, with its "officials" (chieftain, counsellors, pastor) and its more traditional personalities (medicine-men,

midwife). Only a few families are staying permanently in the village compound. Most of the community is staying upstream along the Tanabag river, working at the gardens (swidden rice fields or mixed crops gardens), hunting (wild pigs, wild chicken, monkeys etc), or collecting NTFPs (honey, rattan, resin of *Agathis* sp., firewood, etc). Bataks are still strongly relying on NTFPs for cash earning, but also for their own consumption. It was always a difficulty to find enough Bataks available at the village for our different activities. But as we were able to build trust and mutual understanding, more villagers came to participate to our activities.

Another difficulty came from the fact that the Bataks of Kalakwasan village, but more generally Bataks of Palawan Island have mixed with other Negrito groups (Tagbanua), but also with lowlanders. The languages used are Bataks, Tagbanua, Tagalog, or even Cuyonon (another ethnic group of Palawan). It became difficult when we had to give local names to the different species, and for plant morphology.

But this field work helped us to better understand the Batak society, its perceptions and behaviours, and we collected many interesting information from our activities.

2. Interesting results

2.1. Village teams

Participatory mapping

The participatory mapping was conducted at the second day of our arrival using the official map from the Palawan Council for Sustainable Development (PCSD). At the beginning, the community refused to participate because the boundary of Bataks territory was different with what it should be according to their own perception. But we managed to clarify all and finally they accepted to participate. They gave information about their landscapes such as rivers, creeks, and the important forest products. They determined also 8 land types, namely: village (*Bario)*, Old village (*Jaringan)*, Garden (*Kalagian)*, Swidden field (*Uma)*, Young and old re-growth (*Lumun and Lumakad)*, River (*Sapa)*, Waterfall (*Parakpahan)*, and Natural forest (*Geba);* and 4 forest types, which includes: Natural forest (*Geba or Kagbaan)*, Mountain forest (*Aretet)*, Regrowth forest (*Lumakad*) and Agathis forest (*Mabagteken).*

People, Traditional rules and Regulations

There were 33 households with total population 136 people leaving in Kalakwasan village. During our stay, two official activities had been proposed by the local and provincial governments to the villagers. Since January 2005, the government of Puerto Princesa under the Department of Environment and Natural Resources (DENR) established an Agroforestry program by planting one hectare of fruit trees. The project provided seeds and gave incentive. Secondly, the National Government in Manila under the Department of Education Culture and Sports conducted an “informal education” since November 2004. This training program aims to teach the

villagers to read, to write, mathematics and values of everything (much related with environment).

Many traditional customs are maintained in the village, e.g.: old men still only wear G-String (under wear; made from the bark of the tree) and about half of the women are top less. The Bataks marry at young age and they still follow traditional way of solemnizing marriage.

Before clearing the land, when making swidden farming, growers first test if the "unseen people" bless them. They gather a shellfish, a clam and as many rice seeds as there are members in the family and bury all in the center of the future swidden. After three days they come back and if all the seeds are still here, they may proceed to the clearing. If some seeds are lacking it could be dangerous to still proceeding to the swidden.

The Bataks do not store their rice seeds in their house but in their previous swidden field to ensure good harvest during the next planting season. They build a small garden house for the storage, called "*raket*".

Every year in early March, the Batak celebrate the "*lambayan*" during 2 weeks to have good harvest of honey and rice.

The dead are buried in areas designated by the elders within 24 hours. Bereaved family must leave their house and construct a new one to avoid the ghost of the dead.

The Bataks also traditionally protect some place from disturbance or cutting , e.g.: riverbanks (*sapa*), places for cemetery (*kakaden),* sacred places in mountain areas (*riagrasan),* and waterfalls areas (*kamantaneen).*

Scoring exercise

According to local perception, forest (specially natural forest) is the most important land for the Bataks, because it provides many resources for their livelihood and also places for swidden farming. Women group value village as second most important land type for food category. According to them food is not coming from plants or animals in the village, but from the visitors: in one year, several visitors came and stayed for at least 2 weeks, and during their stay they provided food for the villagers. Their perception of the importance of forest resources is changing with the time. In the past, the most important category for Bataks was light construction. But on the present time and for the future, the heavy construction is becoming more important as they need stronger material to construct permanent houses. Villagers like also to buy tools from the district.

Wild plants (Agathis sp. and rattan) and wild animals (pigs and bees) are important for both man and women. Most of top ten plant species are coming from wild yam family, which is used as an important food. The most important animals species are: wild pig (*baboy),* flying squirrel (*byatat),* monkey (bakes), palawan peacock (*tandikan),* and fish (*seda).*

People collect Arecaceae (*rattan*), *Agathis sp.* (*resin*) and honey; and hunt wild pig (*baboy*) for cash earning.

2.2. Field team

The general landscape of Tanabag valley: it was not an easy task to identify the different landscape units that the Batak name and recognize around the Tanabag valley. Problems of language (see above) and concepts (what is primary, secondary etc) were the major difficulties. After a considerable number of cross-checking, we understood that in general, Bataks are making only two big distinctions about the forest types. One is natural forest, forest where no garden activity was ever conducted (or at least during the 50 last years), the other is regrowth. The first category includes all kind of natural forest, both primary and secondary. This information shows that only a specific part of the Batak territory is devoted to agriculture. The natural forest is protected by the community and is not considered as potential location for gardening activities. Therefore, on the left hand side of the valley (except for a spot of swidden rice field), natural forest is the major kind of landscape, with still remaining primary forest near the top of the mountains, even at a close distance from the village. On the contrary, on the right hand side of the valley grows a very disturbed vegetation, because of gardening, but also because of former logging activities. Going upstream from the village, both side of the Tanabag river are used for agriculture, until a precise point, Kalabayug creek, from where no more garden are cultivated. All forests, from this particular point, are natural and still used for collecting of NTFPs.

Ethnobotanical knowledge of the Bataks: during the activities in the 12 plots sized, we worked closely with Batak medicine-men, and once with a midwife. The general knowledge of every Batak on plant species is high, more specially concerning the trees. When it comes to non-tree species, the knowledge is not shared equally between all the members of the community. Non-trees species have in general an important value for medicine and magic. Only the medicine-men (Babalian) have a great knowledge about these plants. Babalian are shamans: they can communicate with the spirits to know the causes of a given sickness and to choose the adequate medicine that should be administrated. Most of the plants collected during the plot sizing had a medicinal value. The use of forest for collecting the medicinal plants is still great and the role of the Babalian within the Batak community is still important, even if villagers have more and more access to the district village (and even the small town of Puerto Princesa) and to “occidental medicine”. Unfortunately the number of Babalian is deeply decreasing, and according to our informants (as far as they know), only 3 Babalian remain in the overall Batak community.

3. Recommendations

In the frame of LPF project, special attention should be given to the Batak community. The Bataks, even if mostly illiterate, know very well what are the boundaries of their territory, what are the official boundaries of the CBFM (Community Based Forest Management) and of the CADC (Certificate for Ancestral Domain Claim), and they contest the actual official limits of their rights. Any project in this area should be made in close relation with the Batak community, and ask for

their active participation to any step of the project and discussions. The Bataks have ideas on how to protect their forests, even if they don't specially integrate the concept of "conservation". Local and national governments should be informed of this behaviour, and change their perception of the impact of local communities on natural environment. The greatest and most visible impact in Tanabag valley was the result of outsiders logging activities in the late 70s, not of the daily subsistence activities of 33 households!

Considering the interesting preliminary results on local perception and local priorities, more studies should be made in this area to get more precise data on Batak land/forest management and priorities.

Participation of local university staffs and civil servants was very valuable. Collaboration with local scientist should be emphasised in effort to build local capacity and links between local communities and government officials.

Next steps:

- Collect all reports from the Philippines team members.
- Data input.
- Report for LPF project.
- Discuss about possible outputs for results diffusion.

Annex: Daily activities of the Multidisciplinary Landscape Assessment in Kalakwasan, Palawan, Philippine, 16 February – 8 March 2005.

Date	**Activities**
Day 1 *16 February* *(Wed)*	Manuel Boissiere (MB) and Nining Liswanti (NL) departed at 09.40am from Jkt to Sin by SQ 153 then continued to fly to Manila by SQ 74. We arrived at 4.30pm and overnight at Traders Hotels.
Day 2 *17 February* *(Thu)*	Ted (the project coordinator) met us at the hotel around 6am then we travelled to Puerto Princesa City (PPC) by Philippine Airlines, arrived there at 9.30am. Susy (CIFOR staff) was waiting for us at the airport. We stayed at Badjau Hotel and at around 11am we had a meeting with all the team member, namely: Ted, Susy, Daniel G. Tejada (Project Evaluation Officer OCPDC, City Hall, Sta. Monica, PPC), Samuel (a Pastor and contact person at Kalakwasan village), Beth (senior botanist from the Palawan University), MB and NL. We discussed mostly about the technical matter and field preparation (checking all equipment for the field trip). Ted explained that we still have problem with the botanist. Lita (the botanist who was supposed to join us today) was not able to come due to the bureaucratic difficulties from her institution. Beth who has an authority for collecting specimens from the Palawan Council and Sustainable Development (PCSD) was not able to join the whole survey due to her schedule in the University. She suggested to hire another botanist (Reymar R. Castillo, botanist from the UPLB). Beth will only join us three days a week (Friday-Sunday) and Rey will join us for the whole survey.
Day 3 *18 February* *(Fri)*	We travelled to the District village of Tanabag at 8.30am and arrived 10.30am. Then we went to see Capitan Abre (the head of Barangay Tanabag). Ted explained our purpose to visit Batak people at Kalakwasan village and Cap. Abre accepted to support our activities. At 11.45 we visited the military of Tanabag to get permission and support on security matter. We departed to Kalakwasan at 3pm from Samuel's house and arrived at 16.45pm. Every night we decided to have a regular meeting to evaluate our daily activities with input and suggestion from every member of the team. Tonight we discussed on the implementation of the methods and planning for community meeting.

Day 4 *19 February* *(Sat)*	We conducted a community meeting, which was attended by 27 adult people. Although their local language is Batak, most of the villagers were able to understand Tagalog. Samuel introduced the entire team member to them, and Dan explained more in detail our work plan. Lastly, MB explained the general purpose of our visit. This village has 5 counsellors and each counsellor is responsible for at least five families, although some of the villagers leave across the village (along the Tanabag river); but they come to the village almost daily. At around 3pm we continued to have a community meeting to work on land and forest types (with 8 adult and 15 young). All information on resource product and land types was collected with the help of local informants. The local people indicated 18 different land types but some of them can be classified as one single land type, therefore at the end we had 8 land types and 4 forest types. Many forest products (plants and animals) are collected by the local people, but the most important forest products are *almaciga* (resin from *Agathis* sp. and species of rattan).
Day 5 *20 February* *(Sun)*	The field team started to establish Plot 1 (Secondary Forest) around 2km from the village. While the village team was preparing the basic map for the participatory mapping and was conducting the community mapping at around 2.30pm. But when the Bataks saw the official map from PCSD, they complained about the boundaries of their Ancestral Domain Claims (ADC). Previously, an Italian (Dario Novellino) did a survey of the Batak territory and made some anthropological studies in Kalakwasan. A basic map was produced of the natural resources, including the boundaries of the Batak area. To avoid conflict with local people, we didn't include the Ancestral Domain Claims boundary, the map was only focused on resources according to local perception.
Day 6 *21 February* *(Mon)*	Beth left the village early in the morning as she had class at 7am in PP. Around 6.30-8.30am, a group of military from Tanabag (11 people) visited us to check if there was any problem during our survey in this village. They just left us after the breakfast (around 8.30am). Today the field team was able to finish Plot 1. Rey had difficulties for the tree measurements in the field (no local informant can help him because they cannot read the tape measurement). The field team decided to size Plot 2 in a cultivated areas. MB suggested to leave everyday at 7am to avoid bad weather and to finish the plot earlier. MB also noted that the first plot was very interesting especially for ethnobotany because most of the plants (trees and herbs) have uses for local people. Meanwhile, the village team were only able to work on the community mapping and household survey with women group, because most of the men worked in the upland area (clearing grasses) as they already committed to the Department of Environment and Natural Resources (DENR). After that, during afternoon time, we continued to do scoring exercises with the women group.

Day 7 *22 February* *(Tue)*	The field team left at 7am to work on Plot 2 (cultivated area), while the village team still had difficulties to work with the men group (due to the ceremony of the death of one villager); so we did scoring exercises (PDM 7) only with the women group. But in the afternoon, Dan was able to work with some informants (from the men's group) and started the PDM 6 (land and forest type), then continued with the mapping. During the group meeting at night, Rey required an assistant to help him in the field and was approved by MB. Around 10pm we had meeting with the chieftain (Perfecto Salvador), counsellors and the medicine man (Padao). The main point of the meeting was to explain to the chieftain the purpose of our visit in this village, because the chieftain was not here when we arrived.
Day 8 *23 February* *(Wed)*	The field team completed the Plot 2. This plot was used to grow cassava previously. They sized the Plot 3 (Secondary forest). This is also a special plot because of its high value in term of medicinal plants. In 1998, this place has been used by all the Batak community to celebrate the '*lambayan*' festival. This plot was dominated by Zingiberaceae, Fabaceae (herbs), and only few trees (mostly Euphorbiaceae). The village team finished the PDM 7, forest past-present-future, both for men and women group. Also completed some questionnaires (household survey, demography, and history of the village).
Day 9 *24 February* *(Thu)*	The village team started with the PDM species (men's group). Some interesting results coming from this exercise, e.g. they never use animal for medicine, and most of the medicines are used only for general illness (cold, caught, asthma etc.), but until now they are still strongly relying on medicinal plants. During the scoring exercise, the former traditional leader came from the PPC after attending the tribal conferences of Palawan in PPC (22-23 Feb). The purpose of these conferences was to discuss about the territory between the different tribes, but during the meeting many problems came from this topic. Rey's assistant (Alan) is coming in the afternoon and after lunch he join the field team. Today the field team completed the Plot 4 (Old fallow) and finished the Plot 5 (Secondary forest).
Day 10 *25 February* *(Fri)*	The field team was able to complete the Plot 6 (old rice field) and the Plot 7 (Garden, near the village). In the Plot 7 they found *Amorphophallus sp*. Meanwhile the village team completed the PDM species both for men and women group, and we started to collect the specimen of PDM species in the field.
Day 11 *26 February* *(Sat)*	The field team finishes with the Plot 8 (Agroforestry). This plot was dominated by fruit trees species (mango, jackfruit, etc.). The place was located on the crest of a mountain. From the PDM specimens, the field team was able to collect 37 important species for local people. Today, Dan is visiting 'Tolang Batu' (Bataks people who leave along the river). He interviewed most of the villagers here (household survey and demography). In the village, Susy completed the PDM species for women group.

Day 12 *27 February* *(Sun)*	Beth helped in collecting the PDM specimens in the village area and surrounding. Rey was working on transferring the GPS into the map and helped in drawing symbols for the participatory mapping. MB, Alan and local informant tried to get the GPS position from the Kalakwasan village up to Kawati River to have the right location of all creeks and rivers. While Dan, Susy and NL (with help of Samuel) were trying to complete the questioner and data sheet, as today most of the villagers were stayed in the village. Some villagers went to the church.
Day 13 *28 February* *(Mon)*	Beth went back to PPC for her classes. At around 7.30am the field team went to a regrowth forest near the village for Plot 9 and was accompanied by the medicine woman (midwife). The village team started the PDM exercises with the second group of men and women. Today, most of our informants came from outside Kalakwasan.
Day 14 *1 March (Tue)*	The village team worked on PDM species (men and women group) and interviewed some key informants on the history of the village and household survey. The field team continued to work on Plot 9 and finished it at around 4pm.
Day 15 *2 March* *(Wed)*	The field team started with Plot 10 in the primary forest with a lot of rattans, located at the upper Balingasag and Supil area (steep slope with large liana climbing, bamboo and vines). In the village, Susy and Dan still continued to work on PDM species (men and women group). They completed the exercise late in the afternoon.
Day 16 *3 March* *(Thu)*	The field team worked on Plot 11 still on the primary forest (some *Agathis* sp can be found in this forest) at the upper portion of the mountain right side of the Tanabag river. This place has been used for local people to collect '*almaciga*' (resin from *Agathis*). The village team continued the scoring exercises on resource product (both men and women). All the PDM exercises were almost completed for both men and women group. After that we continued to finalize the questionnaires and the remaining data sheet.
Day 17 *4 March (Fri)*	The participatory map was almost ready. Some information was added by some villagers regarding their resources. We also collected the important species for local people. Only few species are difficult to find because they are located in the mountain area. As all village activities were almost finished, we continued to work on data checking.

Day 18 *5 March (Sat)*	Today was the last day we stayed in this village. The field team worked on the last plot (Plot 12) in a young the regrowth, near the village. Alan was not joining the field team; he helped the village team in finishing the map. The village team (Dan) still interviewed some key informants and completed the data sheet and questionnaires. In the afternoon, Beth with other villagers cooked for the farewell party of tonight. We prepared food for the villagers. Meanwhile, MB and NL were busy with data checking of all results from the field and village team. All the villagers began to arrive in the village at 4pm. Some of them played basketball and some of them are just gathered and help Beth with cooking. We started the party around 7pm.
Day 19 *6 March (Sun)*	The entire team member was busy with packing, as we planed to return to Tanabag after breakfast. MB led the team member to clean all the rubbish. Some of team member left at around 8.30am and the remaining left later. We arrived at Tanabag at 10.00am and we went to the Barangay Kapitan to thank him for his hospitality and his help. We also visited the military Tanabag to report that our activity was finished and we returned to PPC. The entire team members including cookers had lunch together in PPC. At night, the scientific staffs from our team met at the Floris hotel to get the copy of field data and to bring the final map.
Day 20 *7 march* *(Mon)*	MB and NL are departing to Manila and we met Ted at the airport at around 12.30pm. After having lunch together, we had a meeting at the Traders hotel to discuss our results. Ted returned to Los Baños once the meeting was achieved.
Day 21 *8 March (Tue)*	MB and NL return to Jakarta.

List of the team members in Palawan, Puerto Princesa City:

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Appendix 7

Levelling the Playing Field:
Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

DRAFT

Report of Market Study

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Market Chain Study of Selected Commodities in Palawan

Introduction

People who live close to the forest are often the poorest in spite of the riches of the natural resources in their surroundings. Leveling the Playing Field (LPF) Project intends to promote fair benefit sharing among relevant stakeholders, particularly the local people, from renewable resource management. The final goal of the project is to help people in improving their livelihood while maintaining long-term perspectives in managing the resources. In addition, the project will provide accurate and relevant information to stakeholders so that they can make good decisions regarding their environment.

Market is an important element in management of renewable resources. Reality shows, however, that local people usually have a weak bargaining power even when conducive policies to support them exist. The project tries to help local people through several ways. One way is by providing local communities with access to information about the market. By having the overview about the market, its structure, etc., it is expected that local people could strengthen their bargaining power through improved marketing strategies. Other ways include helping local communities to be more efficient in achieving their own goals, and to add value to their product. Against this backdrop, the LPF Project conducts this market study in its Philippine site in Palawan.

Objectives

The general objective of this study is to determine the market intervention measures that will improve the living condition of the project site beneficiaries. Specifically, the study has the following objectives:

1. To gather baseline information on the study sites;
2. To conduct a market exploratory survey to determine the marketable products in the study sites;
3. To describe the marketing chain for the identified agricultural products;
4. To assess the market potential of the identified agricultural products using primary and secondary data; and
5. To recommend an agenda for action for improving the beneficiaries' living condition via market intervention measures.

Methodology

Study Area

The study area covered the LPF project site in three barangays in Puerto Princesa City, namely: San Rafael, Tanabag and Concepcion. The locations of the villages represent the upland, lowland and coastal ecological settings. The site also includes the 5000-hectare community based forest management area in the three villages. Other areas included in the study are the DA-ATI Seaweeds Pilot Project in Narra, Palawan, Puerto Princesa City poblacion, and the market outlets in Manila.

Data Collection

Primary and secondary data were used in the study. Primary data were used in the first phase of the study while secondary data were utilized in the second phase.

Phase 1 covered the exploratory appraisal of marketable products in the identified three barangays. The exploratory survey was conducted from October 17-28, 2004 on the products currently produced in the area. Information gathered focused on the local conditions of production such as harvest, labor, prices and trade systems in the marketing chain. Likewise, traders engaged in the marketing of the selected products were interviewed for this study.

Selection of the products was based on the information collected from personal interviews and observation of the respondents in the marketing chain. The following criteria were used to determine the products for further study:

- Importance as a source of income for the local people
- Demand (local, national or international market)
- Impact on environment
- Sustainability and volume
- Access and conditions of the market chain

Once the marketable products were identified, a review of literature was conducted to support the initial findings of Phase 1. The data for Phase 2 were obtained from published and unpublished reports from various private and government institutions (Bureau of Agricultural Statistics, PCAMRD, ERDB, PCARRD, Bureau of Foreign Trade and Export Promotions, Department of Agriculture, UPLB, University of Asia and the Pacific, etc.) and through the Internet. The data were analyzed and summarized to obtain the objectives of the study, i.e. to have an exhaustive review of literature for the identified agricultural products. Initially the study included cashew and seaweeds only but almaciga was later on added. There was reluctance to include almaciga given the dearth of literature on the product. Thus any output on almaciga are the only available literature on the subject.

Phase 2 analyzed the potential of the industry. It examined the uses of the products, the demand and supply situation, the products' marketing system, value chain analysis, the institutions, and the problems and prospects of the industry. The total available supply covers local production and importation while the domestic demand

for the commodity (per capita consumption, processing, seeds, etc) and foreign demand (via exportation) comprises the demand for the commodity. Through the industry analysis, the prospect of the industry in the market could be ascertained.

Results of the Study

Phase 1 - Exploration Study: Palawan Experience

There is no standard definition of market chain study. This is how the research team understood it. It is an appraisal about what is happening in a trade network observing the stakeholders at each level and see how they interact.

The study also looked at the structure and flows. The flows cover not only the exchange of goods but also the exchange of information. The first intervention is providing information to stakeholders who usually do not have access to it. Then capacitating tools for dealing or stronger bargaining position were given to the stakeholders. LPF does not wish to negotiate products on behalf of communities (some can misunderstand) but coach them (until they would not need the research team anymore).

The first phase of the study conducted an 'exploratory' appraisal of 'marketable' products available in the three barangays (San Rafael, Concepcion and Tanabag) of Puerto Princesa City. This study was used at the same time as a 'training tool' to transfer this "alternative" market study methodology to Ms. Devanadera.

An examination of the local conditions for production (harvest, labor, prices and trade systems was done for products found in the study area. In short, which product had the best market development potential for the local people? None of the products fulfills ideal conditions in the "real world". This is why the research team had to consider the strength/weakness balance and whether 'simple' interventions can be proposed or not.

The case of almaciga was not 'optimal' but more information should be collected before deciding to include it. Almaciga is too important for some poor people who do not have many choices.

The physico-ecological characteristic of the sites also supported the selection of commodities. Villages' lands cover a range of ecological floors from highland forest to seashore. Each of the products comes from one specific zone: almaciga from highland forest, cashew from agricultural lands and seaweed from the sea.

A. Choice of Cashew, Seaweeds and Almaciga

The following criteria were used for the choice /selection of products for this study: importance as a source of income for local people, demand (local, national or international market), impact on environment, sustainability and volume, accessibility

and conditions of the market chain. The selection of the products was based on the information from interviews, observation and according to the set of criteria mentioned above. The 'outcome form" was used as a helping tool for final selection.

Thus seaweed was selected because it is a 'must', according to producers, government, and traders. On the other hand, rattan, looked as 'problematic" as expected. So it was postponed for later survey to be able to focus first on the most 'promising' products and use them as an engine to pull up the others. Cashew was chosen next and one 'pending' (almaciga). Cashew, seaweeds and almaciga were found to be the source of livelihood of the people in the study area.

Profiles for potential products: cashew, seaweeds and almaciga follows. Other products like honey, beeswax, bark cloth and charcoal were found to be among the livelihood source of the people in the sites.

B. Profiles of Potential Products for the Study

1. Cashew

" Savings for school days"

Cashew nut is a product that has important demand for national and international markets. In Palawan, the cashew industry (planting, drying, processing and selling) has been a practice for at least fifty years.

There are several varieties. According to a regional trader, local varieties are smaller but contain more seed. Introduced varieties like Mitra are much bigger and there is increasing demand for them.

Antipolo cashew, mostly coming from Palawan is a main market competitor for the Palawan cashew at the national level. However, there is still enough room for different varieties and better quality nuts.

About 85% of the Cashew nut produced North of Palawan in the municipalities of El Nido, Taytay, Liminangcong and Roxas are sold in Puerto Princesa City and shipped to Manila by boat.

Cashew nuts from all over Palawan are shipped to Manila and sold, processed and repacked in Makati, Novaliches, Valenzuela, Antipolo and other provinces Pampanga and Laguna.

According to AMEX Trading Corporation world trade of Cashew nut amount to 486,670mt and the Philippine share is only about 7,200mt. or 1.4% of the world trade for this product.

In Puerto Princesa, a trader-respondent reported buying standard raw cashew (with shell) from P15 to 20/kg during peak season and P20 to 25 in lean season or when

supply is low. She sells standard quality cashew nut (without shell) at P170/kg (raw) and 220/kg (roasted). She also makes cashew snacks for local and visiting costumers

Prices in the village level vary from P15 during lean season to P10 during peak season (April, May).

This is why farmers try to store it until lean the season (December- February). But usually they have to sell the product in October to pay the children's school fees. So cashew became a traditional saving system for school expenses over the years. This social function is one of the reasons for the selection of cashew for the market study.

According to Barangay San Rafael's Kapitan, most households get some income from cashew. But some inhabitants have hundred trees when others have few. In Concepcion and Tanabag several farmers also own cashew trees.

Each tree can produce between 10 and 40 kilos a year. Small-scale cashew cultivation does not need big care and maintenance expenses but requires some capital for starting.

Actually, we suspect (but could not yet check our hypothesis) that some cashew farmers are a bit richer than almaciga gatherers or fishermen. According to the Socio Economic Survey (SES) conducted by the LPF project, most agricultural lands belong to big landowners while the rest own small size lands. This confirms Kapitan's comment about big differences among cashew growers.

Case Study 1: "Nay Beating" Beatris Dacles

"It's really a savings system for school days"

Nay Beating, a cashew farmer and entrepreneur by birth has been into cashew business for 10 years. She and her husband own 100 trees of cashew trees which are bearing fruit when they bought the lot 2 years ago. Harvest is every 2 days or every week from the cashew trees.

"Each tree can produce between ten and forty kilos a year", according to Nay Beating. She added that the Mitra variety has big sized nuts but have less fruits, unlike the native cashew which has smaller nuts but plenty of fruits. She also said that small-scale cashew cultivation does not need big care and maintenance expenses but requires some capital for starting.

According to her, supply is not a problem. It is more difficult to get enough capital for buying the product from the farmers. She started in the business with 20 sacks (20 x 50kg) but was later able to meet bigger orders (5 tons) until recently. She needs P60,000 to buy cashew during the peak season (April to May) and keeps it for at least 6 months to last her until the lean season (when supply is low) to finally sell at a good price.

"However, even if the price is too low during the peak seasons, there are times, we are forced to sell the nuts just to send our children to school. It is really "savings for school", according to Nay Beating.

She used to buy raw cashew nuts with the shell at P30 for *1 salop* (2 kilos). She pays the women P50 for opening one *balde* (12 kg) of cashew and with one *balde* you get 3 kilos of clean nuts. Usually it takes (one person) one day and half to open one *balde* of cashew nuts. If husband and wife, in the case of Nay Beating, 2 persons will take 1 day/*balde*. Thirteen kilos (13) kilos of cashew nuts after removing the shell become 3 kilos of cashew kernel. At least 9 kilos or the cashew nut shell is wasted if no longer used or processed.

If she has enough capital, (from her sari sari store and transport (jeepney) business, she buys cashew from the barangay and sells to local traders in the *poblacion* or market of Puerto Princesa City, Fig 1). In May 2004, she sold 2 tons of dried nuts to cashew trader in the market place at Puerto Princesa.

However, she makes sure she reserves dried cashew for processing. She has stocked 20 sacks of dried cashew nuts this harvest season, which she will be cooking from time to time and sell till next cashew season.

She sells fried split nuts in their area and delivers to the *poblacion* of Puerto Princesa which gives her 3 times the profit she gets from selling dried nuts. The price of dried nuts is P20 /kilo but if she sells it fried, she sells at P 170 during the peak season and P250-300/kilo during lean months.

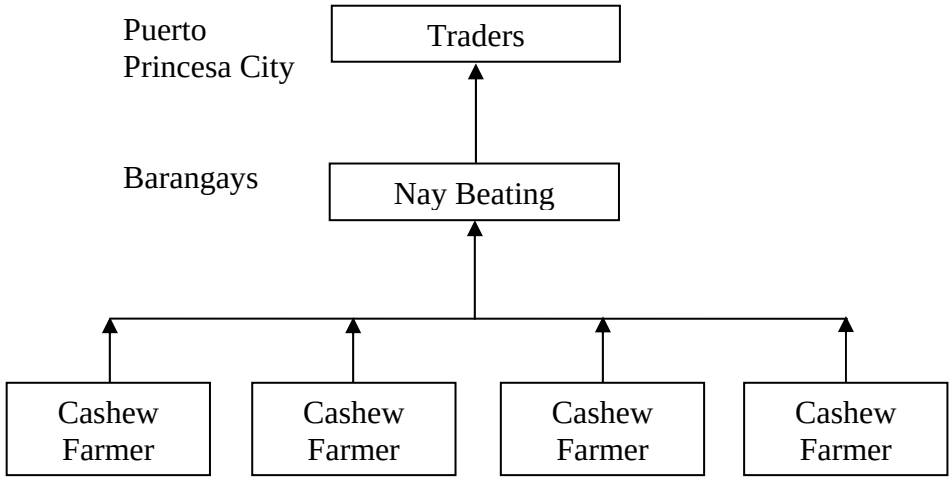


Figure 1. Cashew trading, Brgy Concepcion, Puerto Princesa City, Palawan, Philippines, 2005.

In the near future, she hopes to get bigger income if she can sell roasted whole nuts. But at the moment she has to make do with the split nut sheller, as she has to practice and master her whole nut sheller. With this sheller she intends to improve the quality of her cashew product.

From Nay Beating's experience, sales of fried split cashew nuts gave her bigger profit than selling unprocessed nut. She also knows that if she can master the tool that could give her whole nuts her profit from selling roasted whole nuts will triple. All she needs every peak season is the additional capital to buy more cashew seeds to expand her cashew business.

Case Study 2: Maileen Millares

Maileen is a local cashew trader in the market of Puerto Princesa City who had been in the business for 9 years. She took over the business from her parents who were in the cashew trading for 30 years. She has been selling cashew seeds and processed cashew nuts.

Just like Nay Beating, many cashew farmers and processors bring their produce to her and market is not a problem. Local and national (outside) traders had been approaching her asking for hundreds of tons of dried cashew for sale to the export market.

She gets her supply from barangays of North Palawan: Roxas,Dumaran, Taytay and El Nido (Fig 2). She either sells dried cashew nuts or processed: roasted, fried, and brittle in the market of Puerto Princesa City. She has buyers from Manila, Antipolo, Pampanga and Cebu. Her buyers from Pampanga usually deliver to Bulacan for cakes, ice cream, candies etc.

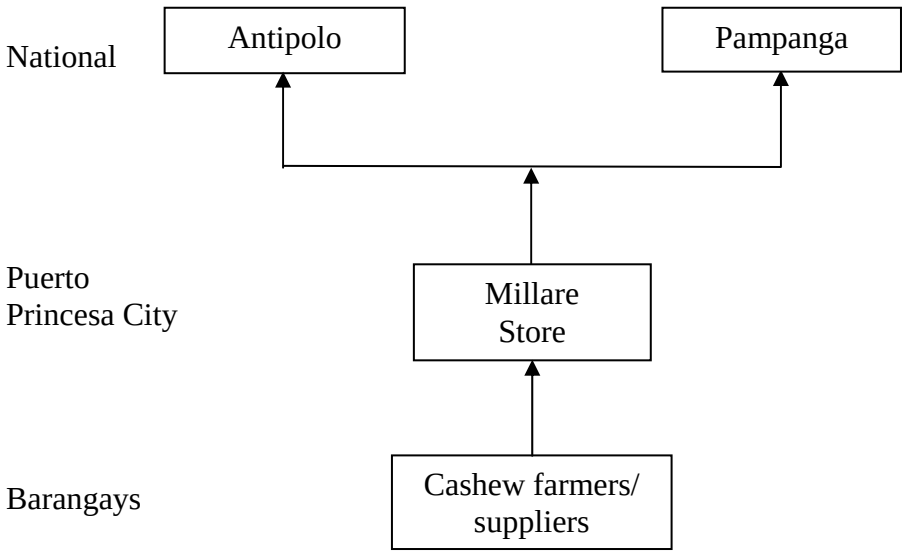


Figure 2. Market distribution of cashew from Barangay to national level, 2005.

According to Maileen, during the peak season (April to May) she sells 10 sacks/week and during the lean season (July-December until January) she sells 20 sacks/week at P200-300/kilo. She confirmed Nay Beatings's statement that cashew is "really a

savings for school". In the month of June, though prices are not high, the need for tuition forces them to sell their harvest.

From June to December, the nuts are sun dried, cleaned or dirt is removed. After removing the shell from the nuts, usually, 4 kilos of cashew seeds can produce 1 kilo kernel of cashew.

She has someone to process the nuts for her and sell them roasted whole at P220/kilo and half or split nuts at P170/kilo (lean months).

Both traders agree that exporters offer higher prices just to get the cashew nuts from the local farmers or traders but as Nay Beating experienced, there is more income or profit for them if they sell processed or fried nuts. However, there are not very many markets for processed nuts compared to plain dried nuts.

Actually, we suspect (but couldn't yet check our hypothesis) that some cashew farmers are a bit richer than almaciga gatherers or fishermen. According to SES, most agricultural lands belong to big land-owners while the rest get small size lands. This confirms Kapitan Kading's (Barangay Captain of San Rafael who owns 100 cashew trees) comment about big differences among cashew growers.

This is an opportunity for LPF to try to level the playing field among the cashew farmers and make them work together.

Based on the study's interview and these case studies, cashew is chosen as a potential product:

Positive Points
- Demand from national and international markets
- Experience in cashew plantation has been practiced for more than 50 years
- Sustainable and does not need fertilizers
- Provides seasonal jobs and income
- Acts as a savings account for school expenses

Negative points
- Not yet accessible for those who do not have lands
- Competition from other region
- Not very performing processing techniques

Prices
At village level 10 –15 pesos per kilo for raw cashew with shell

But the following questions remain
- How to level the playing field among cashew growers?
- How to deal with conservation of local varieties and demand for introduced varieties?

2. Seaweeds

"The only crop that needs to be cradled like a baby is seaweeds"
(Visayan proverb)

Seaweeds is booming all over Palawan. International market (especially China) is huge and in constant growth. Seaweed is a raw material for many industries such as food, cosmetic and pharmacy. Its potential use in new products is increasing too.

According to the Fishery Department, Palawan has suitable condition for seaweeds production. This is also the opinion of the private sector. Three companies based in other islands in the Philippines have opened regional offices or buying centers in Puerto Princesa. They consider there is still enough room for development. The Manager of Ocean Aquamarine in Manila even called for more investment in Palawan.

In Palawan, people mostly plant *Eucheuma* and especially *E. espinusum* which is still usually known among traders by its former name of *E. cotonii.* Other trade name is *agar-agar*. The buying price in Puerto Princesa for one kilo of dried seaweeds is from 36 to 38 pesos. Seven kilos of fresh seaweed make one kilo of dry product.

Local government also sees seaweed as a new source of employment, especially as an alternative option to fishery sector crisis. In fact, fish stocks have decreased dramatically and most fishermen cannot leave on it any more, unless using destructive and forbidden methods, like dynamite and cyanide.

According to the LPF SES, local fishermen put the blame on outsiders that use big boats and illegal methods. The Fishing department says that it is true that many outsiders come illegally to fish and the government does not have enough means to enforce the law.

The seaweeds industry could be a good solution to solve part of the problem. It gives some income to fishermen and, at the same time, has an 'accidental conservation' effect. As Yvette Lee, (vice president of Seaweeds Corporation in Manila) explains: '*If fishermen are involved in seaweeds, they will not use destructive fishing methods which could affect their plants. They will also be more active in fighting against those who still use them*".

The choice of seaweeds is based on the following points or criteria:

Positive Points
- Huge international demand
- Strong support from government institutions and NGOs
- Alternative to fishing crisis
- Accidental conservation effect
- Easy access to market with standard prices

Negative points
- Need of starting capital

- New activity in the region with little records from the past
- Lack of technical experience in the sites
- Dependence on an ecosystem (sea) very sensitive to changes (pollution)

Questions
- How to reduce risks from natural and human origin?
- Can fishermen take care of the seaweed without giving up other activities?

Opinion
Potential but needs careful monitoring

3. Almaciga

***"We are not active anymore, we just buy and sell…"* (Almaciga trader)**

Almaciga resin, known commercially as copal Manila, is a major non- timber forest Product (NTFP) from Palawan. It comes from the natural forest of Agathis Philippinensis, which grow in the highlands. According to SES, households get some income from almaciga. People from the community say that many families are into almaciga gathering. Kapitan Cading estimates them to be at least 50 families in San Rafael.

In San Rafael, Tanabag and Concepcion, tappers are both indigenous people (IPs) and migrants. Local communities have free access to the resource although there is the policy now coming from the PCSD regulating the permit to the IPs alone. It is an activity people can practice any time because unlike other NTFPs there is no seasonal cycle.

Tappers get credit on "*consumo*" or goods in local sari-sari stores (groceries) and pay back with almaciga resins. Often, traders give cash advance to harvesters who pay back with forest products or almaciga. This system is called "utang na loob" or "debt of gratitude". In many places in Palawan, in the municipality of Narra, almaciga tappers work in a team, under a "*kapatas"* leadership or foreman. (Lacuna 2004b and traders), The kapatas often gives to tappers cash advance for expenses. He gets a percent on each kilo. The *kapatases* are the middlemen, working for the concession owner/trader.

Nowadays the concessions or almaciga permits are granted only to Indigenous People (Palawan Council for Sustainable Development Resolution No 04-233), thus most of traders' permits are not renewed, according to the traders. This new policy tries to discourage almaciga gathering in CORE zones which is supposed to be "No touch" or "no activity" area, as a policy of PCSD. However, favor or the privilege is given to the IPs who have been living on almaciga and honey gathering since time immemorial.

In reality, the policy does not have the expected effect. IPs do not have the skills and financial capability to get into almaciga trade. They do not even have the capital they would need, to pay the tappers.

So they still depend on their traditional buyers for accessing market and paying harvesters. Though the IPs are granted the permit, the real boss is still the trader, they facilitate the processing of the permits and they use it to transport and market the almaciga of the IPs.

This leads to a confusing and conflicting situation with negative effect on the stakeholders and the resources; local tappers are still poor, indigenous people cannot make people respect their rights, traditional management systems (about tapping) are not followed anymore (almaciga stealing, unsustainable tapping methods), and traders have the choice between stopping and operating without permits.

Confusing situation also affects the market: companies cannot secure regular supply from clear origin and quality is affected.

At the village level, there are three classes or grade of almaciga resin: *tipak* (block) is the best quality. Resin comes in big blocks of glassy yellow color. The 2nd grade is called "white' and the color is clearer. The 3rd class is "assorted". It consists of pieces of different sizes and color. Prices for *tipak* are from 8 to 11 pesos/kg. For "white", price is 8 pesos/kg. Lower quality ('assorted') is between 6 to 8 pesos/kilo. According to informants, prices depend on the buyers. Some give better price than competitors.

In Puerto Princesa City, the classification is in terms of three qualities and named as A, B, C or 1, 2. 3. The researchers however are not absolutely sure that the different names are synonymous. Maybe it indicates some sorting operation previous to transport to Manila or Cebu. The following prices are followed: 14ps/kg for *tipak*, 10ps/kg for white and 9ps/kg for 'assorted".

In Manila, the traders clean and sort the resin. In the warehouse, about 12 women were cleaning almaciga. They were cutting off bark and sticky parts. These wastes are sent to incense factories in Cebu.

In the international market, there are six qualities for Copal Manila from Palawan (Only one is presently available. Gross price for 1st quality is US$ 980/m3 (1000 kg FOB).

No calculations could be done because more details on costs are needed. Likewise, comparison of quality/price at village level with Manila quality could not be done because of the processes in between (unless the full detail about sorting and costs could be obtained).

Considering the general situation, almaciga does not appear as a product with optimal market or development potential. However, it should not be dropped from the study, because it is vital for poor families who do not have alternative sources of income.

Almaciga profile based on the criteria/outcome forms:

Positive Points
- Source of income and "safety net' for the poorest
- Strong cultural value
- Demand for national market
- Provides jobs down stream (workshops, factories)
- No need of capital

Negative points
- No added value product at local level
- Archaic and not transparent market chain
- Misfunction or misuse of policies
- Conflicts

Prices
At village level: *tipak*: fetches 8 to 11 pesos. At regional level 14 pesos

Questions
- Is it sustainable? (yes and no)
- What are the trends in the international market?

Almaciga is a complicated case but a real challenge for LPF because it is still a vital income for the poorest but the situation is problematic. There is a need to document well all the studies and projects and learn from their experiences. Many researchers, institutions and NGOs have already worked on different aspects concerning almaciga but literature is not comprehensive.

As far as almaciga is concerned, market study should be done but it is not a priority. A systematic review of all literature available on almaciga both from the internet and printed files could be done in future studies.

4. Honey

Honey is an important cash income for many Indigenous People, especially for the Bataks. According to San Rafael's *Kapitan*, about 80 families still collect honey during the season. They sell it to several buyers in Puerto Princesa. Based on the Socio Economic Survey, honey is one of the major products, accessible to local communities. Palawan honey is famous for its taste and medicinal qualities. It is one of most popular souvenirs or *pasalubongs* that national tourists in Palawan bring home.

Honey from *Apis dorsata*, giant bee, is collected from the wild with traditional tools. It contains high moisture and many impurities. This is why it ferments very soon and loses quality. This is a major problem for marketing the product. NATRIPAL has been working on it for a long time. They introduced solar dryers and proposed to harvesters, cleaner harvesting and storing methods. But now they face another

problem: supply volume. Many IPs do not want to use new methods, which reduces the volume, even if they get better price for better quality honey. NATRIPAL is a bit confused about the IPs predilection. They could get the raw material from harvesters and process it. But in this case, they have to give cash advance to IPs, like in the 'colonial system', and miss part of their development goal. Anyway, they cannot afford it. Right now, NATRIPAL has the buyer, the technology for quality but cannot meet supply targets because of the IPs reluctance to adopt change in their harvesting and postharvest practices.

Recommendations:
It is recommended that small joint actions be undertaken with NATRIPAL:

- Try to present in San Rafael-Tanabag and Concepcion their method with participative approach. This can help NATRIPAL to understand what is the problem in this technology transfer. It is also an opportunity for local communities (if they like) to try new method and maybe supply NATRIPAL too.
- Look together for new markets for both honey and beeswax. In Concepcion, locals do not collect bee wax because they do not have market contact. NATRIPAL gets bee wax and can process it but does not have many buyers. The project can help them to find or to learn how to find new opportunities. There is a new potential buyer for beeswax. They could use this opportunity as a practical exercise.

5. Beeswax

In the barangays, a lot of beeswax can be found but are not being sold. The IPs have been earning from honey but leave the honeycomb behind. Though there is a market is for the product, they have not explored the business.

On the other hand, NATRIPAL buys the honeycomb to press honey using a very slow but clean technology (half beeswax=2.3 gallons; 1gallon=5 liters of honey)

At present, UPLB is buying the beeswax from NATRIPAL but if the quality can be improved according to Marina, a higher price can be paid.

Beeswax harvest during harvest season is150 kilos. Last year NATRIPAL harvested 100 kilos.

Recommendations:

- The upper layer that is yellow – commands a better price if the technology to separate this from the layer with impurities can be done (Maybe using filter)
- To improve the quality of beeswax, the gray part should be reduced/get the yellow portion. Grey part impurities=filter
- Must also find out how much proportion goes to waste waste? How much % impurities?
- Must weigh to get how much honey=wax
- How much volume can be produced?
- Minimum-maximum volume/year of yellow portion

- What is the price? FOB Manila price P250/kilo transport to Manila shouldered by the buyer

6. Charcoal

This product was included in the list of products that the researchers wanted to assess because of its importance for the local market. Now a ban was declared on this production because of its environmental impact. So it was decided not to work on it since it is not a "potential product to develop", given the present situation. However, it was observed that production is still on for very practical reasons: charcoal is still the cheapest domestic fuel. The Socio Economic Survey revealed that 41% of households in the project site use charcoal for cooking. Local authorities (some checkpoints along the road) tolerate local selling and allow 10 sacks per trip to Puerto Princesa.

Recommendation:
It could be useful to survey this industry later on. The researchers do not wish to encourage it but rather monitor it in order to reduce negative impacts (air pollution, fire, use of banned species) on the environment.

This survey could be part of a small study on local 'residual' timber industry. By 'residual' we mean small workshops, which get irregular and heteroclite supply from tolerated clearing or half illegal logging. This could be also linked to the sensitive issue of *kaingin* (slush and burn) practice. According to the local people, this prohibition is not realistic since there are not enough aims for law enforcement. There were also *kaingins* observed when the researchers went to the barangay.

Green charcoal production, which is now being promoted in UP Los Banos can be an alternative to charcoal.

7. Bark cloth

The Indigenous People from Palawan used to wear bark cloth. Now, most of them prefer industrial garment they can wash. But they still make bags and other items from this material. They remove the cambium of Artocarpus (bread tree) and crash the fiber with a batter. Bark cloth from the Bread tree is a very typical industry of Austro-Polynesian cultures (from Indonesia to Hawaii).

According to informants, harvest is not destructive. They just remove some part. It is probably true because people would not want to kill trees they value also for their fruits.

In Barangay Concepcion, some Batak families still collect bark for cloth. They sell it to resort and souvenir shops. It is a nice material but in its 'plain form", the market is very small. So maybe it is not a priority for now. However, the project can help in some actions that partners have already started.

Budyong Rural Development Foundation Inc. (BRDFI) a non-government organization, in Palawan province, in association with ***Sabang Vendors Association***, a peoples organization in the vicinity of the St. Paul's Subterranean Park, Puerto Princesa City, created a set of items from bark cloth (bags, wallets, bag pack etc. (United Nations Development Program on Small Grants funded project).

The design is nice and looks practical. The initial project has ended in December 2004, just when items are picking up in the market as tourists' favorite souvenir items.

Recommendation:

- Help Budyong to make their product marketable (organize catalog, prices, stock)
- Linking with bark cloth producers from San Rafael, Tanabag, Concepcion.

C. Conclusion

A lot of potential products were considered in the first phase of the study, but it is urgent that 2- 3 priority products (cashew and seaweed) be selected and later on continue with the others (given enough time) almaciga, bark cloth, beeswax etc.

Though almaciga is a major source of livelihood by the IPs, the industry will require much time as the technology of gathering the resin and tapping, the enterprise capability of the IPs, the capital needed, and the newly imposed policies by the government should be looked into.

As far as the bark cloth is concerned, the technology of making the bark cloth has been with the *Bataks,* for a long time but could still be improved. According to the former PENRO (Provincial Environment and Natural Resources Officer of the DENR, Palawan) Virgilio Tiongson, and some other foresters, producing the bark cloth will cause the extinction of the trees.

However, according to Margie Consuelo (community organizer) and Benny Postrado, (technical staff) of Budyong Rural Development Foundation Inc., the producers make use of the branches only and this method allows the growth of more branches. Thus, with the bark cloth industry in mind, the IPs producing the bark cloth will have to sustain the trees which are their source of the bark cloth, a part of their cultural heritage.

Demand and market for the cloth itself is not very much at present, but with a little creativity and marketing, souvenir products like bags, wallets, etc are now boosting eco tourism in the area.

Charcoal making has always been discouraged, but everywhere, there is charcoal because it is the cheapest fuelwood for cooking. Studies from UP Los Banos have come up with a technology on green charcoal making. The technology is not very expensive and has better efficiency than the local charcoal and there is demand for the product both local and abroad.

Based on the initial exploratory study, cashew and seaweeds are potential products that have high demand in the local and export market. But since these information are not yet enough, this will be supplemented by a review of literature on the industry.

Phase 2 - Industry Studies

A. The Cashew Industry

1. Role of the Industry/Origin, History of Cultivation

The cashew is a hardy drought resistant tropical or subtropical tree. It is native to northeastern Brazil, in the area between the Atlantic rain forest and the Amazon rainforest. The vegetation type of the region is dry forest, savannah woodland or thorn scrub, and includes the almost desert-like Caatinga. Cashew is sometimes referred to a a rainforest species and the nuts are found in products that have a rainforest friendly label or connotation. Although the trees will grow in tropical wet forest, they rarely produce many nuts, and production is far greater in areas with a distinct wet and dry season, such as its native range in Brazil, India and east Africa.

Then the Portuguese introduced cashew to the west coast of India and east Africa in the 16th century, shortly after its discovery in 1578. It was planted in *India initially to reduce erosion, and uses for the nut and pseudofruit, the cashew apple, were developed much later*. The trees were well adapted to the region and became naturalized. Trees also became naturalized in Central America and the Caribbean Islands. Nut domestication predated the arrival of Europeans to Brazil; although international nut trade did not occur until the 1920s. Native South Americans discovered that roasting nuts in fire would remove the caustic effects. The roasting practice was either not known or not appreciated outside the native range, and as a result the cashew apple was the first product consumed, with the nut being discarded. Natives also knew of many medicinal uses for the apple juice, bark and caustic seed oil that were later exploited by Europeans.

Cashew is now planted in many tropical countries particularly in the coastal areas of East Africa, Tanzania, Kenya, Mozambique, Uganda, Ivory Coast, Nigeria, Angola, etc. Dispersal of the species to Southeast Asia appears to have been carried out by birds, bats, monkeys and human agents. In the Philippines, it is believed to have been brought in by Spanish missionaries. It is locally known as *kasuy or balubad.*

India developed more refined methods for removing the caustic shell oil and this country is given credit for developing the modern nut industry. India led the world in cashew production for many years until just recently when production in Vietnam surged about three-fold in a few years. In its native Brazil, cashew nut production ranks in the top 5 of the world and virtually all cashew apples and juice products come from this country. Preliminary data indicate the cashew nut industry surpassed almond in 2003, and thus cashew now claims the number1 nut crop in the world.

2. Uses of the Industry's Products

Cashew is a versatile plant and has various uses ranging from food, feed, medicines and industrial uses. The tree is a good species for reforestation, especially in areas with poor soil and low rainfall.

The cashew fruit is the most commercially important part of the plant. It is composed of the cashew apple (pseudocarp) and the seed (nut). The seed, which is botanically considered as the fruit, consists of the kernel and shell or pericarp.

The kernel is the main economic product. It comprises about 22-30% of the cashew nut by weight. White whole nuts or kernels are the prime market for cashew. The kernel can be roasted or fried and eaten primarily as table nut. The largest local market for dried or roasted cashew kernel, whether whole or broken, is Metro Manila wherein the kernel is consumed extensively as an ingredient in the preparation of ice cream, cakes, pastries, confectioneries and others for preparations as well as snack items.

Ground kernel is often mixed with cacao seeds to produce adulterated chocolate. The kernel oil is used to harden chocolates while the residual kernel cake can be mixed in fertilizer or in poultry feeds.

On the other hand, the shell which is about 70% of the cashew nut's weight produces a liquid substance commercially known as cashew nut shell liquid (CNSL). This substance is a good source of natural phenols, particularly the anacardic acid (90%) and cardol (10%).

CNSL is used in the manufacture of industrial products. It is used as a preservative and water proofing agent in insulating varnishes, in manufacture of typewriter rolls, in oil-and acid-proof cements and tiles, in brake linings, clutch facings, protective varnishes and paints, adhesives, laminating resins and baking enamels, as an excellent lubricant in magneto armatures in airplanes and for termite proofing of timbers. The tannin and resin produced are also utilized for waterproofing fiber-based materials, adhesives, inks and paints (Duke, 1983). After CNSL extraction, the shell is utilized as fuel.

Cashew apple is very nutritious and is used both as food and feed. It is an excellent source of vitamin C, where a 100-gram apple contains 167 mg of ascorbic acid. It contains up to 5 times the amount of vitamin C sas citrus and strawberries, and higher amounts of some minerals than other fruits. Ripe cashew apple has an exotic flavor and eaten fresh or processed into candy, syrup, vinegar, jam, chutney and *champoy*. Its juice is made into a refreshing drink (Brazil cajudo), may be fermented to make wine, and distilled too produce alcoholic beverage. After juice extraction, the pulp, which contains 9-10% protein and 65 pectin on dry basis, can be used as feeds for hogs. Unripe apple is prepared as pickles or cooked as curried vegetable.

Various parts of the cashew tree have medicinal and other uses. Timber is used in furniture making, boat building, packing cases and in the production of charcoal. Bark used in tanning. Stems exude a clear gum, Cashawa gum, used in pharmaceuticals and as substitute for gum arabic. Juice turns black on exposure to air and provides indelible ink (PCARRD Message Board; Duke, 1983). Along the coast of Orissa, shelter belts and wind breaks, planted to stabilize sand dunes and protect the adjacent fertile agricultural land from drifting sand, have yielded economic cashew crops 5 years after planting.

Medicinal uses of cashew bark, roots, leaves and apple juice are noted and are well known prior to recorded history in the native region of Brazil. Bark teas were used for diarrhea. Barks are also chewed to cure sore gums and toothache. Teas and fruit juices are known to have anti-microbial, anti-inflammatory, astringent, diuretic, and hypoglycemic and other medicinal properties (Duke, 1983). The young leaves alleviate diarrhea, dysentery and hemorrhoids while the mature leaves when crushed are used as poultices for burns and skin ailments. On the other hand, the roots contain purgative properties (Department of Agriculture).

The juice is used to treat stomach disorder, dysentery, vomiting and sore throat. It is also known as a cure for toothache, fever, muscular pain, irregular bowel movement, blood pressure and insomnia (Department of Agriculture). The active principles are thought to be tannins, anacardic acid and cardol (Duke, 1983). The red apples have higher tannin content than the yellow.

The kernel is an antidote for irritant poison or as a demulcent in the form of emulsion. It is also known for its aphrodisiac qualities, balances cholesterol level, an excellent nerve tonic and a steady stimulant and body builder.

The caustic shell oil was used to treat skin infections, warts, worms and botfly larvae beneath the skin. The shell may be used as rubefacient and vesicant in treating leprosy, elephantiasis, ringworm, warts, corns and cracks in the soles of the feet. Modern uses of shell oil and fruit juice include facial peels and scalp conditioners and shampoos. Clinical studies have documented the anti-inflammatory properties of tannins and the antimicrobial properties of anacardic acid against several species, including Escherichia coli and Helicobacter pylori. Leaf extracts show hypoglycemic activity in rodents and a reduction in artificially induced diabetes.

Young leaves may be eaten as vegetable salad. Leaves contain high amount of vitamin A (1025 IU) and 89 grams of ascorbic acid, which is more than enough to meet the adult daily requirement of 75 mg of vitamin C.

3. Supply

a) World Production

Cashew is now the number one nut crop in the world since its production surpassed that of almond in 2003 (by over 300,000 mt). Cashew is produced commercially in 32 countries. World production in 2002 is at 1,870,284 mt or 4.1 billion lbs and has doubled since 1994 with most countries experiencing substantial increases particularly Vietnam. India pioneered the modern processing of nuts, and had been consistently the world's leading producer for decades prior to 2002. In 1999, the following countries were the top producing ones:

Table 1. World area and production of cashew nut, 1999.

Country	Area (Ha)	Production (mt)	Productivity (kg/ha)	% Share Production
India	704,709	388,474	545	54.0
Indonesia	302,000	32,000	300	4.4
Brazil	147,000	170,000	1156	23.6
Vietnam	85,000	37,000	435	5.1
Tanzania	59,000	25,000	423	3.5
Mozambique	44,000	40,000	909	5.6
Kenya	22,000	16,000	727	2.2
Philippines	27,801	11,129	400	1.5
Total	1,391,510	719,603		

Source: http://www.ikisan.com

In 2003, the top ten countries were the following (Table 2).

Table 2. Top cashew producing countries in the world, 2003.

Country	% of World Production
Vietnam	28
India	25
Nigeria	10
Brazil	8
Tanzania	6
Indonesia	4
Guinea-Bissau	4
Cote D'Ivoire	4
Mozambique	3
Benin	2

Cashew occupies just over 7.5 million acres of land area in the world, which is extremely high given the level of production. This reflects the low intensity of production in most areas; many nuts are harvested from wild or naturalized stand of trees. Average yields worldwide are about 700 lbs/acre. In its native range in Brazil, yields are only 270 lbs/acre. In Vietnam, yields are the highest of the top 5.

b) Local Production

The Philippines has 3,446,542 bearing trees of cashew per year on the average. MiMaRoPa (Mindoro, Marinduque, Romblon and Palawan) is the leading producing region from 1990-2003 with an average of 2,963,469 bearing trees). Palawan is the number one producing province with an average of 2,979,919 bearing trees. Central Luzon follows next (225,323) with Nueva Ecija as the leading producing province in the region with 132,066 bearing trees. Both regions suffered a decline in their number of bearing trees from 2000-2003. ARMM produced 120 trees in 2003 while no cashews were planted in CAR and Eastern Visayas.

On the average, the Philippines produces 116,439 metric tons of cashew in a year. MiMaRoPa produces 106,798 metric tons followed by Central Luzon with an average of

5,499 per year. Northern Mindanao produces 1,350 metric tons while Western Visayas is at par with 1,076 metric tons of produce.

In 2003, total cashew production in the Philippines was at 111,291 tons in 27,801 hectares. The top-producing region is MiMaRoPa accounting for 90.39% of national production. Central Luzon is a far second with 7.10% share while Calabarzon has only 0.21%:

MiMaRoPa - 90.39%
Central Luzon - 7.10%
Northern Mindanao - 0.70%
Western Visayas - 0.58%
Calabarzon - 0.21%
Others - 1.02%

Palawan is still the leading producing province in the region in 2003. A total of 24,300 hectares are planted to cashew in the province posting 100,500 metric tons production. Palawan accounted for 99.9% of the total cashew produced in the region. Mindoro Occidental has only 46 hectares planted to cashew with production of 92 metric tons. There are only two cashew producing provinces in the region, i.e., Palawan and Mindoro Occidental.

Table 3. Volume of cashew production by municipality, Palawan, 1994.

Municipality	Area (Ha.)	Production (Mt)
Abordo (Linapacan)	3647.00	1641
Aborlan	2.20	1
Agutaya	298.00	134
Araceli	2.20	1
Balabac	2.20	1
Bataraza	27.00	12
Brooke's Pt	275.00	124
Busuanga	191.00	86
Coron	93.00	42
Cuyo	91.00	41
Dumaran	2539.00	1138
El Nido	1900.00	855
Magsaysay	8.88	4
Narra	307.00	138
Puerto Princesa	1222.00	550
Quezon	282.00	127
Rizal	18.00	8
Roxas	3184.00	1433
San Vicente	1307.00	588
Taytay	658.00	296
TOTAL	16054.48	7220

Based on average yield of 0.45 mt/ha; Source: Bureau of Agricultural Statistics

Available 1994 production data for the various cashew-producing municipalities of Palawan show that Abordo ranks first among the municipalities in terms of cashew planted (3647) and production of 1,641 mt (Table 3). Northern municipalities Roxas, Dumaran, El Nido and San Vicente rankled next in area planted to cashew and production. Puerto Princesa City has a bigger area planted to cashew (1222) and production yield of 550 mt as compared to southern municipalities in the province.

In the northern part of Palawan the following barangays have the highest nut production: Barangay Sibaltan in El Nido produces 20% of the nut production, 15% in Brgy. New Barbacan and San Miguel, Roxas, and 15% nut production in Brgys Sandoval and Bantulan in Taytay.

Sporadic cashew plantation in Palawan produced poor quality nuts in the market. According to the Bureau of Agriculture Statistics, as of CY2003 production was estimated to be 56 metric tons.

c) Importation

Inspite of the local production of cashew in the country, the Philippines still import cashew from other countries in the form of shelled cashew, cashew nuts (prepared/preserved), and nuts mixed with sugar or honey as confectionery.

Shelled Cashew. Shelled cashews are sourced from 11 different countries from 1989-2003. The top suppliers of shelled or peeled cashew for the last 15 years are Vietnam (293,654 mt), India (236,098 mt), and Hongkong (192,097 mt). But the consistent suppliers are India, Singapore, Hongkong, USA, Indonesia, Vietnam and Australia.

In 2003, 198,865 metric tons of shelled cashew were imported from nine countries, namely: Australia, Brazil, Germany, Indonesia, India, South Korea, Singapore, United Arab Emirates, USA and Vietnam. Vietnam, Germany and Brazil are the three major suppliers of shelled cashew in the country. The Philippines' major suppliers of peeled cashew were the following:

Vietnam	83,010 mt	41.74%
Germany	52,800 mt	26.55%
Brazil	43,089 mt	21.67%
USA	13,501 mt	6.79%
United Arab Emirates	3,369 mt	1.69%
Other countries		1.56%

Preserved Cashew Nuts. The Philippines have been importing prepared/preserved cashew nuts since 1996, the year where production of cashew in the Philippines had dipped to a very low level. Except for years 1996 and 2001, the Philippines had consistently sourced preserved cashew nuts from Great Britain and Northern Ireland. The USA is also one of the major suppliers of the Philippines. Except in 2003, the Philippines had always obtained its cashew nut import from this country. In general, there are 11 countries selling cashew nuts to the Philippines. Vietnam and Spain had only started exporting their cashew nut to the Philippines in 2004.

For the past 9 years, India exported the highest amount to the Philippines amounting to 61,257 metric tons followed by USA at 35,743 metric tons and Indonesia, 24,728 metric

tons. The volume of imports was highest in 1999 with Indonesia being the top supplier of preserved cashew nuts.

In 2004, the country registered a total of 43,460 metric tons of preserved/prepared cashew nut imports from Great Britain and Northern Ireland, Indonesia, Spain, Taiwan, USA and Vietnam. The major suppliers are the following:

Indonesia	17,100 mt
Vietnam	12,000 mt
USA	11,454 mt
Spain	2,023 mt

Take note that Thailand had also exported to the country 2,496 metric tons in 1999 together with India (11,825 mt) and Indonesia (23,758 mt). This implies that the Philippines has competition when it comes to producing cashew nuts in Asia.

Cashew nuts (mixed with sugar or honey). The Philippines also imported cashew nuts with sugar or honey as confectionery only from one country, China. Records of importation were only in 1999 and 2004 with 592 and 1,425 metric tons, respectively.

d) Total Supply

The total supply of cashew in the country comes from domestic production and the various imports coming from different countries abroad as shown in Table 4. The highest production was in 1997 with 17,324 metric tons produced, a drastic increase from 6160 mt in 1996, and the lowest recorded production from 1989-2003. But for the last five years (1999-2003), production slightly stabilized, growing at a rate of 0.03% only. Meanwhile, total supply of cashew is only increasing at the rate of 0.3% for the same period which implies that the country has to import abroad to augment domestic production. In fact, imports are growing at a rate of 15.6% for the last 15 years.

Table 4. Supply account of cashew, Philippines, 1989-2003.

Year	Production	Import	Gross Supply
1989	9565	0	9565
1990	9767	0	9767
1991	9828	1	9829
1992	9911	18	9929
1993	9851	18	9869
1994	12375	8	12383
1995	15357	3	15360
1996	6160	55	6215
1997	17324	237	7561
1998	16856	92	16948
1999	11117	108	11225
2000	11102	45	11147
2001	11115	210	11325
2002	11122	148	11270
2003	11129	240	11369

Source: BAS

4. Demand

a) Domestic Demand

Domestic demand for cashew comprises the amount that goes to food consumption, processing, seeds, and feeds and waste. As shown in the BAS Supply and Utilization Account of cashew in the Philippines in Table 5, per capita food consumption of cashew has been declining since 1998 at an average of 2% per year. Processed cashew exhibited an increasing trend from 1989 to 1997 at 4.13% but declined after that. Cashew that went to processing declined by 3.3% per year since 1998. The same trend is observed for cashew used as seeds. With the declining demand for food and processing, lesser quantity of cashew is set aside for seeds thus inhibiting the expansion of the industry.

Table 5. Utilization account of cashew, Philippines, 1989-2003.

Year	Exports	Seeds	Feeds and Waste	Processing	Net Food Disposable		
					Total	Per Capita	
						Kg/Yr	Gm/Day
1989	2329	103	35	16	6422	0.10	0.31
1990	2622	103	36	18	6989	0.11	0.31
1991	2645	103	31	15	6035	0.10	0.26
1992	3089	103	34	17	6677	0.10	0.28
1993	3119	103	34	17	6596	0.10	0.28
1994	1152	112	56	28	11035	0.16	0.44
1995	1122	113	71	36	14018	0.21	0.56
1996	298	115	30	15	5757	0.08	0.23
1997	555	116	85	43	16763	0.23	0.64
1998	3089	115	69	35	13631	0.19	0.51
1999	8	115	56	28	11018	0.15	0.40
2000	0	112	56	28	10951	0.14	0.39
2001	0	112	57	28	11128	0.14	0.39
2002	1220	111	50	25	9863	0.12	0.34
2003	2176	111	46	23	9013	0.11	0.30

Source: BAS

b) Foreign Demand

The Philippines is exporting shelled/peeled cashew, prepared/preserved nuts and cashew nuts mixed with sugar or honey to countries in Asia, Middle East, Europe and the USA.

Shelled/Peeled Cashew. The top Philippine merchandise export market of cashew is China with a total exported volume of 8,214,664 metric tons in 16 years followed by India (5,067,539 mt) and Singapore (3,707,121 mt). The highest volume exported was in 1988 (3,335,328 mt) then in 1992 (3,098,328 mt).

The traditional markets for shelled cashew were China, Hongkong, India and Singapore. But the Philippines was not able to maintain these export markets. From 5 export markets (China, Hongkong, Indonesia, India and Singapore) in 1990 to 1991 this declined to 4 markets (China, Hongkong, India and Singapore) in 1992-1993, to 3

markets in 1994 (China, India and Singapore) and 1995 (China, Hongkong and Indonesia). The Philippines exported to China only up to 1995 and stopped thereafter. The Philippines also exported to Singapore from 1989-1994 but this was at a declining rate, from a high 1,618,232 metric tons in 1990 it declined to 198,000 metric tons in 1994. The Philippines stopped exporting its peeled cashew to Singapore from 1995 to 1997 and resumed exportation only in 1998. But it never again carried on its exportation the following years. In 1996 and 1999, the Philippines had only one export market, India and Hongkong respectively. There were no exportations made in 2000 and 2001.

In 2002, the Philippines was able to export to India (385,000 mt) and Vietnam (834,500 mt). But in 2003, the Philippines was able to regain its former market, Hongkong, adding Australia, Guam, Japan, Palau and USA to its export markets. The volume however was small, 115,600 metric tons only, compared to its exports in the 1990s.

Prepared/Preserved Cashew Nuts. The Philippines is also exporting preserved cashew nuts to foreign markets but this is in an erratic fashion. There are 16 foreign markets for prepared cashew nuts. But the Philippines cannot keep its markets. In fact it exported only once in 7 out of 16 countries. The country had tapped the following countries only once from 1996 to 2003: Austria in 1996, Taiwan in 1998,Cyprus in 2001, Japan in 2003, and Turkey in 2002. Its main markets are USA and Guam markets where it had exported 5 times and Palau 4 times in 9 years 1996-2004). Starting in 2003, the country was able to export to 6 countries. In 2004 the country was able to increase its export markets to 9 countries.

From 1996 to 2004, the top Philippine merchandise export market of prepared/preserved cashew nuts is Singapore with a total export of 100,019 metric tons followed by USA (4,502 mt) and Guam (422 mt). The highest quantity exported was in 1998 (100,331 mt), 2004 (3,236 mt) and 2003 (2,057 mt).

Cashew Nuts Mixed With Sugar or Honey. The Philippines is also exporting cashew nuts mixed with sugar or honey to 19 different countries at times sporadically or consistently. In a year, the Philippines can have 4, 6 or 8 foreign markets. But in the years 2001 and 2004, the country was able to export its processed cashew nuts to 10 countries.

For the past 9 years, the Philippines had been consistently exporting to USA, Australia and Guam. Other important countries, which are supplied more or less regularly but not consistently by the Philippines, are Canada, Unites Arab Emirates and Hongkong. Other markets that were tapped in previous years were Finland (2001), Great Britain and Northern Ireland (1996-98), Hawaii (2000-01), Israel (2001), and Taiwan (1997). By 2004, however, the Philippines was able to tap new markets like Belgium, France, New Zealand, Samoa bringing to 10 its market outlets in foreign shores.

The top Philippine merchandise export markets of nuts mixed with sugar or honey as confectionery are UAE with a total export of 107,055 metric tons, followed by USA

(65,406 mt) and Hongkong (15,660 mt). The highest quantity exported was in 2000 (124,603 mt), 2001 (23,291 mt) and in 1998 (14,974 mt).

5. Marketing System

a) Product Form

Cashews are marketed as raw nuts from farmers to local traders and processors outside of locality. There are also farmers/growers who process cashew nuts into splits and whole kernels and sell directly to consumers, wholesalers or retailers. Most of the raw nuts are shipped to Metro Manila and are processed in Antipolo City, Rizal. Processors in Antipolo City produced products called "blue seal" (split kernels which are opaque white with low moisture content) and marketed to food manufacturers/processors like Selecta, Magnolia, Goldilocks, etc. (Department of Agriculture, 2004).

A variety of cooking method also gives rise to plain, salted, roasted, or toasted and *adobo* flavored cashew nuts. Besides the retailers and peddlers who sell cashew on a per weight basis, there are also commercial centers (such as local market and grocery stores) that distribute the nuts in packs.

Food manufacturing companies buy wholesale amounts, de-shelled and ready to use. It is used in ice cream flavorings such as (Magnolia), chocolate bars (such as Hersheys), cakes and pastries (such as Joni's and Goldilocks), and other delicacies or confectioneries. Households use cashew as an ingredient for preparing certain dishes. Others consume it as dessert or *pulutan* in the form of salted, spiced and *adobo* flavors or in bottle (as in Tobi's). A few of the Filipino delicacies include cashew brittle, cashew cake, *turones de casuy*, cashew candy, *pastillas de casuy* (J & A of Cagayan de Oro City), and *bandi*. In Palawan, *bandi* is a native flat cake using cashew nuts instead of peanuts and is similar to *panucha* (Festin, 1991).

Other cashew products such as juice, wine and CSNL are still at the development stage in terms of marketing. Antipolo sells cashew shells to CNSL manufacturers in Metro Manila.

b) Harvesting and Post-harvest Practices

Farmers plant and maintain the cashew trees/plantation. The fruits are harvested by hand picking or using a pole with a wire hook attached at the end. There is a shallow net or cloth bag to catch the fruit. The harvested fruits are then transferred to a basket lined with newspaper or any non-abrasive material so as not to injure the cashew.

The baskets are then brought to the packing sheds or bodega, where the nuts are separated from the apple and remove the peduncle. Farmers harvest and detach the nuts from matured apples. The nuts are sun dried while apples are fed to pigs or left to rot in the field. The cashew nuts or kernels are removed from the shell using a manual cashew sheller

The cashew nut shell, the source of CNSL, is not utilized and sometimes become a pollutant when not disposed properly after the kernels are extracted. If the shells can be collected and processed to get the CNSL oil or fluid, this could be an additional income for the processors.

After harvest, the nuts are dried under the sun for 2 days before storage. The nuts are spread out on clean ground to sun dry or in any suitable container in layers (not more than 10 cm thick) and raked constantly for uniform drying. Drying the nuts will ensure its good keeping/storage quality.

The nuts are gathered in heap while still warm and covered in the afternoon till drying is completed for 2-3 days to reach 7% moisture content. To dry 20 sacks it is done 3 sacks at a time.

When the nuts are properly dried, they are placed in sacks or bags and placed in storage or bodega in the house. Most farmers practice sorting and grading as matured dried nuts command better prices than unsorted and less quality nuts. Further sorting or removing of dirt or impurities is done before exposing/drying the cashew nuts under the sun before storage and before processing.

Well-dried nuts can be kept in storage for another cropping season with usually 85 % kernel recovery. By the use of the "*kalukati*" or cashew sheller, the kernels are extracted from the shell. The nuts should be kept in a tight container once extracted to keep insect pests, and ants away. Dirt, impurities and other debris such as stones, dried apples are removed and deformed or diseased nuts are sorted out before processing or cooking the nuts.

Though some men are involved in breaking the cashew nuts, majority are mostly women. Salary for men and women is equal or the same, though men work faster. It will take 12 persons to open or remove cashew shell of 100 sacks; or 8 persons for 20 sacks. Processing or shelling is easier if the cashew nuts are well dried. Sorting or classifying of the nuts is done before packing or before cooking. The nuts are processed as roasted or fried half or whole nut. Roasted and whole nuts command higher price.

In all these operations, many women are involved than the men.

Operation	**Person Involved**
Gathering the cashew fruit	Man or woman & family
Removing the nut from the fruit	Woman/family
Sorting or classifying	Woman or man
Storage at home or in bodega	Woman or man
Spread the nuts under the sun for 2-3 days before storage	Woman or man
Place in sacks after drying	Man/woman
Store the sacks of nuts in the bodega or house	Man/woman
Exposing the nuts under the sun a day before storage	Woman /man
Extracting the kernel from the shell	Woman/man
Sorting out the nuts	Woman/man
Cooking the nuts	Woman/man

c) Distribution

During harvest, all the produce are sold at once to the middlemen. The growers sell their produce immediately after harvest so they can recover the money they spent for their production. On the other hand, these middlemen buy the cashew at a low price, store them until the price increases and sell them during the off-season.

Cashew is sold mainly as raw nuts from the farmers to the local traders and processors within or outside the locality. Some growers or farmers process cashew nuts into roasted splits and whole kernels, which are then sold to consumers, wholesalers or retailers. A small quantity of the product is usually left for family consumption. Most of the raw nuts shipped to Manila are processed in Antipolo City, Rizal. Antipolo sells cashew shells to CNSL manufacturers in Metro Manila (Del Rosario, 1999).

Local processors can be classified into traditional and modern (Gervacio, 1985). The former usually operates near or within major cashew producing regions. These are cottage-level enterprises, which are involved, in de-shelling operations only. The kernels are then sold to provincial retailers and/or local agents of re-packers and food manufacturers located in Metro Manila.

Meanwhile, modern processors rely on provincial sources of raw nuts. Most modern plants are located in Metro Manila (Gervacio, 1985). They are not limited to processing operations. They have their own cooking, packaging, distribution facilities, therefore are able to sell directly to retailers and food manufacturers.

Figure 3 shows the distribution channels for cashew and raw and processed kernels and the prices they received at each market level (Department of Agriculture, 2004). The growers received P15 to P18.47 per kg of raw nut sold to local processors via retailer-agents. Local processors pay P143.55 to P150 per kg for split kernel and P250 to P350 per kg for whole nut. If exported, raw nut, either fresh or dried, fetched a price of P33.54 per kg or US $0.62 per kg. Meanwhile, processed or preserved cashew nut commanded a price of P248.40 per kg or US $4.6 per kg.

Palawan (Devanadera, 2005). Locally, farmers sell their cashew to traders and processors in the barangays and Puerto Princesa City. A lot of cashew buyers come from Manila, Antipolo, Pampanga and Laguna.

Antipolo vendors get their supply from Palawan but they have a better processing method which improves the taste and eating quality of their cashew.

The cashew farmer/retailers go to the different barangays and sitios to buy the nuts. Given enough capital to buy the cashew available in the barangays, the farmer/retailer buys the cashew in the neighborhood and sell them together with his produce to Puerto Princesa City trader/processor.

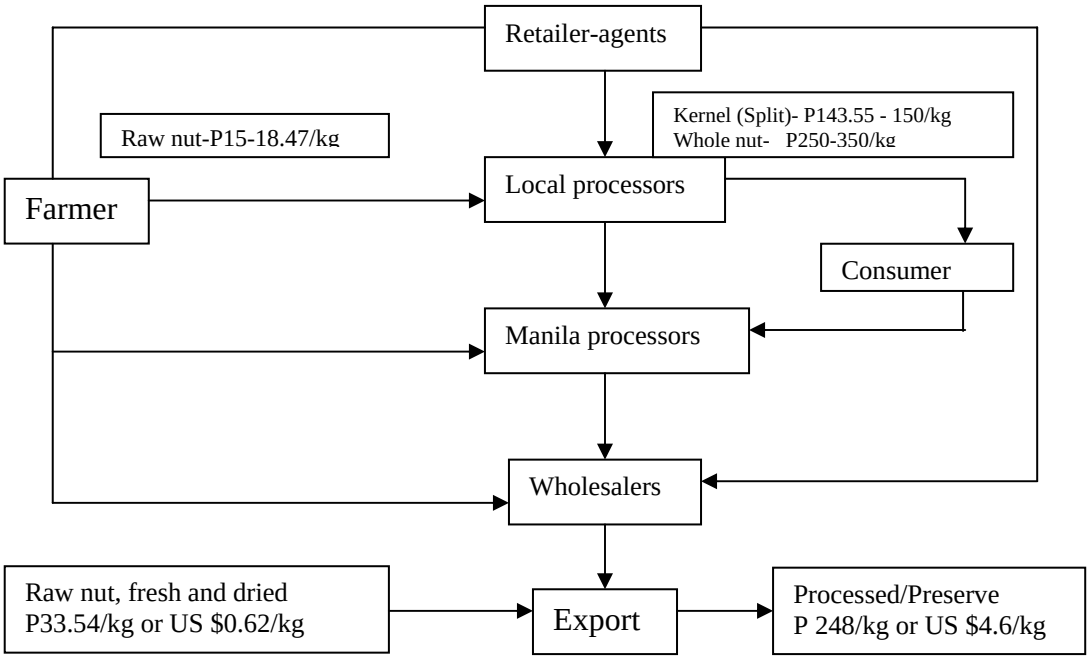
Some retailers or farmer traders process a portion of the cashew harvest and sell them locally as roasted or fried in splits/half or whole kernels and sell them in their locality or in Puerto Princesa City, other municipalities and tourist destination in the province.

Majority of the nuts are shipped to Manila, where they are processed. Municipal traders act as exporters in Taytay and El Nido. The traders bear the cost of handling and loading which are chargeable to the exporter.

A form of incentive is given to traders who purchase and accumulate a certain quota or quantity of nuts. If he exceeds his target or quota, additional fee or payment is given him. At present, there are three (3) big cashew exporters in Puerto Princesa City with their main office in Manila; UBICO, Ocean Aqua Marine and Marphil (Mr. Rene Lim).

Processors usually sell products to food companies/processors like Goldilocks, Magnolia, Selecta, Toby, Planters and others. In Antipolo, Rizal processors have this " blue seal" (split kernels which are opaque white with low moisture content).

From Palawan, the cashew nuts are placed in vans and shipped to Metro Manila going to the wholesalers and international market.



Source: Cashew…The Golden Nut of MiMaRoPa, Department of Agriculture, 2004

Figure 3: Distribution channel for raw and processed cashew and kernels, 2004.

6. SWOT Analysis

SWOT ANALYSIS
STRENGTH • Leading nut crop in the Philippines with high export potential • Adapted in different soil types even on marginal soils • Can be used for reforestation • Availability of processing technologies • Available expansion areas in Palawan, Occidental Mindoro and Romblon
WEAKNESS • Lack of quality planting materials • Erratic and low yield due to pests, diseases and heavy rains during flowering sand fruiting stage • Abundance of unproductive old trees • Lack of location specific culture and management technology on promising cultivators
OPPORTUNITIES • Steadily growing demand for wholesale food items from the expanding world market for processed and industrially manufactured cashew based products • Inclusion of Palawan in the BMP EACA Cooperation
THREAT • Adverse agro climatic condition • Low priced cashew nuts from competitor countries

Source: DA

7. Problems and Constraints

For the cashew industry to realize its full economic potential, it has to address the following problems:

a) Production

There is low and erratic yield due to lack of quality planting materials, pests and diseases and heavy rains during flowering and fruiting stage. Abundant old unproductive trees still abound in the region. The lack of technical knowhow on how to eradicate pests and diseases afflicting cashew trees and the lack of location specific culture and management technologies for promising varieties contribute too to the low yield of cashew. The farmers' lack of awareness on the economic importance of cashew made them laggards in adopting new technologies and in replanting their cashew plantations.

b) Post-production problems

There are inadequate postharvest and processing facilities in major cashew producing areas. This is further exacerbated by the lack of training on improved processing technologies.

c) Marketing

Cashew prices are unstable in the market. Middlemen control the price thus growers are mere price takers. Moreover the cashew growers are largely unorganized thus they have a weak bargaining power when dealing with the traders.

The Philippines also faces competition from low priced foreign sourced cashew nuts. According to Falcatan, India had been exporting cashew nuts to the Philippines at a much lower price of P130-180 per kilo, way below the country's traded price of P230 per kilo. With the lower price, processors of course have no other choice but to buy from abroad

d) Limited support services

Cashew farmers decry the lack of financial support and poor farm to market roads.

But for the industry to become competitive in the domestic and world markets, the production and marketing constraints have to be addressed. Training on cashew production technologies for cashew nuts and apples should bed done. There is also a need to organize and strengthen cashew growers association and processors' cooperatives once profitable market outlets are identified. Market matching or contract marketing can be explored so farmers can be assured of higher prices for their produce. But there is a need to lower the cost of production so as to compete with low priced cashew coming from foreign markets.

8. Conclusion

The steadily growing demand for wholesale food products from the expanding world market for processed and industrially manufactured cashew based food products augurs well for the industry. Likewise, the continuous importation of cashew products in foreign markets only shows that there is demand gap that the cashew producing regions like Palawan can fill in the local market. Technically, cashew can be grown in the country and in the region due to the available expansion areas for production in Palawan. Aside from its economic potential as a crop, it ca also be used in reforestation as it can adapt in different types of soil even in marginal lands.

But for the industry to rise up from its doldrums existence, the production and marketing constraints have to be addressed. Training on cashew production technologies for cashew nuts and apples should bed done. There is also a need to organize and strengthen cashew growers association and processors' cooperatives once profitable market outlets are identified. Market matching or contract marketing can be explored so farmers can be assured of higher prices for their produce. But there is a need to lower the cost of production so as to compete with low priced cashew coming from foreign markets.

B. The Seaweeds Industry

1. Background of the Industry

Seaweeds are marine algae which are grown in natural conditions of form pond culture. They have no true roots, stems and leaves, unlike other plants. These plants are widely distributed in the ocean, occurring from the tide level to considerable depths, floating tree or attached to substrates such as sand, mud, rocks, shells, corals and others. There are four main groups of marine seaweeds. These are red algae (*Rhodophycae*); brown algae (*Phaeophycae)*; green algae (*Chlorophycae*); and blue green algae (*Cyanophycae*). Of the four, the red and brown are commercially grown and used to manufacture seaweed products.

There are about 390 species of seaweed in the Philippines but only 60 are known to be edible. These are used to manufacture agar, alginate, carrageenan and furcellaran. The most important variety of seaweed is *Eucheuma,* of the red algae, which accounts for 98% of the total Philippine production of seaweed. *Eucheuma* is the source of carrageenan, one of the world's foremost food and industrial additives today. It is a valuable substance used in gelling, suspending or thickening with waterholding properties in various products. This red algae grows on sandy bottom of marine waters in intertidal or subtidal zones where the water is very salty, clear and fast moving. Its soft body is light brown to light green in color with erect or prostate branches.

Gelidiella acerosa, Gracilaria, Sargassum, Codium edule, Hydroclathrus clathrus, Acanthopora spicifera, Laurencia, Caulerpa, Hypnea and *Porphyra* are some of the other species that are commercially utilized in the country. All these species are sources of human food. The culture technology for *Gracilaria* and *Porphyra* is available, but has not been adopted for commercial production.

2. Uses of the Industry's Products

The economic importance of seaweeds lies in their composition. Seaweeds contain large amount of water, with dry matter compromising carbohydrates, proteins, fats, vitamins and minerals. They are usually consumed for their mineral and vitamin content. Seaweeds and their products are largely used as an additive or garnish to more bulky foods. Throughout the world, over 100 species of seaweeds are eaten.

Seaweed for Food. Seaweed as a staple form of diet has been used in Japan and China since prehistoric times. Some 21 species are used in every day cooking in Japan, six of them since the 8th century. Seaweed accounts for some 10% of the Japanese diet and seaweed consumption reached an average of 3.5 kg per household in 1973. In the west, seaweed is largely regarded as a health food and, although consumption there will ever be more than a fraction of the Japanese.

The most important species in Japan are Nori (*Porphyra* species), Kombu (*Laminaria* species) and Wakame (*Undaria pinnatifida*). The use of Kelps ('kombu" in Japan and "haidai" in China) dates back to at least the 5th century in China. The main species

used is *Laminaria japonica* (Laminariales), but 8-11 species are used also, mainly in Japan. Plants are dried after harvesting and either cut into strips or powdered. In Japan, kombu is used in the preparation of fish, meat dishes, soups and also as a vegetable with rice. Powdered kombu is employed either in sauces and soups or is added to rice in the same way as curry. Some kinds are used in making an infusion similar to tea.

Another kelp, *Undaria pinnatifida* (Laminariales), is widely used in Japan (where it is known as "*wakame"*) and China ('*qundai-cai*") as food. In Japan this is a more important crop than *Laminaria* both in value and production. The harvested algae are dried after washing in fresh water. After resoaking the plant material is used as an additive to soups (wakame soup is served with virtually every meal in Japan); toasted (Yaki-wakame); used half resoaked, with boiled rice; and coated in sugar and tinned (*Ito-wakame*). China, *Undaria pinnatifida* was collected from natural habitats for centuries, mainly on the East China Sea coast. Plants are grown now on ropes in the Quingdao and Dalian areas (Yellow Sea), to where the algae were transplanted from Korea and, perhaps, Japan (Tseng 1982). *Undaria* is not as popular as *Laminaria* in China as a foodstuff and the growers find the plants difficult to manage. The annual production in China is, therefore, very low, amounting to no more than a few hundred tonnes in dry weight each year.

Nori is a red algae, *Porphyra* spp. (Bangiophyceae). Nori is sold in sheets that may be toasted to give a green colour and then flaked and added to sauces, soups and broths. Sometimes it is just soaked and eaten. Small, dry nori sheets are used to wrap cold rice balls, which make a popular lunch-time snack for Japanese children. The food value of nori lies in its high protein content (25-35% of dry weight), vitamins and mineral salts, especially iodine. Its vitamin C content is about 1.5 times that of oranges and 75% of the protein and carbohydrates are digestible by humans, which is very high for seaweeds.

Laverbread (mainly *Porphyra dioica* and *P. purpurea*) is picked on the rugged coastline of Wales from rocks when the tide has gone out. Laverbread has an excellent nutritional content, mainly of protein, carbohydrate, vitamin B, B2, A and C and lots of trace elements and minerals, most prominent of these is iodine. Another plus is that they are low in calories and re suitable for the ever-increasing vegetarian market. In Wales, it is sold in health shops in tablet form and tinned. When the seaweed arrives at the welsh factories, it is inspected and goes through a series of washes. It is then cooked for several hours with only a little salt added; this produces a very dark, dense spinach-like pureÃ©.

Many chefs are discovering the culinary assets of laverbread, adding new dimensions to their repertoires. Traditionally, it has been enjoyed very simply spread on thin toast with oatmeal or malted vinegar and accompanied by fried or grilled welsh cured bacon. More recent it has been served with pasta dishes, in spicy batter with mushrooms, and seafood pizzas. Laverbread is also added to cheeses.

Liquid Seaweed Extracts for Fertilizer. Liquid extracts of marine brown algae are marketed for use in agriculture and horticulture. Most of these extracts are prepared from dried *Ascophyllum nodosum* meal (e.g. "Maxicrop", manufactured in the United

Kingdom), or from dried total drift, often referred to as "blackweed", but some utilize other species, such as *Fucus serratus* and *Laminaria* species (e.g. "SM3"; United Kingdom). One product currently being marketed is prepared from the stipes of *Ecklonia maxima* from South Africa ("Kelpak 66"). Other products prepared from seaweed include "Algifert" from Algea, a Norwegian company, "Seagro", manufactured in New Zealand; and "Seasol", an extract manufactured by a company in Tasmania. These are prepared from hot-water extracts of either the dried or wet seaweed, sometimes with the addition of sodium carbonate to aid extraction.

"Maxicrop" is primarily used for gardens and glasshouse crops and is exported to a wide range of countries (Chapman & Chapman, 1980). It has been used on citrus fruits in Guyana, on citrus and grapes in Greece, on orchids in Belgium, on garden crops in Thailand, and on glasshouse crops in Iceland. "Seagro" in New Zealand is largely used on pastures but it is also used on orchard crops.

A wide range of beneficial effects have been reported from the use of liquid seaweed extracts (Blunden 1977), including increased crop yields, resistance of plants to frost, increased uptake of inorganic constituents from the soil, more resistance to stress conditions, and reductions in storage losses of fruit.

Liquid seaweed extracts are used at very high dilution rates which results in only very small quantities of material being applied to a given area. The active substances in the seaweed extracts must therefore be capable of having an effect at a low concentration. Trace elements have been suggested as likely active constituents, but Blunden (1977) and Blunden & Gordon (1986) have concluded that the quantity of substances applied forms an insignificant proportion of the total requirements of the crops. The presence of plant hormones (substances naturally found in small quantities in plant tissues and involved in, amongst other things, the regulation of growth) has been suggested as being responsible for, at least some of the observed effects; it has been demonstrated that commercially-available seaweed extracts have high levels of cytokinin-like activity.

Close correlations between results achieved in field trials with the use of a synthetic cytokinin, kinetin, and seaweed extracts of equivalent cytokinin activities were found both on the yield of potatoes and in the crude protein of grasses. Similar results were obtained with the reduction in the rate of "degreening" of limes after post-harvest immersion of the fruit in seaweed extracts and kinetin solutions of equivalent cytokinin activity. Further circumstantial evidence supporting the possible involvement of cytokinins in seaweed extracts was the recent detection of cytokinin-like activity in a commercial seaweed concentrate prepared from *Ecklonia maxima* (Laminariales).

Studies of seaweed extracts have shown that although in some bioassay systems, for example the radish leaf expansion bioassay, high levels of cytokinin activity are recorded, in others, for example the *Amaranthus* seedling assay, low levels are found. These discrepancies are thought (Blunden & Gordon 1986) to be due to the extracts containing, in addition to true cytokinins, other compounds which behave like them in certain respects. Blunden & Gordon were further of the opinion that these substances may represent betaines - quaternary ammonium compounds which are derivatives of

either amino or imino acids containing a fully methylated pentavalent nitrogen moiety. Glycine betaine, one of the structurally simple betaines, was first extracted from sugar beet and was found to have chlorophyll-retention properties. In growth tests it was found to have an activity similar to that of cytokinins in several other growth tests and so it was considered that some of the cytokinin-like activity in sugar beet extracts was due to glycine betaine. It has been shown also to be a major osmoticum (controlling water movement in and out of plant cells) in certain higher plant families adapted to either salt or water stress and it has been suggested that other betaines and tertiary sulphonium compounds have a similar function in other species. Also it has been claimed that glycine betaine has a rÃ´le in frost resistance.

Betaines have been recorded for most of the species of marine algae used in the manufacture of seaweed extracts. *Ascophyllum nodosum* yields c-aminobutyric acid betaine, d-aminovaleric acid betaine and laminine whilst *Laminaria* species have a range of betaines including glycine betaine. Commercial seaweed extracts have been examined for their betaine content and the compounds detected were those reported for the algal species used in the manufacture of the extracts. Because of the reported effects from the application of commercial seaweed extracts and the known properties of compounds such as glycine betaine, the circumstantial evidence for at least part of the activity of the seaweed extracts being due to compounds of this type is strong (Blunden & Gordon 1986). Moreover, some of the discrepancies in the results obtained for the cytokinin contents when the extracts are bioassayed using different procedures may be explained by the presence of betaines in the extracts

Drift seaweed for lazy beds. Detached seaweeds or "total drift" have been used for many years in several European countries for the making of "lazy beds". Soil or sand is layered with seaweed for vegetable production, particularly potatoes. Such organic material has proved very useful in very barren areas, particularly the Aran Islands, off the mid-west coast of Ireland, and parts of Scotland. However, seaweed decomposes very slowly and it is probably uneconomical to transport such material more than few kilometer inland. In dry areas or in areas with soils of poor water-retention qualities, seaweed may be very useful as it retains water very well, but there may be problems with the high salt content. Some specialized uses are apparent, for example, Breton farmers transport large quantities of the brown alga *Himanthalia elongata* from the sea for artichoke crops; such uses may be more a matter of tradition than of any great benefit. More recent uses of seaweeds as fertilizers and soil stabilizers have been in the seeding of motorway embankments in Britain: grass seed is mixed with a crude extract of brown algae to make a paste-like mixture which is then sprayed onto disturbed areas. The paste keeps the seeds in place, retains moisture and binds the soil.

Soil Additive/Conditioner. A number of crustose, calcareous red algae (Corallinaceae) grow detached in shallow waters on the coasts of north western Europe and in the western Mediterranean and accumulate to form large beds of stone-like algae. These are collectively known as "maÃ«rl", "coral" or "coral sand" in northwestern France, Britain and Ireland (Blunden, Binns & Perks 1975). The two most common species in the north-eastern Atlantic are *Phymatolithon calcareum* and *Lithothamnion corallioides*, growing from 0-8(32) m in the sub tidal of quiet bays with clear Atlantic water off the coasts of Spain, France, Britain and Ireland. The

algal thallus is made up of successive layers of calcium and magnesium carbonates, which may account for up to 80% of the wet weight. MaÃ«rl is dredged off the coast of Brittany, at Falmouth in England, and in Bantry Bay, Ireland, dried, ground, and sold as a soil additive. Over 600,000 tons are harvested each year from live and dead deposits. Transport and drying costs are high and the main advantage over ordinary lime may be the relatively large amounts of trace elements present in the seaweed product. This product is much favored by organic farmers and horticulturists, as it is believed to provide many trace elements that might otherwise need to be added in "chemical" form. Ground maÃ«rl is particularly good for water filtration.

As Feed. The feeding of seaweed meal in the ration of hens was found to reduce the incidence of thin-shelled eggs had increased iodine content have also been observed in seaweed-fed poultry.

Medicinal uses. Certain species of seaweeds have been found to contain compounds with medicinal effects. Some were used to heal wounds, burns, and rashes. Others have been eaten for prevention of intenal disorders.

Carageenan and Agar. The major portion of seaweed harvest is used as raw material for the manufacture of agar and carageenan. Only 1 per cent is utilized for direct human consumption and a small percentage for raw material in animal feed and fertilizer production.

Carageenan is a natural marine colloidal gum that is extracted from some species of seaweeds. It is a yellowish or tan to white coarse to fine powder that is practically odorless and has a mucilage taste. It has the unique ability to form an almost infinite variety of gels at room temperature, rigid or compliant, tough or tender with high or low melting point. The gelation requires no refrigeration and the gels can be made stable through repeated freeze-thaw cycles. It is used to enhance a number of milk system and water system food products. Its functions include fat and foam stabilization, emulsion stabilization, gelation, thickening and binding. It is applied similarly in cosmetics, pharmaceuticals and other non-food products.

- In poultry, hams, sausages and other meat products- it is injected with carageenan to serve as binder, moisture holder and gelling agent. Sauces, salad dressing and dips require carageenan to impart body, provide thickness and stabilize emulsions.
- In the dairy items and desserts, carageenan is utilized as an enhancer. Whipped creams and toppings have stable foam due to carageenan. Acid milk products such as cream cheese and cottage cheese are given body and in the case of yogurt, improved fruit suspension of chocolate.
- Non-food use. Carageenan improves foam stability and creates thickness in shampoos. Carageenan is found in lotions and creams as it imparts body, provides slip, and improves rubout. It is also present in toothpastes, acting as a binder and improving foam stability. It is also found in gel-foam air-fresheners.
- As additive in instant food drinks, to keep food particles liquid in mixture.
- As medicinal ingredients in the preparation of surgical jellies, demulcents, and anti-acid tablets, in checking hepatitis, and in curing ulcer.
- As natural latex creaming and thickening for rubber.
- As adhesive for paper bags and gummed tapes.

- As coating for food packages and milk containers, ceramic glazes, leather finishes, broiler compounds, batter plate separators, beet sugar processing, wax and emulsions.
- As additive in the preparation of fertilizer and pesticides.

3. Supply

a) World Production

As of 2003, China was the world's largest producer of seaweeds accounting for 63% of total world production followed by Japan with 21%. Meanwhile, the Philippines' share of seaweeds world production stands at 8%.

The Philippines is considered the world's largest producer of semi-refined carageenan also known as the Philippine National Grade (PNG) and the third largest manufacturer of refined carageenan, after the United States and Denmark. However, the country is also the biggest producer of red seaweed next to Japan (UA&P Food and Agribusiness Yearbook and Directory). The country is considered the largest supplier of *Euchema* accounting for 80% of total world supply.

During the period 1993-1997, the Philippines ranked 5th among the major producing countries of seaweed. The country contributed 6.56% to the total world production of 559,888,073 mt. China, on the other hand was the major seaweed producer with 292,441,630 mt that contributed 52.23% to the world production (Table 6). The second producing country was Korea with 57,221,136 mt followed by Korea Republic with 50,027,596 mt. They accounted for 10.22% and 8.94% of world production, respectively.

Table 6. Seaweed World Production, 1993-1997 (in Metric Tons).

All Fishing Areas	1993	1994	1995	1996	1997	% Share	Growth Rate (93-97)
Total World Production	36,566,591	71,624,400	141,389,256	280,902,907	559,888,073	100.00	-
China	18,511,176	36,821,085	73,346,026	146,377,635	292,441,630	52.23	99.37
Korea D P Rp	3,594,446	7,166,892	14,316,784	28,618,568	57,221,136	10.22	99.75
Korea Rep	3,352,172	6,464,342	12,650,014	25,098,883	50,027,596	8.94	99.57
Japan	3,411,847	6,453,944	12,418,978	24,426,747	48,476,658	8.66	94.18
Philippines	2,704,308	5,031,093	9,606,416	18,666,506	36,720,567	6.56	92.00
Chile	1,241,142	2,403,421	4,702,937	9,243,340	18,325,732	3.27	96.03
Norway	904,545	1,809,090	3,618,180	7,236,360	14,472,720	2.58	100.00
Indonesia	673,951	1,229,507	2,348,576	4,585,577	9,009,611	1.61	91.29
USA	405,972	811,944	1,623,888	3,247,572	6,494,882	1.16	99.99
India	437,800	831,500	1,617,900	3,190,700	6,334,700	1.13	95.06
Others	1,329,232	2,601,582	5,139,557	10,211,019	20,362,841	3.64	97.84

Source: DA

b) Domestic Production

Seaweed production is very important to the country's marine ecosystem along with mangrove and coral reefs. In 2003 seaweed production accounted for 68% of the

country's aquaculture production leaving fish/shellfish with 32% share. Of the 988,888 mt produced in 2003, Mindanao contributed 54% or 535,484 mt and the rest 453,404 mt are shared by Luzon and Visayas.
The country's seaweed production over the past 23 years however showed a modest growth (Table 7). Production is increasing at a rate of 7.67% annually. Growth in production from 1995 onwards was only at 4% per year.

Tawi-tawi is the major producing area of seaweed contributing 30% or 189,192 mt to the total production of seaweed valued at P586,277,000 (Table 8). Sulu is the 2nd top producer with 168,265 mt and Palawan as the 3rd producing province at 103,386 mt. Other producing areas include Zamboanga City, Antique, Bohol among others.

Table 7. Production of seaweeds (in metric tons) by region, Philippines, 1993-2001.

Year	Philippines	Region I	Region II	Region III	Region IV	Region V	Region VI	NCR
1980	229,957	19	2		952	10	74	
1981	86,261				3,025		33	5
1982	109,239	13	4		4,421	139	1,223	74
1983	133,650	21	4		2,142	12	38	
1984	145,036	19			2,206	15	32	
1985	184,410	20		7	2,130	20	68	
1986	170,483	16		8	2,078	26	66	
1987	222,003	67	8	6	2,148	27	39	
1988	257,305	21	26	9	4,745	40	14	
1989	270,165	74	29	16	5,006	63	50	
1990	292,471	82	30	16	5,115	54	56	
1991	285,233	180	67	16	4,337	52	67	
1992	350,554	42	88		5,504	52	45	
1993	381,154				3,319	1,176	2,195	
1994	404,918	11	3		3,054	3,366	1,703	
1995	579,922	2	4	4	104,122	10,837	1,306	
1996	658,998	2	4	3	180,612	8,871	1,336	
1997	657,786	4	2	2	164,998	3,246	2,102	
1998	685,753	2	1	1	143,042	7,325	12,724	
1999	696,545	2	1	1	125,685	8,470	17,889	
2000	707,452	1	1	1	168,758	10,753	19,187	
2001	786,242	1	1	1	171,635	21,086	30,768	

c) Importation

The Philippines is also importing seaweeds. Indonesia is the major supplier contributing 51.17% or US$422,750 to the total import of US$826,126 (Table 9). Chile, on the other hand, is the 2nd major supplier with US$176,941 worth of seaweed export to the Philippines and USA with US$120,005. Other sources of seaweeds are Ireland, United Kingdom, China, Japan, among others.

Table 8. Seaweed production (in metric tons) by province, Philippines, 1995-1999.

PROVINCE	1995	1996	1997	1998	1999
Tawitawi	164,753	166,200	181,335	186,293	189,192
Sulu	178,996	168,860	173,729	173,223	168,265
Palawan	102,649	178,910	163,495	141,301	103,386
Zamboanga City	79,128	85,139	82,151	95,260	98,131
Antique	1,255	1,282	1,843	12,027	17,222
Bohol	9,563	10,383	9,451	8.728	9,693
Zamboanga del Sur	7,925	8,165	7,921	8,346	9,569
Zamboanga del Norte	-	-	-	5,850	8,010
Camarines Norte	-	-	715	3,558	5,018
Sorsogon	10,183	8,845	2,062	3,069	3,415
Others	3,188	3,603	4,403	4,924	8,719
Philippines	558,270	631,387	627,105	642,579	620,620

Table 9. Philippine imports of seaweeds (in kg and US$), 1995-1999.

Country	1995		1996		1997		1998		1999	
	Qty (kg)	Value US $	Qty (kg)	Value US $	Qty (kg)	Value US $	Qty (kg)	Value US $	Qty (kg)	Value US $
Indonesia	333,739	218,781	498,762	294,433	525,060	380,715	358,945	243,247	858,992	422,750
Chile	75,800	96,000	175,000	204,650	482,322	554,676	-	-	163,468	176,941
USA	-	-	205,725	247,991	86,687	56,978	524	837	103,798	120,005
Ireland	-	-	-	-	-	-	-	-	9,636	58,780
UK	-	-	-	-	-	-	-	-	20,000	21,265
China	-	-	-	-	15,000	4,058	6,734	25,192	4,404	8,297
Japan	5,176	8,227	10,020	5,114	6,282	5,964	20,924	17,083	3,576	6,825
Korea	72	99	394	525	9,224	6,274	2,373	2,205	4,399	4,752
Taiwan	-	-	-	-	500	12,720	1,400	1,313	100	4,529
Hongkong	2,068	2,983	1,227	1,470	1,954	2,320	8,868	13,423	1,474	1,982
Others	14,810	7,590	125,532	50,336	183,898	70,370	47,736	30,073	-	-
Total	430,865	333,680	1,016,660	804,519	1,310,927	1,094,075	447,504	333,373	1,170,047	826,126

4. Demand

a) Foreign Demand

The increasing global demand for carageenan encourages the Philippines to expand its production areas and produce quality seaweed to remain the preferred supplier in the world market. The country has been the number one supplier of *Euchema* seaweed and semi-refined carageenan and number four supplier of refined carageenan (Agriculture, October 2004).

For the past several years, demand for seaweeds in the foreign market had been growing. The number of importing countries likewise had increased from 42 to 45 countries for carageenan from 2002 to 2003 and 30 to 39 countries for seaweeds for the same period. Inspite of the barriers posed by the advanced countries like the USA and European countries, demand for carageenan continues to surge.

United Kingdom was the major market of Philippine seaweed contributing 14.10% (US$6,220,912) to the total export value of US$44,107,266 in 1999. This was followed by Denmark with US$5,758,868 and United States of America with

US$5,733,543. Other major markets are France, China, Spain, Hongkong, among others. In 2003, the Philippines major export markets for seaweeds were the USA, France, Denmark, South Korea and China. Of the total export value US$ 33,134,333 USA has 20.15% share, France with 17.31%, Denmark with 9.3%, South Korea 9% and China with 6.6%. The rest went to the remaining forty importing countries.

On the other hand, Denmark was the Philippines major market of carrageenan in 1999 (16.24%). This was followed by France with US$6,190,540, United Kingdom & Great Britain with US$5,803,796 (Table10) and USA with US$5,208,230. However, Philippine import of Carrageenan (Table 11) showed a tremendous increase in 1999 from US$235,241 in 1998 to US$1,564,804 in 1999. Denmark was our major importer having a share of 62.93% to total carrageenan imports. For 2003, Denmark, USA and France were the major export markets with exports of carageenan worth US$12.2M, US$5.97M and US$4.78M, respectively.

By product breakdown of Philippine exports of seaweeds in 1996, semi refined carageenan accounted for 55%, refined carageenan 24% and raw seaweeds 21%.

In the world market, carrageenan was mainly used for dairy needs. Other applications are for water gel, non-food uses and the least for other food items (FAO Fisheries Technical Paper, 1997)

Table 10. Philippine Exports of Seaweeds, 1995-1999.

Country	1995		1996		1997		1998		1999	
	Qty (kg)	Value US $	Qty (kg)	Value US $	Qty (kg)	Value US $	Qty (kg)	Value US $	Qty (kg)	Value US $
UK	1,140,460	3,319,728	1,280,440	4,901,836	897,500	2,936,650	977,200	2,759,688	1,712,250	6,220,912
Denmark	4,894,368	5,712,339	3,114,640	4,713,454	3,376,852	5,622,267	1,544,809	3,247,087	4,306,568	5,758,868
USA	2,968,958	4,672,904	1,789,773	4,269,536	3,065,595	4,241,128	1,815,099	3,691,952	2,780,247	5,733,543
France	7,525,720	7,952,756	5,828,010	7,042,406	4,974,180	4,132,565	6,722,821	4,298,162	5,367,390	4,711,418
China	-	-	-	-	-	-	663,655	594,254	3,448,694	3,345,198
Spain	2,595,102	2,002,652	3,547,997	3,726,915	-	-	790,000	497,200	3,209,959	2,856,804
Hongkong	1,043,942	733,698	2,507,270	1,726,343	2,351,894	1,489,826	2,471,062	1,567,780	5,222,415	2,573,206
Korea	2,682,000	2,687,185	4,106,544	3,965,859	2,968,000	2,562,205	5,143,513	3,366,117	2,494,800	2,070,458
Thailand	520,670	1,315,488	552,960	1,723,413	399,900	1,274,495	673,010	2,175,560	488,350	1,575,867
Brazil	-	-	-	-	619,160	385,230	1,312,730	914,720	1,376,650	1,229,907
Others	5,549,597	10,708,893	3,680,758	9,903,772	9,009,465	10,748,966	4,608,333	7,564,225	2,048,394	8,031,085
Total	28,920,817	39,105,643	26,408,392	41,973,534	27,662,546	33,393,332	26,722,232	30,676,745	32,455,717	44,107,266

Source: DA

b) Domestic Demand

Seaweed processing in the Philippines was recognized as an industry in 1966 when the unprecedented commercial exploitation of the then widely-growing Eucheuma seaweed boosted the country's exports with a record volume of 800 metric tons. Initially, no attempts were made to cultivate Eucheuma. People gathered only wild varieties and this satisfied the needs of the foreign market for a few years. But the supply dropped alarmingly in the late 60's. This prompted Marine Colloid Philippines, Inc. (MCPI), a leading seaweed exporter, to study the feasibility of commercial Eucheuma farming. The company spent millions of pesos on research and development and, together with Filipino scientists, pioneered in this area. Seaweed culture proved successful after an experimental period from 1969 to 1973. By 1980,

several firms in the Philippines were manufacturing a new grade of carrageenan from seaweeds of the Eucheuma variety. This new grade of carrageenan had found markets all over the world and was known as Semi-Refined Carrageenan (SRC) or Philippine Natural Grade (PNG) carrageenan (Department of Agriculture Agribusiness Marketing Assistance Service).

Table 11. Philippine Exports of Seaweeds, 1995-1999.

Countries	**1995**	**1996**	**1997**	**1998**	**1999**
United Kingdom	3,319,728	4,901,836	2,936,650	2,759,688	6,220,912
Denmark	5,712,339	4,713,454	5,622,267	3,247,087	5,758,868
USA	4,672,904	4,269,536	4,241,128	3,691,952	5,733,543
France	7,952,756	7,042,406	4,132,565	4,298,162	4,711,418
China	-	-	-	594,254	3,345,198
Spain	2,002,652	3,726,915	-	497,200	2,856,804
Hongkong	733,698	1,726,343	1,489,826	1,567,780	2,573,206
Korea	2,687,185	3,965,859	2,562,205	3,366,117	2,070,458
Thailand	1,315,488	1,723,413	1,274,495	2,175,560	1,575,867
Brazil	-	-	385,230	914,720	1,229,907
Others	10,708,893	9,903,772	10,748,966	7,564,225	8,031,085
Total	39,105,643	41,973,534	33,393,332	30,676,745	44,107,266

Value in US$.

The following are the present markets for carageenan:

Food Markets
- Bread- retain fresh texture and taste on storage
- Noodles- improve resistance to overcooking
- Other Farinaceous Foods- improve the quality of high standard formulations

New Industrial Markets
- Industrial Suspension and Slurries- ideal stabilizing polymer for a wide range of solid-in-water dispersions
- Ceramic coatings and extrusion products-carrier for ceramic coating during manufacture of automotive spark plugs
- Anti-icers-fully soluble in the hot water/glycol mixes used for aviation machinery
- Humidity Control-can be used to control the humidity within a package
- Paper-Carageenans are excellent film formers and will reinforce cellulose fibers to give added wet and tear strength and to control ink bleed. Moisture lost by leakage is replaced at the expense of the gel which merely shrinks in size.
- Stabilizer- Carageenan outperformed xanthan and CMC when used as a stabilizer in liquid scouring cleansers for fiberglass, plastics and tiles.

Agriculture and Horticulture
- Hydraulic seeding-suspends the grass seed and fertilizer prior to pumping and help retain the seed on the soil
- Pesticide-film former which prevent misting and run off from plant foliage

- Used in pesticide preparation- as a natural ingredient, carageeann use has not been associated with toxilogical hazards

Biotechnology
- Cell immobilization-useful for trapping the seeds, cells and microorganisms with or without nutrients and other active materials.

Personal Care and Pharmaceutical
- Wound dressing-forms a water insoluble complex with an extract from the shell of crabs and other crustaceans called chitosan
- Cosmetics-control textual properties of any formulation or preparation containing plyols.

5. Marketing System

a) Product Form

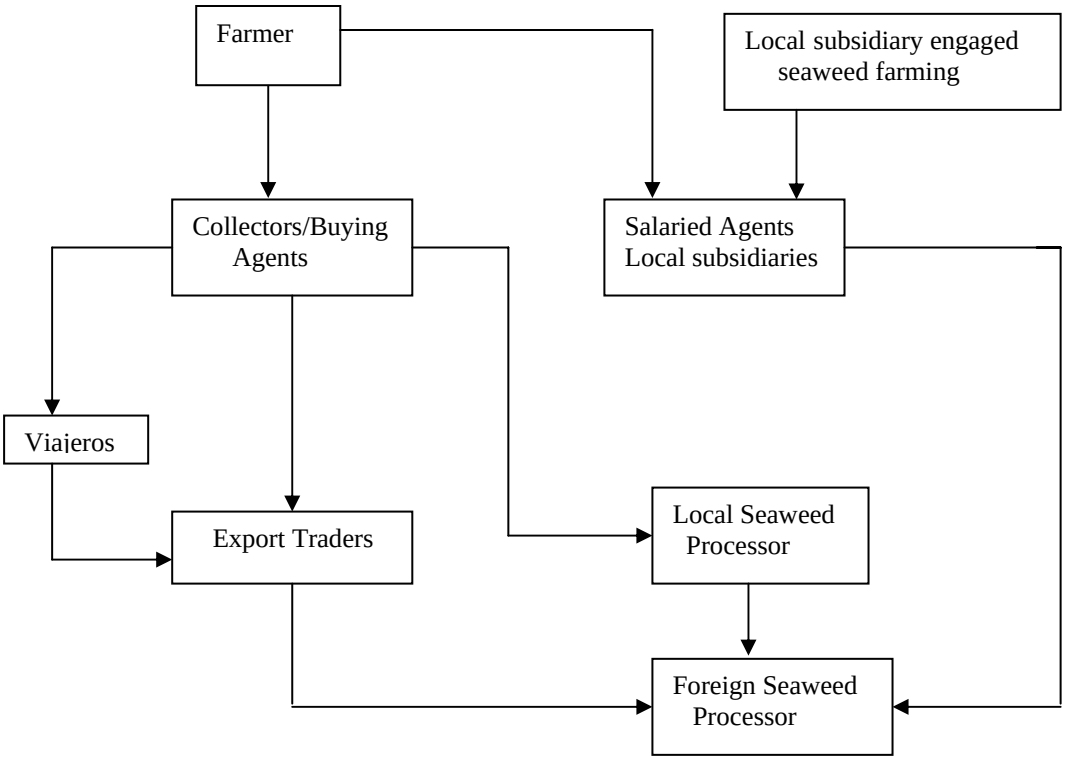
Seaweeds are marketed in the following product forms:
- Dried
- Carageenan (white powder)- a yellowish or tan to white, coarse to fine powder that is practically colorless and has mucilaginous taste. It is a valuable substance used mainly in products that need gelling, suspending, thickening or with water holding properties.
- Carageenan (gel)- a jelly-like substance obtained by extraction with alkaline of red seaweed which grow abundantly in warm waters.

b) Distribution and Prices

Seaweeds or seaweed products for export are produced in tremendous quantities by thousands of fishermen. The marketing channel consists of farmer-producer, small traders or middlemen, large traders or agents and exporters/processors.

There are two product flows. These are (1) farm to independent trader/buyer/middleman for export to a foreign processing company or its local subsidiary of a foreign-based parent company abroad; and (2) local subsidiary engaged in seaweed farming to a foreign-based parent company (Fig 4).

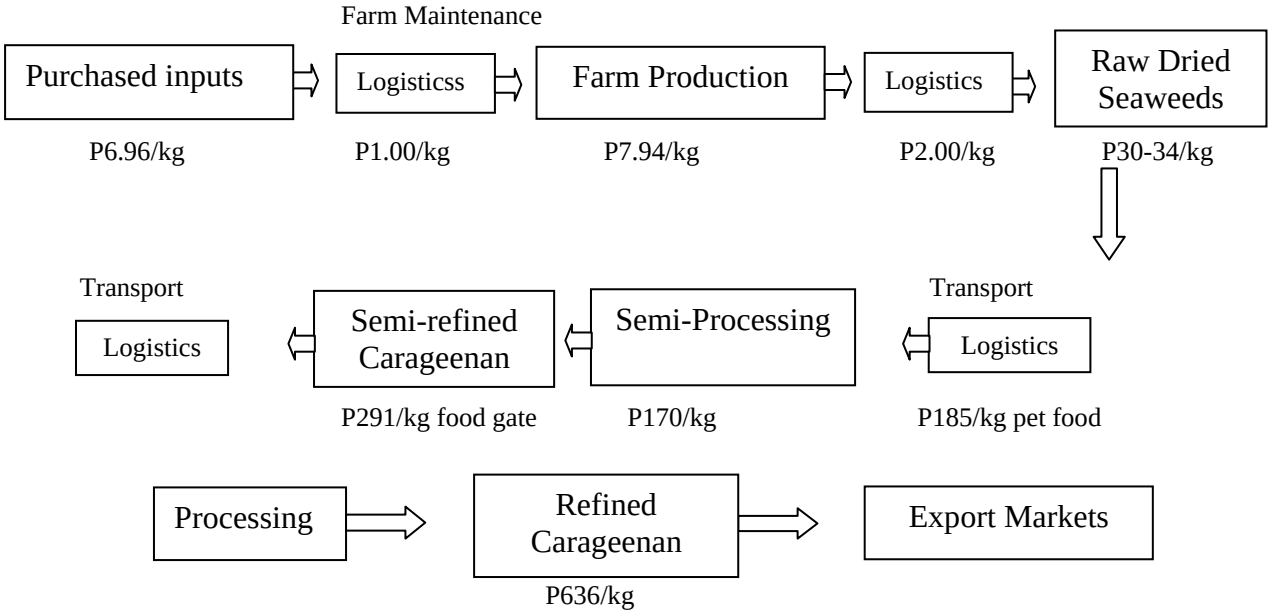
There are collection centers where seaweeds from various production areas are collected and sent to exporting centers. For example, seaweeds from Sitangkai and Sibutu in Tawitawi are collected in Bongao or Jolo before being shipped to Zamboanga City, Cebu City and Manila for export.



Source: DTI, The Seaweed Industry: Its Competitiveness in the World Market, June 1988 cited in Seaweed: An Investment Profile, Department of Agriculture.

Figure 4. Seaweeds commodity flow.

The following figure shows the supply/value chain for seaweeds in Mindanao:



Source: Mindanao Seaweeds Industry Road Map, Department of Agriculture.

Figure 5. Seaweeds supply/value chain.

Prices of seaweeds are heavily influenced by the buying policies of every buyer in the marketing chain. Generally, the middlemen rather than the producers dictate the prices of seaweeds. A Chinese middleman pays P7.50 to P8.00 per kg of dried seaweed.

Dried seaweeds are bought from the farms at a cost of P5 to P10 per kg. These are shipped to Zamboanga or Cebu where buying stations of the four local producers of seaweed products are located and sell for P10 to P12 of either semi-processed or exported dried seaweed.

c) Key Players in the Industry

There are 24 major players in the industry. These companies export either dried seaweeds only or both semi-refined carageenan and refined carageenan or combinations of the three product forms. The biggest players in the industry are Shemberg Marketing Corporation, Marcel Trading Corporation and Marine Colloids Phils. Inc. According to the Food and Agribusiness Yearbook, altogether these companies capture about 78% of the industry's export earnings.

The following are the companies engaged in exporting seaweeds:

1. Shemberg Marketing Corporation
   Pakna-an, Mandaue City
   Fax No. (63 32) 346-0863
   CP: Mr. Benson U. Dakay - CEO and SIAP President
2. Marcel Corporation
   Araneta Avenue, Quezon City
   Tel No. (632) 712-2631
   Fax No. (632) 712-5879 / 712-1989
   CP: Mr. Wee Lee Hiong - President
3. Philippine Bio-Industries Inc.
   Herrera St. Legaspi Village, Makati City
   Tel No. (632) 812-0377
   Fax No. (632) 840-0172
   Mr. Richard Radier - General Manager
4. King Marine Agro Corporation
   Juan Luna St. Binondo, Manila
   Fax No. (632) 242-2836 / 242-6905
   CP: Mr. Rene Pelagio - Export Coordinator
5. Asia Gel Corporation
   Escolta St., Manila
   Tel No. (632) 243-3951
   Fax No. (632) 243-6955
   CP: Mr. Christian Pile - General Manager
6. MCPI Corporation
   Tugbongan, Consolacion, Cebu City
   Tel No. (63 32) 346-0376 / 345-3751
   Celfone 0912-821-3346

Fax No. (63 32) 345-2740 / 346-0588
CP: Mr. Maximo Ricohermoso – President

7. Shemberg Biotech Corporation
   Carmen, Cebu
   Tel. No. (63 32) 254-9380
   Fax No. (63 32) 254-9388
   CP: Mr. Avelino Zambo - Executive Vice President
8. Quest International
   MEPZ, Lapu-Lapu City
   Tel No. (63 32) 340-0319 / 340-0322
   Fax No. (63 32) 340-0328
   CP: Ms. Ernestina Elizalde - Managing Director
9. FMC-Marine Colloids Phils. Inc.
   Quano Compound, Lo-oc, Mandaue
   Tel No. (63 32) 346-1811
   Fax No. (63 32) 346-1182
   CP: Mrs. Tita Tomayao - General Manager
10. Geltech Hayco Corporation
    Mabolo, Cebu City
    Tel No. (63 32) 231-0388
    Fax No. (63 32) 231-0103
    CP: Engr. Go Ching Hai – President
11. Genu Products Philippines Inc.
    Keppel Building, Cebu Business Center, Cebu City
    Tel No. (63 32) 233-1323 / 28
    Fax No. (63 32) 233-1373
    CP: Mr. Anastacio Cambonga - General Manager
12. Hercules Ultra Marine Inc.
    Sibonga, Cebu
    Celfone: 0918-7733735 / 7733735
    Tel No. (63 32) 257-3370
    CP: Mr. Ole Moegaard - General Manager
13. SKW Bio Industries
    V. Rama Avenue, Cebu City
    Tel No. (63 32) 255-2963
    Fax No. (63 32) 255-2963
    CP: Mr. Expedito Dublin - Philippine Representative
14. Delfin Internationa
    Cebu City
    Fax No. (63 32) 254-5497 / 261-0216 / 261-8837
    CP: Mrs. Luciana Delfin - General Manager
15. Marcel Trading Corporation
    Zamboanga City
    Fax No. (63 32) 911-1441
    CP: Mrs. Marina Tan - General Manager
16. Polyscaride Corporation
    Maasin, Zamboanga City
    Fax No. (63 62) 991-3032
    CP: Mr. Ben Avarado - General Manager

17. LM Zamboanga United Trading
    Sta. Catalina St. Zamboanga City
    Fax No. (63 62) 991-2607
    CP: Mr. Manuel Luy - General Manager
18. ZAMBOANGA FISH TRADING
    Veteran Avenue, Zamboanga City
    Tel. No. (63 62) 991-2350
    Fax No. (63 32) 991-2123
    CP: Mr. Vicente Wee - General Manager
19. Natum Corporation
    Buenavista St., Zamboanga City
    Fax No. (63 62) 991-3491
    CP: Mr. Jun Howon - General Manager
20. Ramon Chua Trading
    Sta. Catalina St. Zamboanga City
    Fax No. (63 62) 992-1435
    CP: Mr. Ramon Chua - General Manager
21. Omar Trading
    Sta. Catalina St. Zamboanga City
    Tel No. (63 62) 991-2504 / 992-0323
    Fax No. (63 32) 992-0322
    CP: Mr. Adam Omar - General Manager
22. IA Business Enterprises
    Zamboanga City
    Tel No. (63 62) 991-4711
    Fax No. (63 62) 991-1337
    CP: Mr. Ismael Abubakar - General Manager
23. Polenton Pacific Corporation
    Zamboanga City
    Tel No. (63 62) 991-5523
    Fax No. (63 62) 991-5523
    CP: Mr. George Alolor - Purchase
24. King Hoc Seaweed Enterprises
    Zamboanga City
    Tel No. (63 62) 991-6490
    Fax No. (63 62) 991-6490
    CP: Mr. John Cabanes - General Manager

6. Government Support and Incentives

There are a number of incentives that may be availed of by a seaweed producer or exporter:

- Executive Order 226 (As export producer)
  - For a Filipino corporation- export of at least 50% of local output
  - For foreign corporation (with more than 40% equity)- export of at least 70% of total output
  - Income tax holiday
  - Tax credit on taxes and duties for raw material/inputs used in export product

- Exemption from wharfage dues and any export tax, duty

- RA 8435
  - Duty free importation of capital equipment and inputs
- RA 8550
  - Tax and duty exemptions on the importation of fishing vessels not more than 5 years old
  - Long term loans to finance the building and acquisition and/or improvement of fishing vessels and equipment
  - Duty and tax rebates on fuel consumption for commercial operations

7. SWOT Analysis

The following is a SWOT analysis for the industry. The strength and weaknesses are inherent in the industry while the threats and opportunities come from the environment.

SWOT ANALYSIS
STRENGTHS • Ideal agro-climatic environment • Presence of established production technology • Farmers willing to farm and take risks • Established marketing and distribution system • Presence of many players in the processing and export sectors • PNG Carageenan is competitive with refined carageenan from other species • Globally competitive cost structures
WEAKNESSES • High incidence of low farm productivity • Poor quality of seaweed in some areas due to poor farming practices • Lack of industry-wide quality standards on raw seweeds • Inadequate thecnical services and training • Lack of farm or village level postharvest and drying facilities • Limited competition at the farm level • Lack of organized growers cooperatives • Inadequate production credit access • Weak government support in international regulatory for a • Limited access to global market intelligence by many stakeholders • Inadequate R and D budget on processing and product application
OPPORTUNITIES • High potential for farm expansion • High potential for farm productivity enhancement and quality improvements • Entry of new investors in the processing sector • New markets for new application • High demand for technical services • Higher growth rate than the total hydrocolloid market • Expanding new product applications

• Acceptance of PNG as food additive and as casings for medicine capsules
THREATS • Increasing unit costs due to slow (or unrealized) productive gains • Rising cost of doing business • Inadequate supply of raw seaweed for SRC plants leading to low capacity utilizations or closures • Pollution of some farm production area • Inadequate observance of quality standards for raw seaweed that impacts on carageenan recovery • Peace and order concerns in parts of Western Mindanao • Increasing competition inEuchema growing from Indonesia, Malaysia and Africa • Establishment of carageenan palnts in competing countries • New lobbying and disinformation tactics by competing firms over seas • Country specific regulatory guidelines and their high rates of change in EU

Source: DA

8. Problems and Constraints

The steady increase in production from 1997-2002 was attributed to high market demand, better prices received and good weather condition that encouraged farmers to expand areas for seaweed culture. Inspite of the continuous increase in seaweed production and share in the world market, the industry is beset with the following problems and constraints.

1. **Volume harvested by individual collectors is inadequate to meet the requirements of existing processors due to**
   a. Limited and uncoordinated system of collection
   a. Inadequate postharvest facilities and equipment
   b. Vast untapped potential sources
   c. Seedling inadequate and not readily available during culture period
   d. Ice-ice" disease
   e. Lack of quality seed stocks to deteriorating genetic condition of existing stocks in most seaweed farms
   f. Pollution in production areas
   g. Peace and order in seaweed producing areas
2. **Processing**
   a. Lack of additional refining plants to meet world demand of carageenan
   b. Inadequate technology to reduce acid insoluble (AIM) matter of the 8 to 18% cellulose fiber content to the new directive of 2% AIM although present AIM is fit for human consumption
3. **Marketing**
   a. Weak and inefficient marketing and pricing systems- subject to unstable buying and pricing policy of traders that is dictated upon by demand in the international market
   b. Stiff competition from FMC, Hercules and Sanofi whose financial clout can match or exceed a small LDC's GNP. They have taken the position of a long

term protracted marketing war against the Philippines in the hope that Philippine companies will grow weary in their bid to get accepted in the market and worst get bankrupt in the process.

c. Filipinos cannot sell directly in European countries market as they require an agent of foreign nationality. This means that there is a need for pre-selling (product demo and listing of product applications before any substantial sales can be made.
d. Increasing competition in *Euchema* production with other countries such as Malaysia, Indonesia and Africa

9. Conclusion

The Philippine seaweed industry has already penetrated the world market proving that it can be competitive vis-à-vis other producing countries. The country has the ideal agro-climatic conditions, wide natural grounds for expansion, established marketing and distribution systems and the presence of many players and processing and export sector. Cognizant of this fact, DA-BFAR will address some of these problems with the establishment of additional seaweed nurseries, promotion of seaweed health management, and provision of postharvest facilities and establishment of processing plant.

Mindanao has the largest potential area of seaweed farming and it accounts for 54% of the country's total seaweed production. However, their production is not enough to meet the demand of the local market. The peace and order condition especially in the ARMM, Sulu, etc. will give other areas like Palawan to fill in the gap. Palawan has also the ideal agro-climatic conditions to become a leading seaweed producer and exporter. With the identified constraints, Palawan can surge ahead by surmounting these challenges to production and marketing.

C. The Almaciga Industry

1. Background of the Industry

The term copal applies to a large group of resins characterized by their hardness and relatively high melting point. They are soluble in alcohol. Up until the 1940s, or thereabouts, they were among the best of natural resins for use in varnish and paint manufacture and traded in large volumes. In the oil-soluble form they were also used in the manufacture of linoleum. Copal has been produced from a large number of different species from many parts of the world- Africa, Asia and South America. Today, most copal of commerce originates from Agathis Species of Southeast Asia: the Malay and Indonesian archipelago in particular and, to a lesser extent, the Philippines.

Historically, the copals have been classified according to their geographical origin:

- **Congo copal.** In the 1920s, 1930s and 1940s, the quality of copal produced from the former Belgian Congo (now Zaire) far exceeded that from any other region of the world. From 20 tons in 1900, production rose to 12,000 tons in 1923 and

23,000 tons in 1936. The resin was all of the fossilized type, having fallen to the ground from the tree where it was produced as a result of natural exudation or from accidental injury. In many cases the trees were no longer standing and the resin was recovered from below the surface of the earth, where it was located by exploratory prodding with the stick. The very hard, acidic materials were traditionally converted into oil-soluble forms for use in varnishes by a process known as "running" (subjecting them to high temperature heat treatment).

- **West African copals**. These were collected and exported in moderate amounts before Congo copal became so important. Again, most of the resin was fossilized and the copals were known in the trade by their country of origin, e.g., Sierra Leone, Cameron, Angola and Accra copals.
- **East African copals**. This was produced mainly in Tanzania and Kenya and was collected either in semi-fossilized form (from the soil below the tree where it fell), fossilized form (from the soil where the tree no longer existed), or by tapping the living tree.
- **South American copals.** Brazilian copal is the best known and is still produced to a very small extent today, where it is known as *jutaicica*. It is usually collected as a semi-fossilized resin.
- **East Indian and Manila copal**. These were copals produced from what is now Indonesia and nearby islands, and the Philippines. The term Manila copal arose from the time when Manila was the main port of export. Total production from this region in some years during the early part of the century reached 15,000 tons; then, the copal was collected both in the semi-fossilized form and by tapping. Today, this is the most important copal-producing region of the world and all of it is produced by tapping. Copal of mainly Indonesian origin and Manila copal ("*almaciga*") are produced from the *Agathis* species.

Until the decline in demand for copals brought about by the use of synthetic resins for varnish and paint manufacture, much of the copal was collected in the semi-fossilized or fossilized form. Nowadays, most of it is collected by tapping the living tree. Furthermore, many of the trees, which are now tapped, have been planted, and there is no longer dependence on the wild forest.

What the redwood is to California, the giant *almaciga* (*Agathis philippensis*) is to the Philippines. The *almaciga*, one of the few species of conifers that can grow in the humid tropics, is a relative of the New Zealand kauri pine (*Agathis australis*). Both *almaciga* and kauri belong to a family of evergreens found only in the Southern Hemisphere whose ancestors first appeared in the Jurassic Period, about 150 million years ago. Fossil records indicate that members of the genus *Agathis* made their way from the Australian region into Southeast Asia during the Ice Ages when sea levels were lower and the channels between islands were narra.

Almaciga is a huge tree, up to 60 meters tall and with a trunk three meters wide. Its bark is grayish brown and forms large, flat, angular scales resembling a jigsaw puzzle pieces. Its massive trunk is cylindrical, straight and clear, not branching until it reaches the narrowly conical crown where it radiates into slender whorls of stiffly projecting branches. Both male and female cones are produced on these branches; The female cones are much larger than male cones and take two years to mature. Seeds can be fertilized with pollen from the same tree or from another nearby. The seeds

have wings that allow them to float away from the parent tree when the cone breaks into pieces.

Almaciga yields a valuable resin known on the world market as Manila copal, used in the manufacture of varnishes and linoleum. Tapping the resin has been an important source of income for many rural people in the Philippines. *Almaciga* is now listed as a potentially threatened species because excessive tapping coupled with destructive methods (such as application of sulfuric acid to stimulate resin production) has killed many trees. With other sources of hardwood timber diminishing, the industry is turning its eyes on *almaciga*, which is highly prized and carries a premium on the market. We can only hope the *almaciga* does not meet the fate of the kauri pine, which was exploited to exhaustion in New Zealand during the first half of this century..

Almaciga is a very large tree reaching 300 cm in diameter at breast height and 60 m in height. The trunk is straight, cylindrical or may taper and sometimes with markedly spiral grain. It has no buttress but with big swollen superficial roots. Sometimes the butt swells to a varying degree.

The crown is monopodial and narrowly conical. The branches are radial and may droop or turn at the ends, and may vary in thickness. It self prunes to leave a clear bole. The bark is smooth, gray, 1-1.5 cm thick and peels or shed off in large irregular plates. It is a rich source of resin. Young leaves are about 3-4 cm wide and at least 10 cm long. Leaves from fully exposed branches are rounded at the apex, 4-5 cm long and 1.5-2 cm wide.

Cones are globular, about 8 cm in diameter. Male cones are borne In or slightly above the leaf axils and cylindrical. Cone scales are peltate, numerous, with 10-12 pollen sacs. Female cones are terminal, ovoid to globose, with numerous woody cone scales, each bearing a single large ovule. The cones become massive and woody at maturity; viable seeds form only in the flattened-ovoid with 1 large wing. Sometimes the wings are smaller than usual. Ripe cones shatter on the tree.

Almaciga is endemic in the Philippines and exists on mountain slopes throughput the archipelago. Reports show that the species grow in the following provinces: Cagayan, Rizal, Isabela, Benguet, Abra, Zambales, Nueva Ecija, Bataan, Tayabas, Quezon, Polilio, Aurora, Mindoro, Camarines, Albay, Sorsogon, Calayan Island, Sibuyan, Negros, Samar, Palawan, Misamis, Davao and Zamboanga. It has a geographic range from 19˚30 N to 38˚S and is commonly found in countries like New Zealand, Australia, New Caledonia, Melenesia, Papua New Guinea, Moluccas, Sumatra, Java and Brunei. The tree is distributed at medium and high altitudes ranging from 400 to 3000 m above sea level.

2. Uses of the Industry's Products

Almaciga yields high quality resin. A good type will produce 20 kg of gum per year. The resin is commonly known as Manila copal in the international market. It is utilized in various products such as varnish, paint, linoleum, plastic and others.

Today the major use of copal is as varnish for wood and paper. It is also used in road-marking paints, where the capacity of the resin to prevent bleed-through of road-making materials is beneficial.

It was an early export product of the Philippines, hence the identification Manila copal. Locally, this is used as incenses in religious ceremonies, for torches, starting fire, caulking boats and smudge for mosquitoes. It is also used in other processes as in making patent leather and sealing wax. *Almaciga* is suitable for the manufacture of cheap soaps and paper size. Aqueous solutions of the alkaline resonates are precipitated by solutions of all other metallic salts, e.g. aluminum sulphate, in the form of an insoluble resinate which could be used in paper manufacturing to render the paper non-bibulous.

Resins and gums are products obtained from exudations of plants. The products may exude spontaneously, but are more often secured by making incisions in the bark or trunk. It is somewhat difficult to draw a sharp distinction between gums and resins, as there are a number of plant exudations known as oleoresins, balsams and gum resins which have properties intermediate between those of true gums and resins. In general, plant products of this nature contain resins, gums, volatile oils and aromatic acids.

Resins are solid or semi-solid and are insoluble in water, but soluble in alcohol, ether and volatile oils. They are formed usually by the spontaneous evaporation of resinous juices which exude naturally from the trunk of trees or when the trunks are cut. Frequently resin may be extracted from various parts of plants by solvents such as alcohol and ether. They are also found as minerals (mineral resin) which are no doubt, products of extinct vegetation. Resins from different sources frequently show great differences in their chemical composition and properties. Commercially, manila copal, which is used in making varnishes, is the most important Philippine resin.

Oleoresins are the plant exudations consisting of resins dissolved in volatile essential oils. Manila elemi, employed in varnish making, and turpentine are examples of this class of substances accruing in the Philippines.

Gum resins are plant exudations, like gamboges, which consist of a mixture of resin gum. Gamboges of the inferior quality can be obtained in the Philippines from *Garcinia venulosa* and probably from other species of *Garcinia.*

Some of the dipterocarp resins can be collected in large quantities and appear to offer commercial possibilities as material for the manufacture of varnishes.

3. Supply

a) World Production

Indonesia is the biggest producer and exporter of copal followed by the Philippines. Indonesia's exports averages 1,850 tons per year.

In 1982, Sarawak exported just over 50 tons of copal; Malaysian exports since then record only very small quantities of copal. Papua New Guinea has been a small producer and exporter in the past but the present scale of production from this source and other islands of the Pacific, is not known.

Total exports from Indonesia and the Philippines averaged about 2,300 tons per year from 1988-1993. Most Indonesian copal (and some Filipino) is shipped via Singapore but Germany, which also imports directly from Indonesia, is a major market outlet and the most important in Europe. India and Japan import modest quantities directly from Indonesia. Taiwan is the biggest importer of copal from the Philippines.

Imports of copal and damar into Japan from 1985-1987 averaged 400 tons per year.

b) Local Production

The yield of resins produced from the copal depends on a large number of factors namely: genetic, environmental and practical (i.e., method of tapping used) factors, and it is very variable. It had been reported that annual yield of 16-20 kg came from a good tree. The average annual yield of 1.2 kg, 3.7 kg and 5.6 kg/tree were the result of recent tapping trials at three sites in the Philippines.

Agathis with thick bark yields significantly more resin than those thin-barked trees, and that tapping in the morning and at the side of the tree, which maximizes the length of time, that sunlight falls on it is beneficial to resin yields.

Aside from resin, the *Agathis* produces a high class, much valued, utility timber and it is grown widely as a timber tree. These resin yielding Agathis are planted for timber and tapping of plantation trees is therefore a secondary activity to that of timber production. The proportion of planted trees, which are tapped commercially, is not known but it is probable that it is a relatively small proportion and that copal production from such sources could be increased significantly if demand and the economics of production are favorable.

Production data from 1990-1998 show a declining trend in resin production in the country at a rate of 5.93% per year (Table 11). Except in 1994 and 1995 where copal production was at its peak, production was very low in 1997-1998.

Table 11. *Almaciga* resin production, Philippines, 1990-1998.

Year	Volume (000 Kgs)
1990	943
1991	780
1992	634
1993	576
1994	1231
1995	1059
1996	890
1997	310
1998	261

Varnishes and lacquers are produced from *almaciga* resins. A conglomeration of both large and small firms manufactures these varnishes and lacquers. Official industry figures on production capacity of the coatings industry are not available. However, the Philippine Association of Paint Manufacturers (PAPM) lists 25 regular members engaged in the manufacture of paints, lacquers, varnishes and other related protective coatings. All are based in Metro Manila. Of these, only one was known to regularly use *almaciga* resin for its paint and varnish manufacture. A maximum of four container vans, each averaging 9,400 kgs of resin are delivered each month to this manufacturer.

Another large multinational company produced varnish from almaciga resin in 1985. About 10,000 liters were produced in that year and this was marketed to Cebu's basketware industry. After this initial production, the company stopped producing this type of varnish due to problems in production arising from the quality of the resin. Another reason given was that most basketware producers in Cebu produce their own varnish from *almaciga* resin.

4. Demand

a) Foreign Demand

According to a study, no less than 46% of the total multipurpose tree products, including the non-wood forest products, go to home consumption while 10% is given away to neighbors and relatives. The remaining 44% are sold. This implies that small farmers supply more to family consumption on a subsistence level than to markets. In the national market, products that are traded include resin from *almaciga* among other product forms and other non-wood forest species. Import and export of non-wood forest products in the international market are largely at different stages of processing. Some of these unprocessed forest products are traded in small quantities compared to other commodities.

The Philippines has an average total export of about 2,800 tons annually from 1988 to 1993 wherein Taiwan was the biggest importer (Table 12. The major countries of destination were Taiwan, Hongkong, Singapore, USA, France and Germany. Exports during this period reached an average of about 350 tons per year with no clear trend.

Table 12. Exports of Manila copal by year and country of destination, 1988-1993.

Destination	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**
Taiwan	184	196	139	224	171	286
Hongkong	91	72	78	84	60	52
Singapore	70	57	60	44	30	
USA	56	20		5		14
France	6		11	6		
Germany					11	30
Total	407	345	288	363	272	382

Resins and gums (especially Manila copal and Manila elemi) are the main non-wood forest products (NWFP exported) in raw form. Almost all resins that are produced are exported. In 1998, 355,000 kg of *Almaciga* resin with an FOB value of US$254,000 and 221,000 kg of Manila elemi with an FOB value of US$448,000 were exported (Table 13). There are insufficient processing factories in the country.

Table 13. Exports of Manila copal and Manila elemi, 1990-1998.

Year	Manila Copal		Manila Elemi	
	Quantity (000 kgs)	Value (US fob 000)	Quantity (000 kgs)	Value (US fob 000)
1990	288	211	611	1 064
1991	363	242	146	251
1992	273	164	176	295
1993	382	243	330	686
1994	387	249	269	464
1995	328	252	259	621
1996	326	258	353	947
1997	281	365	162	436
1998	355	254	221	448

The Manila copal which is exported from the Philippines directly to the United States is cleaned, sorted and graded in Manila. Particular attention is paid to cleanliness, color and size. Manila copal is sometimes adulterated with other resins, particularly dipterocarp resins: the latter however, are readily distinguished from Manila copal. As the resin is collected largely by non-Christian tribes, the sorters in Manila frequently encounter considerable admixtures of other resins. As the consumers have to depend largely on the Philippine sorters, it is not surprising a uniform quality of resin is difficult to attain.

The quality of copal is very variable depending inherently on the species from which it was obtained (which may affect its solubility properties) and the manner in which it is collected: whether by tapping or by picking from the ground in fossilized form. After cleaning (removing pieces of bark and other foreign matter), copals are graded by their hardness, color and size of the pieces as well as the state of cleanliness. Pale, clean pieces, with good solubility in alcohol, are the best quality.

An example of how copals are priced in the international market can be seen in the 1995 prices for some Indonesian copal grades from Singapore (CIF London):

“Clean scraped chips”	US$ 1,500/ton
“Medium scraped chips”	US$ 1,000/ton
“Small chips”	US$ 900/ton

b) Domestic Demand

There are no available data to assess the domestic demand for manila copal. But a pre feasibility study of producing varnish from *almaciga* resin conducted by Garcia can give an indication on the amount of *almaciga* resin demanded by the furniture and basketware industries.

Long before commercial varnishes were introduced, small furniture producers were already using almaciga resin. The resin is dissolved in thinner or denatured alcohol and the varnish is applied directly to the furniture piece. This practice is still prevalent today, especially in areas where *almaciga* resin is readily available. However, the Forest Products Research and Development Institute (FPRDI) had developed a more scientific process. This process has resulted in a varnish with fat superior finishing properties that what is produced traditionally.

Varnishes and lacquers are the common finishing materials used by the furniture and basketware industries. Lacquers give a more durable and longer-lasting finish than varnish. Because of this, they are used for the higher end furniture pieces which cater to more discerning markets. Varnishes, on the other hand, are used as ordinary "low quality" finish for low end furniture, interior walls, partitions, sash doors and louvers. It is also extensively used as finishing for "disposable" handicraft items such as baskets.

Most basket producers are found in several provinces in Northern, Central and Southern Luzon, specifically Quezon, Ilocos, Bicol, Pangasinan, Pampanga, Cagayan and Metro Manila. In Visayas, Cebu. Biohol and Negros are major centers for basket weaving. The basketware industry is composed of about 5,000 firms, 150 firms considered as large scale and about 4,800 firms considered as cottage type or small to medium scale enterprises. In the industry, subcontracting to micro-manufacturers is a production norm. Often financially strapped, these micro-manufacturers resort to cost-cutting measures at the expense of product quality (Garcia).

The basketware industry uses varnish, paints, and dyes as finishing. The consumption of varnish by this sector is derived and estimated by Garcia by assuming that 50% of basket produced use varnish and that 3 liters of varnish are consumed for every 50 pieces of baskets. Based on this estimate, an average of 1.6 million liters of varnish per year was projected to have been consumed from 1985-1994 (Table 14).

Basketware exporters require a large volume of varnish. Most of these producers employ a regular chemist to oversee varnish production. The color of the varnish does not seem to be an important quality consideration. Class C resin which produces dark varnish is widely used by these basketware exporters. A medium sized basket exporter uses an average of 10 drums of varnish per month during peak months or season.

Table 14. Estimated consumption of varnish, 1985-1994.

Year	Volume (Liters)
1985	1,147,459
1986	1,439016
1987	1,621,248
1988	1,769,091
1989	1,910,741
1990	1,972,746
1991	1,777,102
1992	1,942,573
1993	1,730,409
1994	1,223,581

Source: C.M.C.Garcia Pre-Feasibility of Producing Varnish from Almaciga Resin.

5. Problems and Constraints/Conclusion

The dearth of literature on almaciga is a deterrent in assessing the market potential of the commodity. Although this is a source of income for the indigenous people, there is no clear-cut market for it in the domestic market except for varnish and lacquers. Most of local production though is exported abroad. But how to aggressively export the product in the international market requires an efficient marketing system where quality of the product and sustainability of supply are required. Given the present situation, this is a tall order to meet.

Agenda for Action

Specific course of action to be taken regarding the 2 products selected for this market study:

Cashew

1. **Deeper study on cashew farmers in the villages**
   During the first short site visit, interviews were done but an estimation on cashew farming in the sites could not be done in such short time. There is a need to have precise figure about the number of cashew farmers and their socio-economic profile if we want to undertake collective actions.

2. **Follow on with the market chain among traders**
   We need to know more about market trends and main competitors at national and international level. We must understand better the problems of quality and varieties.

3. **Secondary data collection (internet/institutions)**
   We need comparative information on same issues (trends, qualities, competition). So we can learn from others experience.

4. **Improve cashew processing techniques (opening shells)**
   The tools that farmers use are not very 'ergonomic'. One can damage hands and the other can be dangerous for the back, if used during long hours. BALITRO in Bogor has several cashew nut opening tools. Comparison should be done in terms of performance and costs.

5. **Bio-technology for pests**
   In SES, farmers say that pest control is one of their major problems. Researchers from BALITRO did many studies on cashew pests and they have bio-technical solutions.

6. **Enterprise training**
   Help the farmers to organize and give them training about how to market their cashew. We can start first with the raw cashew and later on think about more products with added value.

Seaweeeds

1. **Training on production, care and management of seaweeds**
   Training on seaweed cultivation. Collaboration with the Regional Fishery Training Center or the Provincial Agriculture Office to assist the communities in the site selection, training on planting, care, management and monitoring of seaweeds project.

2. **Capacity building on enterprise**
   Training on enterprise should be organized in two phases. First with an existing organization, e.g., NATRIPAL and then the community members who are interested or involved with business or marketing products of the community. The training will give general information on basic enterprise building and management and will give them the actual application to their existing business/enterprise.

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Appendix 8

Levelling the Playing Field:
Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Progress Report of MAS Modelling

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Progress Report of MAS Modelling

1. Introduction

Levelling the Playing Field (LPF) project has been working in Barangay San Rafael, Tanabag, and Concepcion (Puerto Princesa City, Palawan) since early 2004. The site was selected because the management of its renewable resources, as in many other places, is characterized by multiple stakeholders who have different and competing interests, objectives and motives. The community groups and government and non-government institutions also have different position of power that makes collaborative management difficult. LPF project aims to facilitate these different stakeholders in communicating and negotiating their different interests, learning about the consequences of their strategies, which hopefully can help them in coming up with an agreed common vision and management plan for their resources.

One of the approaches applied in LPF project is the Companion Modeling (ComMod) approach. This report presents the progress of the approach application and the different activities carried out within the period of one and a half years in Palawan site, using ComMod. The LPF team has been focusing on the processes to facilitate learning and empowerment of the stakeholders, especially those of stakeholders who have little influence in the management of renewable resources. This is done by developing and using tools for learning about the natural resources management (NRM) system and for negotiation of management strategies. The development of these tools will be done by the community, other relevant stakeholders, and the researchers.

2. Objectives

The objectives of this study are to:

1) Characterize the existing NRM system thru institutional analysis and MAS modeling;
2) Identify areas of intervention where learning and negotiation tools can be used to initiate change;
3) Use existing tools or develop new tools for learning and for facilitating negotiations using the ComMod approach. The tools, methods and artifacts that would be developed and/or used includes, but are not limited to, Pro-Active Conciliation Tool (PACT), a Multi-Agent System (MAS) simulation platforms, role-playing games (RPG), and Geographic Information Systems (GIS) products;
4) Assess the effectiveness of the ComMod approach in addressing the concerns of this research thru the use of criteria and indicators-based analysis and institutional analysis; and
5) Improve existing framework in the implementation of the ComMod approach in resource management.

3. Overview on Multi-Agent Systems and Companion Modelling

A Multi-Agent System or MAS is a representation of a complex system, such as NRM, and is composed of: (1) a space, called the environment, (2) objects that are situated in the environment, (3) a special type of object, called agents that would represent the active entities in the system, (4) relations that link these objects, and consequently the agents, and the agents with their common environment, (5) a set of operations that could be performed by the agents to interact, transform or manipulate other objects in the environment, and (6) operators that represent the results when these operations are performed (Ferber 1999 *in* Bousquet and Le Page 2004). Each agent has its own characteristics, goals, knowledge and certain, but limited perception of the system and is also able to communicate with other agents. Figure 1 is a visual representation of these components of a MAS model. In the case of an NRM system, humans or stakeholders are usually represented as agents in a MAS model. However, these agents could also be animals, which also have a stake in the system. Bio-physical processes, such as soil erosion and resource growth functions, occurring in the environment could also be integrated into the MAS model using the principles of cellular automata.

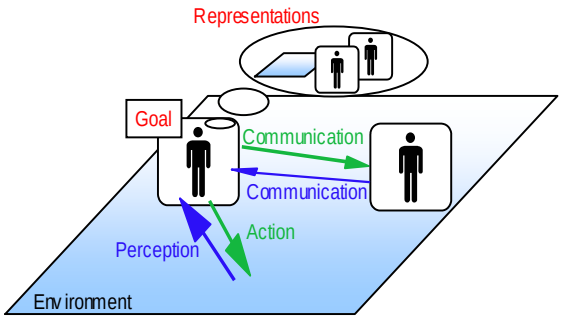


Figure 1. Multi-agent system (Ferber 1999 *in* Bousquet and Le Page 2004).

In order to build the MAS model, the companion modelling approach would be used to ensure the active participation of the stakeholders in the development of the model. Companion modeling or ComMod (Barreteau *et al*. 2003) is an iterative approach in developing system models, in this case a MAS model, and simulation tools when dealing with complex systems, wherein fieldwork and system modelling are closely related and complementary activities. In this approach there is constant interaction between the researchers and stakeholders in the iterative process (see Figure 2), such that the model will undergo modifications resulting from these interactions or a come up with a totally different model altogether. In ComMod, the quality of process of building the MAS model is paramount such that the stakeholders should be able to accept the results of the modelling process. The process of validating the MAS model is a series of back-and-forth steps from the field (reality) to the model to take into account the different perceptions of the stakeholders and properly represent them in the model using tools such as simulation model and/or an RPG as platforms for discussion. A simulation model is an implementation of the MAS model into a computer that simulates a system thru the passage of time. On the other hand, RPG is an implementation of a MAS model using a game, but having humans, such as

stakeholders, playing the roles of agents of the MAS model. Although these two tools (simulation model and RPG) could be used individually in the development of the MAS model, together, they complement each other depending on the purpose of the MAS modeling exercise. An example of this complementary relationship of RPG and simulation model is the case wherein the RPG is used as a facilitation tool to explain the MAS model, especially if the model is too complex and is difficult to explain thru traditional methods. However, an RPG played with the stakeholders is limited in the number of steps or iterations that can be played and in the number of interactions that can be represented; the simulation model could be used to show the outcomes of the RPG should the game be continued for a longer period or include more features and complex interactions that were not represented in the RPG. Other tools could also be used to support the modelling process such as tools and artifacts developed using participatory GIS and participatory land-use planning tools, etc.

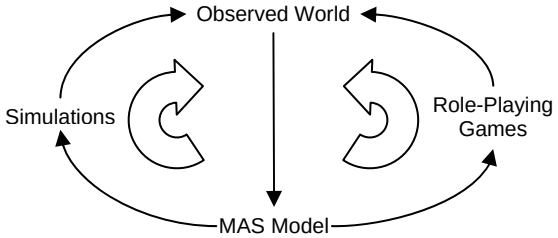


Figure 2. The companion modelling approach (Barreteau *et al*. 2001).

4. Steps of the MAS modelling activity

The general steps of this activity are outlined in Figure 3. However, modelling process is not a straight-forward process and some of the steps require going back and forth in through some of the steps. A more detailed implementation of the modelling process is shown in Figure 4.

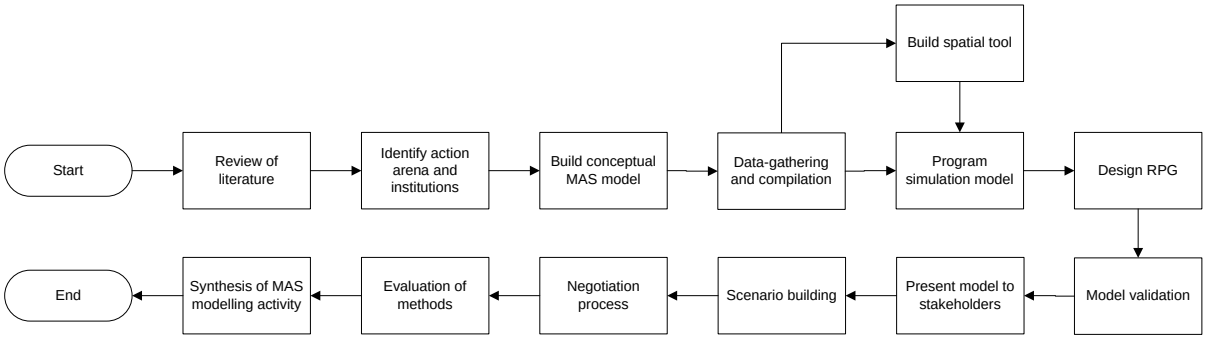


Figure 3. General process of implementation.

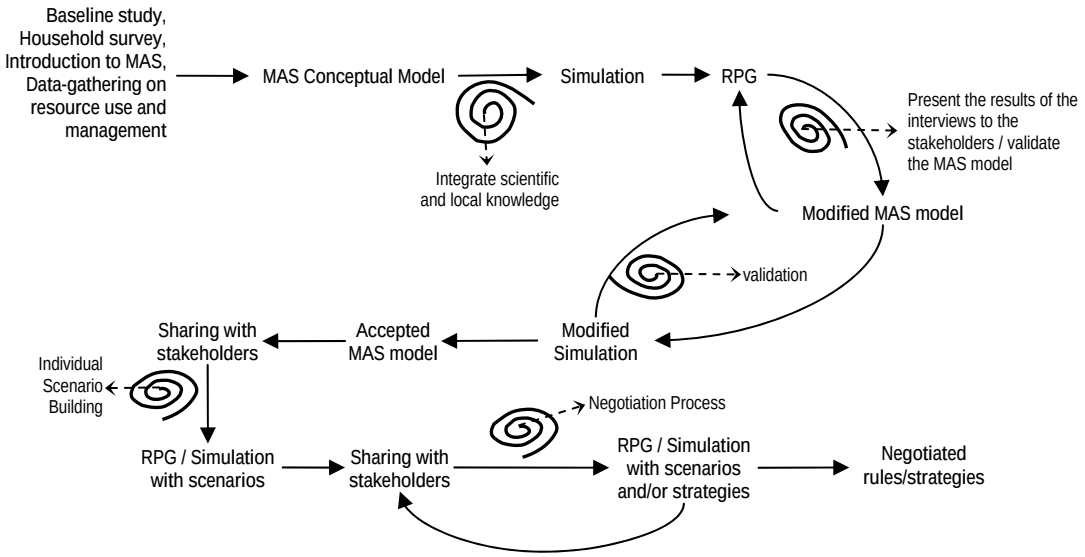


Figure 4. Implementation of the ComMod approach.

In Figure 4, the concept of the ComMod approach is elaborated to accommodate different activities for model validation and specific learning activities with the stakeholders. It is important to note that it is only upon the acceptance of the stakeholders that the model represents their reality would the MAS model be used for scenario-building and negotiations. To study the different possible scenarios and management strategies, we again go back to the stakeholders and let them identify their concerns and interests. We would then try to reflect their points of views into the simulation model by using different indicators and view the results of the simulation as thematic maps, charts, graphs, etc. The rules of management may also be negotiated thru the use of RPGs.

5. Activities conducted

The activities that have been conducted for MAS modelling so far were related to data and information gathering that is needed to build the conceptual MAS model for the NRM system of the three barangays in the study site. These activities were also used as a way to prepare the stakeholders so that they could participate in the succeeding MAS modelling activities in their area.

5.1 Introducing the concept of MAS modelling

Objectives

This step is done to formally introduce the stakeholders to the MAS modelling concept, the objectives of the study, and the different tools and methods to be applied in the process.

Methods

Three 1-day workshops were conducted with different types of stakeholders in each of the workshops. The following workshops were conducted with the following participants:

1) Provincial steering committee (PrSC) composed of leaders from government organizations, NGOs and the communities;
2) Representatives from government and non-government organizations;
3) Community members coming from the 3 barangays.

Table 1 shows the schedule of those workshops and the number of participants.

Table 1. Schedule of the workshops and number of participants.

Date	Group	No. of participants
29 March 2005	PrSC	12
30 March 2005	GOs and NGOs	15
31 March 2005	Community	20
3-4 August 2005	Bataks	12

The activities conducted in the workshops were the following:

1) A short presentation about MAS modeling;
2) Presentation of examples of tools that could be developed in the modelling process;
3) Chering game with four scenarios and a debriefing of the game;
4) Discussions with the stakeholders about the MAS modelling process wherein they were asked three discussion questions: i) How can MAS modelling be of help to you and/or your organization?; ii) What are the lessons you have learned from this workshop?; iii) What would you like to see in the model?

The Chering game was developed by researchers from CIRAD and was designed as a generic role-playing game that could be played with any type of stakeholder. The Chering game deals with a resource-gathering situation and the players of the game act as resource gatherers. In the game, a map of plots of land containing different amounts of "Ing," is presented to the players. The term "Ing", coined by the CIRAD researchers, refers to generic resources, i.e. forest, lowland, coastal resources, or others. For each round of the game, each player chooses a single plot from which he or she is going to gather "Ing". Their choices are submitted all at the same time and at the end of each round, the number of "Ing" gathered by a player is computed based on the available 'Ing' of the plot he or she has chosen and the number of players that were on the same plot. The available "Ing" of a plot after the round is then computed based on the number of "Ing" gathered and a growth function of "Ing". The resulting map is then used for the next round. The game is played for 5 rounds in total.

The game itself was designed to have four scenarios wherein rules of the game, i.e. the rules on interaction between players, are slightly changed. The scenarios played in the Chering game are as follows:

1) Each player makes his own decision in gathering the resource;

2) The players were grouped randomly and they were allowed to discuss a strategy for the game within the group;
3) Aside from being able to discuss their group strategies within the group, they were also allowed to discuss with the other groups;
4) Almost the same as the 3rd scenario, but there is a moratorium in the gathering of resources in the game. The total number of resources that could be gathered for each round was limited to a specific number.

The results of the Chering game, thru the use of graphs and maps, were shown to the participants and were discussed after the four scenarios.

The responses to the discussion questions are found in Annex 1 of this report.

In workshop for the community, unfortunately, there were no representatives coming from the indigenous people sector, more specifically, the invited Bataks from Sitio Kalakuasan in Brgy. Tanabag. Realizing the importance of introducing the process to this group, another activity at a later time was conducted solely with the Bataks. Due to weather and site conditions, however, only the Chering game and a short debriefing of the game were conducted with them.

5.2 Gathering information on people's perceptions about their use of renewable resources

Objective

This activity tried to determine the perception of the community members in terms of how they use their resources in their community. More specifically, it tries to determine whether they perceive themselves as having specific main source of living or occupation based on their livelihood activities (i.e. as farmers, fishermen, etc.) or whether they see themselves as general resource users.

Methods

Key Informant Interviews were conducted by a team member one-on-one with community members who use renewable resources in the area as a part of their livelihood activities. The questions asked during the interviews were partly drawn from Pro-Active Conciliation Tool (PACT). It was planned that an interviewee would be chosen based on his or her livelihood activity/activities, and that at least two people for each major livelihood activity per barangay would be interviewed. However, there was some difficulty in finding interviewees for some of the livelihood activities. For example, in Barangay, Tanabag, the team was unable to interview any fishermen in the area.

A total of 29 community members were interviewed: 9 coming from Barangay San Rafael, 12 from Barangay Tanabag and 8 from Brgy. Concepcion. Four out of the 12 interviewees from Barangay Tanabag were Bataks from Sitio Kalakuasan. The results of the interviews were used to determine the next activity for the MAS modelling process.

5.3 Gathering Information on Community's Resource Use and Decision Making Processes

Objectives

To determine the activities of the communities in terms of natural resource use and livelihood, as well as the decisions they make in performing these activities.

More specifically, this activity would determine the following:
1) How each resource-use activity is done in detail;
2) Decision-making processes involved in conducting each activity;
3) Decision-making process involved when an individual changes from one activity to another;
4) Major variations on how a resource-use activity is conducted, if any.

Methods

For Barangays San Rafael and Tanabag, a total of three Focus Group Discussions (FGDs) were conducted with a maximum of 15 participants per session. The duration of the session was half a day each. The participants of each FGD were organized in such a way that each group would have the following composition:
1) those performing livelihood activities in the upland and lowland areas;
2) those performing livelihood activities in lowland and coastal areas;
3) those performing livelihood activities in the entire landscape.

These groupings were made with the goal of capturing the decision-making processes of those community members who do more than one livelihood activity at different landscapes.

A list of FGD questions was also prepared having these questions:
1) What are the major resource-use activities that are performed within the community?
2) What are the sub-activities that make-up or are related to perform this activity? What is the order or sequence of these sub-activities? What is the frequency, duration, distance (from starting point, what is the starting point?), extent (boundaries) and at what period are these sub-activities performed? (need maps)
3) What is the frequency, duration, distance, extent and at what period that the activity is performed? What are the costs involved when performing this activity (e.g. materials, equipment (whether bought or rented), additional labor, rent of land)?
4) What are the decisions that you have to make while performing this activity? What are the factors that you consider when making this decision? How important are these factors?
5) Who are the people that could influence your decisions? How and how much do they affect your decisions?
6) Are there existing rules or guidelines that affect your decisions or actions when performing this activity? What are they and how do they affect your decisions?
7) Is there any person or group of persons that you encounter while performing this activity? Who are they? Do they affect your actions and decisions? How?

8) What are the problems that you have encountered when performing this activity? Are there any people involved? Who are they? How do you cope or deal with the situation and what is the usual result of this?
9) Aside from seasonal changes, when or how else do you decide to change the activity you are usually performing? What are the factors that determine whether you stay or change your activity? How much is the importance of each factor? Are your actions, decisions or activities affected by special occasions or events? What are these occasions or events and how do they affect you?
10) How do you choose which activity you would like to perform? What are the activities you usually go into? Why?

These questions were asked in the Filipino language. Questions 2 to 8 were asked for each livelihood activity, while questions 1, 9 and 10 were asked for the entire session. Some of the questions were related and were grouped together during the FGD. From the first two FGDs that were conducted, it appeared that it took quite sometime to answer the first question. Therefore, the 1st FGD question was removed from the succeeding FGD sessions. Also, initially it was planned that the same set of questions were asked in all three barangays for the combined landscapes (as mentioned above). However, since the discussions took too long to complete, it was not possible to do this. Consequently, each discussion session focused on main livelihood activities undertaken by the majority of the participants. This means the activities discussed in Brgy. San Rafael were different from the activities from Brgy. Tanabag.

Learning from the experience in Barangay San Rafael and Tanabag, we decided to revise the FGD design for Brgy. Concepcion and Sitio Kalakuasan. In the case of Brgy. Concepcion, the FGD sessions were organized with a maximum of 8 participants for a specific landscape, as follows:
1) those performing livelihood activities in lowland areas;
2) those performing livelihood activities in upland areas;
3) those performing livelihood activities in coastal areas.

The discussions were now more focused due to the number and homogeneity of the participants. This also allowed us to validate the information generated earlier from different barangays for the same livelihood. No more clarification questions were asked after the FGD sessions in Brgy. Concepcion.

In the case of Kalakuasan, due to weather, site situations, and the nature of the Bataks, the discussions were less structured and the FGD questions were used only as a guide for the team. We made use of the results of Multi-stakeholder Landscape Assessment (MLA) activity for the LPF project that took place in the same area, to avoid asking people the same questions. This made the discussion more free-flowing. From time to time, specific questions as per original set of FGD questions, were asked.

Table 2 shows the schedule of the FGDs for each barangay as well as the activities that were discussed in each session.

Table 2. Livelihood activities discussed per FGD session.

Date	Barangay	Livelihood activities discussed
2 May 2005 AM	San Rafael	Upland and lowland farming
2 May 2005 PM	San Rafael	Seaweed farming
3 May 2005 AM	San Rafael	Fishing and milkfish fry gathering
4 May 2005 AM	Tanabag	Kaingin/Swidden farming and charcoal-making
4 May 2005 PM	Tanabag	Nipa/coconut shingles making and hog raising
5 May 2005 AM	Tanabag	Copra-making, hunting, and resin gathering
5 August 2005 AM	Concepcion	Copra-making, coconut shingles making, vinegar making, animal raising and gardening (vegetable and ornamental plants)
5 August 2005 PM	Concepcion	Upland farming, honey, rattan and resin collection
7 August 2005 AM	Concepcion	Fishing (including octopus and squid, gathering of shells and crabs, fish pen operation
4 August 2005 AM	Kalakuasan	Honey, rattan and resin collection

Some of the interesting findings:

1) Most of the community's livelihood activities were seasonal; an individual engaged and carried out more than one livelihood activity in a year. Because of this, some community members did not perceive themselves as having one main source of living (farmers, fishermen, etc). Rather, they perceived themselves as resource users.
2) Most activities, programs or projects funded by government and non-government agencies, sprang from the proposals submitted by community members themselves. This indicates the need to strengthen the capability of community members in producing sound proposals.
3) Farming and fishing activities were done mostly for subsistence or food security. However, for those engaged in fishing, they were more likely to sell their catch given the opportunity. For those engaged in farming, they would sell some of their harvest if there was an immediate need for money. Livelihood activities such as copra production, roof shingles-making, nito-weaving, ornamental and flower plants gardening, charcoal-making, bangus fry catching and animal-raising were usually done for commercial purposes. Most of these activities were done with other members of the household.
4) Gathering of non-timber forest products (NTFP) such as almaciga resin and rattan is viewed by community members as a reliable source of income because these NTFP are viewed to be always available and there is an available market for such products within and outside the community. However, due to difficulties in carrying out such a task, only men are able to perform such an activity. Furthermore, current restrictions in gathering NTFP, have made this activity more difficult to do. This have more implications on the Bataks who rely mostly on forest resources for their survival.
5) A livelihood activity is prioritized in terms of the needed investments or capital, how quick one could earn money, and the amount of money that could be earned.
6) Products were sold thru middle-men who were also members of the same community. Those engaged in ornamental plants had regular clients in the city

but they also sold them at the local markets or to buyers that passed by their gardens (which were normally located at the road side).

5.4 Gathering Information on Stakeholders' Resource Management Activities

Objectives

The purpose of this activity was similar to that of the FGDs conducted with the community, but we conducted this activity with the GOs and NGOs which were considered as major stakeholders in the area.

Methods

The interviews were conducted with 1 or 2 representatives from each identified major stakeholder, with each interview lasting for about one to one and a half hours. A list of guide questions was prepared earlier and was used during the interview.

The guide questions used for the interview were as follows:

1) How or what does you office contribute to the management of natural resources in the study area?
2) What are the specific activities that you perform with regards to NRM? What is the duration, frequency, distance and extent are these activities performed?
3) How are these activities planned, implemented, monitored and revised? Who are the people/institutions involved in these processes? What is or what is the extent of their involvement?
4) How is coordination performed when other people/institutions are involved? Who communicates what? Who or what institution makes the final decisions?
5) Is your organization following a specific law, objective or strategy when performing these activities? What are they? Who formulated them? How are they formulated? How much of it are followed?

The highlights of the interviews for each GO and NGO are attached in Annex 3 of this report.

5.5 Developing Activity Diagrams and Validation

The information gathered from FGD sessions were then translated into activity diagrams. The diagrams produced for barangay San Rafael and Tanabag can be found in Annex 2. We then validated these activity diagrams by formulating clarification questions and asked them in the interviews. These interviews were conducted in August 2005 with some of the previous FGD participants and other community members of Barangay San Rafael and Tanabag. During validation sessions, we also clarified some matters and filled-up the gaps in the activity diagrams. The clarification questions were more on the marketing of the products, such as to whom the products are sold to. Other questions asked in the interviews can be found in Annex 4 of this report.

The results of the FGD sessions with Brgy. Concepcion and Sitio Kalakuasan still need to be interpreted and translated into activity diagrams.

6. Next Steps

The field work to identify the stakeholders' activities and interactions in terms of resource use and management at the study site has been completed. However, the data on community resource-gathering and use activities from the last fieldwork still need to be interpreted and integrated with the previous data. The data gathered from the interviews with the GOs and NGOs also need to be analyzed. After interpreting the latest information gathered from the field, we will develop the conceptual MAS model and identify the relevant bio-physical processes needed in the model. This should be followed by data collection to model these biophysical processes. After all the necessary information has been gathered and conceptual model has been completed, the next step of the process will be the programming of the simulation model and the development of the RPG based on this simulation model.

The RPG and the simulation model(s) will be used in scenario building and negotiation process among relevant stakeholders. Several scenarios have already been identified during the Palawan Steering Committee meeting and the first activity conducted with the community members. These include the scenario on the effect of the implementation of the zoning to the renewable resources and people's conditions in the three barangays. Another scenario being considered, and is of big concern to the community members, is the possibility of landslides occurring in their area. Similar landslides occurred in the province of Quezon, Philippines, in mid-December of 2004, mainly attributed to logging activities.

7. References

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Bousquet F, Le Page C. 2004. Multi-agent simulations and ecosystem management: a review. Ecological Modelling, Volume 176, Issues 3-4, 1 September 2004, Pages 313-332.

Annex 1. Responses from the Workshop discussion

Palawan Steering Committee

Q1. How can MAS modelling be of help to you and/or your organization?

- To better explain reality/processes
- Tool for decision makers
- To make stakeholders be aware of the various factors affecting decision makers
- As a visual tool, it can be used to explain processes to communities
- As a guide for decision makers
- It gives room for wider views because different stakeholders are present
- Tool for conflict resolution – to simplify explanations
- Problem: lack of technology of computers in the barangay, also power/electricity
- To be used to convince stakeholders to do the right thing
- For "leveling-off" – open up minds – Tagalog can be used [to explain]
- To show/study different strategies
- To help/assist policy makers

Q2. What are the lessons you have learned from this workshop?

- Communication, coordination, and cooperation are very important in NRM
- Unity also helps
- Broad participation of stakeholders is also needed
- Involvement of each [stakeholder] is also needed
- Everybody/all stakeholders are important
- [Role-playing] games are enjoyable. Reality can be explained in an enjoyable way. Reality can be simplified if every stakeholder helps
- Planning should be based on some framework

Q3. What would you like to see in the model?

- The actual situation, like what is happening our community
- A picture of an individual or something that could identify a person
- Watershed and environment unit to model with all the resources in it
- The resources, decision makers, the options available and the results of these options
- Priority problems
- Should be comparable to other parts of Palawan, SE Asia
- Scenarios like those that happened in Ormoc and Quezon Province. (land slides)

GOs and NGOs

Q1. How can MAS modelling be of help to you and/or your organization?

- Planning/strategize the use of resources
- Information dissemination tool
- To appreciate data/information on the area
- Use to teach communities on effects of [resource] utilization/gathering

- Planning tool – clear representation of present and projected situation
- Projection of trends
- Information dissemination of rules, quotas, procedures
- To get the views/sides of other/all stakeholders
- For consultation work – for planning, monitoring, coordination
- For enforcement of laws
- To consider various views of stakeholders
- Research
- How to use resources
- For preservation of natural resources
- To show consequences
- To convince stakeholders to plan
- For training to convince stakeholders to properly use natural resources
- Management and decision-making tool
- Data bank/updated information
- Help In policy-making
- IEC Tool
- Proposal preparations

Q2. What are the lessons you have learned from this workshop?

- Resource use has to be controlled
- Stakeholders have to be consulted
- Coordination/participation needed in solving NRM problems
- Scenarios should be studied to get better decisions
- NRM is give and take through consultation
- Information very important to stakeholders
- Lack of consultation will result to inequality which may lead to more problems
- Lack of regulation will lead to depletion of resources
- Weak penalties make laws “bungi” (incomplete)
- Close coordination among stakeholders
- Strategies should continuously improve
- Make efforts to improve strategies for NRM

Q3. What would you like to see in the model?

- Resource assessment, value of damage, when to replenish
- Accompanied with a user’s manual
- Frequency (trends/probability) of an “action” like cutting of trees
- Factors/attributes of agents that will lead them to do an action
- Database management system that can generate reports for NRM
- Land cover – potential use – actual use
- Existing land-use, vegetation and zones
- Land (use) and other resources
- Livelihood activities
- Effects on coastal resources
- Be able to use for planning livelihood program

Community (excluding the Bataks)

Q1. How can MAS modelling be of help to you and/or your organization?

- To know how to approach a problem
- To monitor the current situation
- Use for decision-making
- If there is a goal, it can be reached with the help of this system
- To easily respond to community problems
- For communication, negotiation and coordination for everyone in the community
- To increase the knowledge in natural resources
- To know how to properly use natural resources
- To control the use of natural resources
- Can help organizations
- Means of communicating matters regarding NRM
- There is freedom to communicate
- As a guide
- Can be a tool for unity for organizations
- Linkage with other associations/organizations
- To facilitate communication and coordination
- Results can be easily disseminated
- To easily solve problems related to the environment

Q2. What are the lessons you have learned from this workshop?

- If there is no communication, there is improper use of natural resources
- If there is lack of knowledge, there is improper use of natural resources
- Knowledge could be improved
- The proper use of natural resources – not to overuse, but also not to "don't use"
- Coordination with different agencies/stakeholders
- With the improper use of natural resources, in the end, we will also end up with nothing
- Balanced use of natural resources
- An "agent" may also be animals and not only humans
- Wonder of computer
- Get what is needed
- Laws should be studied carefully
- Increased knowledge
- Increased knowledge in making livelihood grow
- Can help in the ways of finding solutions to address problems
- Can give appreciation to natural resources
- Under or no utilization of resources is not also good
- Things should be studied before making decisions

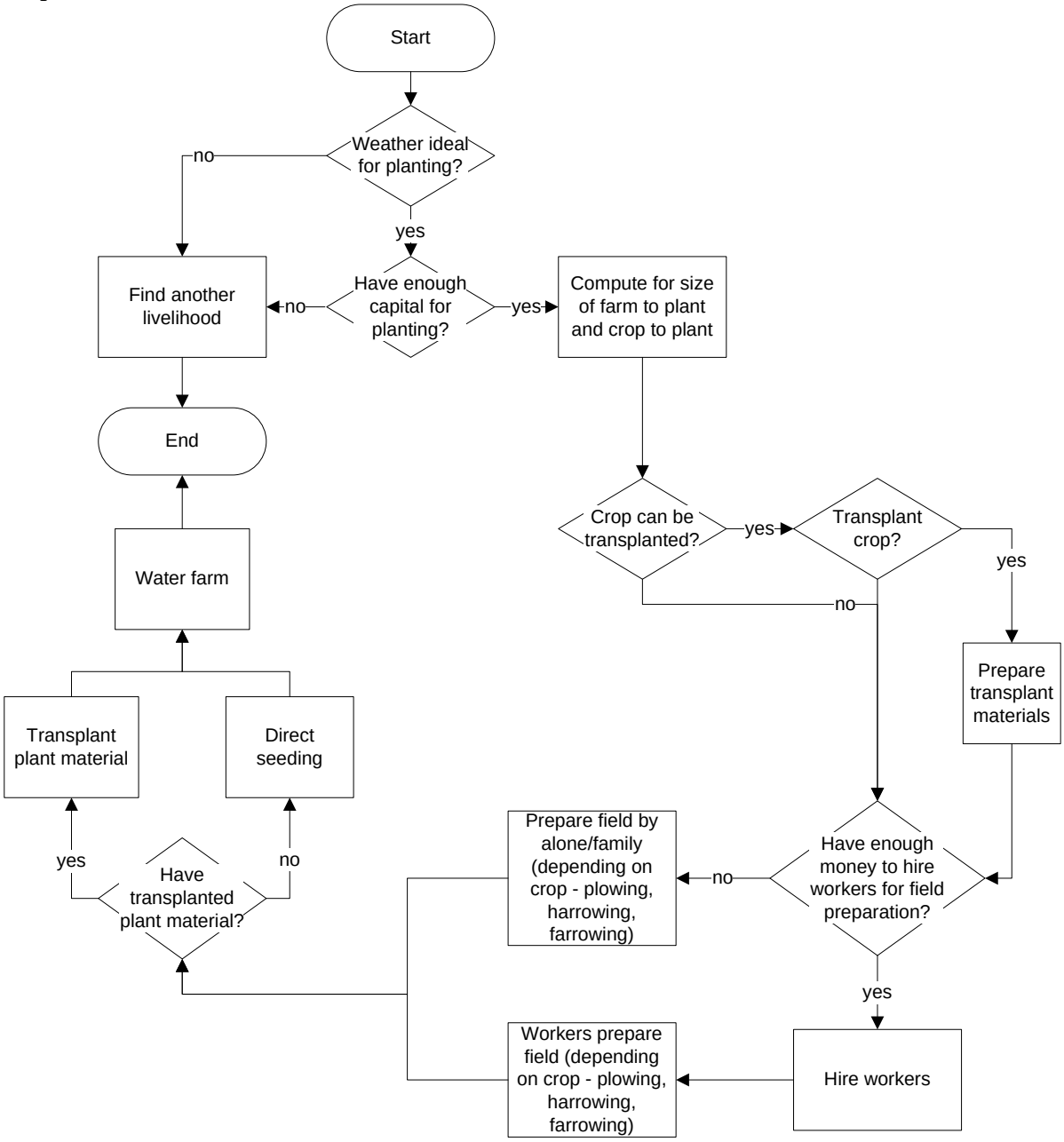
Q3. What would you like to see in the model?

- Results of what has been discussed
- Something similar to the Bohol model
- Showing the 3 landscapes – upland, lowland, and coastal

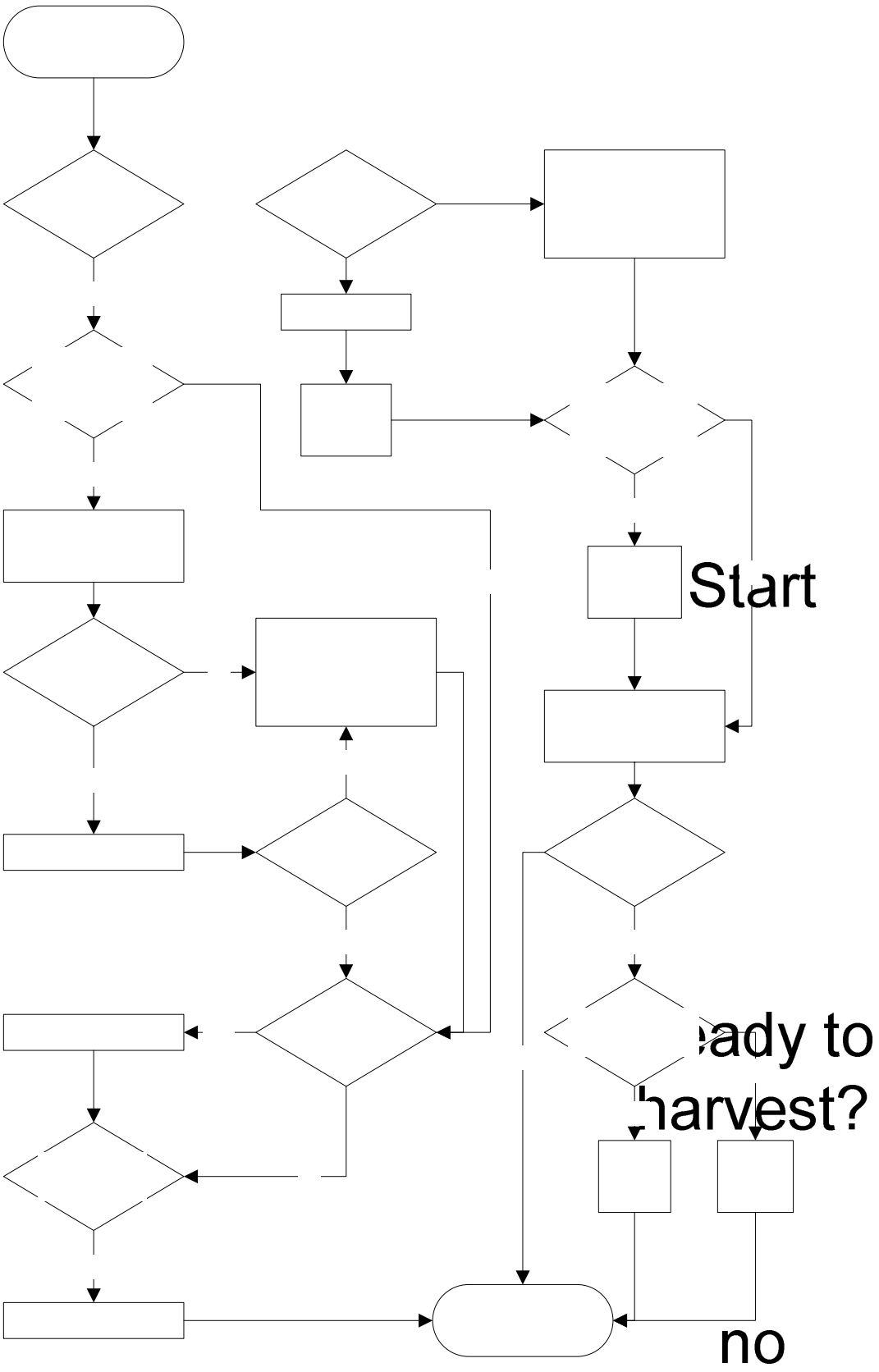
Annex 2. Activity diagrams of livelihood activities

Figure 1. Lowland Farming.

Preparations



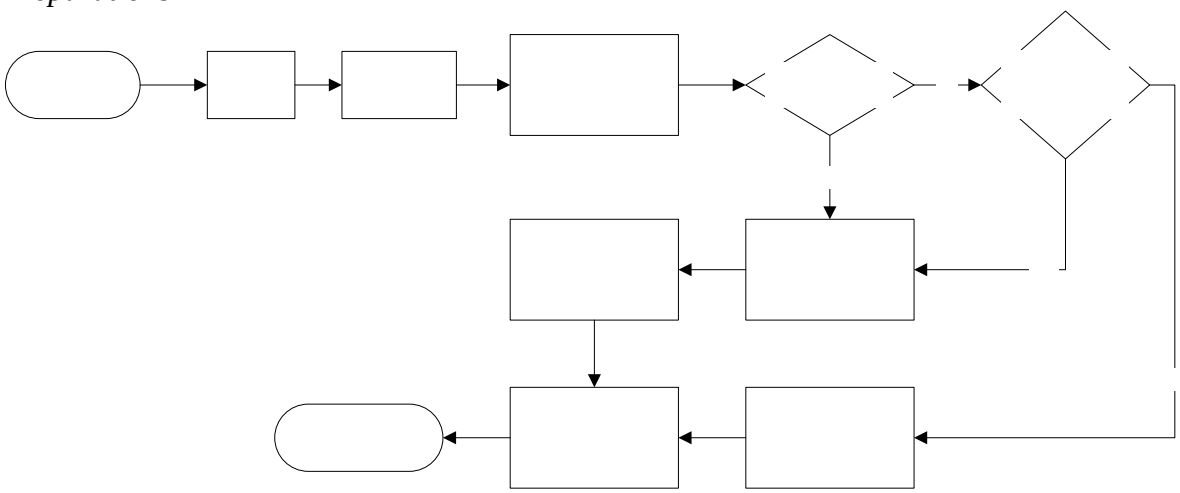
Maintenance of existing farms



Have capital

Figure 2. Upland/Swidden Farming.

Preparations



Maintenance of existing farms

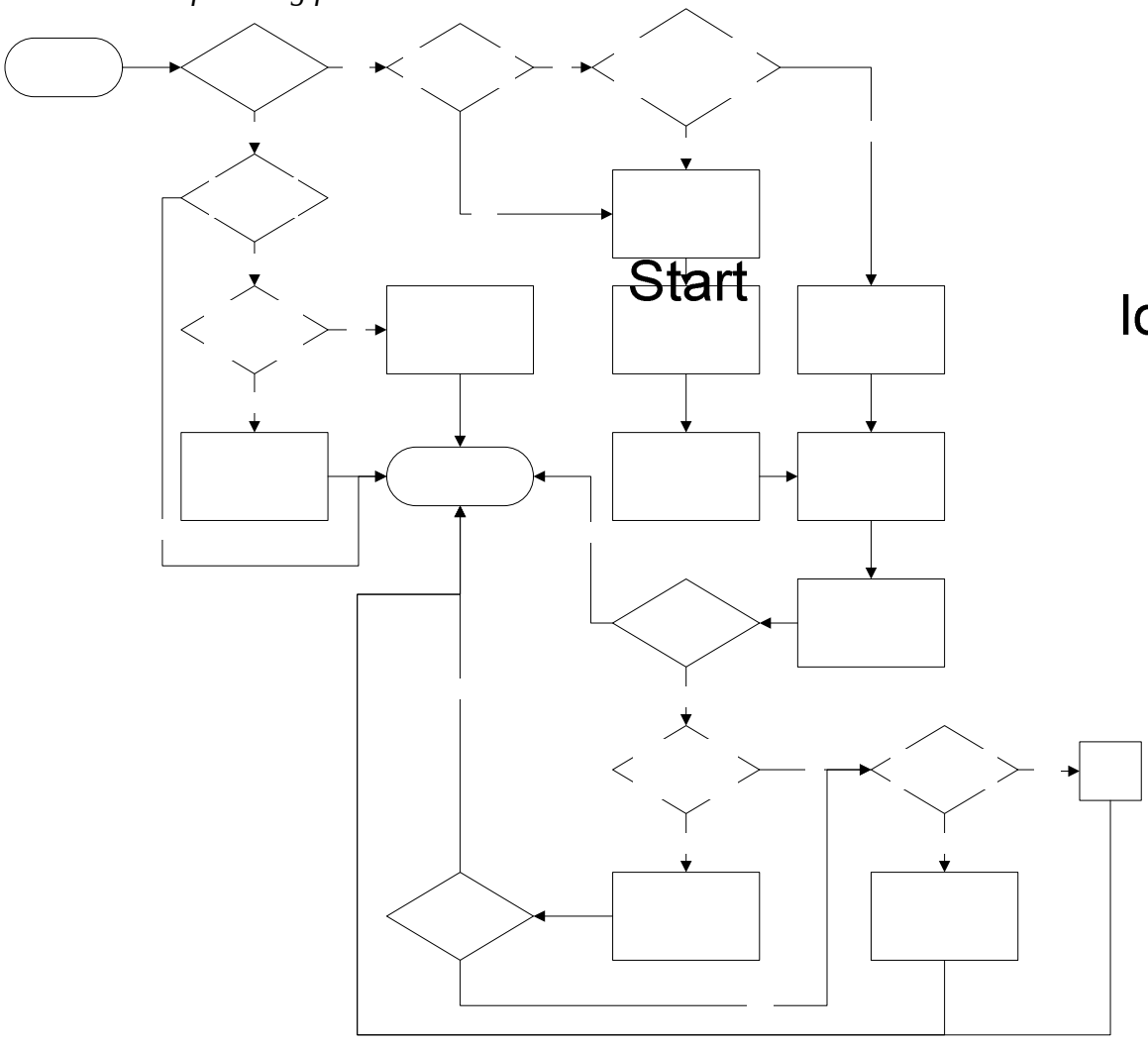
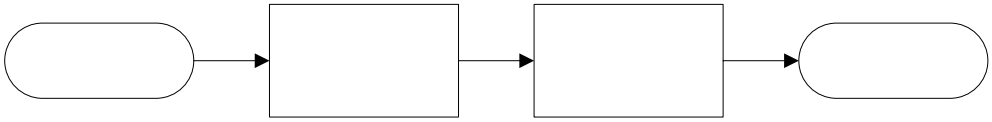


Figure 3. Fishing.

Preparations



Fishing activity

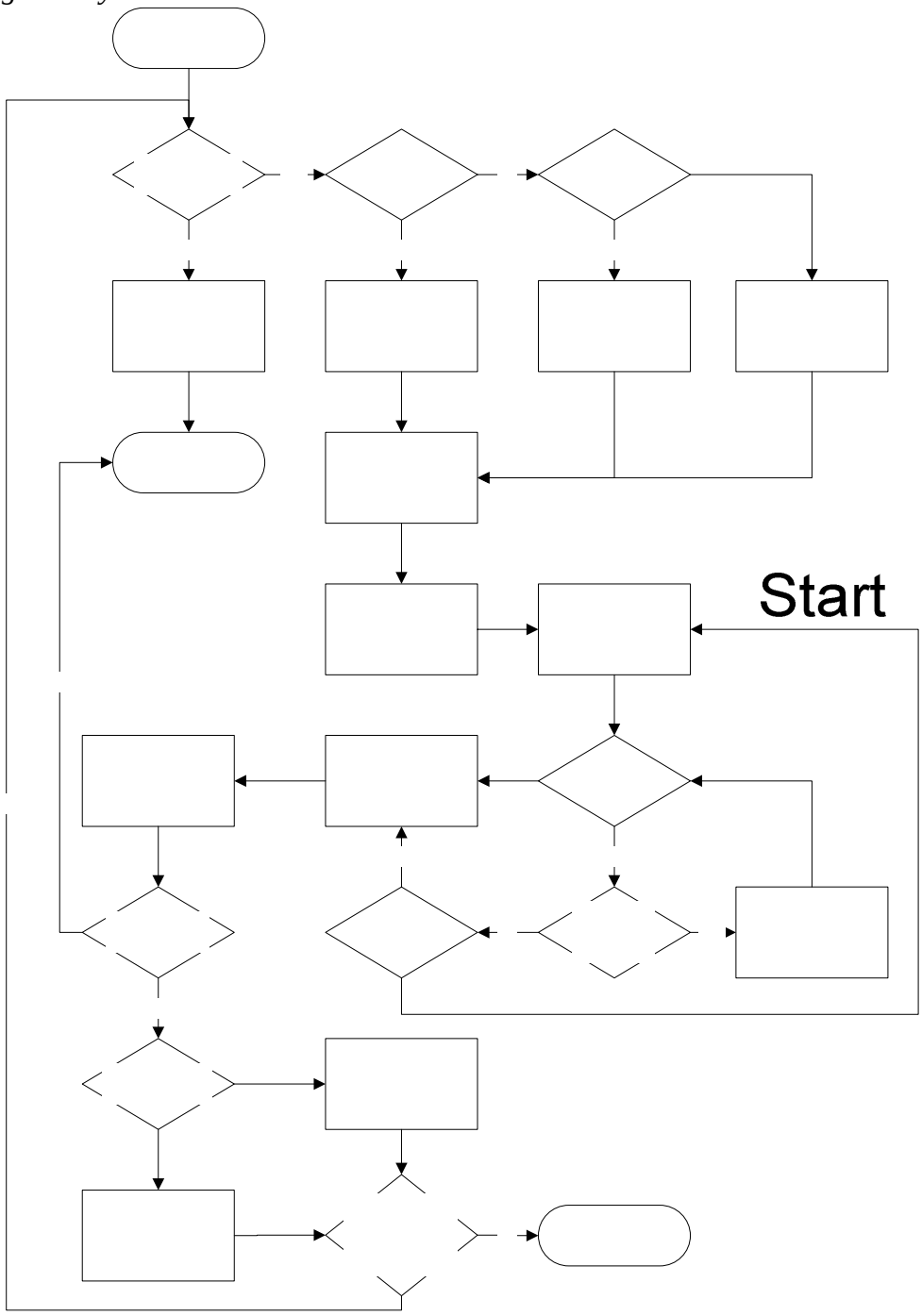


Figure 4. Seaweed farming.

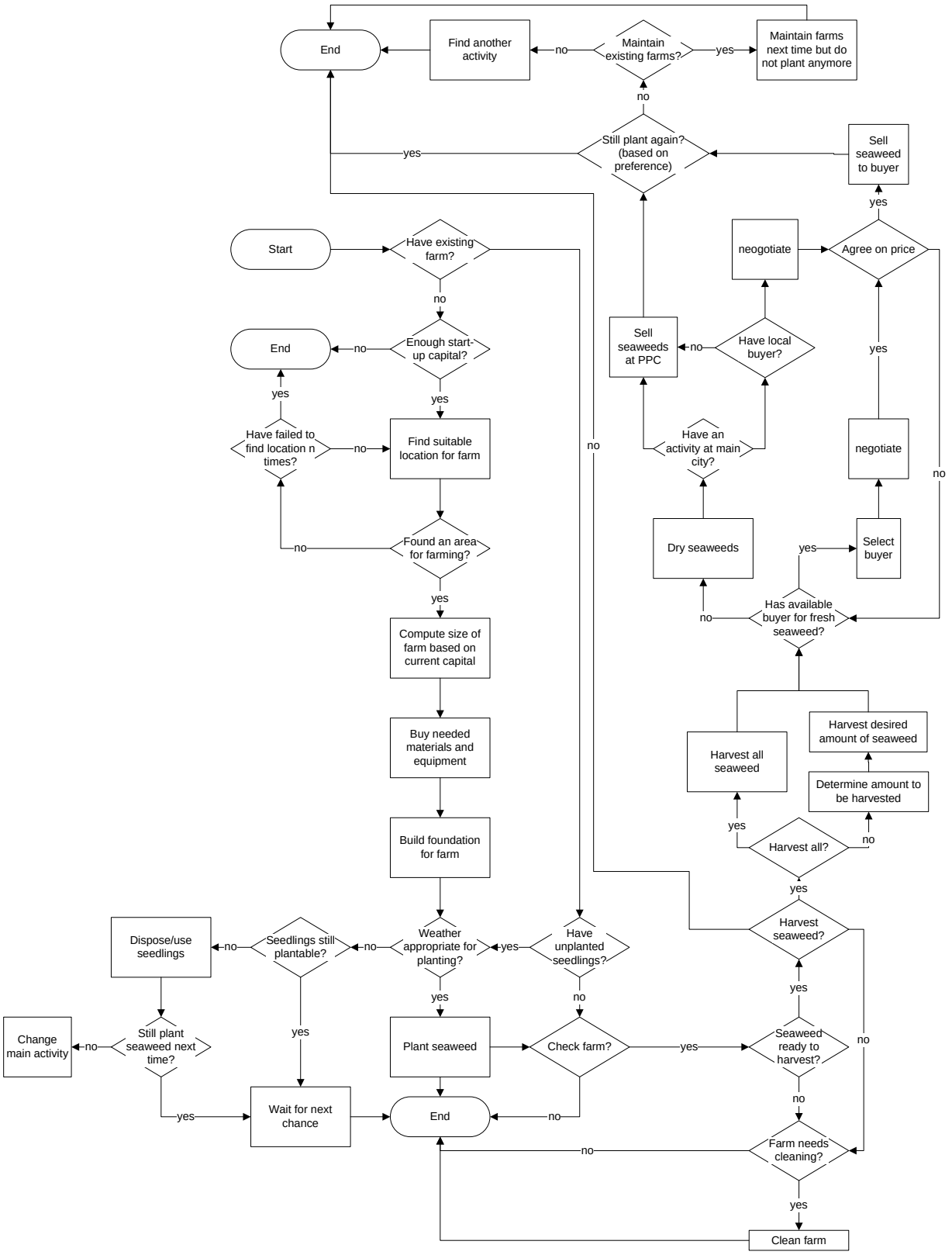


Figure 5. Milkfish fry catching.

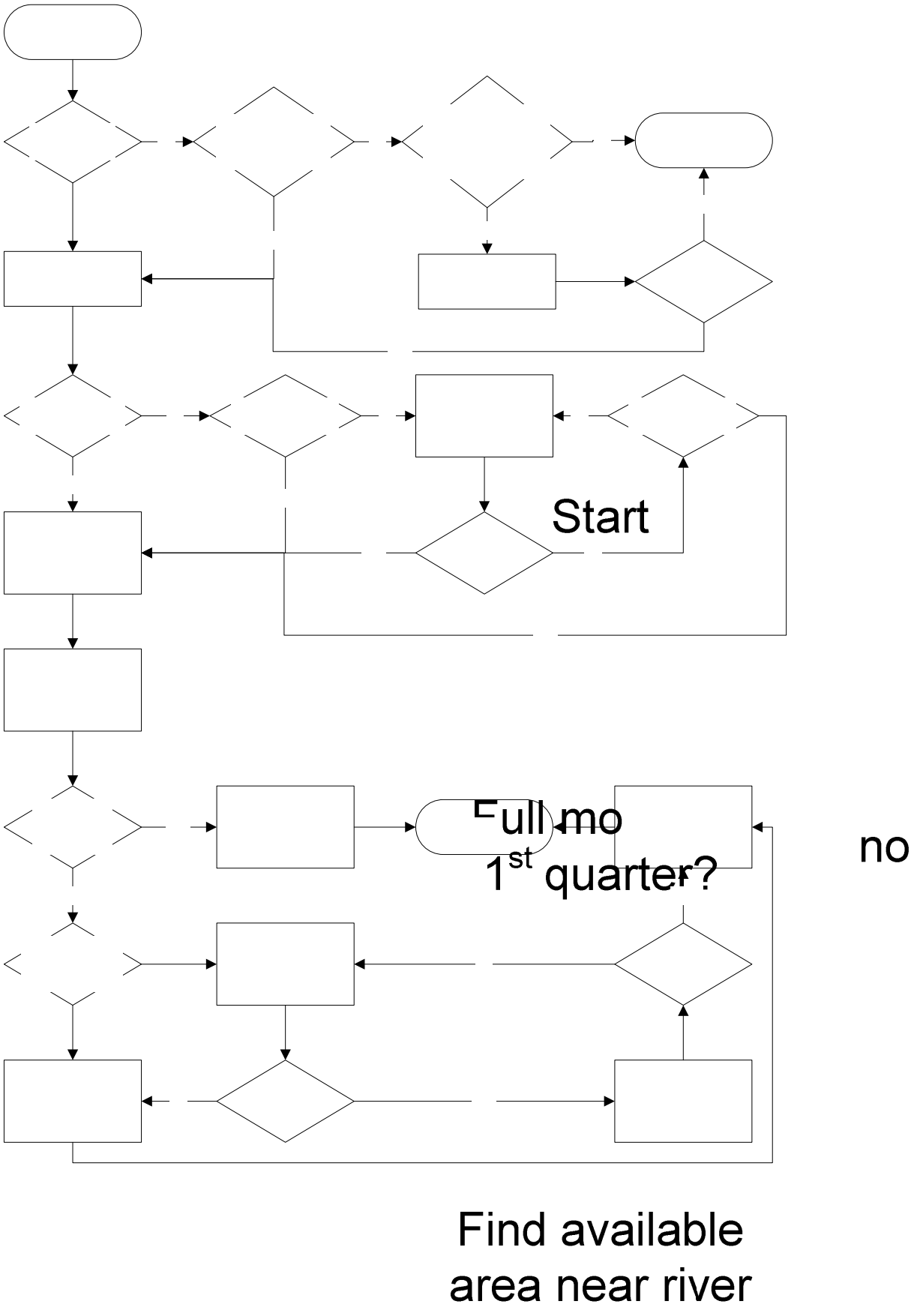


Figure 6. Charcoal-making.

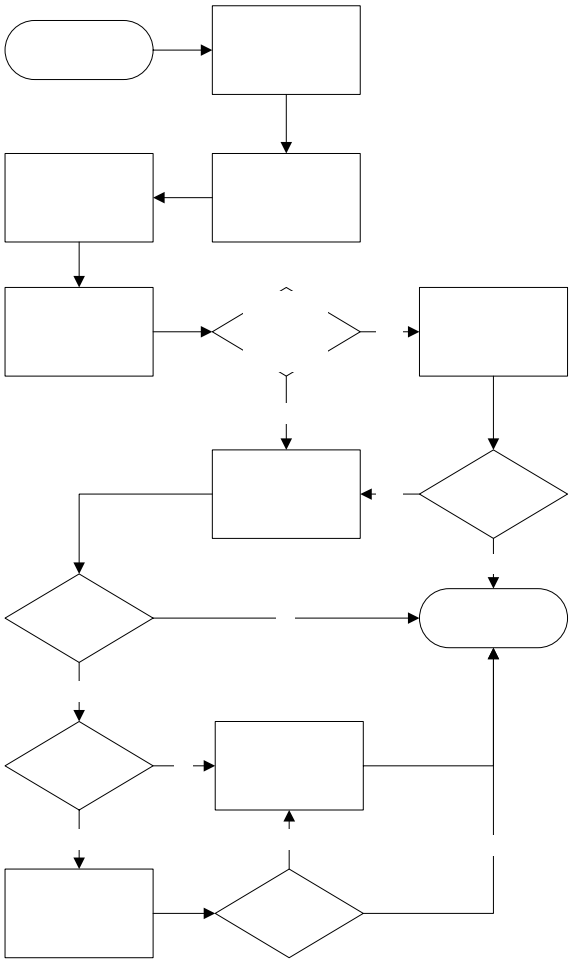


Figure 7. Resin collection.

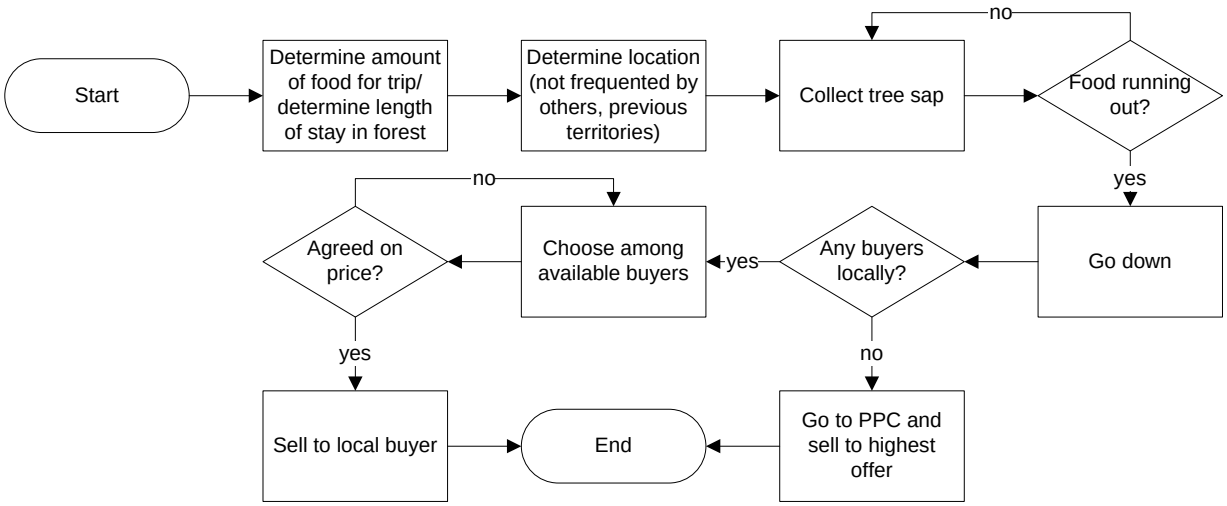


Figure 8. Copra making.

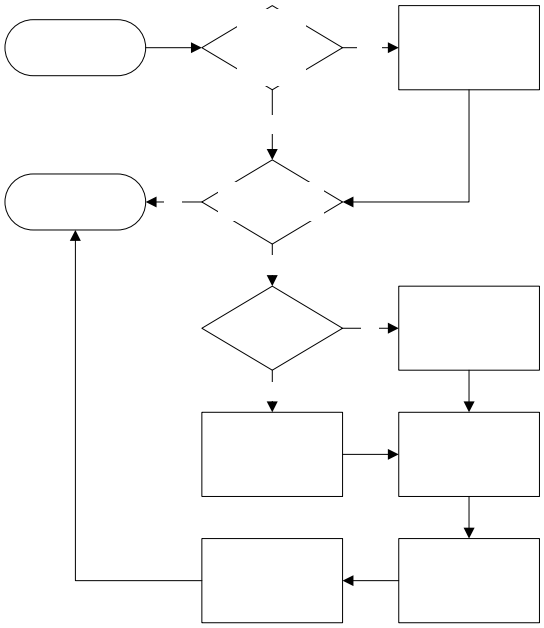


Figure 9. Coconut shingles making.

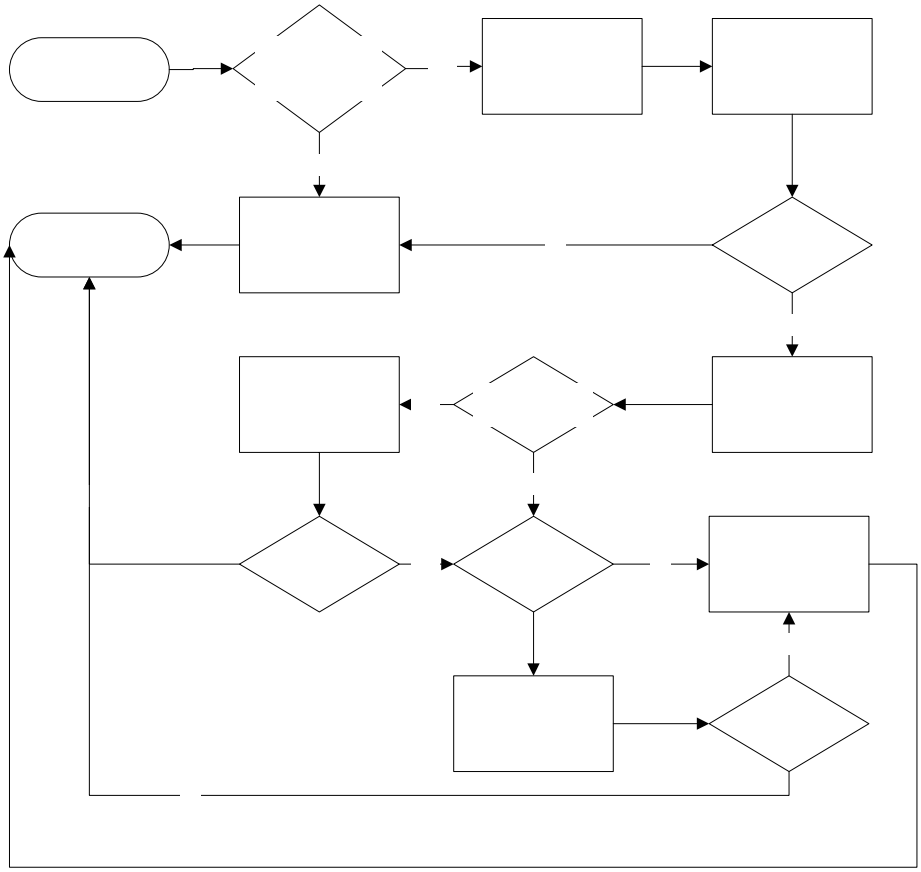
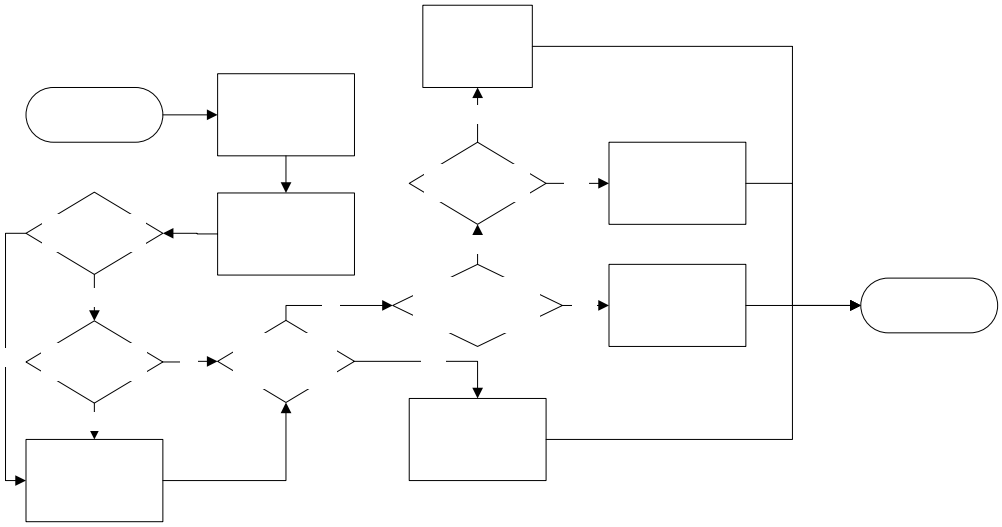
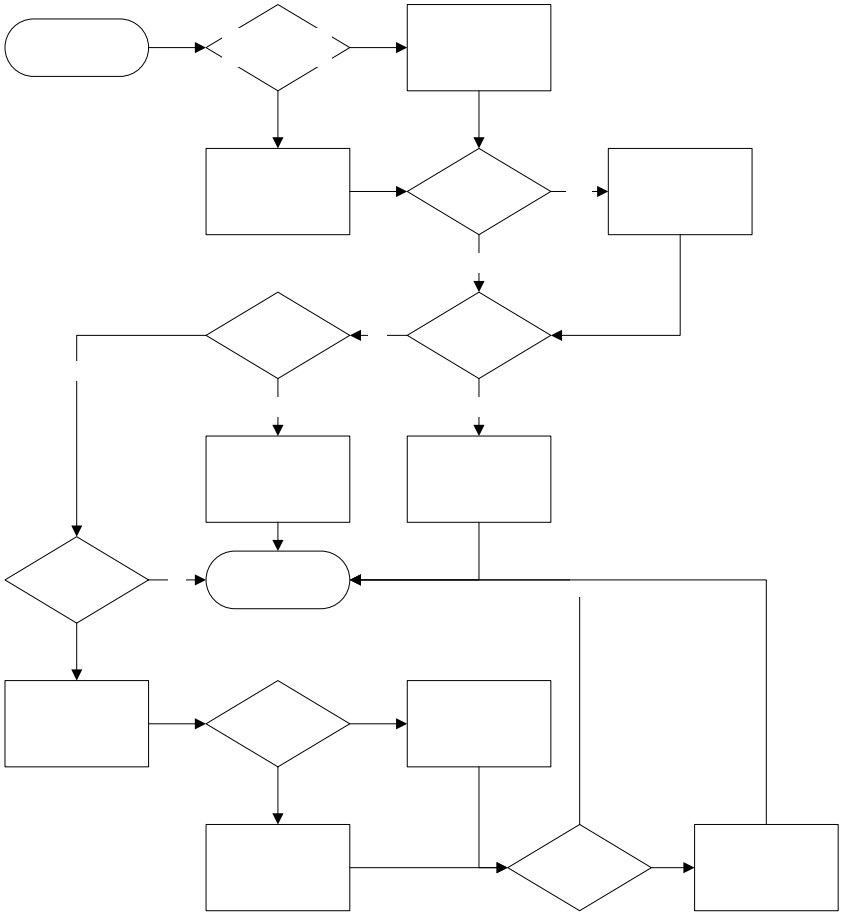


Figure 10. Hog-raising.

Preparations



Caring/maintenance of hogs



Annex 3. Highlights of the interviews with GO and NGO representatives

Government organizations

PCSD

- This government agency is tasked to implement the Strategic Environmental Plan (SEP) Act (RA 7611) and the Environmentally Critical Areas Network zoning. The ECAN zones would be integrated into the Comprehensive Land Use Plan (CLUP) of the municipalities of Palawan. It is promoting the ECAN as a development tool.
- It is the highest body for making policies regarding environmental management in Palawan.
- It also provides resource persons and training designers for trainings depending on the requests.
- Also involved in environmental education thru a multi-media approach such as radio programs, leaflets and on-site campaigns. It is also involved in establishing Coastal Resource Management Learning Center as a model for other barangays.
- Although this organization is a consultative body for LGUs, it also provides assistance in implementation of laws and regulations because of the limited resources of the LGUs.
- Through collaborations with other organizations, it comes up with projects such as the Malampaya Wetlands Project and the Calamianes Mangrove Project.
- It is also a counterpart in the management of the Balabak area together with Sulusulawesi.
- It collaborates with different organizations at multi-levels – sometimes being proponents to projects, or sometimes it is involved in data-sharing.
- Develops tools for monitoring of ECAN
- It conducts the province-wide State of the Environment yearly.

PENRO

- This government agency is responsible for establishing Community-Based Forest Management (CBFM).
- It handles applications for special uses of lands for tourism purposes.
- It has a mangrove reforestation program wherein contractors are paid to plant mangroves in validated areas within the barangays. PENRO then evaluates the planted mangroves.
- It is responsible for conducting the training on Environmental Performance Monitoring.

CENRO

- This government agency is focused on forestry lands and its protection. They enforce the laws and files charges against violators.
- It also has information campaigns about DENR programs and environmental awareness through schools and barangay assemblies. This activity is done yearly in each barangay, although hot-spots are prioritized.

- It also monitors compliance to ECC of different establishments thru scheduled and random inspections.
- CENRO facilitated the GMA project in establishing water systems – impounding dams.
- Aside from its regular activities on protection works, it is also involved in the following activities:
  - Distribution of vegetable seeds, fruit tree seedlings and fertilizers to each PO per CBFM.
  - Participated in conducting the training on Environmental Performance Monitoring (EPM). This EPM was to be used as basis for policy-making in CBFM areas.
  - In the coastal areas of Honda Bay, mangrove reforestation was done and different livelihood programs, such as crab-fattening, lamayo, sea cucumber culture and micro-lending, were monitored.
  - Reforestation projects
  - Conducts trainings on forestry laws and regulations together with other government agencies such as KSK and Bantay Gubat.

City ENRO

- This office is composed of several sectors:
  - Land Management
  - Mines and Geosciences Management
  - Protected Areas Management
  - Environmental Management
  - Forest Management
- It is one of the lead or support agencies in the following programs:
  - Pista Y Ang Kagueban ("Feast of the Forest") – a yearly community-based reforestation activity
  - Love Affair with Nature – similar to Pista Y Ang Kagueban but is done in coastal areas
- This office is also responsible for validating areas that are to be used for certain uses such as mangrove reforestation, small-scale mining, etc, and identifies conflicts, especially with the ECAN zones.
- It was also involved in establishing task forces to implement laws/ordinances and apprehend violators, together with other government agencies:
  - Task Force Sagip Buhay Ilang (as support agency) – wildlife
  - Task Force Sagip Hangin (as lead agency) – air quality

City Agriculture

- This government agency is mainly concerned with food sustainability
- It has two divisions - fisheries and agriculture
- Technicians are assigned to each barangay to oversee the status of these barangays
- The agriculture sector is involved in the following activities:
  - It provides technical assistance such as trainings to community members:
    - Capacity-building
    - Rice and corn farming
    - Pest management of fruit trees

        - Food processing
        - Ornamental gardening
    - It also provide and/or loan materials such as rice and corn seeds, pesticides and fertilizers
    - It also provides vegetable seeds yearly every Nutrition month
    - This agency also sells/loans discounted seedlings of fruit trees such as mango, citrus, and cacao.
    - It also set-up the tractor pool for farmers
    - This agency is also involved with irrigation systems in the barangays by providing estimates for repair and sometimes providing materials for repairs of dams.
    - This agency is also assisting the STCMPC.
- The fisheries sector is involved in the following activities:
    - It overseas the social, livelihood and physical conditions of the component barangays of the FRMP project in Honda Bay, such as Brgys. San Rafael, Tanabag and Concepcion
    - As part of its extension work, it provides assistance in livelihood thru capacity-building such as providing trainings on livelihood activities in the coastal areas such as capture, mari-culture, post-harvest/processing
    - It was also consulted for the PCRA of component barangays of FRMP project in Honda Bay
    - It is also involved in the establishment of fish sanctuaries by facilitating the process and providing the funding.
    - Also involved in passing ordinances as a consultative body for technical information.
    - It also assists in drafting management plans by facilitating the process and presenting the data.
    - Information dissemination by this sector is done thru multi-media means such as conducting symposiums, radio promotions, leaflets, participation in major events, design modules for trainings, conduct trainings, and billboards.
    - Every start of the year, this sector conducts consultative meetings/information dissemination campaigns at each barangay. This activity also provides an opportunity for this agency to hear out the concerns of the community. At the end of the year, the barangays are revisited, if there is a chance to do so.

BFAR-FRMP

- The interventions of this agency at the study site are mostly related to integrated coastal resource management.
- It was involved in the upland reforestation project together with the LGU.
- It was also involved in the milkfish culture project in Brgy. Concepcion.
- It is involved in resource enhancement projects implemented continuously throughout the year, together with other government agencies, such as City ENRO. The activities they are involved with are on mangrove reforestation and nursery, riverbanks rehabilitation and establishment of fish sanctuaries.
- Monitoring of projects of BFAR-FRMP is contracted to NGOs such as Fundacion Santiago.

- Its livelihood projects, such as seaweed farming, stem from proposals from the community through POs organized by NGOs. Together with other agencies, they conduct trainings for POs.

BFAR-Regional Training Center (RTC)

- This agency covers Region IV-B.
- Involvement of projects with other agencies are at multi-level:
  - Provides funds
  - Provides technical assistance
  - Provides resource persons
- Trainings are regularly conducted every year but not necessarily in the same areas. A list of priority areas, which have been validated by the same office, and those areas who have submitted advance requests are prioritized.
- For the Upland Reforestation project of FRMP, this agency is tasked to validate areas of reforestation and monitor them. They give trainings for livelihood activities identified thru the FRMP project such as the Milkfish Fishpen Culture in Brgy. Concepcion and the seaweed farming in Tanabag. They also provide materials for rehabilitation such as seaweed if area was affected by storms or pests.
- Information dissemination is done together with other BFAR offices by means of radio programs, organizing forums, attending meetings and visits to schools.

Kilusan Sagip Kalikasan (KSK)

- This is a province-wide task force whose task it so protect and enhance the environment through community development.
- The agency apprehends violators of environmental laws with the assistance of the Philippine National Police, Western Command, the communities and volunteers.
- It also tries to educate communities thru information drives. They have a program in Citizen Welfare Training Service (in lieu of Reserved Officer Training Corps) wherein college students are taught aspects about the environmental and environmental laws. This is done with the assistance of DENR-BFAR, PCSD, Haribon, selected staff from Palawan State University and volunteers in giving lectures.
- It also has a monthly newsletter that lists apprehensions of violators and other updates.
- It is also promoting community-based law enforcement.

NCIP

- This agency's main task is to delineate the ancestral domains of Palawan.
- In delineating the ancestral domains they perform the following activities:
  - Facilitates IPs in making work and environmental plans
  - Social preparation of IPs thru document preparation, census on genealogy and defining the extent of ancestral domain thru self delineation
  - Conduct field validation and conflict resolution
  - Boundary survey
  - Preparation and submission of reports

- The activities of this agency are conducted with the help of NGOs in the area and local IP organizations.
- Processing of ancestral domain claims is expensive thus funding from outside organizations is needed to speed up the process.

Provincial Planning Development Office (PPDO)

- This agency's main task is to facilitate the process of making plans by different organizations.
- The agency has five divisions:
  - Plans and programs - The planning process normally takes 2 days and the output are a list of projects and some project details. Planning is done with the cooperation of different sectors and is done yearly in an area.
  - Research – The Community-Based Management System (CBMS) was developed by this division. It also conducts monitoring of surveys. It also provides training to numerators.
  - GIS – This division maps existing infrastructures and provide lan-use maps
  - Water – This division assists the community in developing barangay environmental sanitation project/plan wherein the management of the project is at barangay level with assistance from this division. It is also involved in the planning, monitoring and evaluation of water systems.
  - Energy – Involved in making energy management plan. Also, it conducts studies on alternative energy sources, such as solar and wind. It has linkages with other agencies and organizations, such as the Department of Energy, UP Solair, Shell, and Paleco.
- This agency also provides students with reference materials.

Non-Government Organizations

ELAC

- The main goal of this non-government agency is to educate the communities about environmental laws. However, due to resource constraints, they are focused mainly on forest resources. ELAC is involved with almost the entire Palawan area.
- The organization provides para-legal training to communities with regards to environmental laws. The kinds of laws discussed in these trainings are based on the requests of the community.
- The group also organizes public dialogues in the communities, especially if there are violators of the laws within the community.
- This agency also assists in the implementation of the laws by being part of the apprehension of violators and helping in filing cases against them.

Haribon Palawan

- Assisting the indigenous people (IPs) through the following activities
  - Assists in meeting the requirements for ancestral domain claims by delineating the boundaries of the claim, re-organizing and re-structuring the constitution and by-laws of the IPs and documents the application.

- Involved in capacity-building of IPs by conducting leadership trainings and, together with the Department of Education, provide non-formal education to IPs.
- Assists IPs in acquiring temporary permits for gathering non-timber forest products while the ancestral domain claim hasn't been approved.

- This non-government organization was also hired by BFAR through the FRMP project to oversee the coastal resource management of coastal barangays.
  - It conducted coral surveys for the PCRA of coastal barangays.
  - Organize public hearings for establishment of fish sanctuaries.
  - Together with BFAR, it performs stock enhancement.
  - Develop tools to monitor resources, the organizations and livelihood programs.
  - Organize POs
  - Provide technical assistance to POs such as trainings on field methods and skill, providing equipment, and assists in licensing.
  - One of its future projects would involve coral gardening and enhancement, to which they would be conducting trainings on coral gardening.

Budyong Rural Development Foundation Incorporated (BFRDI)

- This NGO assists communities by facilitating the process of the making and submitting project proposals.
- It conducts trainings on leadership, management and proposal-making for the community.
- Also, it is involved in assisting in developing livelihood activities for the community by means of conducting technical trainings.
- Some of the previous activities of this organization were:
  - Help organize the community for the CBFM project. They also provided technical assistance and worked on the documents related to the project.
  - Cleaning-up rivers, planting of plants, and related activities within protected areas.
  - Establishment of furniture shop in San Rafael.
  - Assisted in the construction of the barangay development plan of San Rafael prior to the LPF project.
  - In Ulugan Bay, it assisted in the mangrove reforestation of the area, helped establish cooperatives, and provided capacity-building trainings.
- Efforts of the organization are based on the requests of the communities.
- At the moment, this NGO is currently looking into the possibilities of seaweed production. Also, it is trying to retrieve the traditional rice variety by establishing seed banks and providing the seeds.

Fundacion Santiago

- This NGO is contracted by the FRMP project to promote business and livelihood enterprises.
- It micro-finances good-performing cooperatives and provides livelihood loans. Funds come from USAID.
- It is also involved in community organizing and establishment of cooperatives.

- Monitoring of livelihood activities are monitored by Fundacion Santiago, the cooperative and the individual members. The process is facilitated by Fundacion Santiago.
- It also supports mariculture development such as seaweed farming.
- It provides trainings on financial management and livelihood techniques. The trainings on livelihood depend on the request of the POs or of the community. Some of the trainings this NGO provides are the following:
  - Leadership
  - Values formation
  - Policy formation
  - Food processing
  - Marketing
  - Product design/packaging

Natripal

- It is an IP organization that has membership coming from the entire Palawan province.
- It has refused to be identified as a major stakeholder in the study site of LPF in Palawan, Philippines.
- It was said that the organization has had few activities in the study site, more specifically in San Rafael:
  1) Assisted the Tagbanuas of San Rafael in acquiring their ancestral domain claim in 1991, but it was done when Natripal was still called Tribal Filipino Apostolate
  2) Established the Natripal store in San Rafael
  3) Training for honey in San Rafael
- Earlier this year, a proposed project for honey was made to the Tagbanuas of San Rafael with the funding coming from the embassy of Finland. This project stemmed from the fact that the participants of the training for honey in 2004 in San Rafael requested for financial assistance but, the project proposal itself was later turned down by the same group.
- This non-government organization develops project proposals and provides technical assistance, such as trainings, to IPs if the project is approved and acquires funding.

Annex 4. Clarification questions for the activity diagrams

Bangus fry catching:

1) Which would you prioritize, testing the availability of bangus fry or wait until others have started catching bangus fry?
2) In PPC, do you canvas for the highest offer, have a regular buyer, or sell to the first one with a good offer?
3) How do you select a buyer among several buyers, is it based on reputation, affinity (friend) or blood relation?
4) How do you negotiate? Do you first try to know the dominant selling price of the bangus fry locally, or based on the average selling price at PPC or do you negotiate the price based on previous prices?
5) How far or how long do you search for bangus fry?
6) How much do you catch or how long do you catch bangus fry? Is there a minimum/maximum amount (kg)?

Fishing:

1) How do you choose which technique you are going to use?
2) How do you determine if you had enough catch for the day?
   - amount of fish caught
   - amount of time spent fishing
   - time of day

Lowland Farming:

1) Which will you prioritize given existing capital, the type of crop or size of farm?
2) If you do not have enough capital, do you still proceed with planting? How? Do you get loan/borrow money? Borrow plant materials from others?
3) What makes you decide to hire workers? Desire to finish planting immediately? Available capital? To help others earn money? Other factors?
4) Which do you prioritize or how do you choose if you have only capital for one item - pesticide or fertilizer?
5) Is it automatic that the priority of the harvest is for home consumption?

Seaweed Farming:

1) What are the guidelines for site selection?
2) Are they being followed?
3) How is the process of negotiation/marketing?
4) How long is the shelf life of dry seaweeds?
5) How long can the seedlings be kept before expiring?
6) If you don't have enough start-up capital, do you look for credit? If yes, what are your criteria for accepting a credit contract?
7) What do you do if the seaweeds are ready to be harvested? (paano pag ninakawan?)
8) What about deciding not to do seaweed farming?

General question for all activity diagrams:

How do you market the goods you have made/collected?

Appendix 9

Levelling the Playing Field:
Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Minutes of Meeting of Provincial Steering Committee (PrSC) and Progress of TWG

University of the Philippines Los Banos (UPLB)

Centre de Cooperation Internationale en Recherche Agronomique pour le Developpment (CIRAD)
Center for International Forestry Research (CIFOR)

Minutes of Meeting of Provincial Steering Committee

1ST Provincial Steering Committee (PrSC) Meeting
Café Tribu, Rizal Avenue, Puerto Princesa City
March 29, 2005

Time Duration: 10:00 AM– 12:03 PM

Present:

	Name	Position/Designation	Office
1	Jovenee Cawiling	Officer In-Charge	City Planning and Development Office,
2	Emelina Cojamco	Chief Forest Mgt. Sector	DENR-PENRO
3	Nelson Devanadera	Executive Director	PCSD
4	Maribeth Caymo	Area Manager- ARMO South	PCSD
5	Reuben Jardin	Provincial Officer	Dept. of Agri. – Bureau of fisheries and Aquatic Resources (DA-BFAR)
6	Teodoro Villanueva	National Coordinator	Levelling the Playing Field (LPF) Project
7	Ma. Eduarda Devanadera	Consultant	Levelling the Playing Field (LPF) Project
8	Teodoro Zernan	Technical Working Group (TWG)	TWG, San Rafael, Puerto Princesa City
9	Beatriz Dacles	Technical Working Group (TWG)	TWG, Concepcion, Puerto Princesa City
10	Gaudencio Osano	Technical Working Group (TWG)	TWG, Tanabag, Puerto Princesa City
11	Melquiades Rodriguez	Brgy. Captain	San Rafael, Puerto Princesa City
12	Epitacio Abrea	Brgy. Captain	Tanabag, Puerto Princesa City
13	Rossana Rodriguez	Brgy. Councillor	Concepcion, Puerto Princesa City

I. Prayer

The meeting started at 10:00AM by a prayer led by Ms. Beatriz P. Dacles, TWG facilitator.

II. Call to order

Dr. Teodoro Villanueva welcomed the participants represented by different agencies, and the three Barangays. He called the meeting to order.

III. Welcome Remarks – Dr. Teodoro Villanueva

In behalf of the LPF project partners in based in Indonesia, LPF staff in the Philippines, different partners agencies in Palawan, Brgy. Captains and councils and TWG from Three Barangays (San Rafael, Tanabag, Concepcion), Ted Villanueva expressed his gratitude for the continued support of the participants. He also expressed his wish that the participants will participate throughout the whole day.

IV. Attendance and Apologies

Ted Villanueva requested Suzy to read the attendance sheet.

V. Briefing about the LPF and its progress

Ted Villanueva provided a background of LPF project.

VI. Sharing of Barangay captains about LPF

Barangay Captain Epitacio Abrea of Tanabag and Barangay Captain Melquides of San Rafael Rodriguez both expressed appreciation of the activities and project that LPF have brought to the communities. They look forward to useful lessons that they will get for today's meeting and workshop. There was no problem in adopting the project in their barangays.

VII. Highlights of the Discussion

A. Roles and responsibilities of PrSC

PCSD Executive Director Nelson Devanadera proposed the following roles of PrSC:

1. Direction Setting – According to him the PrSC can help the LPF in identifying priority activities consistent with the provincial priorities.

2. Policy formulation to enhance the attainment of objectives – Because most members can influence policy formulation, PrSC can serve as a venue to identify and discuss policies that can at the same help achieve the objectives of the project.

3. Oversight function: PrSC can also serve as venue to resolves conflicts among agencies and organizations in the province.

4. Resource generation – The PrSC can also assist in generating funds for projects of the communities.

5. PrSc can assist in forming the Provincial Resource Learning Center by using the LPF project as model in natural resources management.

Dr. Villanueva explained that during PrSC meetings LPF project will present its accomplishments and activities. Feedbacks will be provided by the committee.

According to Dir. Devanadera, since the PrSC concern is province wide, the three sites can be a model and it can be replicated to other sites, either in municipality or barangay levels.

Mr. Zernan Teodoro expressed the advantages of having the PrSC. He stated that here in PrSC, several government agencies are represented and they can be tapped to solve problems that transcend provincial, city, and barangay levels.

Dir. Devanadera replied that TWGs in the project site are action groups while the PrSC can be the support group.

For. Emy Cojamco gave an example of how the PrSC can help. This is the case of Brgy. Concepcion, the barangay where LPF was not adopted by the Barangay Council and was only adopted through a public hearing. For. Cojamco said that in case like this, the PrSC can back-up the TWG. She also suggested that different agencies must have a permanent representative to attend the PrSC meeting.

Dir. Devanadera suggested that there must be a resolution coming from barangay councils to legally endorse or recognize the Provincial Steering Committee.

Dr. Villanueva suggested that administrative matters pertaining PrSC activities be clarified, like per diem, transportation expenses, venue, food, etc. He also suggested that PrSC adopt a set of house rules or operating procedures to guide its members

Ms. Devanadera suggested that the above matter be prepared by the LPF project staff and discussed in the next meeting.

Dr. Villanueva said that the LPF project staff has volunteered to formulate the Standard Operating Procedures of PrSC. The PrSC existence will also be communicated to the head of offices or to different agencies so they will learn that there is an existing PrSC for “Leveling the Playing Field” project.

The group agreed to meet quarterly.

Dir. Devandera suggested that the meeting place to alternate between Puerto Princesa City and the three barangays.

Mr. Jardin moved to adopt the PrSC roles suggested by Dir. Devanadera. It was adopted by the PrSC members at exactly 11:25AM on March 29, 2005.

Mr. Jardin proposed that other agencies should be added as members of PrSC, such as city agriculture or provincial agriculture to address the problem in agricultural aspect.

For. Emy Cojamco, suggested that the positions in the PrSC be agreed upon first and then elect the people to said positions. The committee agreed on the suggestion.

Mr. Zaldy Cayatoc that there should be a chairman, vice chairman, and sub-committees. The committee agreed to the suggestion.

Mr. Jardin suggested that the chairman is PCSD and vice-chairman is city planning and others could be members. Everybody agreed to this suggestion.

Below are the elected officers of PrSC:

Position	Name of Person Elected	Office	Remarks
Chairman	Nelson P. Devanadera	PCSD	
Vice-Chairman	Jovenee Cawiling	City Planning	
Sub-Committees:			
1) Upland	Rey Crisostomo	DENR-PENRO	
2) Lowland	Nelson S. Salvador	Provincial Agriculture	Suggested as additional member of PrSC
3) Coastal	Reuben Jardin	DA-BFAR - Province	
4) Livelihood and Marketing		DA-PAES	Suggested as additional member of PrSC
5) Local Governance	Recardo Z. Austria	DILG – Province	Suggested as additional member of PrSC
Members:			
	Teodoro Villanueva	LPF National Coordinator	
	Doodee Devanadera	LPF Consultant	
	Halid K. Dawili	DILG – City	Suggested as additional member of PrSC
	Melquiades Rodriguez	Brgy. Captain, San Rafael	
	Epitacio Abrea	Brgy. Captain, Tanabag	
	Candido Canete	Brgy. Captain, Concepcion	

Follow-up Actions

The following tasks and activities were identified:
- LPF Staff to complete the directory of the PrSC Members.

- PCSD to give priority to the three barangays (San Rafael, Tanabag and Concepcion) for ECAN delineation of three landscape. PCSD is just waiting for the go signal from the City Mayor.
- LPF staff to set the date of next meeting and induction of officers and members of PrSC. The proposed venue is Brgy. Tanabag. It's suggested by PrSC members to invite Mayor Hagedorn.

The meeting was adjourned at 12:03 PM.

Roles and Responsibilities of Provincial Steering Committee Members

I. Background

In Southeast Asia, including Philippines, new policies that provide the rights to local stakeholders to manage parts of forests and natural resources are emerging. As a result, different stakeholders have different roles to play. Their different kind and levels of skills, knowledge, and authorities make management of natural resources complex. Within these contexts, "Levelling the Playing Field" project was planned and developed to respond to this issue. This project is an international research project managed by Centre De Cooperation Internationale on Recherche Agronomique Pour Le Developpment (CIRAD) and Center for International Forestry Research (CIFOR). It is implemented by University Philippines Los Banos, College, Laguna in the three Barangay's of San Rafael, Tanabag, and Concepcion, Puerto Princesa City, Palawan. The project aims to improve natural resources management by facilitating, coordination, communication, negotiation, and collective action among relevant stakeholders at different levels, from community to city and provincial level.

One of the effective tools to carry-out the project strategies is the strong linkages among the various agencies involved natural resources management. The different agencies can be brought together in one forum and they can be done through the LPF Project steering committee (PrSC). The PrSC shall provide direction and guidance in implementing Levelling the Playing Field project and its activities. Furthermore, PrSC will ensure the sustainability of Levelling the Playing Field activities in the three barangays even after the end of the project.

II. Roles and responsibilities of PrSC

1. Direction Setting – The PrSC can help the LPF in identifying priority activities consistent with the provincial priorities.
2. Policy formulation to enhance the attainment of objectives – Because most members can influence policy formulation, PrSC can serve as a venue to identify and discuss policies that can at the same help achieve the objectives of the project.
3. Oversight function - PrSC can also serve as venue to resolves conflicts among agencies and organizations in the province.
4. Resource generation – The PrSC can also assist in generating funds for the projects of the communities.
5. PrSc can assist in forming the Provincial Resource Learning Center by using the LPF project as model in natural resources management.

III. Composition of Provincial Steering Committee (PrSC) Members

Chairman:	**Dir. Nelson P. Devanadera** PCSDS, Executive Director

Vice-Chairman:	**Engr. Jovenee Cawiling** City Planning, OIC
Sub-Committees:	
1. Upland:	**Mr. Rey Crisostomo** PENRO Officer, DENR
2. Lowland:	**Mr. Nelson Salvador** Provincial Agriculture Officer
3. Coastal:	**Mr. Rueben Jardin** Provincial Officer – DA-BFAR
4. Livelihood& Marketing	**Engr. Elmer T. Ferry** SuperIntendent Agricultural Center Chief III, DA- PAES
5. Local Governance	**Ricardo Z. Austria** Provincial DILG Officer

Members:

1. Department of Interior and Local Government – City level
2. Dr. Teodoro R. Villanueva – LPF Representative
3. Ms. Doodee Devanadera – LPF Representative
4. Hon. Melquiades Rodriguez – Brgy. Captain of San Rafael
5. Hon. Epitacio Abrea – Brgy. Captain of Tanabag
6. Hon. Candido Canete – Brgy. Captain of Concepcion
7. Mr. Zernan Teodoro – Technical Working Group, San Rafael
8. Mr. Gaudencio Osano – Technical Working Group, Tanabag
9. Ms. Beatriz P. Dacles – Technical working Group, Concepcion

IV. Administrative Matters

- The meals and transportation expenses of the meeting will be shouldered by LPF project.
- The agenda will be based on the activities in the field and it will be provided to the Provincial Steering Committee members before the meeting.
- The PrSC members shall meet every quarter of the year or as needed.
- The venue of the PrSC meeting will depend upon the agreement of the members.
- The transportation expenses of the PrSC members should be liquidated after the meeting is completed.

Prepared by:
Azucena E. Gamutia
Field Assistant - LPF Project

Attested by:
Teodoro R. Villanueva
National Coordinator - LPF Project

TWG Activities, 2nd year of implementation

November 24-29, 2004

Around 20 members of TWG joined the Facilitation Training conducted at Duchess Beach Resort, San Rafael, Puerto Princesa City. The aim of the training is to enhance TWG's facilitation skills in facilitation so that they can effectively address their own problems in the three barangays. The main facilitator is a Los Banos-based international consultant. Besides TWG members, 5 participants were staff of government agencies in Puerto Princesa City. The government agencies are partners of the LPF project.

January 21-22, 2005

Paolo Campo visited the three barangays as preparation for the upcoming CORMAS modelling activities. The aim is to orient and familiarize the three sites for the coming activities. He also met some TWG members.

January 26, 2005

LPF team fedback the results of market study, socio-economic survey to TWG members. This session provided opportunity for the team to validate the results and provide inputs to TWG to their list of identified problems. Brgy. Official. Councilor Antulo of Concepcion reacted on the issue presented about Bataks on their needs for a teacher and school, and the issue that some Brgy. Officials were involved in illegal activities.

February 4, 2005

Special presentation of LPF Project to barangay council of Concepcion. It was facilitated by Ms. Eduarda D. Devanadera and Emmy Cojamco from DENR-PENRO. It was frustrating to the TWG members since they felt that the councilors, from the barangay themselves, did not accept the project. Please see minutes of meeting for details.

February 12, 2005

A meeting was held for the 2nd round of prioritization of problems in Barangay San Rafael, Tanabag and Concepcion. Results and inputs of market study, socio-economic survey were used. The issues and problems were validated and prioritized. Please see minutes of meeting for details.

February 19, 2005

Public hearing for adoption of LPF project in Barangay Concepcion. Almost one hundred persons gathered in the barangay hall. Ted Villanueva explained the project to the participants. Brgy. Captain Epitacio Abrea of Tanabag was there to express his support for the project. When Captain Canete of Concepcion asked the community

members if they were willing to accept the Project in their barangay, everybody replied yes! According to some members of the TWG, while the meeting was conducted inside the Brgy. Hall, two barangay kagawads were campaigning outside for the community members not to accept the LPF project. This did not work. The participants inside the Brgy. Hall approved the LPF project. TWG did the ground work so that the community provide their support.

Since the community directly accepted the project, the TWG members asked Ted if it is necessary to make a barangay resolution adopting LPF project. He replied that it is not necessary since the community itself have adopted the project.

Feb. 18-March 6, 2005

Multi-stakeholders Landscape assessment was conducted in Batak village Sitio Kalakuasan, Brgy. Tanabag, Puerto Princesa City. The team consisted of ten members led by Manuel Boissiere. It was composed of 7 technical staff and 3 supporting guides from the community. The participants were divided into two groups: the village team and the field team. On the first day the whole team members did a courtesy call to the villagers and conducted community mapping. On the next day and onwards, the village team conducted Pebble Distribution Method (PDM) exercise to determine the importance of the natural resources (plants, animals) to Bataks and how they often use it. For the field team, they established plots on different landscapes (one plot was established on each landscape). All plants in the plots were collected and their uses were identified. The specimen were preserved and brought to Palawan State University, Puerto Princesa City, under the coordination of Mrs. Beth Jeronilla the taxonomist of MLA Team.

March 17, 2005

It was the 1st meeting of TWG in the second year of LPF project, in which facilitators and assistant facilitators was identified, roles, responsibilities and benefits of TWG were reviewed, PAR loops were presented by LPF team. TWG then tried to develop loops for each identified priority problems. Please see minutes of meetings.

March 29, 2005

This was the first meeting and Organization of Provincial Steering Committee. Thirteen persons came: 3 TWG representative, one per barangay, 3 Barangay captains, and the rest were from different government agencies. Director Devanadera informed the participants that PCSD has a project on ECAN delineation. Their priority areas are at west coast part of Palawan but they will give priority to the three barangays (San Rafael, Tanabag, Concepcion). This concerns both forest and coastal area. Please see minutes of meeting.

April 6, 2005

Councilor Corazon Dalabajan organized training for ornamentals and cut flowers in San Rafael for Rural Improvement Club (RIC) group. According to her, the two

barangays can join in. She invited persons from the two barangays who want to participate in the said training. The attendees can avail fifty (50) pieces of orchids from city agriculture and the beneficiaries will return the same amount of orchids after 3 years.

April 28, 2005

This was the meeting of TWG with market study team (consisting of Marina Goloubinoff and Doodee Devanadera). TWG presented their focused priority problems based on the result of 2nd prioritization last February 12, 2005. Please see minutes of meeting.

May 4, 2005

Meeting of TWG with Herlina and Ted. The team informed TWG on the upcoming visit of Steering Committee and LPF team members from Indonesia and Malaysia. The visit will take place on May 11-12. During the discussion, TWG asked if the trainings on nito can be pursued. The issue of compensation provided to individual TWG members to cover their meal expenses (PhP 130) was also discussed. After long discussion, the group decided to continue the nito training and the current compensation practice of the group. Please see minutes of meeting.

May 11-12, 2005

Visit of LPF Steering Committee members. On May 11, there was a presentation from different Government agencies, i.e. DENR-PENRO and PCSDS in Puerto Princesa City. On May 12, 2005, a field visit to several places in three barangays took place. Please see the minutes of meeting.

May 19, 2005

Training in Brgy. Concepcion on ornamentals, cut flowers and food processing in collaboration with City Agriculture. TWG members, specifically the lowland group, helped in organizing the training on flowers and food processing by inviting people and providing their assistance during training. As counterpart budget, the LPF project provided snacks and provided plastic bags (for planting) to participants. Almost 57 persons were attended.

May 20, 2005

Training on para rubber Plantation at Brgy. San Rafael, Puerto Princesa City. The trainors came from Palawan State University. This training conducted through the coordination of Brgy. Councilor Corazon Dalabajan with the Provincial Agriculture's Office.

May 23-June, 23, 2005

TWG (the livelihood and marketing group) participated in the provincial Baragatan Festival 2005. This is a yearly activity of the Provincial government where all municipalities and other private sectors, NGO's and individuals display and sell their different products at the Provincial Capitol Square Park. The festival takes place for a month, usually in the month of May and June. Eight TWG members participated in the said activity where they displayed and sold products from three barangays such as: fruits (banana, mango), processed foods (spicy dilis, fried cashew, sampalok candy, honey), and flowers. TWG also tried to find local markets for their nito handicraft and flowering plants. These two livelihood options are being explored and developed under LPF project.

May 25, 2005

Training in Brgy. Tanabag on ornamentals, cut flowers and food processing in collaboration with City Agriculture. TWG members, specifically the lowland group, helped in organizing the training on flowers and food processing by inviting people and assisting during training. As counterpart budget, the LPF project provided the snacks and plastic bags (for planting) to participants. Around 25 persons were attended.

Appendix 10

Levelling the Playing Field:
Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Facilitation Training Report

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Center for International Forestry Research (CIFOR)



Facilitating learning and negotiation in natural resource management

Palawan, Philippines
24-29 November 2 004

Anita L. Frio

Facilitating Learning and Negotiation in Natural Resource Management -Training Report

Prepared by

Anita L. Frio

Facilitating Learning and Negotiation in Natural Resource Management[1]

I. Introduction

The project "Levelling the Playing Field (LPF)" is being implemented at the villages of San Rafael, Tanabag and Concepcion, Puerto Princesa, Palawan, the Philippines. The project builds on the work of a previous ACM research project in the same villages that ended in 2002. There have been changes since then in the policies and regulations, barangay leadership, field officers assigned to the CBFM area, activities of the People's Organizations, etc. Consequently, new priorities, challenges, problems, and opportunities have emerged.

Since 2003, the LPF project had been working with the local people and other stakeholders to actively address their own problems. A series of workshops had been conducted to bring them all together at the beginning of the project, learn about the project and identify the issues that they, with the support from the project, will try to address.

As a result of the series of workshops, Technical Working Groups (TWG) were formed. There are currently four TWGs (one group consists of six people from three barangays, plus one facilitator) that address low productivity of three areas (forests, lowlands, coastal areas) and livelihood issues. It is quite likely that in the future the composition of the TWG and the facilitator may change to include more people to ensure representation and other concerns.

The TWGs developed three proposals (nursery, livestock raising, and cutflower projects) to be submitted to the Puerto Princesa City Planning Office. They also presented the identified priority problems (the product of the previous workshops) and action plans to the three barangay councils. While the council members of two barangays endorsed their plans, the other Barangay council did not. As a result, the TWG felt that they still need more skills training for better performance of their responsibilities.

II. Training Objectives

The general objective of the training was to increase the participants' capacity to carry out their roles as TWG members. Specifically, it aimed to:

- equip the participants with basic facilitation skills,
- enhance participants negotiation skills,
- provide participants actual practice how to facilitate ACM learning process and the LPF project, and
- increase participants' awareness of representation ,their roles and responsibilities as TWG as it relates to local governance

III. Training Participants

Participants included 12 TWG members and potential leaders from the two barangays. There were 4 participants from different government agencies, DENR- CENRO, PENRO and City Planning and 1 from the LPF project. More women, (71 %) than men (29 %) attended the

[1] The author wishes to acknowledge the contributions of Ms. Ma. Eduarda Devanadera, Ms. Azucena Gamutia, Arnel Gamutia, Ms. Paquita Genoves, and Dr. Ted Villanueva of the LPF the Training Team in the preparation of this report.

training. There were 4 participants who were present only in the first day. Majority of the participants (59%) had some college or college degrees, 23%, high school and 18% elementary education. Average age for both men and women is 41 years old, with a range of 16 to 74 years. A list of the participants' profile is in Annex 1.



The training participants included members of the TWG, government employees, and selected potential leaders of the three LPF project barangays.

IV. The Training Program

1. Pre-Training Activities

The preparatory activities were conducted from 18-23 November 2004, a week before the training. The activities included the following:

- Logistical concerns such as distribution of invitation letters to participants, arrangements for the venue, food catering, transport, etc.
- Buying supplies, preparation of training equipment such as VHS player, digital camera, overhead projector
- Reviewing and finalizing training schedule
- Final selection of instructional materials such as videos, references, icebreakers
- Translation of key handouts into Tagalog, inputted in the computer, and photocopied
- Preparation of flipcharts in Tagalog and English
- Preparation of visuals for overhead transparency projection
- Creation of exercises for class sessions

The most difficult and time-consuming activity was translating materials from English into Tagalog. Literal translations had to be avoided because these sometimes twist the meaning, resulting in difficulty of understanding of the ideas being communicated.

2. Training Schedule

The training was conducted on 24 – 29 November 2004 at the Duchess Resort, San Rafael, Puerto Princesa City, Palawan.

3. Facilitators' Team

The team was composed of Doodee Devanadera, Arnel Gamutia, Annie Frio, Ted Villanueva. Babes Genoves later joined the team . Suzie Gamutia was in-charge of logistics and financial management.











The team of facilitators that conducted the LPF training was composed of (clockwise) Ted Villanueva, Annie Frio, Babes Genoves, Arnel Gamutia and Doodee Devanadera .

V. Training Content

The training design was adapted from "The Art of Building Facilitation Capacities" Training Manual published by the Regional Community Forestry Training Center (RECOFTC). A complete Training Schedule is shown in Annex 2.

The training content is as follows:

DAY 1 - **A. Setting training context**

- Registration
- Welcome ceremonies
- Getting to know you
- Leveling expectations
- Setting workshop context
- Norm setting
- Benchmark facilitation skills

B. Facilitation Fundamentals

- Introduction to facilitation
- Types of groups
- Attitude, a basic facilitation trait
- Synthesis

VI. Training Methods

The training used the principle of "learning by doing". The course was designed to give participants the opportunity for hands-on learning through a structured series of activities that build skills based on what they already know and experienced. Thus the training course emphasized skills enhancement and practical application.

A. Improving personal skills

1) Analysis and preparation of outputs

Participants were active in analyzing the tasks given in exercises and group work. Each one took responsibility in solving particular issues, discussed outputs with group members and prepared materials for presentation.

2) Presentation skills

With the many activities during training, everyone did their share in reporting outputs of exercises. The training equipped them with pointers on presentation skills like proper voice projection, eye contact, audience rapport, etc.

3) Facilitation skills

All participants had the opportunity to be facilitators. Many also volunteered to be assistant facilitator in many instances during the training.

4) Reflection or recapitulation

This was done every morning and sometimes after long sessions. Group members did recapitulations of previous activities as part of their being Host Team of the Day. It was amazing how creative many participants were in reviewing past lessons. They used very good visual materials; one even ingeniously recreated a radio broadcast scenario to review activities of the previous day.

Self assessment or benchmark evaluation of facilitation and negotiation skills was done by each participant and was used to self-monitor their progress during training.

Improving Personal Skills





- **Preparation of outputs**









- **Presentation skills**





- **Facilitation skills**











- **Reflection (recapitulation) skills**

B. Improving team participation/teamwork

1) Analysis of case studies

Using case studies, participants learned together and made participatory decisions using the following materials:



- "Spend the money"



- "The world is going to be flooded"



- "Stranded in the bush"

2) Use of role play

This was a favorite tool used by the participants in bringing out sensitive issues that normally were not discussed with outsiders. It was used in simulating the following activities:

- TWG meeting with the Barangay council
- Live radio broadcast
- Probing Skills





- **Role play**

3) Group exercises

- Conventional and participatory grouping
- Listening skills (Blindfold exercise)
- Paraphrasing
- Problems of TWG
- TWG: roles, responsibilities and benefits
- Effective meetings
- Inclusive solutions







- **Group exercise**

4) Field practicum

This activity was held simultaneously in Barangays San Rafael, Tanabag and Concepcion with one team of participants assigned in each barangay. Each team presented the outputs of a previous workshop, problem diagnosis and initial action plans. They also presented the roles, responsibilities and benefits of the TWG. A plenary followed the presentations and questions, issues and clarifications were discussed.

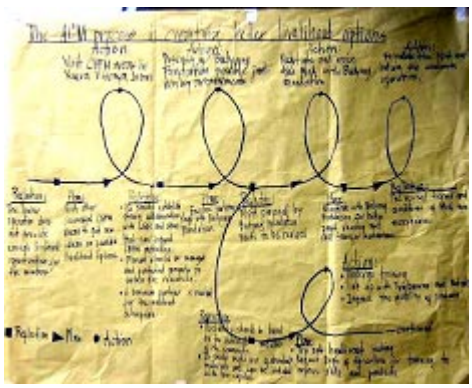






C. Training support

1) The following visual aids were used:
   - Overhead transparencies
   - Flipcharts
   - Meta cards




D. Other facilitation tools

- Brainstorming
- Focused discussions
- Energizers





Participants get to practice using some energizers: "Guess what?", "How many squares?," and "The Bus."

VII. Training Evaluation

The participants took time to evaluate the training course using an Evaluation Form (Annex 3). Some results of the evaluation include the following:

1. While facilitation tools such as brainstorming and meta cards were commonly used by the participants, these tools scored high on degree of usefulness when they were used in the pooled exercise on problems of TWG. The museum tool (display of references) also scored high. Participants wanted written references for later use. The museum tool provided choices to copy in terms of tips, examples and rules.

2. Personal facilitation skills like listening and observing behavior scored high. This was probably due to the use of the blindfold exercise and the Guess What energizer that enhanced these skills. Probing (*pag-uurirat)* was memorable to the participants because they practiced this skill through a role play, where they wrote their own scripts.

3. Negotiation Skills while it scored high cannot be attributed directly to the effect of formal training. It was discussed as a topic only after the field practicum where some successful negotiations had happened (Barangay Concepcion). This skill was informally discussed for 5 days during breaks, or lulls in group work, or whenever someone from Concepcion brings out the topic of "their failure to convince the Barangay council". The "outsiders" (facilitators and the government employees) were particularly helpful in sharing their experiences, mentioning successful strategies, not getting personal, tips, do's and don't's, miscommunication, etc.

Open-ended Questions

4. Please give your comments and suggestions about the field practicum:

    - Resource speakers knew how to motivate us (2)
    - Practicum resulted in identifying a neglected issue- fish sanctuary
    - Need more of this type of training (5)
    - Improved my skills (4)
    - Happy
    - More field practice
    - Understood problem analysis better

5. What other skills, activities do you need in order to improve your jobs as TWG?

    - Field trip outside Palawan
    - Need more practice of skills
    - Training on values formation
    - Research
    - Another field practicum

VII. Lessons Learned

A. Training Content

1. The training design was adapted from the book "Art of Building Facilitation Skills", a publication of RECOFTC and from "Successful Negotiations" by Robert B. Maddux. However, only topics/concepts relevant to achieving the training objectives were chosen.

2. The overall goal and objectives of the training should be presented clearly and how they will be achieved. Activities for the day should be clear enough for the participants so they can understand how they contribute towards achieving the objectives.

B. Training methods

3. Learning by doing was the principle used throughout the course. It was a very participatory approach as everyone had unique experiences to share. The downside however, was a need for stricter time management. There should have an agreed time frame for each activity including presentations and discussions.
4. Group exercises provided opportunities for practicing facilitation skills. It also helped strengthen teamwork and sharpened analytical skills by sharing individual insights with group members.
5. Pooled exercises were effective in comparing different facilitation tools using one topic.
6. Games and icebreakers provided variation and a relaxed mood for learning.
7. Outputs motivate, encourages creativity. However, it was observed that in some exercises, participants were more output conscious and less process oriented. Facilitators need to explain the need to be aware of the process as well.
8. The field practicum was the best opportunity for participants to practice their facilitation skills. In addition, the preparatory workshop gave them more time to understand and improve on the presentation materials.
9. Presentation skills improved and more confidence was evident in all participants due to numerous activities used in the course.

C. Training materials

10. The training materials were based on selected readings from the books mentioned above and were prepared primarily for the facilitators. It took a long time to organize the materials and simplify into short concise handouts because it was arranged in a sequence different from the needs of the training. It was also too technical and difficult to understand.
11. The process of translation from English to *Tagalog* was difficult. Sometimes literal translations were confusing as they could not convey the true meaning of the ideas being translated.
12. Writing the handouts on flipcharts were time consuming. Some charts were written in English, the rest in *Tagalog*. It proved to be very useful to show both versions, giving participants options on what to copy.
13. Using *Lingua Franca* or *Taglish* proved to be more appropriate. It was easier for participants to understand topics and thereby encouraged them to participate more in discussions.
14. It could have been excellent if we were able to capture on video the participants' performances while practicing presentation and facilitation skills. Unfortunately the video camera was not working.
15. The accompanying video on "Art of Building Facilitation Skills" was not used. It was shown briefly during the socials but did not generate enough interest. It was not practical to use as its strength lies in the verbal exchanges. Thai and Indonesian English were not easily understood by most participants.
16. Giving out handouts, assessment forms and exercises both in English and *Tagalog* was a good strategy as it lessens miscommunication.

D. Facilitators

17. It was helpful that the main facilitators had good teamwork and could do impromptu role-play and could team-teach. This process eased up the work load for both and oftentimes the result was more interesting for the participants.
18. On the other hand, it was felt that more time should have been spent in leveling off between facilitators on specific topics. Although it was done before the training, not all members were present then.
19. More mentoring is needed to help the process documenter come up with a more substantive document.
20. It was helpful to have someone in the team who can do multi-tasks as change in schedule is sometimes inevitable.
21. The different technical expertise of the facilitators and exposure to the ACM project provided a rich background for a more holistic understanding of issues brought out by participants.

E. Participants

22. The participation of the government employees was a good decision. Despite the initial apprehension of them dominating the discussions, it turned out to be one of a supportive role. Though in some instances they were chosen to lead, care was observed that the local participants were included in the activities.
23. Responsibilities were carried out professionally in accomplishing tasks even if it meant getting home late.
24. There was a need to explain topics, tasks, etc. both in English and *Tagalog* because of the disparity in education of participants.

VIII. Suggestions

1. Improve sequence of topics. For instance, the topic on “role of facilitators” should come before “personal facilitation skills.” This way, practicing these skills will be more focused in achieving the different roles expected from a facilitator.
2. Refocus some exercises. For example, “Spend the Money” is more effective when recorded on video such that participants can gauge their benchmark skills on facilitation. This training was more focused on the output and not the process.
3. Time management is crucial in order to give enough time to other important topics such as negotiation skills. One way is to use the museum type of output presentation where everyone can read and compare outputs in a shorter time.
4. Review the scripts of the role play on probing. Use them in future training where participants can critique and improve them according to some criteria (out of topic, unnecessary questions, etc.)
5. Create new exercises to illustrate listening skills. Blindfold exercise may not be appropriate to use in some cultures.
6. Practice makes perfect. Create a lot of opportunities for participants to present, facilitate and lead discussions as experienced in this training. These helped build confidence, reduces personal biases and contributes to better teamwork.
7. Allot ample time to review ACM and how it relates to LPF. Use the ACM Philippines book as reference to avoid misinterpretation. Use both English and the local language to facilitate as it is inevitable that some ACM terminologies are better understood in English.

TRAINING COURSE ON FACILITATING LEARNING AND NEGOTIATION IN NATURAL RESOURCE MANAGEMENT

PROCESS DOCUMENTATION

Day 1. November 24, 2004

Session 1. Setting training context

1. The session started with an opening prayer led by Corazon Dalabajan, a participant from Barangay San Rafael.

2. Dr. Teddy Villanueva of UPLB welcomed the participants and all facilitators. He briefly explained the objectives of the six-day training course. He said that the participants are expected to gain the latest knowledge on how to become better facilitators. This way, they would be able to enhance the capability of the Technical Working Group[1] in assisting the community to address problems.



Dr. Ted Villanueva (left), LPF national project leader, briefs training participants on the project and how the LPF training on facilitation could help them effectively implement project objectives in their respective villages.

3. On behalf of the local barangay officials, Barangay Captain Cañete welcomed the facilitators and participants to the opening of the training workshop.

4. Arnel and Ms. Annie Frio facilitated a "Getting to Know You" exercise. Instead of the usual formal introduction of names, a more informal exercise was conducted. The facilitators distributed blank pieces of paper cutouts shaped like a Christmas tree to the participants. They were then asked: if you were to be a tree or flower, what would you be and why? They were asked to write their names and choices on the paper cutouts. Their choices were to represent their attitudes, beliefs and experiences. After five minutes, the participants presented their choices and their reasons for such choice. The following were some of their choices: mango, narra, *balete, talisay,* bamboo, lotus, bougainvillea, and pine tree. Some reasons for their choices reflected the way they saw themselves: *maraming pakinabang* (many "uses"/ skills), strong, sturdy, flexible. The "trees" were then pasted on a flipchart (figure 1).



Figure 1. Training participants underwent a 'Getting to Know You' exercise using a paper cutout of a tree, a familiar natural resource.

[1] The Technical Working Group (TWG) is composed of representatives from the three barangays participating in the CIFOR Leveling the Playing Field (LPF) project in Palawan.

5. Leveling of Expectations

Ms. Doodee Devanadera facilitated this session. She distributed meta cards to the participants on which they were to write their expectations on the training course (figure 2). The participants wrote down the following expectations:

a. know the different tools used in facilitation
b. gain more knowledge on facilitation training
c. learn something so we could assist the barangay officials who are not active
d. enhance knowledge on how to deal with the community
e. learn how to assist the projects in the barangay
f. learn how to conserve and protect our environment
g. meet new friends and gain additional knowledge
h. be an active barangay official
i. uplift the lifestyle of each family



Figure 2. The meta cards depicting expectations of training participants.

6. Setting Workshop Context

Ms. Annie explained the training objectives, methods in facilitating and expected output. She stressed that there are principles that can be studied and used in becoming a better facilitator. She added that becoming a better facilitator does not always require that a person be a good conversationalist and formally educated. A facilitator also needs to accept comments and criticism from others. She emphasized the importance of facilitating because it would help members of the TWG and the community as a whole in addressing relevant issues and concerns. She then presented an outline of the topics to be covered in the 6-day activity (figure 3).

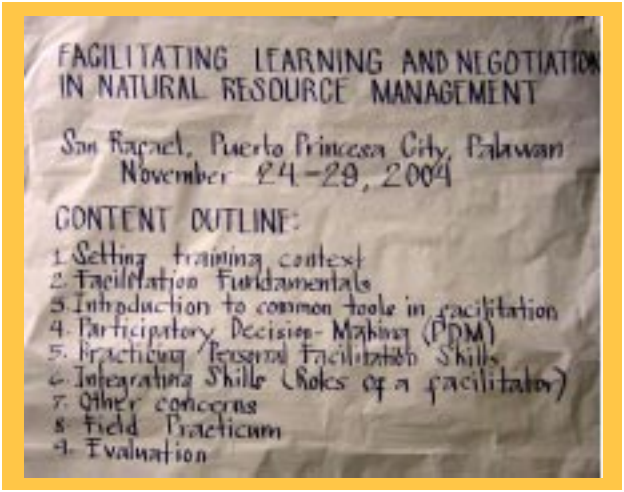


Figure 3. Content outline of the training course.

7. Norm Setting

The participants formulated the house rules for the duration of the training. Miss Lil Balud led her co- participants in setting down the following house rules:

a. Each participant is urged to be punctual and to come 10 minutes before the start of each session.
b. No participant will be absent in the sessions.
c. Active participation will be provided by the participants.
d. Sleeping of participants will not be allowed during sessions.
e. Noise shall be avoided so as not to interrupt the participants and the facilitators.
f. Participants will contribute ice breakers before sessions.
g. Each one will respect the opinion of each other.
h. Facilitators shall exhibit jolliness in the sessions.
i. No participant proxy shall be allowed.
j. If possible, gasoline for those who have motorbikes and multicabs shall be provided.
k. Sessions shall end on time so participants can go home early.

The participants formed 5 groups where each group would act as the host team for a day:

Group I - Suzy, Zeny, Bal, Gina, Azon
Group II - Cris I, Veron, Emy, *Kagawad* (Councilor) Palay
Group III - Ricky, Lil, Ning, Alfredo, Becca
Group IV - Jojo, Dan, Cris I, Gaudencio
Group V - Barangay Captain Cañete, Lala, Lyn, Rudy

8. Benchmark facilitation skills

A self-assessment of facilitation skills was conducted using a handout (Annex E-1 Skills Self-Assessment). Participants rated their own level of competence in 24 items of facilitation skills. Scores used were a range of 1 (poor) to 5 (highly skilled). Feedback from some participants who shared their assessment showed that skill items 13-23 scored low. This was due to the literally translated version of the items from English to Tagalog, which participants found confusing.

Session 2. Facilitation fundamentals

9. Introduction to facilitation

Part of leveling of basic understanding of facilitation included a review of what is a stakeholder. A short brainstorming session of the participants resulted in the following:

What is a stakeholder?

- beneficiaries
- "enforcers"
- those with direct "rights"
- examples are PCSD, PENRO, CENRO, and NGO.
- those who implement projects, capability building programs, etc.
- *Upang tumuklas ng maayos at matatag ang mga ito kailangan ay isama sa process ang group decision.* (need to include stakeholders in the process of group decision making)

When asked to define facilitation, the responses varied widely. However, when participants were asked to explain in detail, the idea of facilitation was clear to all (figure 4). Their responses were the following:

a. *Pagpapadali ng proseso* (making the process easier)
b. Dissemination of good news
c. Handling the group
d. Helping the community implement the different programs
e. Spearhead the group
f. Capability building to achieve progress
g. Respect the group
h. *Pagsasaayos ng tamang proseso* (using the correct process)

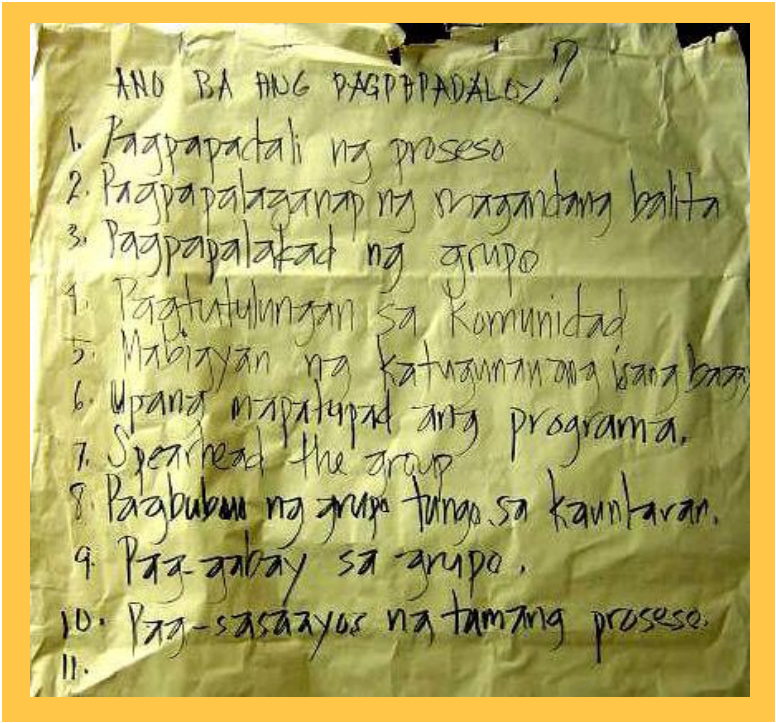


Figure 4. Participants' definition of 'facilitation.'

The definition of facilitation was explained using a flipchart (What is facilitation of group process?). Examples were given such as facilitating meetings, workshops, etc.

What happens if we have a facilitator?

a. All participants would be able to participate
b. Time would be important in planning discussions
c. The facilitator leads discussions by asking suggestions from the participants and acts as guide in decision making

After the discussion, the facilitator explained the "Role of Facilitator" as one who:

a. guides
b. monitors
c. assists
d. asks questions

10. Ice Breaker

To open the next session after a lunch break, Ricky led an ice breaker (“Superman,” below).



11. Types of Groups

The participants shared their opinions about the differences between two kinds of groups: the conventional and participatory groups:

a. Val - Participatory group members show their ability in actively participating in matters that are being discussed.
b. Ricky - Conventional groups have leaders who do the talking most of the time.
c. Azon - Participatory groups are small groups only.

A group exercise (Conventional versus participatory groups) was done to differentiate the two groups using characteristics to identify them. The participants formed three groups.

A list of characteristics were typed on bond paper, cut and mixed together. The participants then selected and analyzed each characteristic based on their understanding of each type of group. The resulting choices were pasted on a flipchart, reviewed and presented in a plenary. There was a very good group participation in doing the exercise. The following pictures show the process:






Participants' output of the exercise

Group I:

a. Conventional Group

- Unless the speaker manages to attract attention, people are not usually paying attention
- People have difficulty listening to each other's ideas because they are busy rehearsing what they want to say
- Differences of opinion are treated as conflicts that must be ignored or solved
- The fastest thinkers and best speakers get more time to speak
- Questions are often perceived as challenges, as if the person being questioned has done something wrong
- A problem is solved as soon as the fastest thinkers have reached an answer
- People can rarely explain the opinions and reasoning of those whom they disagree with
- Because people don't feel free to speak openly during the meeting, they talk behind each other's back afterwards
- Some members remain quiet on controversial matters. No one really knows each one's position or opinion

b. Participatory Group
    - Each member makes the effort to pay attention to the person speaking
    - People give each other time to think and let others articulate their thoughts
    - Everyone participates, not just the ones who speak the loudest
    - A problem is not solved until everyone who will be affected by the solution understands the reasoning behind such solution
    - When people come to an agreement, the decision reflects a wide range of perspectives
    - Opposing views are allowed within the group
    - People try to understand each other by asking supporting and exploring questions, e.g. “Is this what you mean?”
    - People are able to listen to each other’s ideas because they know their own ideas will also be heard
    - Each member contributes in discussing controversial issues. Everyone knows everybody’s position or opinion
    - People are encouraged to stand up for their beliefs
    - People don’t talk behind each other’s back
    - Members can explain other people’s points of view when they don’t agree with them

The three groups had slightly different perspectives on the differences between participatory and conventional groups. There was a healthy discussion/bantering among participants, negotiating on where a certain characteristic in question should belong. When compared with the model grouping, one group scored almost perfect.

Facilitator’s question: What can you say about the exercise?

Participants’ responses were the following:

a. More knowledge gained
b. Awareness of differences between conventional and participatory groups
c. Very important because it gives us more knowledge especially when doing community activities

12. Attitude: basic facilitation trait

The session started with the question “ What is attitude?” It was confusing at first because the participants did not agree with our translation of attitude as *“pananaw.”*
However, when the facilitator used the prepared visual in English and discussed the different points in Tagalog, the participants understood the explanations better (figure 5).

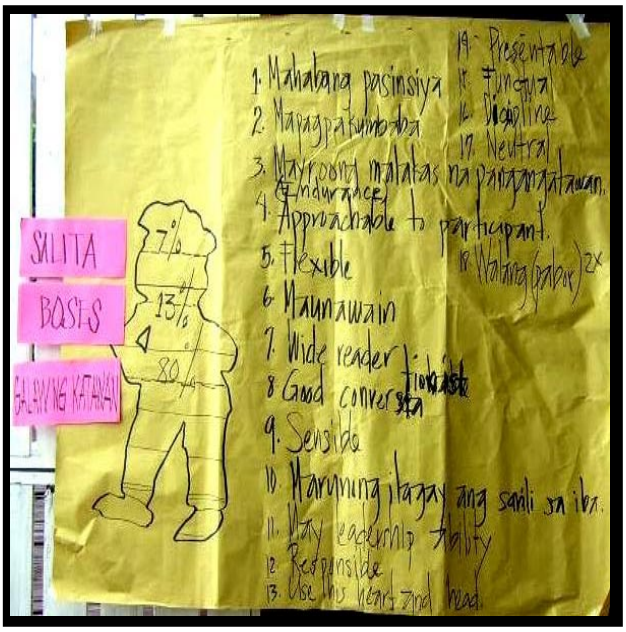


Figure 5. Defining ‘attitude’ in the national language.

Points to remember

Attitude can be inferred through:

a *SALITA* (words) - 7%
b. *BOSES* (voice tone)- 13%
c. *GALAW ng KATAWAN* (body language)- 80%

A brainstorming on "What are the traits of a good facilitator"? yielded the following characteristics:

- Flexible
- Understanding
- Wide reader
- Good sense of humor
- Good conversationalist
- Sensible
- Leadership ability
- Use his/ her heart and head
- Approachable
- Have healthy/ strong body
- Presentable
- Punctual
- Well disciplined
- Neutral
- No *pabor –pabor* (does not give in to special favors)

a. Why do facilitators need to have a strong /healthy body?

- Jojo: Because a strong/ healthy body is needed (to facilitate needs energy)

b. Why do facilitators need to be a wide reader?

- Val: Because when you are a facilitator, there are many questions to answer from your audience or participants

Comment from Lil: "As a facilitator, there are questions that you don't need to answer especially those out of the discussion topic."

13. "Spend the Money!"

Benchmarking of actual facilitation skills was not done because the video camera was not working. Instead, a group exercise using a short case study was done. Each group selected a member to serve as observer, noting down levels of participation, facilitation skills, etc.

The groups were tasked to decide on how to spend ten thousand pesos (PhP10,000.00) for 200 persons in one celebration activity. All of the participants actively participated in the exercise. Everyone contributed suggestions on how to solve the problem. After 30 minutes, each group presented its output.

Group I – Gina, Azon, Suzy, Val, Veron
Presented by –Gina

Plan	: Outing
Venue	: Puting Buhangin
Activity	: Games, swimming, eating
Budget	: PhP10,000.00
Cooked food	: By a committee
Budgetary requirements (PhP):	Rice - 800; 2 Litson - 4,000; 20 kg fish - 1,000; Pancit - 1,300: Chicken adobo -1,000: Pork chop - 500; Drinks - 1,000; Peanuts- 200: Boiled banana - 200

Val observed that each group member contributed suggestions on how to budget their money wisely. There were no arguments within the group. There was no dominant leader in the group either.

Group II – Dan, Jojo, Cris I, Cris II, Rudy, Emy

Presented by – Jojo

Venue	: White Beach
Activity	: Beach Party
Budget	: PhP10,000.00
Time	: 10:00 a.m. to 3:00 p.m.
Games	: Sack race, stop dance, singing
Budget per person	: PhP50

Budgetary requirements:

Lunch	: 20/ person
Snack	: 12.50 / person
Committees	: food preparation, program, budget

Dan observed that most of the members actively participated, although not all of the suggestions were accepted.

Group III Lil, Ricky, Becca, Lyn, Ning
Presented by: Lil

Venue	: Talisay Beach
Activity	: Anniversary of LPF
Games	: Boat racing
Budget	: PhP10,000.00

Budgetary requirements: P500/ person

Ricky (Group III) observed that all group members also actively participated in the discussions. The only problem of the group was that their proposed expenses were more than the budget. Instead of PhP50.00 per person, they budgeted PhP500 each. There was a dominant member in the group.

Facilitator's Questions:

a. Why should there be a process followed in discussions?

- Because the group would easily understand each other's side or suggestions.

b. In your own opinion, if there is a facilitator within the group, can the group come up easily with a decision?

- Dan: Yes, because every group member can have suggestions/ solutions to the problems.
- Veron: No contradictions within the group

Synthesis: The objective of this exercise was to test the participants' facilitation skills in leading the discussion towards budget planning by the group. Each group first studied the problem. However, the group did not select a facilitator nor there was anyone who volunteered and resulted in some dominant personalities making the decisions.

Day 2. November 25, 2004

Session 3. Common tools in facilitation

1. The session started at 8:20 a.m. with a prayer led by Corazon Dalabajan.

2. This was followed by a recapitulation of the previous day's activities, facilitated by Cris I and Lil. The summary is shown in a chart prepared by the facilitators (figure 6).

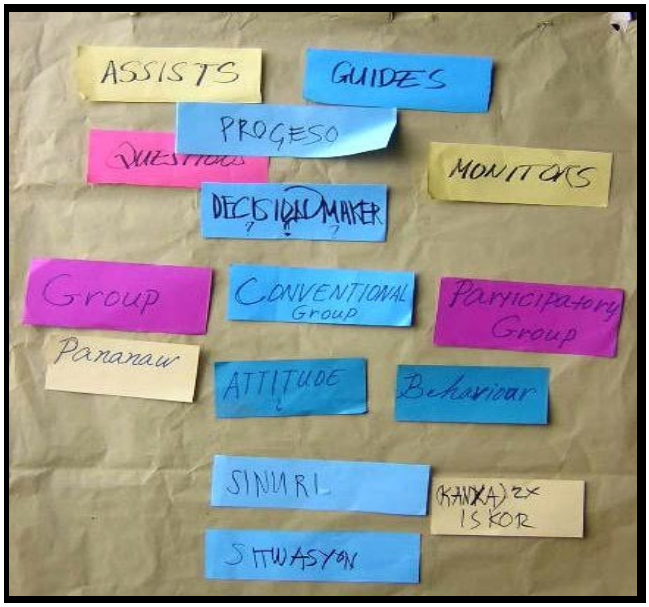


Figure 6. Recapitulation of Day 1 activities.

Facilitator's Questions:

a. What have you learned from yesterday's activity?

- *Val : the importance of facilitation, because it can help minimize our time attending to out-of-topic discussions.*
- *Becca: how to budget the money for the 200 persons.*
- *Ning: learned the two characteristics of the group, conventional and participatory group*
- *Yesterday's discussions would help us apply what we have learned in facilitating our different activities in the community*

.b. What did you feel being a facilitator?

- *Always be ready/prepared especially in answering questions*

3. Introduction to Tools Commonly Used in Facilitation

This session started with a presentation on the day's activities. These were shown in a flip chart (figure 7).

After the presentation, a discussion centered on the tools commonly used in facilitating group meetings and similar activities.

Day 2 - Activities

a. Introduction to common tools in facilitation:
- **Brainstorming**
- **Metacards**
- **Buzz groups**
- **Role play/simulation**
- **Other tools**

b. Pooled Exercise using above tools: Topic- Problems of TWG
c. What is ACM/ LPF?
d. Participatory Decision Making (PDM)
- Group Exercise: 1.The world is going to be flooded
2. Stranded in the bush

Figure 7. Flip chart showing the schedule of activities on the second day of the training course.

a. What tools can we use in facilitating, say barangay project presentations, workshops, etc.?
- Meta cards
- Brainstorming
- Energizer
- Slide projector

What are pooled exercises?

These are exercises using different tools or methods but using the same topic. For instance, use brainstorming technique to determine the problems of the TWG. Then use the metacards technique next to know the problems of the TWG. The purpose of these exercises is to enable the participants/users to compare the results and the processes using different tools. This would help users to select the best tool most appropriate (according to purpose, budget, time, etc.).

4. Brainstorming

Dr. Ted facilitated the brainstorming session as a facilitation tool. He used the technique itself as an example to generate ideas for different topics. Figure 8 shows an example of a brainstorming output.

Facilitator's questions:

a. What is the meaning of brainstorm?
- *Balitaktakan (brainstorming)*
- Long list of ideas
- All of the ideas are accepted
- No wrong nor right answers in the discussion

b. How would you generate more ideas?
- Day dreaming
- Thinking

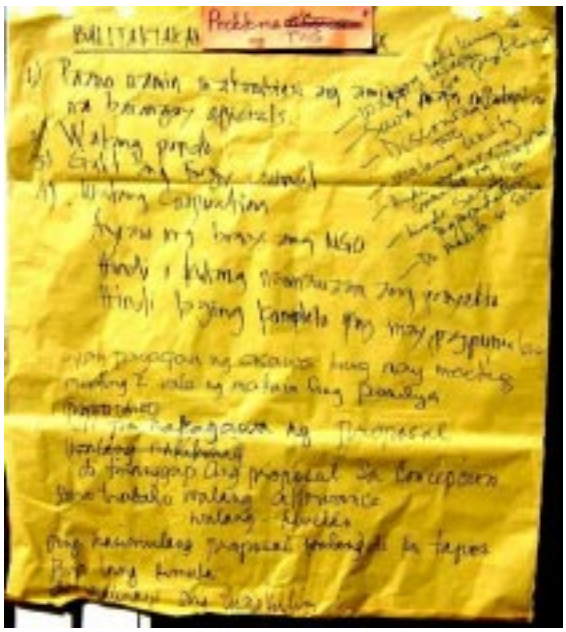


Figure 8. Sample output of brainstorming.

c. How many members of the Technical working group would be included in the brainstorming?

- All members of the Technical working group
- Don't know

d. What are the roles of TWG?

- *Project proposal maker*
- *Negotiate with other agencies and stakeholders*
- *Discuss or relay problems to the barangay council*

As part of the exercise, Ricky acted as the facilitator in the brainstorming session. The participants raised different problems of the TWG. Problems identified were:

1. How to convince the barangay officials to accept the project of the LPF
2. No funds
3. Some barangay officials did not participate in the activities of LPF
4. Lack of cooperation
5. Barangay did not accept NGO
6. Lack of projects within the barangay
7. Meetings cannot be completed
8. Some did not give their spouses permission to attend meeting
9. There is always a meeting, even though the family would have nothing to eat
10. Problems are always there, no solutions taken
11. Some TWG members are already discouraged
12. Lack of knowledge in facilitating
13. No unity
14. Some did not know how to make project proposals
15. Absence of Suzy
16. Some don't listen in the discussions
17. Barangay Concepcion did not accept the resolution
18. No time for relaxation, there is always an activity
19. No allowance given
20. Project proposal was not finished
21. Some are drunk when attending meetings
22. Roles of TWG are not clear
23. No operational manual

24. TWG meetings have no exact time
25. No vehicles provided
26. There is always a TWG member absent
27. Some cannot comprehend jokes
28. Narrow mindedness
29. Lack of understanding
30. Some did not participate in the discussion
31. LPF affected by STCMPCI issues
32. Lack training

For synthesis Dr. Ted then reviewed the topic on brainstorming using a flipchart. He gave the following tips:

a. All problems can be written on manila paper and displayed on a wall of barangay hall, for example
b. Avoid rejecting each other's ideas
c. Avoid using flattering words like 'very good,' 'good' and 'excellent', or conversely, "that's wrong", etc.

5. After the morning break, Cris II led an icebreaker.

6. Metacards

Miss Doodee then gave a presentation on the use of meta cards for facilitation. She explained that writing meta cards should be done in the following manner:

1. BIG LETTERS should be used.
2. Present one idea per card
3. Make ideas short and direct to the point.
4. Use only keywords
5. In analyzing the ideas, separate those that are out of the topic
6. Group ideas in the same category like political ideas, financial etc.

The Process

The following exercise again discussed the problems of the TWG, but this time the metacards technique was used. The host team distributed cards and collected them again for posting. Finally, the participants agreed on the following output (figure 9).



Figure 9. Output using meta cards.





Emy and Dan (above) facilitating and regrouping cards. The identified problems of TWG were written in BIG LETTERS, with one idea per card (right).

Problems of TWG:

1. No operational manual
2. Project proposal was not finished
3. Lack of knowledge
4. Lack of cooperation
5. No allowance
6. No exact time set for meeting
7. No action
8. Lack of skills in facilitating
9. Some did not give their spouses permission to attend meeting
10. Illegal fishing
11. Some do not comprehend jokes
12. LPF affected by STCMPCI

Figure 10. Participants' output in problem identification using meta cards.

Observations:

- Participants immediately processed the results, comparing the outputs from brainstorming and use of metacards. There were initially about 25 cards on the board but was reduced to 12 after discussions, combining cards with the same ideas, and putting aside a few cards that were not relevant to the topic.
- The process of comparing results was useful to some participants in realizing the differences in the techniques used. They immediately compared the time spent, the amount of information obtained, the feeling of anonymity and the level of ease in using each tool.
- Seeing the 2 results together proved to be a reconfirmation of what problems the TWG members felt to be important and of immediate concern.

7. Buzz Group Discussion

The Facilitator began with a simple Question: “Do you know the insect bee?

- *Yes*

How do bees sound?

- *Bzzzzzzzzzz……*

The buzzing sound created a lively mood among the participants. A flip chart on How to Facilitate Buzz Groups was then used to discuss very briefly the key points about the technique.

The facilitator decided to deviate from the original plan of using the topic on TWG problems in doing the buzz group technique. It was felt that its usefulness had been maximized and the objectives of comparing the 2 techniques had been reached. A simpler exercise was suggested.

The participants grouped themselves into triads. The assignment was for each triad to discuss one topic only: “What are we going to do in the socials tonight?”
Each group talked like bees, each of them discussing together the same topic. Some of them talked with loud voices but were serious in their task. Others were not too serious and were laughing because they did not understand what their group mates were saying. A listener cannot clearly understand what they are talking about because of the noise.



Participants perform an exercise using a buzz group discussion.

After 5 minutes, the facilitator asked the participants what they had discussed within their group. Most groups just randomly spoke about their discussions that included the following:

- dancing, singing,
- solicit prices
- have a short program
- drink Emperador brandy
- who will be represented in the socials

Facilitator’s Question:

What can you say about the exercise?

- *No listing about what have been discussed*
- *Very noisy*
- *The discussion was direct to the activity*
- *Lack of decision about the activity*
- *Very short time discussion*

Synthesis:

The facilitator explained the objective of the exercise and gave some useful tips. The limitation on time should be considered. It's normal that every group makes noisy discussion. Buzz group discussions are not boring because everyone could talk, but there is usually no resolution of what have been discussed. The facilitator also said buzz groups must be small and only one topic should be discussed at a time.

8. Role Play /Simulation

Miss Doodee facilitated this technique to demonstrate role play. It was a recreation of a meeting between the TWG and the Barangay councils of the 3 villages. Their objective was to obtain a resolution from each Barangay to endorse the work plan prepared by the TWG. So, in this role play the "actors" will play different roles as follows:

All participants who are members of the TWG formed themselves into one group. The task was that the TWG members would present their vision, mission and problems identified in the barangays to the members of the barangay council. The representatives were Jojo (coastal), Lyn (livelihood), Ning (Upland), Azon and Val (Lowland), Suzy (Community Development Assistant) and Lil (Chairperson of TWG). Every committee representative will present its problems to the council.







The role play/simulation exercise involved planning for presentation of action plan to the barangay council (above left), TWG members in session (above right) and TWG chairperson facilitating a meeting (left).

After the presentation, the "actors" themselves gave the following feedback:

What are the feelings of those who acted in the role play?

- *Azon- Fine, but in the actual presentation we need to be ready for all the questions addressed to us.*
- *Ning - In this kind of presentation, we must test our skill on how to facilitate better*

Some tips when presenting plans to the council were presented:

- One must know how to answer questions
- One must know the topics very well
- Interaction among audience is very important especially when questions come from the council

9. After lunch break, Suzy and Lyn did a recap of the topics discussed in the morning: the exercises conducted, the role play and the common tools in facilitation.

10. Alternative Facilitation Methods

A short review of other facilitation methods was done through a question-answer format.

a. What are **small group discussions?**
- Lala: part of discussion.
- Ning: the members of the group discussion must be chosen, example upland farmer, agriculturist or barangay officials.
- Val: Some examples are those persons involved in nutrition activities like doctors, nurses, women groups, midwives, BHW and mothers.

b. How would you use **experimentation in** facilitation?
- Zeny: When we are introducing a new thing in a community.

c. What are **exchange visits**?
- Examples are the Indonesian funding agency visiting the area of the Batak tribe, and the Batak tribe visit Indonesia.

d. What are **flipcharts**?
- They are a kind of tool in facilitation that has a written format.



To aid better understanding of the facilitation process by the participants, a flipchart on alternative facilitation methods was displayed for the participants to read.

11. Using a flip chart to facilitate teaching of adaptive collaborative management (ACM)

How do we make people understand *adaptive collaborative management* (ACM)? This was a challenging question especially when facilitators themselves found it difficult to explain in a simple way what it is. In order to have a common understanding of ACM, it was agreed to use the ACM definition espoused by CIFOR in the book "Learning together - responding to change and complexity to improve community forests in the Philippines."[2] (figure 11).

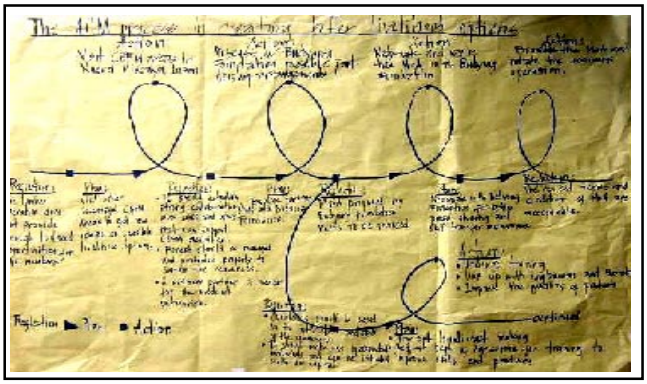


Figure 11. An illustration of the ACM process

The illustration on page 63 of this book was copied directly on Manila paper and shown to the participants. It showed the *ACM process in creating better livelihood options.*

Before a facilitator presents the topic on adaptive collaborative management, the following steps need to be understood:

Step 1. Prepare ACM chart. Post on board but don't show it yet.



Step 2. Do a flipchart on ACM origins, main elements, etc., from pages 19-24 of the CIFOR book. Use key words. Again post the charts but don't use it yet.

Step 3. Start with leveling off using the following questions:

a. What comes first in your mind if you hear the word Adaptive Collaborative Management (ACM)? Use meta cards to write your ideas and post. Some ideas about ACM:



- CBFM
- FRMP
- Studying how to manage the project
- Proper utilization of forest resources
- Same ideas in management
- Accepted management
- Management
- Capability of stakeholders
- Proper decision making

[2] Hartanto, H., Lorenzo, M.C., Valmores, C., Arda-Minas, L., Burton, E. and Prabhu, R. 2003. Learning together - Responding to change and complexity to improve community forests in the Philippines. Center for International Forestry Research (CIFOR), Bogor Barat, Indonesia. 166p.

b. Can we group the cards?



One of the participants Mr. Dan suggested to his co-participants to group the ideas written on the meta cards according to their understanding. They discussed and later, came up with the following categories:

- Cooperation
- Agreement
- Management

c. Summarize the different points shared by participants and move to the next step.

Step 4. Use the flipchart on ACM origins.

The facilitator started reading from the flipchart using ***Tag-lish,*** adding bits of explanation here and there. Most participants seemed to follow the discussions quite well.

Step 5. Continue the process calling on the participants to read and explain what were written in the flipchart. The process had become very participatory, where most sat clustered around the flipchart.



Step 6. Summarize keypoints such as shown in the following examples:

- ACM recognizes the importance of development and conservation, and the proper utilization of natural resources. ACM envisions proper utilization of natural resources with no contradiction.
- 10 elements of ACM
- Importance of Social Learning in ACM, and other issues

Step 7. Discuss the ACM Cycle and Participatory Action Research (PAR)

Step 8. Discuss the ACM process in helping create better livelihood options. (Suzy is shown at right, explaining the PAR loops).

Step 9. Relate how ACM contributes to CBFM

- ACM facilitates and enhances social development to the community

12. The LPF

After the discussion on ACM Dr. Ted shared with the participants the process of LPF as consisting of several activities:

a. Baseline studies
b. Action (plan, reflection, computer models)



Dr. Ted discusses the LPF project with the training participants.

While he had already discussed the project earlier, the presentation was mostly for the benefit of the participants coming from the government agencies.

13. Participatory Decision Making (PDM)

This session started with a group exercise rather than a lecture or discussion. The exercise "*Spend the Money"* gave the participants an initial opportunity to practice participatory decision- making (PDM). One group made a mistake when a hasty decision was made by one person. The lesson was well remembered by everyone. In addition, there was a continuous flow of activities from Day 1 emphasizing group participation, such that the participants were ready to start with group work.

The participants formed three groups: barangay officials, government employees and barangay residents. The purpose of such grouping was to find out any differences in how people make decisions when they share a certain common background, e.g. type of work, education, etc. Each group was given the following case materials:



Group I – Barangay officials –"*The World will be Flooded*"
Group II – Government employees – *"Stranded in the Bush*"
Group III – People of the Barangay – "*Stranded in the Bush*"

The groups read the tasks to be done in the exercise, discussed, argued and made decisions. After 30 minutes, each group presented their outputs.





The three groups conduct a participatory decision making exercise: *" Stranded in the Bush,"* with a mixed group of barangay residents (above left); "*The World will be Flooded,"* with a group of barangay officials (above right); and *" Stranded in the Bush,"* with a group of government employees (left).

Output presentation

Group I –Barangay. Officials
Topic: The world will be flooded
Reporter: Zeny

The group's choice on the very important persons they are going to save from the flood:

a. Woman teacher
b. Inventor
c. Natural leader
d. Engineer
e. Farmer

Facilitator's questions:

a. How did you select the persons you are going to save?
- Suzy: We considered their capability to help us during the flood.

b. How was the decision made?
- Val: We discussed it, every suggestion was considered in prioritizing.

c. Are you satisfied with your decision?
- Cris I: Yes, because every group member participated in the discussion and decision making

d. What was your basis in choosing the five persons?
- Suzy: Theme of the exercise and the importance of the five persons in the group
- Val: Because the five persons can give us big help when the flood comes. They can help us find food, the leader of the group is knowledgeable.
- Cris I: The group facilitator was not biased, she considered our suggestions

Azon observed that Group I discussed silently as they were very busy in prioritizing the persons they were going to save. Suzy was the facilitator of the group. Each idea was considered and no arguments occurred.

Group II - Barangay Officials
Reporter: Jojo
Topic: Stranded in the Bush

The following are the things, ranked according to their importance, the members would bring if they get stranded in the bush:

1. water
2. rice
3. matches
4. medicine
5. viand
6. light
7. map
8. blanket
9. watch
10. radio
11. rope
12. money
13. milk
14. camera
15. book of wild flower
16. book of imagination

Facilitator questions:

1. How did the group prioritize the things they are going to bring with them?

- Becca: Every group member's suggestions were considered
- Lala: Choosing the most important things for the group
- Cris II: Majority rule

2. Why did a group member not participate in the discussion?

- Lyn: Because the group was noisy and this member did not agree with the decision of the group

3. What are your feelings about that somebody in the group who did not actively participate in the discussion?

- Jojo: We cannot force her because we respect her feelings
- Cris II - It's ok, maybe she has her own decision

Arnel observed that the facilitator of the group did not clearly understand some questions raised. Each defended his/her own suggestions. Suggestions were accepted in the group discussion, but someone did not actively participate.

Group III – Government Employees
Reporter: Dan
Topic: Stranded in the Bush

The group prioritized only five things out of 16 that they are going to bring if they get stranded in the bush:

1. water
2. map
3. matches
4. medical kit
5. blanket

Facilitator's questions:

1. Why were there no similar ideas within the group members?
   - Ricky: Because the experiences of the group are varied
2. Why was there no majority rule?
   - Emy: Because there was bargaining/negotiation/or agreement within the group members
3. What was the consensus?
   - Dan: We can only meet agreeably if the flow of discussions are happy, then every body is happy

Dr. Ted made this observation: At the start of the discussion, there was no facilitator appointed by the group. Each had his/her own idea of what things they are going to prioritize. They did a role play and leveling off. All group members participated in the group discussion. In the last minutes though, Emy ended up as the group facilitator.

General Observations

- The employees group did not have majority nor consensus decision at first. Each had different priorities and had good reasons for their choices. After long discussions and negotiations the 5 final choices were of survival camping types of supplies.
- On the other hand, the mixed group of residents chose sustenance- related supplies among their first 5 choices; water, rice, viand, matches. Was it because most of the members were women who normally are in-charge of food? Interesting, but not conclusive. But where will you cook your food, asked other members.
- The process of making choices was different between these 2 groups. For example, while both chose water as first priority, there was strong opposition from other group members at first. Some women thought 10 liters of water were too heavy to carry. One said that if a car can travel far, there must be good roads and therefore a bridge somewhere with running water, so there's no point carrying 10 liters of water.
- Each Barangay official ranked each person in the list. Next, they compared their list and discussed their choices. The final choices were decided by number of votes through raising of hands.

Process of Participatory Decision Making – A Recap

In the context of analyzing the 2 case studies, the process of participatory decision making used the following activities:

a. Did situational analysis
b. Selected options to solve problems
c. Build foundation or basis for options
d. Discussed in detail the basis for each option
e. Compared each option
f. Prioritized options
g. Made decision on best option

A review of the participatory decision making process (PDM) was done using a flipchart. Explanations and examples were given to illustrate key points. In practicing PDM, it is important to remember that decisions should be based on:

a. Mutual understanding
b. Full participation
c. Shared responsibility
d. Finding inclusive solutions

The facilitator also explained that the group should know what they could contribute to the group in solving problems. One of the participants (Emy) added that each member of the group has a chance to finish activities easily. They all come from different working environments and different kinds of organizations, so these factors greatly influence the way they work together.

14. Socials

We had dinner together after which the fun began. Ricky, Lil, Lynn and Arnel organized the evening program with games, songs, dancing and more dancing.



Ricky, star of the show with Babes, Teacher Val







The trip to Jerusalem



Day 3. November 26, 2004

Session 4. Practicing Personal Facilitation Skills

1. The session started: 8:30 a.m. with a prayer led by Ning.

2. Dan recapped the activities of the second day.

- The common tools in facilitation
- Identification of problems of TWG
- What is ACM and its cycle
- PDM and the exercises on "The World will be Flooded" and "Stranded in the Bush."
- The process of LPF.

In addition to the recap, the facilitator reviewed salient points on the topic "Common tools in facilitation."

Facilitator's Questions:

a. What are the differences between using meta cards and brainstorming?

- Lyn: You can write on meta cards what you are thinking.
- Cris I: In brainstorming I don't need to write.



b. What are the advantages and disadvantages of using meta cards and brainstorming?

- Ricky: In meta cards, you cannot identify the author of the idea.
- Emy: Free to write anything on meta cards.
- Val: In brainstorming you can identify the author of the idea.
- Suzy: With meta cards, the process was easy and not time-consuming while brainstorming is a long process of discussion.
- Azon – It is easy to write the ideas on meta cards.
- Veron – Brainstorming is direct to the point.

Other points added in open discussion:

Meta cards

- Easy to use
- Author of ideas can take her/ his time to think
- Author is not identified
- More expensive (you buy paper)

Buzz groups

- More active participation among the group members
- Faster decision making
- Good energizer
- Noisy
- *Magulo (distracts attention)*
- Difficult to keep track of discussion
- Tends to repeat discussions because there is nothing to read

3. Introduction to personal facilitation skills

The session started with casual conversations between the facilitators and the participants. It was a way of assessing participants feelings' about common everyday events.

a. What do you say/think when you see a man fall on the street?

- *Ay, kawawa naman!* (a pity!)
- *Aray, sakit niyan!* (Ouch, that's painful!)
- *Siguro natalapid sa bato* (perhaps he stepped on a rock)
- *Lasing yan!* (he's drunk!)

b. What can you say about a person who talks to you but won't look at you?

- Arrogant
- Shy
- Guilty

c. What do you feel when a person does not respond to your questions?

- Ignored!

If a woman has a mole below the eyes, where tears fall, then…***she is said to be an easy candidate for widowhood!***

And so on…

The responses and reactions of the participants gave the facilitator some clues to individual differences on how they observe and make conclusions. While the session was very brief and seemed inconclusive, it however gave the facilitator ideas on how to proceed with the rest of the sessions.

4. Listening Skills

Facilitator's question:

What is the difference between listening and hearing?

- Ricky: Listening – understanding, with action, hearing – what is heard.
- Cris II: Listening – you understand what you've heard, hearing – you heard but you did not understand.

Exercise: Introduction to Listening Skills

Note: This exercise was used as an introductory session to the topic on listening skills.

1. Start with an energizer. Read aloud the following story:

   "You are a bus driver. At first the bus is empty but at the next stop eight people got on board. At the second stop one got off and six boarded the bus. At the third stop nobody gets off or on. At the 4th stop 5 got on and 8 got off. At the 5th stop 9 got off and 3 got on."

2. Pause for few seconds. At this point many listeners would have volunteered an answer. The answers though will not be the same. Each participant will have different assumptions. Finally, when almost everyone has guessed then answer, ask the question: ***"What is the name of the bus driver?"***

3. The group's reaction usually will be one of surprise as they do not expect that question at all. Instead, they would expect that you would ask :***"How many passengers were left in the bus?"***

4. Reflect by asking the following questions:

   a. Why do most people not know the answer to the question on the driver's name?
   b. Why do they assume that the question would be "How many passengers were left in the bus?" Why do they get side tracked?
   c. How does this relate to listening in reality?
   d. How does this relate to listening as a facilitator?

5. The answer to the question about the bus driver's name is "***Any name***."

Self-Assessment on Listening Skills

The facilitator distributed to the participants self-assessment forms on Listening Skills. Participants rated themselves according to their current competencies on listening skills. The objective was to make them aware of their own listening skill profile where training can help improve in such areas.

Exercise on Strengthening Listening Skills

This activity was designed to provide participants with a deeper listening experience and a chance to reflect on it. The participants were to discuss an assigned topic while they remained blindfolded. The participants formed five groups composed of the following: Group I –Suzy, Lil, Ning; Group II – Ricky, Becca, Cris I; Group III – Veron, Lyn, Cris II; Group IV – Azon, Val, Lala, Gina; and Group V – Jojo, Emy, Ning.

Each group discussed the topic "Why many community projects remain unimplemented." Before starting the discussions, the participants observed a few minutes of silence so they could first get used to the blindfold. The conversations were over in 15 minutes. There was again a few minutes of self reflection after the blindfolds were removed.

Observations on the process:



Group I – Suzy was the facilitator of the group; participation was active.



Group II – Ricky facilitated the discussion. Sometimes Ricky waves his hands when he asks questions.



Group III – They discussed their topic very silently. One of their group mates did not actively participate in the discussion.



Group IV – There was real participation in the group discussion. Azon facilitated the discussion.



Group V – Emy was group facilitator. She calls the name of her group mates to contribute ideas. Sometimes she touches her group mates' hands when she asks for suggestions. She even writes discussion notes while blindfolded!

8. Participants' reflection on blindfold exercise

After the exercise, some participants shared their experiences:

- Veron: Uneasy, just like listening to the radio.
- Val: It is hard to talk to a person that you cannot see.
- Ricky: You cannot see the reaction of your *kausap.*
- Becca: Focus on listening better.
- Jojo: Just feel like a blind person while talking.
- Emy: You need to have a strong sense of feeling.
- Zeny: Easy, because of familiarity with the voice of the person I'm conversing with.

Facilitator's questions:

a. Is there a need for facilitator skill in facilitating discussions while blindfolded?
- Emy: Yes, to avoid talking at the same time.

b. Is your conversation easy while you are blindfolded?
- Val: Yes, everyone was focused on what we were discussing.

c. If there was no blindfold, do you think the flow of conversation would be easy?
- Ning: Yes, because you can talk face to face to your *kausap.*
- Zeny: You cannot give information clearly while blindfolded. Without the blindfold, you can see the facial reaction of the person you're talking to.

d. Do you think talking while being blindfolded is much better than talking without one?
- Ricky: Yes, no hindrances on my part because I can concentrate a lot.

e. What can you say about the quality of information flow in a blindfolded conversation?
- Suzy: Focused on the conversation of the group.

f. What are the advantages of this kind of exercise?
- Lil: No eye contact.
- Ricky: No hindrances, the attention is focused on the discussion.

What was the value of this type of exercise?

Blindfolding in some way helped participants in experiencing "deeper" listening, and in identifying what was different about this experience from the usual listening experiences. It can also help sharpen one's skill while listening as a facilitator.

The following **pointers** were briefly discussed; flipcharts were displayed in the hall for participants to copy.

When listening we should avoid:
- rushing the speaker
- arguing
- interrupting
- passing judgment too quickly in advance
- jumping to conclusions
- letting the speaker's emotions affect your own

When listening we should try to:

- show interest
- be patient
- be understanding
- be objective
- cultivate the ability to be silent when necessary

9. Exercise on observation Skills



"Guess What?"

Arnel briefly showed a poster to the participants. Then he asked the participants what they had seen in the picture.

Facilitator's questions:

a. What did you see in the picture?

- River, Batak children, tree planting activity
- The children should plant trees to avoid flood and soil erosion
- They prepare the seedlings of trees for planting
- Happy children

b. What are the diseases of the children?

- Worm or maybe malaria

c. How many children are in the picture?

- 9

d. How old is the oldest among the children?

- 11

e. How many children have slippers?

- Zeny: None, because they are in water

f. How many children have no shorts?

- One

10. Processing of Responses

The participants discussed their responses when they were shown the picture again.

a. What did you see in the picture?

- River, Batak children, were the only correct answers. The children look happy because most of them are smiling. Perhaps, but we are not sure.
- We assumed that the picture showed a tree planting activity in a tree planting area. We also inferred that the children are preparing seedlings for planting because the seedlings were shown near the children, Thus we concluded that the children should plant trees to avoid flood and soil erosion.

Real situation: The Batak children were requested to pose on the riverbank for a photograph to be used as campaign poster of the DENR.

b. What are the diseases of the children?
    - Worm or maybe malaria (because some kids are thin and look sick; because many people get malaria around here).

c. How many children are in the picture?
    - 9 (best guess only).

d. How old is the oldest among the children?
    - 11 (best guess only; no one actually knew).

e. How many children have slippers?
    - None, because their feet are shown submerged in water. This is a confusing question; all actually had slippers but no child put them on while standing in the water.

f. How many children have no shorts?
    - One (good guess!)

Other responses were conditioned by situations or experiences: “Children with malaria” (the disease is endemic in the area); “Planting activity” (the location is a project area).

The ***“Guess What***” game was used as a simple exercise to practice one’s observation skills. Similar to an earlier practice of observing a man falling, concluding he was drunk, or a mole on one’s face can tell an impending widowhood, the discussions served to clarify the difference between fact and belief and minimize “*akala ko”* (I thought…) faulty conclusions.

Since facilitators need to know how to read facial expressions of their audience, Ricky volunteered to perform showing different emotions. His role showed him as an angry, anxious, imagining/day dreaming, satisfied, etc. person. The participants had a great time making guesses. Participants noted that observation skills become more useful when combined with good listening skills.

Observing is the ability to:

- see what is happening without judging it
- interpret the non-verbal clues of both individuals and the group objectively

What sort of things can you observe? Within a group people interact in different ways, not only because of what is being said but also how it is said. As a facilitator we should observe the following:

On an individual level:
- use of the voice: whispering, shouting
- style of communication: statements, questions
- facial expressions: smiling, yawning
- eye contact: searching or avoiding
- gestures: types of movement with arms and legs
- posture: how people sit or stand

On a group level:
- Who says what
- Who does what
- Who looks at who when talking
- Who avoids *eye* contact with whom
- Who sits beside whom
- Who avoids whom
- What is the general level of energy?
- What is the overall level of interest?

11. Icebreaker

Arnel drew a square (figure 10) with 16 divisions and asked the participants how many squares they could see in the drawing. The participants' guesses: 26, 25, 32, 26, 16, and 22. The correct answer is 30 squares.



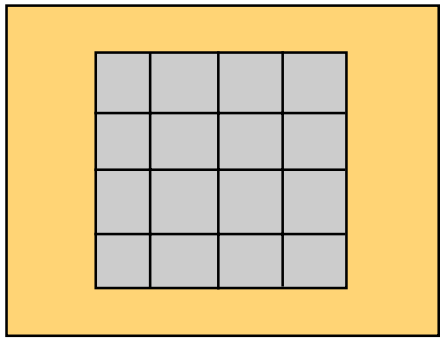


Figure 10. Guessing the number of squares.

12. Practicing Questioning

This section is an introduction to specific skills in facilitation such as probing and paraphrasing. Figures 11 and 12 show the flipchart on "Models in Asking Questions " which were used as a guide to review the basic principles of asking questions. It was easy to introduce the topic since the Tagalog translation was easy to understand.

Facilitator's questions:

a. In asking questions, what words can we use?
   - Lil: What

b. If we want to know who is Barangay Captain?
   - Ning: Who

c. When is your birthday?
   - When

d. Where do you live?
   - Where

d. How would you compute that?
   - How



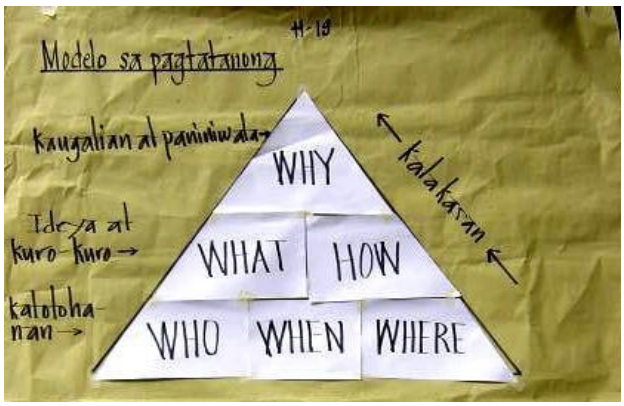


Figure 10. A model for asking questions.

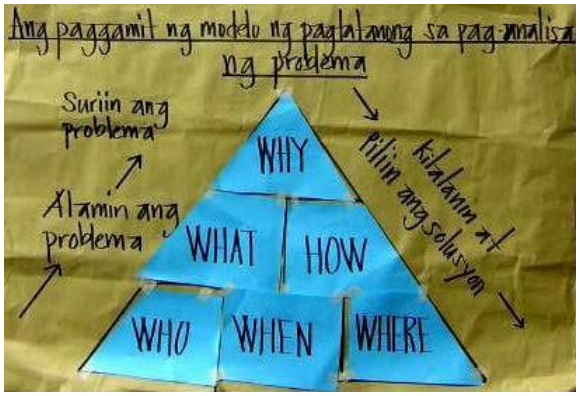


Figure 11. A model for analyzing problems.

The participants found the use of visuals of models in asking questions or analyzing problems as interesting. They found It easy to follow the flow of discussion while using the flipchart.

13. Probing

Facilitator's questions:

a. What do you mean by the word "probing?"
- Ricky: Asking questions.
- Lil: Repeatedly asking questions.

b. Somebody says that probing is like peeling onions, what do you understand about that?
- Ricky: Because the questions are continuous,. the answers are also continuous.

Probing is to know the root of the issues, know the problems and to give solutions to such issues. The facilitator enumerated some don'ts in probing:

- don't judge
- don't jump from one topic to another
- don't assume

At this point the two facilitators conducted an impromptu role-play of asking probing questions directed to the participants. This went on for a few minutes until someone noticed that they have run out of topics to discuss. This was eventually the plan of the role play, that is, to come to a point where participants were able to understand the scope and limitations of probing.

Later, the facilitator gave an exercise about probing. She instructed the participants to pair with a partner to practice their probing skills in a role-play. One asks questions and the other answers on a certain topic. They were given 30 minutes to prepare their skit.

After the afternoon snack, the participants performed the exercise. Each pair used different styles of asking questions. Some were serious, some were joking and humorous, and others were very intriguing in the way they acted out their roles.

The scripts were finalized after the presentation and were edited for grammar. The content was not edited and some of the original humor contained in the scripts got lost in the translation from Tagalog to English.

The following pages show the actual presentations and the scripts used by the participants in their role-plays.

Pair No. 1 – Ricky and Jojo

Topic: What products can you make from rattan?



Ricky : Brod, I'm Ricky from Manila and I came to ask questions about rattan. How important is rattan to your people?

Jojo : It is important because it is very useful. We can make products like sala sets, beds, baskets, hats, decorative items like flower vase, mug of honey holders and even backpacks.

Ricky : Where can you get rattan?

Jojo : Sir, in the forest.

Ricky : Who gather this rattan?

Jojo : The Batak tribes gather rattan.

Ricky : Do you have a regular market for this?

Jojo : Yes sir, we have customers from the city proper and we send our products to them through jeep drivers.

Ricky : How much is the price?

Jojo : Ten pesos per 2 meters.

Ricky : Really! How much rattan can you gather during harvest time?

Jojo : More or less one thousand.

Ricky : Oh! That's plenty. Are there any assurances that you won't run out of rattan?

Jojo : Yes sir, because we are into rattan culture here.

Ricky : Oh! I see, but why don't you establish a rattan industry here? I mean handicrafts or furniture making.

Jojo : It seems a little hard sir! Because the price is too low and oftentimes they even get prices a little bit lower than the regular price sir.

Ricky : Okay, what are the other problems that you encounter in rattan gathering?

Jojo : It's not easy. Gatherers need to get permits from related agencies. The CENRO for instance requires an Annual Work Plan, once the cuts exceed 4 meters. They also need to pay several fees such as those for administrative inspection or certification. Upon transporting, they need to pay PhP300 for forest charges. The gatherers must also pay PhP1,200 for the processing of their permit from the Palawan Council for Sustainable Development (PCSD).

Ricky : Ok, thank you, nice talking to you.

Jojo : Same here, sir.

Pair No. 2 – Lyn and Becca

Topic: What are the sources of incomes of the women in Barangay San Rafael?



:

Lyn : (Knocks at the door). Good morning.

Becca : Come in, who are you? Oh I'm sorry my friend. I can't remember you, you are my *kumare* Lyn. Right? Come in, come in.

Lyn : Good morning *Mare.*

Becca : Good morning too. What brings you here?

Lyn : *Mare*, I want you to share with me some information on the sources of income of the women here in your barangay. Are there any sources of income here?

Becca : Oh *kumare*! The sources of their income here are selling *kakanins*, and *lamayo*!

Lyn : *Mare,* Where do they get their funds for that kind of business?

Becca : From lending and the usual 5-6 loans.

Lyn : Oh! Ok, *mare* thank you very much for the information. I think I need to go now.

Becca : Ok *mare*! Thank you for coming.

Pair No. 3 – Ning and Lala

Topic : What are the sources of income of the people of Concepcion?

(One day, someone named Lala came to Aling Ning's house and told her that she is conducting a survey regarding the sources of income of the people who live in their barangay. She then introduced herself and gathered all the information she needs.)



Lala : Would you mind if I ask you some questions?
Ning : What are those?
Lala : I just want to ask you: what are the sources of income of the people here in Barangay Concepcion?
Ning : Fishing is our primary source of income. It is because our community is located near the sea.
Lala : Oh I see! And what are the things that you use in fishing?
Ning : We use fishing net in the night and hook and line during the daytime.
Lala : How many kilos of fish do you catch if you are using nets?
Ning : Of course, it depends upon the situation and weather condition. Sometimes we are lucky enough but sometimes not. If the weather is bad, we cannot go to the shore and lay our fishing gears.
Lala : How much do you sell the fish?
Ning : It depends on the class and variety. Some are sold at a premium price and some at a lower price.
Lala : Where do you sell the fish?
Ning : Just right here in Barangay Concepcion. Somebody here buys the fish in bulk, but of course we sell cheaper compared to selling in the form of retail.
Lala : Is your income enough for the needs of your family?
Ning : For us fishing is not enough to support our family. But we also think of some other sources of income to support our family needs, because I have my children studying already.
Lala : What do you think are the best sources of income aside from fishing and selling fish?
Ning : My husband and I talk about planting some vegetables in our backyard so that we don't need to buy vegetables in the market. We also plan to raise chickens and pigs to support the studies of our children.
Lala : Thank you Ning. Tonight I will tell my husband about what we discussed today. I think he also wants to give me some capital so I can start raising pigs. Thank you again!
Ning : You're welcome. Bye!

Pair No.4 - Cris I and Cris II

Topic: Why there was low rice production last year
Location: Barangay San Rafael Farm



Cris II : Good morning Councilor Cris I!
Cris I : Good morning too!
Cris II : Somebody told me that there was a low production of rice here last year. How true is it?
Cris I : That's true! My palay production was too low.
CrisII : What do you think are the causes of this problem? May I have your opinion?
Cris I : I think the causes are the pests like rats, worms, maya birds, and lack of insecticide.
Cris II : You did not visit the City Agriculture and Quedancor offices?
Cris I : I did not intend to visit those offices because I have nothing to pay for debts. I don't want to have debts especially in that kind of office.
CrisII : I have my suggestions for you, if you don't mind?
Cris I : What's that! (very excited)
Cris II : The City Agriculture office gives farmers free palay seeds. Why don't you try to visit their office? I can come with you!
Cris I : Ok! Tomorrow morning we can go to their office!
Cris II : That's great! Ok see you tomorrow.
Cris I : Ok, thank you very much!

Partner No. 5 – Emy and Lil

Topic – What are the problems of the people in the lowland and coastal areas?

Location: In the Barangay Plaza, Aling Lil is busy sweeping the grounds of Barangay Plaza. A stranger comes beside her.



Emy : Good morning!
Lil : (Shocked) Who are you? I cannot be disturbed today as I have so much work to do!
Emy : I'm Emy, from the City Mayor's office.
Lil : (Smiling) Ah! I'm Lil. Nice meeting you!
Emy : Do you know Prudencio? (Holdings the hands of Lil). He told that me there are so many illegal activities here in your barangay. And I want to know how true it is.
Lil : Yeah! I know Prudencio. And that's very true that there are lots of illegal activities here in our barangay!
Emy : You mean the news is true!
Lil : Yes! If you don't mind Miss Emy, did the Mayor give something to me?
Emy : Of course! But who are those persons?
Lil : Mario Cuarte, Danny Abucay and so many others! And you know ma'am that Mario is a womanizer and his vice is supported by his illegal activities.
Emy : How did you know that?
Lil : Here in our barangay, you cannot hide even a small thing. Many people here, especially housewives, are *tsismosa.*
Emy : Like you! Just kidding!

Pair No. 6 – Suzy and Veron

Topic: Who are the gatherers or people dependent on almaciga?



Veron	:	Knock! knock!
Suzy	;	Who are you?
Veron	:	I'm Veron from the office of DENR. I'm here because I want to know who are the gatherers and people who depend on almaciga in your barangay.
Suzy	:	Ah! Come in. The gatherers of almaciga here are the Batak tribe. And their everyday life depends on gathering almaciga.
Veron	:	It is very important for them to know that before they gather almaciga they need to get a permit from the office of DENR.
Suzy	:	I'm sorry but, they already know that. The problem is they don't have the money to pay for processing of that permit. As we all know, they eat only once a day. Very sad story.
Veron	:	Where do they bring their products?
Suzy	:	There in the next barangay, sometimes in Puerto Princesa City.
Veron	:	Ok! I cannot stay for long. Don't worry I'm going to discuss this with our boss.
Suzy	:	Thank you for coming.

Pair no. 7 – Val and Zeny

Topic : Why there is no livelihood project in Barangay San Rafael?

One of the Department of Social Welfare and Development (DSWD) staff comes to Barangay San Rafael. She goes to the Barangay Hall because today the barangay council is in session.



Val : Good morning. I'm Val from DSWD.

Zeny : (the barangay captain) Good morning too. What can I do for you?

Val : I'm here because I want to know the projects of your barangay.

Zeny : We have no projects here. No funds.

Val : Why are there no funds? I know that President Gloria gave funds worth P100,000 to every barangay.

Zeny : Ah! The money? We deposited it in the bank - Land bank of the Philippines, Puerto Princesa branch (feels irritated).

Val : Oh Captain! Those funds are meant for barangay projects, not for the bank. You can think of a project that would help your community. Or you have plans to corrupt it? (looks straight at Zeny). Next month I will come here again to check what projects you have implemented here in your barangay.

Zeny : Ok madam, I'll do that as soon as possible. Thank you for coming.

Val : Thank you also for entertaining me.

Pair No. 8 – Azon and Gina

Topic : What are the products from the lowland, upland and coastal areas that are sources of income of the community? Azon is from CIFOR.



Azon : What are the products here in your barangay that serve as sources of income, from the lowland, upland and coastal areas?

Gina : In the uplands there are rattan, almaciga and honey. In the lowlands, we get income from farming and animal raising. The coastal areas provide income from fishing and seaweeds farming.

Azon : How's the income from seaweeds farming?

Gina : It's a small income because of the typhoon. And seaweeds command a very low price.

Azon : Are there still charcoal makers here in your community?

Gina : Yes, but they are few because the DENR did not allow them to cut the trees to make charcoal, even the salvage logs.

Azon : How about fishing?

Gina : Sad to say that there are no fish to catch here near the barangay because of illegal fishing activities.

Azon : What did the barangay do regarding this problem?

Gina : The Barangay Captain is not here always. He stays in his house in the city.

Azon : Ah ok! Thank you for your time.

Gina : You're welcome

Synthesis:

The facilitators were pleasantly surprised at the excellent quality of the presentation, and the well-written scripts. It was very good to see the cooperation shown by each pair in performing the exercise. Aside from obtaining the objective of the exercise on probing, the presentations were not only informative, but very entertaining as well.

And as Miss Doodee puts it: “Very talented participants. Thank you for your cooperation.”

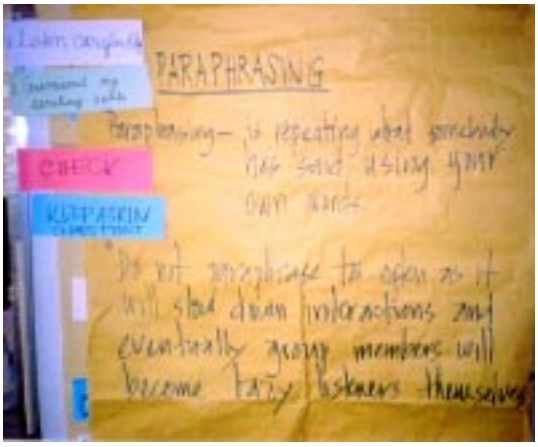
Day 4. November 27, 2004



Session 4

1. The session started with a prayer led by Lyn.

2. Becca, Gina and Emy reviewed the last day's activities: observing and listening skills, asking questions, probing (*pag-uurirat*) and the six questions used in probing. They also highlighted the exercises conducted and the practice session on probing using a scripted role play.



3. Paraphrasing

Facilitator's Question:

What is paraphrasing? The following definitions were written on the chart:

- Many words, only one meaning
- Short explanation
- Keyword
- Summarizing
- Simplifying

The facilitator then defined paraphrasing as "repeating in his own words, what another person has said." Paraphrasing can be used to simplify very long, complicated or confusing statements, or to help a person who has problems phrasing his/her own thoughts clearly.

Pointers in paraphrasing:

a. Listen carefully
b. Use your own words. Examples: "In other words." "Do you mean that..," "It sounds like...," "What you are saying is..,"
c. Check by saying something
d. Keep asking questions

Exercise on paraphrasing

The facilitator conducted an exercise in practicing paraphrasing. The participants were to paraphrase five paragraphs containing a certain topic. These were written in quite long Tagalog sentences. These were purposely exaggerated to create a longer group discussion, allowing participants to be more conscious of the importance of shorter, more concise sentences. It would also help them to practice when to politely intervene in actual facilitation.

The following are the paragraphs, originally in Tagalog, that were paraphrased. The paraphrased ideas generated from the group discussions are written under each paragraph. Note that when translated into English, some sentences seemed incoherent. The participants formed three groups and carefully read the topical paragraphs assigned to them. As part of their presentation, they wrote the paraphrased paragraphs on manila paper.

1. The three barangays are going to implement the policy regarding solid waste management and people of the barangay need to separate the biodegradable and non-biodegradable waste for the protection of their environment like plastic materials would be separated from the cans that are to be recycled and for those who have no jobs this would be a best source of income for the survival of their families and their cooperation on this matter is very much appreciated.

- Lala : We want to inform those living in the three barangays that we are going to implement a policy on garbage starting this coming week. Biodegradable and non-biodegradable garbage would need to be separated in order that this can be a source of income for the progress of our barangays.

- Val: To protect our environment and our health we need to learn proper waste disposal. We segregate the biodegradable from the non-biodegradable ones.

- Emy: We want to disseminate the information to the three barangays that there will be a policy regarding the segregation of waste. They need to separate the biodegradable from the non-biodegradable waste because it can be used as fertilizers for their plants and give additional income for them.

2. The tribes continue to be in poverty because there are so many challenges that come into their lives but some of them have the attitude of laziness always contented of what they have in addition to very low price that some persons pay for their products like rattan resins and honey the tribes sorely lack food and medicine and for their other needs, they're glad that there is an NGO that can give them support in order to uplift their lives.

- Veron: The tribes would always continue their mission in order to fight poverty. They are very glad that there is an NGO that gives them support in order to uplift their well-being.

- Lyn: The tribe continues to fight poverty but being lazy and people buying their products at a low price are normal to them. They appreciate the efforts of the NGO that has supported them.

- Emy: The tribes are always there to face the challenges that come from problems on people buying their products at a very low price but the NGO is still there to help them.

3. The skills in facilitation are very important for many professionals who do not yet possess these very important skills where there is a need for them to learn these skills because these can help them identify problems of the community and the solutions to these problems are many individuals who are willing to learn this kind of skills because they want to help in achieving progress of the community time is very important and we must not waste our time on unimportant things instead we should take time to help solve our problems in the community

- Veron: Facilitation is needed to identify the problems of the group and to help them become effective in managing and planning to solve their problems.
- Ricky: The skills in facilitating are given to the people who have a good vision of their community so they can offer better solutions to the problems.
- Jojo: The skills in facilitating by the professionals would not be learned easily. It is important that there is an objective in order to help the community to solve problems and to help the strengthen the community.

4. We want the leaders to decide regarding the holding of a general assembly meeting because it has been a long time that we did not have one and in this general assembly an appropriate agenda would need to be scheduled as much as possible because many of the people in the community have doubts especially about our cooperative because we have no activities where we participated and so we need to save our cooperative that would give us jobs and income in the forest where we plant and take our time in reforestation projects that can give us more trees in the near future.

- Ning: We want the leaders to decide regarding the general assembly meeting because they have the decision making power. They are also responsible for activating the cooperative in order to provide jobs in reforestation projects.
- Zeny: The leaders would have a meeting regarding the situation their barangay cooperative so that they continue to give opportunities for livelihood in the reforestation project.
- Cris I: Our leaders should be responsible in conducting the meeting because they have the ability to discuss the problems of the community especially the situation of the cooperative. The reforestation project helps us as it is our source of income.

5. Attending a training/ workshop is one of the best experience in order to enhance your knowledge about your social aspects, on how you integrate with other people and on how to deal with different people and in many cases your are preoccupied with these thoughts you think that no one can take care of your child you always think of their needs in school if they have already taken a bath what viand you have for tonight and because of this, you did not concentrate and you did not actively participate in the discussions of the group and now it also affected your concentration with the lessons given by your facilitator and your co-participants always knows that you are not a good companion for them well, but you can, it's not too late to change your attitude, you have a chance to change it not tomorrow not the next day - it is the right time and right place NOW.

- Suzy: Attending the training/workshops would enhance your knowledge, your dealing with other people and related social aspects but you face so many hindrances. Sometimes you worry about your children you left at home and because of this you cannot concentrate on the training. Thus, some of your co-participants think that you do not actively participate in the training, but you can change. Now is the right time.

- Becca: In attending this training/workshop, I left many household chores that I was supposed to do. But I assure you that inspite of this, I have acquired much learning here.

- Cris II: Attending the training/workshop is one way to learn how to deal with other persons. You always think of the situation of your children you left at home. You also left a lot of things undone at home because you're in this kind of activity. So, some of your group mates say that you do not actively participate in your group activities but you can change this behavior at the right time. This is the right time.

Dr. Ted facilitated the discussion on the presentations.

Facilitator's Question:

a. How did you find your paraphrasing exercise?

- Cris I: Difficult, short time allotted.
- Zeny: Difficult to understand the words.
- Val: Too long sentences and hard to read.
- Emy: Not easy because the sentences had no periods, commas, etc.

b. How did you make this kind of long sentences?

- Dan: Based on experience, some people really talk in circles. They do a lot of repetition and they make too long sentences.

4. Giving personal feedback

Facilitator's question:

What is feedback?

- Emy: Exchange of opinion
- Lyn: Backbiting
- Lala: Appreciation
- Jojo: Personal

Emy was appointed facilitator for the session. She used a prepared set of transparencies as guide and explained that feedback is one way to exchange opinions or ideas. She further discussed the different objectives of feedback, methods of giving feedback, and different tips on getting feedback. Emy also facilitated a role-play to test the skills of the participants in giving feedback. She also highlighted the do's and don'ts on feedbacking.



5. After lunch break, Ning recapped on what have been discussed in the morning session and briefly explained the topic on "Personal Skills in Facilitation." Some participants actively participated in the recapitulation.

6. Integrating skills in facilitation





In the next session, the facilitator gave an overview of the next lessons and activities. She presented a flip chart and explained briefly the different roles of a facilitator and the integrated skills needed in facilitation:



a. Promote full participation and group participation
b. Monitor changes in the discussion and get the discussion on track
c. Handle difficult group dynamics, and
d. Manage group/participants' resistance

The participants were given an hour to go around the session hall and read/copy the four ideas described above. This "museum" type of reviewing allowed participants to read and choose only the materials that appeal or are important to her/him. The materials were contained in flip charts, overhead transparencies, and typed materials. It included tips, reminders and examples.

7. Exercise: "Don't Drop That Egg"

This exercise was conducted to give and opportunity for the participants in using the PDM process and in formulating inclusive solutions to solve a problem.

The participants formed three groups and each group represented one barangay. Copies of the exercise were given to each group. Then each group was provided with two fresh eggs, two pieces bond paper, two balloons, two meters yarn, masking tape and a pair of scissor. The groups discussed and planned how to use the said materials so that they would be able to pass the test when the egg is dropped to the concrete pavement.

Tanabag Team– Azon, Ricky, Ning, Dan Lala, Jojo

Azon of Barangay Tanabag team made the following observations:

The group started the exercise by voting Dan as facilitator. They then read the story and the objective of the exercise. They checked their materials carefully. The group members participated in the discussions and some suggested that they put the egg inside the balloon. Ning suggested that they wrap the egg with paper and tie with masking tape. Dan and Ricky inflated the balloons by blowing air into them.

Then they wrapped each egg with paper and fastened masking tape around the wrapped eggs. Using the yarn, they tightened the wrapped egg and tied it to the balloon. And when the judge (Dr. Ted) threw the balloon with the egg into the air, the egg did not break.





The Tanabag Team discusses a strategy to achieve its objective in this exercise on "Don't Drop that EGG!"





San Rafael Team- Suzy, Becca, Val, Zeny, Cris I, Gina

Val of the San Rafael Group reports:

The group started by discussing what they were going to do with the egg. Each group member participated in the discussion and everyone had a suggestion. After a long discussion, Cris I decided to fill the balloon with air using a bicycle pump. Then they decided to put inside the balloon the egg which was wrapped with masking tape and paper . All of the group members agreed with this decision.

While the egg did not break when the balloon was tossed into the air by Dr.Ted, the group was, sad to say, disqualified because they used a pump to inflate the balloon.







Members of the San Rafael group wrapped the egg with paper and masking tape. They put the egg inside the balloon. They then tied the tip of the balloon to seal it. Cris I (right) inflated the balloon using a bicycle pump.

Concepcion Team – Cris II, Lyn, Lil, Emy, Veron

Emy suggested to her group members that they wrap the egg with paper and masking tape. No one of her group members opposed her suggestion. So they wrapped the egg and they inflated a small-sized balloon. They put the wrapped egg on the top of the balloon, tied it with yarn and wrapped it again with masking tape. When Dr. Ted threw the balloon into the air, the egg broke.



Dr. Ted made the following observation on the Concepcion team. Some members gave their views and agreed on a common decision by allowing Emy to act as their facilitator. Each member suggested to wrap the egg with masking tape. They came up with one idea and tried it only once. The idea failed.



Facilitator's question:

How many tests or solutions did the group come up with?

- Tanabag Team – 2 tests, egg inside the balloon and egg wrapped with masking tape.
- San Rafael Team – 1 test, putting the egg wrapped with paper and masking tape inside the balloon.
- Concepcion Team – 1 test, putting the wrapped egg on the top of the balloon.

Day 5. November 28, 2004

1. The session started with a prayer led by Ning.

2. The recapitulation of the previous day's sessions was done in the form of a live radio news coverage performed by Ricky as field reporter and Jojo as anchorman.





Anchorman: Folks, our field reporter Ricky will be reporting about the present Facilitation Training of the Leveling the Playing Field Project of the University of the Philippines, Los Baños Laguna.

Reporter : Sir, presently I'm here at the Duchess Beach Resort in Barangay San Rafael covering the Facilitation Training of LPF. Here with me is Becca, Technical Working Group member from Barangay San Rafael. Miss Becca, what can you say about feed back as one of the facilitation skills?



Becca : Feed back means criticism, be it constructive or destructive. It's a comment that can improve one's personality or bad comments from detractors.

Anchorman: Ricky, is there somebody from the City Government of Puerto Princesa?



Reporter : Dan of the City Planning is here. Mr.Tejada, what do you think is the reason why your group won in the Don't Drop the Egg contest yesterday?

Dan : We won because first, we carefully read the instructions, second all members contributed their ideas and knowledge in a harmonious way. I guess, we just came up with an Inclusive Solution because everybody participated.



Anchorman : Are there any barangay officials there?

Reporter : Barangay Kagawad Cris II, is here, Kagawad what can you say about Listening Skills?



Cris II : Listening is processing what you hear, while hearing is just hearing for the heck of it. The blindfold exercise practiced our ability to process what we hear, free of any distractions.

Anchorman : Any other participants?

Reporter : Ms. Ning, What can you say about paraphrasing?

Ning : Paraphrasing is repeating what somebody has said using your own words.

Anchorman : Are you still there?

Reporter : Lyn is here to explain to us the observation skills. It is a skill using your eyes. But sometimes, looks are deceiving.



Anchorman : Through probing we get want we want to know?

Reporter : Yes sir, settle the issue by continuous questions, until they both agreed that it is already solved. Miss Lil of Barangay Concepcion is going to explain to us.

Lil : Probing is a process of asking questions to derive an answer to a particular issue.

Anchorman : Ricky, can you ask the organizer about the objective of the training/ workshop?

Reporter : Dr. Ted Villanueva, the National Project Coordinator will enlighten us.

Dr. Ted : The training aims to upgrade the skills of the Technical Working Group. The said skills will be their arm in the implementation of the LPF project.

Reporter : Thank you Dr. Ted, this has been Ricky reporting here in San Rafael for DWIZ.

3. Problems in Facilitation

Cris II served as facilitator of the discussion

Facilitator's Questions:



a. What are the problems in facilitation?

- Lyn: Participants not listening
- Cris: Somebody is talking while the facilitator discusses
- Ricky: Participants always asking questions not relevant to the topic
- Dan: Some participants do not participate in discussion
- Val: No cooperation among the group

b. What are the solutions to these problems?

- Lyn: Ask the group to listen first
- Ning: Let him/her explain about the discussion
- Veron: Talk carefully
- Jojo: Repeat explanation
- Lala: Re-focus discussion



4. Effective meetings

Dr. Ted conducted an exercise and asked the participants to rate the meetings they had attended using a checklist on conducting effective meetings. Participants scored on a scale of 1 to 5. Cris facilitated the session assisted by Lynn.

Output of the Exercise:

Score	Number
50 –60	3 out of 11 participants
40-50	6 out of 11 participants
< 30	3 out of 11 participants

Synthesis: The facilitator interpreted the results of the exercise. He took note of the 50-60 score of the participants, which meant that the meetings they have attended were rated as very good and successful. A 40-50 score meant that the meetings needed improvement. A score of 30 or less indicated that meetings need some changes especially on the part of the facilitator.

5. Role play: How to conduct an effective meeting

As part of the session, Dr. Ted facilitated a role play regarding conduct of an effective meeting.

Prayer	: Azon
Attendance	: Ning
Agenda	: Technique on how to present the plan of TWG in the Barangay
Dr. Ted	: Until what time will our meeting last?
Lil	: Until 4 o'clock in the afternoon.
Jojo	: Our time would be very long for this kind of meeting.
Ricky	: Correct. We need to take our time in this kind of meeting. I agree that we stay here until 4 o'clock
Azon	: Mr. Chairman, can we start on our agenda for today?
Jojo	: No, Mr. Chairman we must first discuss how long this meeting will be.
Dr. Ted	: Ok, is it ok for those of you to finish this meeting at 4 o'clock?
Cris I	: Yes, Mr. Chairman.
Dr. Ted	: Ok, our agenda for today is to decide on what technique can we use for the presentation of TWG in the barangay.
Ricky	: We use meta cards
Dan	: Flipchart.
Jojo	: Brainstorming.
Dr. Ted	: Any suggestions?
Dan	: When is the next meeting?
Dr. Ted	: Maybe next Monday. Our agenda would be to select the technique we are going to use for the presentation in the barangay, based on your suggestion for today. The meeting is adjourned.

Facilitator's questions

a. Based on the role play we have done, was the meeting effective?
- Ricky: No, very noisy
- Azon: The time was consumed in discussing what time the participants go home

b. How would we handle those situations?
- Lil: Leadership power

c. What are the effects on you?
- Lala: Boring meeting

c. How would you assess Dr. Ted's handling of the meeting?
- Becca: As a chairman he was not serious.
- Val: He cannot control his followers.

A participant summed up the session by saying that the objective of this exercise/role play was to make the participants aware of what comprise meetings: the agenda, prayer before the start of the activity, time of the meeting, etc. It was also noted that there was a need to focus on the discussions and show respect for others.

6. Technical Working Group: Roles, Responsibilities, Benefits

The rest of the day was devoted to a workshop, preparing for the field practicum the next day. The participants prepared their materials to be used for presentation on What is LPF, TWG (creation/organization), its roles, responsibilities, benefits as well as problems identified and its proposed solutions.

7. Presentation of Group Output

Tanabag Team – Presented by Ning



Roles	Responsibilities	Benefits
1. Prioritize problems 2. Examine problems 3. Organize committees 4. Support barangay projects 5. Uplift the standard of living 6. Prepare action plan 7. Prepare project proposals 8. Educate the people on proper management of natural resources	1. Present the action plan 2. Inform the community about the outputs of the meeting 3. Follow up progress of Action Plan 4. Seek funds for the project 5. Participate in the implementation of barangay projects 6. Inform the members about the plans being started 7. Report the status and progress of project 8. Implement the project 9. Monitor beneficiaries of the project	1. Serve as back-up of the group. 2. Additional knowledge of the member. 3. Sustainable use of natural resources. 4. Additional income for the project members. 5. Support from the LPF



San Rafael Team - Presented by Gina

Roles	Responsibilities	Benefits
1. Inform the community about the TWG objectives. 2. The TWG is willing to help in information dissemination 3. The TWG should be fair in decision making 4. The TWG should monitor the activities of the people	1. Determine first the problems of the community 2. Through training and seminars 3. Bring the plans into realization 4. Make the project successful	1. To be helped by the TWG in coordinating and informing the problems of the community to the different government agencies 2. To enhance their working knowledge 3. Enhance the capability and learn more 4. There's a chance to uplift the community's standard of living

Concepcion Team- Presented by Lyn

Roles	Responsibilities	Benefits
1. Serves as linkage between LPF and the three targeted barangays 2. Monitors the development/ progress of the program, projects/activities sponsored by LPF and CIFOR 3. Documents and reports the development/progress of LPFP, CIFOR-sponsored programs/projects	1. Conducts IEC regarding the LPF project and activities 2. Provides technical know-how and other basic information/benefits whenever possible to the constituents of the targeted barangays 3. Facilitates training for the protection and conservation of the natural resources 4. Facilitates livelihood activities that could uplift the economic status of the constituents	1. Additional knowledge and wisdom in service. 2. Can be the priority beneficiaries of the project.

After the presentation, the facilitators (Ning and Azon) asked the participants to consolidate their outputs. The participants will present this output in the three barangays as part of their field practicum. The following is the consolidated work of the participants:

Roles	Responsibilities	Benefits
Communicator	• Conduct information dissemination on LPF project and activities. • Inform community about TWG objectives • Report the project's progress. • Inform community about outputs of meetings • Inform members regarding plans being started.	• Can be the priority beneficiaries of the project.
Coordinator	• Serves as linkage between LPF and CIFOR and 3 barangays • Coordinates with the barangay officials, NGO, government agencies and other PO's • Documents and reports the development/progress of LPF and CIFOR programs • Tie-up with stakeholders • Communicating community problems to the different government agencies	
Trainer	• The TWG is willing to help in information dissemination • Provides technical knowhow and other basic information/benefits whenever possible to the constituent of the 3 targeted barangays • Provides trainings and seminars	• Pleasure of helping
Facilitator	• Examines problems and identify possible solutions. • Prioritizes problems. • Facilitates livelihood activities that could uplift the economic status of the constituents. • Facilitates training for the protection and conservation of natural resources. • Working knowledge is enhanced • Additional knowledge and wisdom to the members	
Benefactor/Ally	• Supports and helps barangay projects • Seeks funds for the project	
Supervisor	• Supervises community activities • Follow-up of the progress of prepared action plan • Supervises the project beneficiaries • Determines the problems of the community • Monitors the development/progress of the project sponsored by LPF	
Implementor	• Informs community on proper use of natural resources • Presents the action plan to the barangay. council • Implements the prepared action plan • Brings plan into realization	
Planner	• Prepares action plan • Organize a committee • Prepares project proposals	

Questions raised by the participants:

a. Lil: How long will the LPF be implemented?
   - Dr. Ted: February 2006

b. Dan: Are livelihood projects included in the program?
   - Dr. Ted: No. More on capability building only.

c. Cris II: Is there an allowance allotted for the TWG?
   - None. But the LPF will shoulder their expenses during trainings and study tours outside Palawan.

8. As part of their homework, the facilitator distributed exercises on self-test skills on “My reaction to disagreement and conflict” and “Characteristics of a successful negotiator”.

Day 6. November 29, 2004

1. Field practicum at Barangay Tanabag



The guests and participants arrived at around 8:30-9: 00 a.m. at the barangay hall. The activity formally started with *Kagawad* Venus Resta welcoming all the guests and participants.

The group facilitator introduced the TWG and then announced the agenda for the day. He first discussed "What is LPF?" and read its objectives. He then discussed the identified problems in the community and the action plan formulated based on the identified problems. He explained the implementation of the activities and the things that had been accomplished by the TWG such as workshops.



Question raised:

a. Where will the workshop be held?
   - Dan: At the Duchess Resort or else in your barangay if there's an opportunity.

After Dan was through, Ricky discussed the roles, responsibilities and benefits of the TWG. Mr. Nonie asked for clarification regarding the absence of a TWG in Barangay Tanabag. Azon answered that he was a member of the TWG before. Mrs.Gloria, a barangay councilor, asked how long had the TWG existed and Azon replied that it was there since April 2004. Mrs. Gloria again asked if there had been a workshop already accomplished by the group. Azon said that all they are seeing now have been facilitated by them. Mrs. Gloria expressed her hopes for the success of the project. Jojo added that the project would be successful if everyone worked for it together with the barangay officials.

Jojo discussed their dreams/visions for their barangay. Dan added some explanations about the topic of Jojo and then Ricky presented possible solutions to the identified problems. According to Mrs. Gloria, one of their problems was in requesting medicines needed by their animals. When they go to agencies concerned, they were just taken for granted.

Questions raised:

a. *Kagawad* Venus Restar: Where will the TWG come from? From the community members or from barangay officials?
   - *Kagawad* Azon: Being a member of the TWG is voluntary. *Kagawad* Venus signified her willingness to join the TWG and she was accepted.

b. Is Barangay Tanabag willing to volunteer?
   - The participants agreed.

2. Field Practicum at Barangay Concepcion

The guests and participants arrived at 8:30 to 9:00 AM at the Barangay Hall. The activity started at 10:15 AM, with an opening prayer led by Mrs. Dacles. The presentation of guests was given by Lyn. She introduced Dr. Ted and other guests and barangay officials.



In his opening remarks, Barangay Captain Cañete touched on issues and problems to be presented to DENR guests. Dr. Ted explained the agenda to be taken during the day's activity.

Emy discussed the objective of LPF, baseline information, action plan, reflection and monitoring. Veron explained and discussed identified problems and solutions. In addition, Emy discussed the needs of the tribe in the barangay

In the open forum, Dr. Ted explained the LPF proposal to the community and barangay officials. *Kagawad* Jalocon informed the group that the problem of tribal needs does





not apply to Barangay Concepcion, and that there is an existing school and a teacher. Mr. Rabang, a retired school teacher, pointed out that he is one of the teachers of the Batak tribe school.



Lyn pointed out that the health problem of the Batak tribes in the barangay is already addressed. Mrs. Dacles, also a BHW worker suggested that *Kagawad* Rodriguez should participate in identifying health problems of the barangay.

On the issue on crops, Mr. Jalocan stressed that the farmers in their barangay had enough training, and their problem now is capital. Mrs.

Dacles also explained that one of their problem was the lack of land where they can plant crops. Mrs.Tigrania discussed problems on fishery and registration of their pump boats. According to the participants, illegal fishing still exists in their barangay. Mr. Jalocon also reported that some fishermen use compressors in their illegal activity.

Dr. Ted made the following observations on the Concepcion Group activity:

Group members tried to establish rapport and had informal conversation with the people. Some members prepared the meeting hall and another member took attendance. Available materials were also readied and assignments were clarified.

The program started by observing protocol, i.e. prayer, national anthem, welcome remarks of the Barangay Captain and the program proper. Rules were also laid down, e.g. question and answer session to be held after the presentation. Seating arrangements were also done before the meeting.

Emy did it effectively by saying positive remarks about being noisy on facilitation. Lyn was good in using a loud voice, as a buzz group existed. Everybody participated in answering the questions. Questions were raised during the presentation but Emy reminded the participants about the rules they agreed on previously. While the meeting started late, it was very focused and ended well with everybody looking very happy and looking forward to another meeting.

3. Field practicum at Barangay San Rafael



The group started the activity by signing the attendance sheet while waiting for the other participants to arrive. When the participants arrived, Mrs. Francisca Latube formally started the program by an opening prayer and then *Kagawad* Bantog led the community singing of the National Anthem. Afterwards, Cris I delivered his opening remarks in behalf of Barangay Captain Melquiades Rodriguez and Val presented the agenda.

Suzy discussed the objectives of Leveling the Playing Field (LPF) project and the activities involved. The discussion was disrupted for about an hour because the participants suddenly had an emergency meeting with an existing organization in their barangay. The activity resumed at 11:10 a.m. Mr. Fernando gave an ice breaker.

Questions raised:

a. Mrs Lumbre: Can the LPF answer our problem about the low cost of our products?
   - Suzy: Maybe we can help you find the market for your product.

b. Can LPF answer our problem about the illegal activities here in our barangay?
   - The TWG will assist in reporting illegal activities

Becca explained and discussed the roles, responsibilities benefits of TWG. And Zeny presented the problems identified by the TWG and the proposed solutions.

Questions Raised:

a. Mr. Blanco - Can the TWG implemented the solutions to the problems identified?
   - Suzy: Not yet, because we still studied much better solutions for the problems identified.

b. Are there any funds from the LPF for the proposed projects here in our barangay?
   - Suzy: No funds from the project. The TWG would assist the barangay in seeking funds from funding agencies.

c. Can we request the training from the LPF on flower gardening?
   - Suzy: We'll try to bring that matter to our National Project Coordinator.

Noting his observations on the San Rafael Practicum, Roel said that the group started the activity with the standard program and protocol. Questions were properly answered. In facilitating the discussions, the facilitators hesitated many times in explaining his/her topic. In view of this, it was recommended that they get more exposure and practice to enhance their abilities and skills and need to have more "adlibs" while doing facilitation.

4. Open Forum: The field practicum

The participants from the Barangay Tanabag group shared their field practicum experience. According to them, they were very glad because despite the absence of the Barangay Captain, many people from the community attended the presentation. There was not much opportunity though, for exercising facilitation primarily because the presentation was good, reflecting thorough preparation and confidence of the participants.

The participants from the Barangay Concepcion group reported that they did not expect that the LPF project would be appreciated by the Barangay council. All questions raised were answered properly and satisfactorily. Needless to say, the TWG members were happy and very much relieved that the expected tension did not happen during the meeting.

The Barangay San Rafael group participants presented their agenda very well. All questions raised were answered accurately. They commended the active participation of the participants in the discussion.

5. Characteristics of a successful negotiator

There was not enough time to practice negotiation skills in the class. With little time left in the allocated schedule, only basic points on negotiation skills was covered. The characteristics of a successful negotiator was also discussed.

The topic started with the question, "What is negotiation?"

- Dan: Man to man.
- Emy: One on one.
- Lyn: Argumentation or discussion between two persons or more.

Negotiation was defined as "a process of bargaining to satisfy our needs when someone else controls what we want". Some examples were cited using participants' experiences. The facilitator also explained and discussed the Principles of Negotiation.

From the start of the training, there had been a lot of opportunities to discuss the frustrations of the TWG members about their experience with the Barangay council. The group felt that the council did not listen to them nor believed in their report because "they are only women, ordinary housewives, and nobody in the barangay". Everyday, a small group listened to the group, giving bits and pieces of advise. Among these were the government employees and the facilitators. Some suggestions given were " learn to receive feedback, listen to what the coun-

cil was saying, separate personal from community issues, try to communicate in a diplomatic manner, etc.

The practicum activities especially in Barangay Concepcion set the tone for sharing of experience related to negotiations. Again, the discussion centered on negotiation with the Barangay council:

1. If you negotiate again with the barangay council, what will you do?
    - Talk gently with the barangay council, avoid getting personal.
2. What are you ultimate goals in letting them attend the meeting?
    - Lil: Clear the issues of concern.
    - Val: Seek the support of the barangay council.
3. What kind of issues?
    - Becca: Support to the LPF program.

After the discussion, a handout on “Negotiator’s Guide was given to the participants.

6. Evaluation and closing program

The training course was evaluated by the participants using an evaluation form prepared by the facilitators. The closing program consisted of short messages from the facilitators of the six-day workshop, dance numbers, singing, and short messages from the participants.







ANNEXES

Annex 1. **Participant's Profile**
Training on Facilitating Learning and Negotiation
in Natural Resource Management

November 24-29, 2004
Puerto Princesa City, Palawan

NAME	AGE	SEX	EDUCATION	Designation/ Organization	Days Present
Barangay San Rafael					
1. Corazon M. Dalabajan	58	F	3rd year College, BSE	Member, Sangguniang Barangay Member, Foundacion Santiago	5.5
2. Gina D. Villon		F			5
3. Zenaida M. Bantog	41	F	2nd year College	Member, Sangguniang Barangay Member, Taytay Sa Kauswagan Inc.	4
4. Ralph Joseph D. Villon	16	M	High School Graduate	Member, STCMPC Member, LPF-TWG Member, San Rafael Seaweeds Farmer Association	6
5. Crisologo P. Elesterio	48	M	Elementary graduate		6
6. Valentina S. Jalalon	74	F	BSEED graduate	Treasurer, Anak ng Puerto Princesa Foundation President, Senior Citizen Org. Collection Officer, Electrification Light BOD, Elem. School	6
Barangay Concepcion					
7. Rebecca Z. Mauricio	39	F	College level	Member, STCMPC Member, TWG-LPF	6
8. Lelia D. Balud	44	F	High school graduate	Member, STCMPC Member, Anak ng Puerto Member, Fundacion Santiago Member, Charity Women's Foundation Member, TWG-LPF	6
9. Melanie M. Villanueva	24	F	High school	Member, TWG-LPF	5
10. Cresenciano T. Cuarez	56	M	AB History	Member, Tarabanan Fisherfolks Association	6
11. Luningning Perlas Dela Cerna	38	F	High school graduate	Member, TWG-LPF	6
12. Noralyn M.Luna	34	F	College Level	Member,STCMPC Member, TWG-LPF	6
13. Candido Cañete	65	M	Elementary Graduate	Barangay Captain Member STCMPC	.5 (half day)

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13. Candido Cañete	65	M	Elementary Graduate	Barangay Captain Member STCMPC	.5 (half day)

NAME	AGE	SEX	EDUCATION	Designation/ Organization	Days Present
Barangay Tanabag					
14. Gaudencio A. Osano Jr.		M		Member, Sangguniang Barangay	1
15. Emy Palay		F		Member, Sangguniang Barangay	1
16. Rodolfo V. Banico		M		Member, Sangguniang Barangay	.5
Government Agencies					
17. Daniel G. Tejada	47	M	BS Agricultural Education	Project Development Officer III,City Planning Office	5
18. Emelina B. Cojamco	53	F	BS Forestry	Sr. Forest Management Specialist, DENR-PENRO	5

Annex 2. Training Schedule, Facilitating Learning and Negotiation in Natural Resource Management

San Rafael, Puerto Princesa City, Palawan
November 24- 29, 2004

Topic	Method/ Process	Activities/ Specific Topics
A. Setting training context		
DAY 1		
1. Registration		
2. Welcome		Short program
3. Getting to know you	Game	*"If you are a tree/plant,flower, what are you, and why?"*
4. Leveling expectations	Metacards	Exploring expectations from training; *"I'm here because"*
5. Setting Workshop context	Presentation flipcharts/ cards/ OHT	Workshop objectives; methods, outputs -On becoming a better facilitator
6. Norm setting	Discussion; meta cards	-Developing Norms, house rules, host team responsibilities
7. Benchmark facilitation skills	Self assessment	-Facilitation skills self- assessment form
B. Facilitation Fundamentals		
9. Introduction to facilitation	Brainstorming *What is facilitation?*	- What is facilitation of group processes
10. Types of groups	Group Exercise *Conventional vs participatory groups*	- Conventional vs participatory groups
11. Attitude :Basic Facilitation trait	Brainstorming	*-Attitude of a Facilitator* -Attitude, the foundation of facilitation
	Group Exercise *Spend the money*	*-Basic facilitation skill* -Spend the money Synthesis
Day 2		
C. Introduction to common tools in facilitation		
1. Reflection		
2. Brainstorming	Pooled Exercise - Brainstorming and listing	-Brainstorming and listing -Problems /concerns of TWG
3. Metacards	Demonstration; actual use of cards	-Rules in using metacards *-Problems /concerns of TWG*
4. Buzz Group	Triads	- Facilitating buzz-group discussions "What do we do at the socials tonight?"
5. Role Play/ Simulation	Demonstration	-How to manage role playing TWG Meeting with the Barangay Council
6. Alternative facilitation methods	Brainstorm, flipchart display	- Alternative facilitation methods
7. Personal facilitation skills	Synthesis	

D. Participatory Decision-Making (PDM)

8. What is ACM?	*What is participation?* Brainstorming	Recall ACM process
9. What is PDM?		- Characteristics of PD -Facilitation to attain PDM
10. Dynamics of PDM	Brainstorm	- Why do facilitators need to understand PDM?
11. Practicing PDM	Group Exercise: "*Stranded in the Bush*" "*The world is going to be flooded*"	-Stranded in the bush -The world is going to be flooded
12. SOCIALS	Dinner, Party	

Day 3

1. Reflection	Recap of Day 2 activities	

E. Practicing Personal Facilitation Skills

2. Listening	Exercise *Practicing Listening* Quiz	-Listening -My Skill as a Listener
3. Observing behavior	Energizers Guided discussion/Cards	-Observing group behavior and processes;
4. Questioning		
5. Asking questions	Exercise *Practicing questioning*	-Basic issues on questioning -Practicing questioning open and closed questions
6. Probing	Exercise *Practicing probing*	-Six (6) question helpers -Practicing probing -Using probing as a facilitator
7. Synthesis		

Day 4

1. Reflection		
2. Paraphrasing	Group Exercise *Practicing Paraphrasing*	-Paraphrasing
3. Personal Feedback	Lecture, roleplay *Practicing Personal Feedback*	-Feedback: Learning from each other

F. Integrating Skills in Facilitation

4. Full participation	Museum	-Promoting full participation in group facilitation
5. Handling group dynamics	Museum	-Tips for handling group dynamics
6. Handling resistance	Museum	-Handling resistance
7. Fostering inclusive solutions	Group Exercise Synthesis	-Fostering inclusive solutions -*Don't Drop that Egg*

Day 5

Reflection

G. Other concerns

1. Facilitation problems	Brainstorm	-Sharing facilitation problems
2. Conducting meetings	Brainstorming	-Characteristics of effective and ineffective meetings
	Questionnaire Group Rating	*-Making your meeting more effective* -How well do you design and facilitate meetings? -Improving effectiveness of meetings
3. Preparation for field work	Tasking, preparation of materials, logistics	-Problem diagnosis; roles, responsibilities, benefits of TWG

DAY 6

Field Practicum

1. Field Work	Group activity; Plenary	-Conduct 3 separate meetings in the 3 barangays
2. Refection and analysis of field work	Feedback andstaff observations	
3. Negotiation skills	Self-assessment Guided discussion	**-**My reaction to disagreement and conflict -What is negotiation? **-**Win/win philosophy of negotiation **-**Basic approaches to negotiation: the GIVE/ GET principle of negotiating -Characteristics of a successful negotiator
3.Evaluation	Self assessment	
4.Closing	Program	

Annex 3. Evaluation Form
Facilitating Learning and Negotiation in
Natural Resource Management

San Rafael, Puerto Princesa, Palawan
November 22- 27, 2004

Please evaluate the training course using this form. Use the codes given to answer the different questions. Gumamit ng check. **Salamat po!**

Kasarian_____Age_____ Date-29 Nov 04

ITEM/TOPIC/PAKSA	Score o Puntos							
	Wala (None)		**Kaunti (Some)**		**Madami (Much)**		**Napakadami (Very much)**	
A. Please check kung gaano kalaking tulong ang naibigay sa inyo ng training sa mga sumusunod **na skills:**								
	M	F	M	F	M	F	M	F
1. Common facilitation tools								
Brainstorming					2	4	3	6
Metacards			1		1	4	1	6
Buzz Group			1		2	4	2	6
Role Play/			2			5	3	5
Museum (displey ng mga references ng 4 na lessons)			1	1		3	3	5
2. Personal facilitation skills								
Listening- (Pakikinig)					2	6	3	6
Observing behavior					2	4	3	6
Probing (Paguurirat)			1			3	4	7
Paraphrasing (paguulit at pagpapaiksi ng pangungusap)			1	1	2	1	2	6
Feedback (Pidbak)			2		1		2	6
B. Bigyan ng puntos ang mga sumusu-nod na gawain ng ayon sa tulong na ibinigay para maintindihan ang mga isyu sa:								
Attitude 1. Ang Paggastos ng Pera (Spend that Money)				3	2	3	3	4
Paticipatory Decision Making (PDM) 2. Babaha ang Mundo (The world will be Flooded			1	1	1	3	3	5
3. Istranded sa Kagubatan (Stranded in the Bush)							4	5
Samasamang Solutions Don't Drop that Egg (Huwag ibagsak ang itlog)				1	1	3	4	6
Listening 1. Blindfold (May takip ang mata)					2	5	3	5
Probing (Paguurirat) 2. Role Play					2	5	3	5
Paraphrasing 3. Paguulit ng pangungusap				1	2	4	3	4

Types of groups 4. Conbentyonal at participatory grouping				1	2	3	3	5
Effective meetings 5. Epektibong Miting			1	1	1	3	3	3
6. Practice ng Pagpapadaloy (facilitation)					1	4	3	5
Negotiation Skills				2	1	2	3	6
7. Steps in Negotiating				1	1	3	3	5
Characteristics of a successful negotiator				1	1	5	3	3
C. Please answer the following: Bigyan ng puntos ayon sa inyong naintindahan ang sumusunod na topics:								
1. ACM				1	2	4	3	5
2. Mga problema sa pagpapadaloy					2	6	2	3

D. Iba pang mga isyus:

1. Magbigay po kayo ng kurokuro o puna tungkol sa natapos na pagsasanay sa mga Barangay o sa Field Practicum:

    - Resource speakers knew how to motivate us (2)
    - Practicum resulted in identifying a neglected issue- fish sanctuary
    - Need more of this type of training (5)
    - Improved my skills (4)
    - Happy
    - More field practice
    - Understood problem analysis better

2. Ano pa po ang gusto ninyong matutunang skill o kakayahang makakatulong sa inyong gawain sa TWG?

    - Field trip outside Palawan
    - Need more practice of skills
    - Training on values formation
    - Research
    - Another field practicum

Annex 4. Skills Assessment
Facilitating Learning and Negotiation in
Natural Resource Management

San Rafael, Puerto Princesa, Palawan
November 22- 27, 2004

1. Facilitation Skills Self-Assessment
2. My Skill as a Listener
3. Characteristics Of A Successful Negotiator
4. My Reaction To Disagreement And Conflict

Facilitation Skills Self-Assessment

Explanation

The table below lists a variety of facilitation skills. Read each skill and reflect as to how you much have mastered this facilitation skill. Rank yourself from 1 (=poor) to 5 (=highly skilled).

Scoring
1 = poor 2 = little idea 3 = some idea 4 = skilled 5 = highly skilled

Sex: _____ Age: _____ Date: _____

Facilitation skills	Rank
1. Listen attentively	
2. Observe body language and group interactions	
3. Ask the group questions	
4. Answer questions from the group	
5. Summarize what somebody has said	
6. Summarize group discussions	
7. Give feedback to individuals	
8. Give feedback to individuals	
9. Be open to receive feedback from the group	
10. Encourage quiet people to ask	
11. Encourage dominant people to listen to others	
12. Facilitate an open discussion during which all group members can share their ideas and participate.	
13. Paraphrasing	
14. Probing	
15. Supporting people's reflection	
16. Supporting people's analysis	
17. Ensuring full participation	
18. Promoting ideas generation	
19. Encouraging mutual understanding	
20. Fostering comprehensive solutions	
21. Supporting participatory decision-making	
22. Handling a group where there is conflict	
23. Handling resistance	
24. Encouraging team building	

My skill as a listener

A short quiz

Listed below are 15 questions that relate to the ability to listen to others. Rate each question by placing a mark in the appropriate box. Try to be as honest and precise as possible in your rating. This is not a test but a tool to help *you* assess what your strengths and weaknesses are in listening.

When you have rated all the questions, draw lines to connect your dots in the boxes. This will give *you* a profile of your abilities as a listener. By becoming a ware of your weaknesses as a listener *you* can start improving!

Questions	Never	Seldom	Sometimes	Often	Always
Do I listen for feelings, attitudes, perceptions, and values as well as for facts?					
Do I try to listen for what is not said?					
Do I avoid interrupting the person who is speaking to me?					
Do I actually pay attention to who is speaking instead of pretending I am?					
Do I listen even if I don't like a person or agree with him/her, or find him/her dull?					
Do I work hard to avoid being distracted by the speaker's style, clothing, voice or behavior?					
Do I make certain that a person's status has no influence on how well I listen to her/him?					
Do I avoid letting my expectations-hearing what I want to hear-influence my listening?					

Characteristics Of A Successful Negotiator

This scale is based on personal characteristics necessary to successful negotiation. It can help you determine the potential you already possess and also identify areas where improvement is needed. Circle the number that best reflects where you fall on the scale. The higher the number the more the characteristic describes you. When you have finished, total the numbers circled in the space provided.

I am sensitive to the needs of others	10	9	8	7	6	5	4	3	2
I will compromise to solve problems when necessary	10	9	8	7	6	5	4	3	2
I am committed to a win/win philosophy	10	9	8	7	6	5	4	3	2
I have a high tolerance for conflict	10	9	8	7	6	5	4	3	2
I am willing to research and analyze issues fully	10	9	8	7	6	5	4	3	2
Patience is one of my strong points	10	9	8	7	6	5	4	3	2
My tolerance for stress is high	10	9	8	7	6	5	4	3	2
I am a good listener	10	9	8	7	6	5	4	3	2
Personal attack and ridicule do not unduly bother me	10	9	8	7	6	5	4	3	2
I can identify bottom line issues quickly	10	9	8	7	6	5	4	3	2
GRAND TOTAL									

If you scored 80 or above, you have characteristics of a good negotiator. You recognize what negotiating requires and seem willing to apply yourself accordingly.

If you scored between 60 and 79, you should do well as a negotiator but have some characteristics that need further development.

If your evaluation is below 60, you should go over the items again carefully. You may have been hard on yourself, or you may have identified some key areas on which to concentrate as you negotiate. Repeat this evaluation after you have had practice in negotiating.

My Reaction To Disagreement And Conflict

Following are several statements about personal reactions to disagreement and conflict. Circle the number that best describes you. The higher the number, the more you agree with the statement. When you finish, total the numbers you circled and write it on the space provided.

	Strong Agreement									*Mild Agreement*
It doesn't bother me to question a price or seek a more favorable exchange than offered.	**10**	9	8	7	6	5	4	3	2	**1**
I have nothing to lose in seeking a better deal if I do it in a reasonable way.	**10**	9	8	7	6	5	4	3	2	**1**
Conflict is a fact of life and I work hard to resolve it.	**10**	9	8	7	6	5	4	3	2	**1**
Conflict is positive because it makes me examine my ideas carefully.	**10**	9	8	7	6	5	4	3	2	**1**
In resolving conflict, I try to consider the needs of the other person.	**10**	9	8	7	6	5	4	3	2	**1**
Conflict often produces better solutions to problems.	**10**	9	8	7	6	5	4	3	2	**1**
Conflict stimulates my thinking and sharpens my judgment.	**10**	9	8	7	6	5	4	3	2	**1**
Working with conflict has taught me that compromise is not a sign of weakness.	**10**	9	8	7	6	5	4	3	2	**1**
Satisfactorily resolved, conflict often strengthens relationships.	**10**	9	8	7	6	5	4	3	2	**1**
Conflict is a way to test one's own point of view.	**10**	9	8	7	6	5	4	3	2	**1**
GRAND TOTAL										

If you scored 80 or above you have a realistic attitude toward conflict, and seem willing to work to resolve it. If you scored between 50 and 79 you appear to be dealing fairly well with conflict, but need to work toward a more positive approach.

If your score was below 50, you need to first understand why, and then work hard to learn techniques of conflict resolution.

Exercise: Benchmarking Facilitation Skills

Case Study

Spend the money!

You are a group who all work for a successful non-government organization (NGO). In the last few years your organization has been through many changes and you have all had to work very hard. Recently there has been an announcement that as the staff of the organization have been working so hard with no extra pay, the board of directors has allocated a total amount of P10,000 for a staff retreat and entertainment weekend. There are 200 staff in your office.

As a group you now need to decide how to spend the money! The only constraints are:

1. all employees have to go to the same place and participate in some of the activities
2. the P10,000 must be spent on one weekend break and cannot be divided into smaller sums for different activities.

Stranded in the bush: practicing participatory decision-making

Once upon a time…

On a bus journey through a very remote area, your bus had a break down. The distance to the next place where you can get help is about a two day's walk away. You are the only one who would be able to make it to the village, as the others cannot walk that far, but they have enough food and water to stay behind and wait for help. Your life, and the lives of your fellow travelers, depend on what you choose to take for the walk. You can choose 16 things to take with you in your journey.

Prioritize the following items. Number the most important item 1, the second most important item 2, and so on. The object that seems to be of least importance in this situation will be given the number 16.

Items to choose from	My guess	Team guess	Solution
A radio			
A fiction book			
A book on edible plants in the bush			
A l0-kg bag of rice			
A camera			
Money			
A blanket			
10 packs of dried meat			
Matches			
10 liters of water			
A torch			
medicines			
A watch			
A rope			
Instant milk			
A map			

Key for 'Stranded in the bush'

Items to choose from	Solution	Explanation
A radio	13	Tells you about rescue efforts from
A fiction book	16	Has no direct use
A book on eatable plants in the bush	6	Food supply
A l0-kg bag of rice	10	You would need hot water and a pot
A camera	15	To show your trip
Money	14	Just in case
A blanket	8	It might get cold
10 packs of dried meat	5	Light food
Matches	3	To start a fire
10 liters of water	1	Drinking water
A torch	12	To give light in the dark
First-aid case with most important	7	In case of an accident, etc.
A watch	9	Can be used as a compass
A rope	11	Can be used in difficult terrain
Instant milk	4	A light food if there is water
A map	2	For orientation

Exercise: The world is going to be flooded

Once upon a time

A major disaster is going to happen on earth. *Due* to a dramatically accelerated climate change in combination with a most forceful hurricane and spring tide, the whole of Asia will be flooded apart from a small mountain peak in the Himalayas. Unfortunately the area is only big enough to accommodate five people over the period of time that is needed for the water to recede to normal levels.

Your team, based on their background and experience, has been elected to select the five people from the following list that will be given the chance to survive on this mountain peak. Who would *you* choose?

1. A healthy midwife with a lot of experience
2. A cook who is innovative and able to make use of all kinds of ingredients
3. A strong handy-man who knows how to make fire
4. A forest guard, young and fit with a gun
5. A medical doctor, experienced in surgery
6. A female trainer for many survival camps in the Himalayas
7. An inventor who has invented all sorts of ingenious but simple things
8. A medicine man who is very old and wise, and able to make use of local plants
9. A natural leader, able to bring out the best of a group
10. A famous artist
11. A handsome film star with a great talent for acting
12. A water engineer with experience in finding water and digging wells
13. A hunter who can identify and catch many types of animals
14. A fisherwoman who can make her own fishing tools
15. A farmer who knows how to plant rice under difficult conditions
16. A trader who is very good in business

Exercise: Characteristics of participatory and conventional groups

Enlarge, cut into slips and mix up . Sort according to your understanding of whether a characteristic belongs to participatory or conventional group.

Everyone participates, not just the ones who speak the loudest.	The fastest thinkers and best speakers get more time to speak.
People give each other room to think and let others speak their thoughts.	People interrupt each other on a regular basis.
Opposing views are allowed within the group.	Differences of opinion are treated as conflicts that must be ignored or 'solved'.
People try to understand each other by asking supporting and exploring questions. "Is this what *you* mean?"	Questions are often perceived as challenges, as if the person being questioned has done something wrong.
Each member makes the effort to pay attention to the person speaking.	Unless the speaker manages to attract attention, people are not really present
People are able to listen to each other's ideas because they know their own ideas will also be heard.	People have difficulty listening to each other's ideas because they are *busy* rehearsing what they want to say.
Each member contributes in discussing controversial issues. Everyone knows everybody's position or opinion.	Some members remain quiet on controversial matters. No one really knows what is everybody's position or opinion.
Members can explain each other's points of view - even when they don't agree with them.	People can rarely explain the opinions and reasoning of those whom they disagree with.
People don't talk behind each other's backs.	Because people don't feel free to speak openly during the meeting, they talk behind each other's back afterwards
People are encouraged to stand up for their beliefs.	People with different, minority perspectives are commonly discouraged from speaking out.
A problem is not solved until everyone who will be effected by the solution understands the reasoning.	A problem is solved as soon as the fastest thinkers have reached an answer.
When people come to an agreement, the decision reflects a wide range of perspectives.	When people come to an agreement, it is assumed that they are all thinking exactly the same thing.

Exercise

Don't Drop That Egg!
(Magplano muna)

The Story

Brod Pete is the chairman of the Games and Entertainment Committee of Barangay Masaya for their coming fiesta. He wanted to introduce fun games that at the same time are challenging and would foster cooperation among the different youth groups. These groups are not "enemies', but Brod Pete wanted them to work together in some community projects. He thought that working together in a challenging game might be a good start.

The Challenge

Drop one egg down as quickly as possible without breaking it.

A prize will be awarded to the group whose solution is:

- Successful
- Innovative
- Can demonstrate that they used an inclusive solution process to solve the problem

Rules

1. The egg should fall freely and not be lowered by any means
2. While the egg is falling down, it should not make contact with anything or anybody.
3. You should not change the composition of the egg in any way
4. You can only use the materials provided to increase your chance of success
5. You may run a trial but any broken eggs or burst balloons will not be replaced

Preparation time: 30 minutes

Materials

2 fresh eggs, 2 pieces of paper, 2 balloons, 2 meters of string, 1 small roll of masking tape and 1 pair of scissors

Observer's guidelines

You are to observe the group and the facilitator. You may not speak or participate in the competition in any way. If you are asked to help, simply say that you are not allowed to. Carefully observe and note the following:

1. How did the group decide how to start?
2. Did the group test the ideas? How?
3. Were any assumptions challenged?
4. Who participated? Who did not?
5. Which ideas were used and why?
6. Were there ideas ignored? Why?
7. What did the facilitator do which helped the process? How and why?
8. What problems or difficulties did they have? How were they tackled?
9. What went particularly well? Why?
10. Did the group develop an inclusive solution? Please give reasons for your answer.

Annex 6. Handouts

Facilitating Learning and Negotiation in Natural Resource Management

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ON BECOMING A BETTER FACILITATOR

Introduction to the workshop

-Introduce concept of facilitation on Day 1

To be a good facilitator you don't need to:

- have an academic degree or know everything
- be very smart
- be a good speaker
- be a good leader

However, you do need to be:

- interested in the people around *you* '
- willing to look critically at *yourself*
- illing to listen carefully to what people tell *you*
- willing to change yourself

What type of facilitator we are depends on our:

'© identity '© thinking
'© values '© beliefs
'© culture '© personality

How good we are depends upon our:

'© qualities '© capacities
'© strengths '© weaknesses
'© experiences '© ability to learn from *our* mistakes!

Remember you use:

Only 10% from what you hear

Only 20% from what you see and hear

And 80% from what you experience!

Workshop Methods and Approaches

Most *courses you* have attended have probably *used* mainly lectures, presentations and guest speakers. This workshop will *use* very few of these methods. If they are *used* they will be short.

We cannot become a better facilitator by only listening to lectures. A mixture of methods is the most effective way for improving facilitation skills. A couple of the methods during this training program are mentioned below:

Self-reflection

Self-reflection is an important part of self-development, a process whereby people think for themselves and *use* their own experiences in order to refine their own ideas. This can lead to personal change that may include new feelings, new insights, and new abilities, etc.

Receiving feedback

Although we can learn a lot through self reflection, we can learn even more about ourselves, and how we behave from the feedback given by other people as to how they perceive *us.*

Observation

Another effective way to learn is by observing other facilitators. Many good ideas about facilitation, such as what to do or what not to do when handling difficult situations, can be learned from actively watching others facilitate.

Practicing

The most powerful way to learn, however, comes from practicing facilitation

We shall use the following:

1. Brainstorming
2. Simulation
3. Role play
4. Metacards
5. Buzz-groups, etc

Attitude, the foundation of facilitation

How are we perceived by others?



What is attitude?

Everybody has attitudes. They are a combination of values. beliefs and opinions. Often as human beings we discuss attitudes of others but hate to think about *our* own.

This is partially because attitude is difficult to measure and more often than not more visible to others than it is to ourselves.

Attitude is expressed in different ways such as through:

- words and opinions
- tone of voice
- body language
- behavior in a group
- facial expression

Why are certain attitudes very important if working as a field facilitator?

Certain attitudes are the fundamental basis for being an effective field facilitator. A facilitator will always be in group situations which involve people from diverse backgrounds.

If the role of the facilitator is to open up the channels of communication between people in this context s/he must have the following key attitudes:

1. **Interest** in peoples' situations and lives

Take some time to recall how you might feel when you are telling a story and the person you are telling it to is not interested. You are unlikely to want to meet and cooperate with them in the future unless pressured to do so and you certainly are not likely to repeat the same story. People will feel more confident sharing their thoughts with you if they feel you are interested in their lives and not just those aspects that relate to your profession.

2. **Empathy** is being able to put yourself in someone else's situation in order to understand their perspective on an issue. Empathy is essential when working with communities in order to understand peoples diversity of conditions, situations and interests. This can often be hard as we have to break free of our own assumptions and perceptions of people and try hard to put ourselves in their position. The challenge of group facilitation and working in a community is that you need to empathize with many people at the same time! However if you can develop this attitude you will find that people will trust you much more and will therefore be more responsive. The challenge is to empathize but stay neutral at the same time.

3. **Unconditional trust in a group's potential -** the underlying belief here is that being content neutral lies in unconditional trust of a groups potential to find a workable solution or decision for their own

problems. This means that no matter what the group composition is like, you believe that the answers lie within the group and that your role as a facilitator is to help and bring these answers out

Of course numerous other positive attitudes are an advantage too. However. these 3 are the essential ones. No matter how good your skills are as a facilitator or your technical skills are as a forester, if your attitudes are not supportive in the ways mentioned above, you will have difficulties.

How can we work on our attitude?

Unfortunately there are many aspects of ourselves we cannot see but others see better! However, there are also aspects of ourselves that we simply often ignore but knew are there. Try to use opportunities for your own personal development

Tips for a self-aware facilitator

- Do not judge.
- Try hard not to project your own perceptions onto others.
- Do not assume that people need your help.
- Be genuinely friendly.
- Show respect and honor the people you work with.
- Have faith in the people you work with.
- Accept that people have their own values, behaviors and world views.
- Show interest in all aspects of people's lives.
- Step back and listen.
- Behave in the same way you would expect others to behave toward you.
- Don't think you know better.
- Don't give advice.

Facilitating groups to ensure the core values of participation

1. Encouraging full participation, overcoming self-censorship

Often people don't say what they are really thinking. Sometimes it's hard to take risks. In most groups the norm is that if you want to speak, do so simply and clearly, and say something familiar enough or interesting enough so the group will listen. Without realizing it most people constantly edit their thinking before they speak.

A facilitator should be aware of this tendency and help people overcome it. S/he should have the skills and temperament to be able to draw people out and let everyone be heard. S/he knows how to make room for quiet members, how to reduce the incidence of premature criticis, and how to keep everyone thinking instead of shutting up.

2. Promoting mutual understanding and overcoming fixed positions

A group cannot do its best thinking if the members don't understand each other. Most people find it quite difficult to free themselves from their fixed viewpoints. A facilitator helps a group realize that productive groups are built on a foundation of mutual understanding. S/he helps members see that keeping each others viewpoints in mind is invaluable.

Moreover, the facilitator accepts the inevitability of misunderstanding. She/he recognizes that misunderstandings are stressful for everyone involved. The facilitator knows that people in distress need support and need to be treated respectfully. S/he knows it is essential not to take sides. to honor all points of view and to keep listening. so that each person feels that someone understands them.

3. Fostering inclusive solutions and changing the win-loss mentality

It is hard for people to imagine that stakeholders with clear differences might actually reach an agreement that benefits all parties. Most people are stuck in a conventional thinking for solving problems and resolving conflicts and think that it is either my way or your way.

An experienced facilitator knows how to help a group search for innovative ideas that incorporate everyone's point of view. This can be a challenging task - the facilitator is often the only person who has even considered the possibility that inclusive alternatives may exist. S/he understands the mechanics of building sustainable agreements. When a facilitator introduces a group to the values and methods that foster inclusive solutions. the impact is profound. As the group discovers the strength of this new way of thinking, they often become more hopeful about their groups effectiveness.

A facilitator has both the opportunity and a responsibility to teach group members how to design and manage effective sharing, problem solving and/or decision-making processes.

Examples:

a. Teaching new thinking for improving meeting management

Why are most meetings run so poorly? Many people would answer it's my boss. the chairman or the leader. It is likely that neither the leaders nor the members are skilled in participatory processes and collaborative methods.

A facilitator has both the opportunity and a responsibility to teach group members how to design and manage effective sharing, problem solving and/or decision-making processes.

b. Well-designed procedures for running meetings

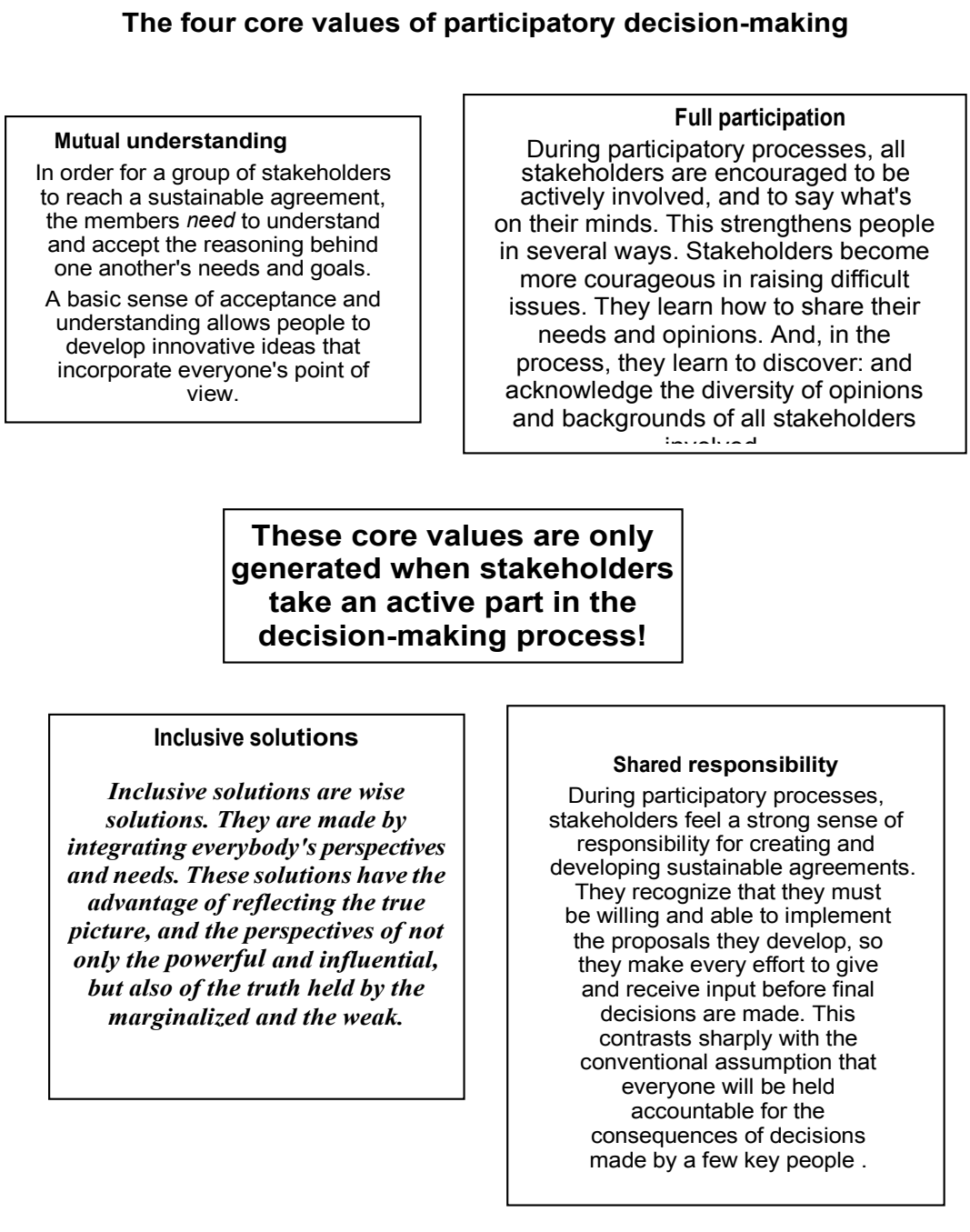
Clear explicit procedures are among the most important thinking skills a group can learn. Consider the impact of a badly designed agenda. How can a group be effective when people don't know what they are trying .to achieve? A facilitator can teach a range of procedures for running successful meetings.

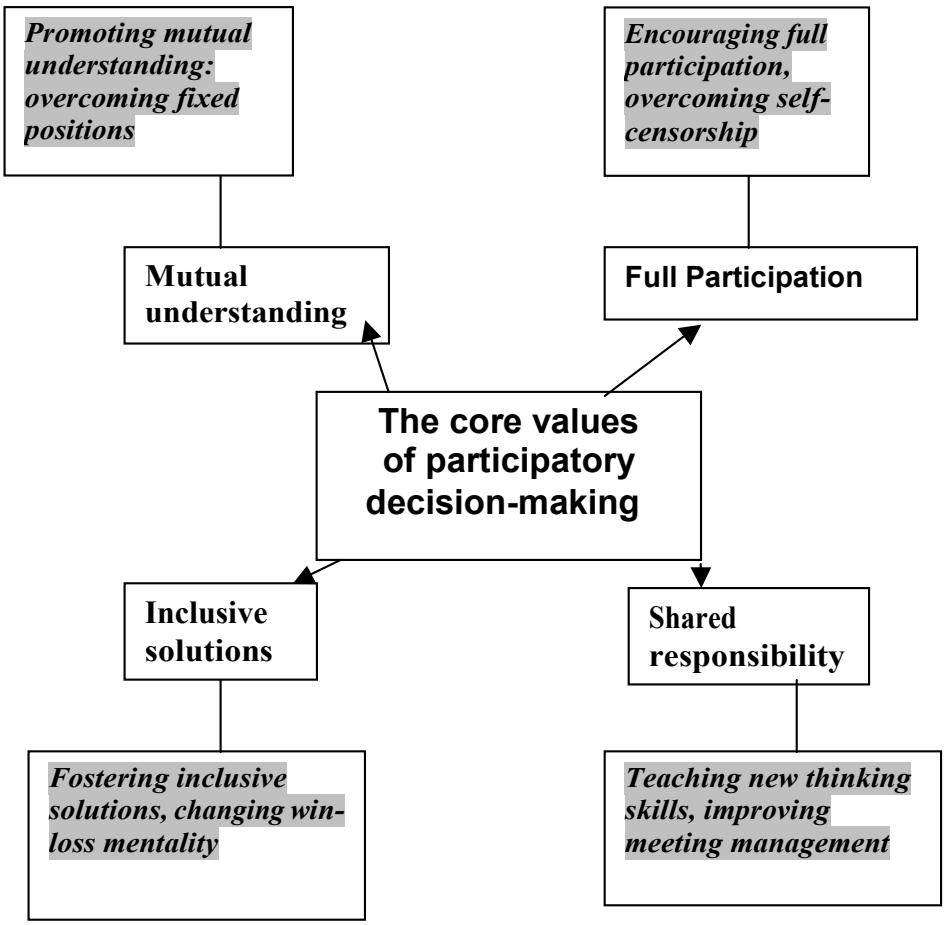
4. Structured thinking activities

Sometimes a group needs help focusing on the same thing at the same time. At times like this, a structured thinking activity like brainstorming can be very helpful. Seasoned facilitators develop a repertoire of these types of thinking activities that can be offered to groups at appropriate times

a. Clear language to describe group dynamics

When a facilitator supports a group to reflect on its own group dynamics and links this to a theory or a model of group dynamics, s/he provides group members with shared points of reference and a shared language. This enables the group to step back from the content of their discussion and talk about the process, so they can improve the dynamics of the meeting.




Promoting mutual understanding: overcoming fixed positions
Encouraging full participation, overcoming self-censorship
Mutual understanding
Full Participation
The core values of participatory decision-making
Inclusive solutions
Shared responsibility
Fostering inclusive solutions, changing win-loss mentality
Teaching new thinking skills, improving meeting management

Why do field facilitators need to understand the dynamics of group decision-making?

Try to think of all the instances as a field facilitator in which *you* are requested to facilitate a group decision-making process. *You* will realize that in most meetings between *users* or villagers a decision of some sort may need to be made.

The situation is probably familiar to many field facilitators. As with all other groups, it is important to remember villagers and users are all human.

Similarly, group members are also human. This means:

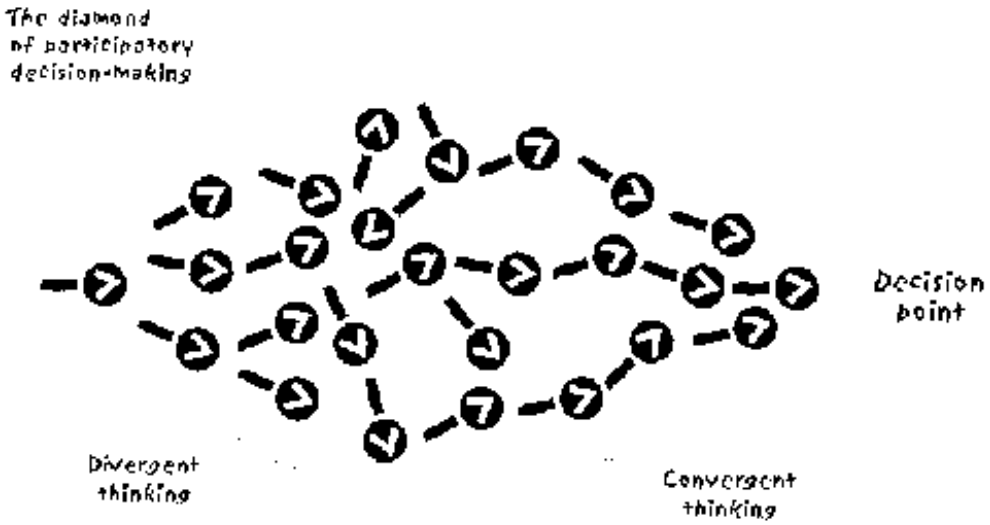
- we do go off on tangents
- we do lose track of the central themes
- we do get too attached to *our* ideas
- we do have divergent points of view

When such characteristics are evident in a discussion many members and facilitators feel that the discussion is heading out of control. However, in many instances, this could be a step towards greater creativity and more creative solutions, and should be seen positively.

For these reasons it is essential that field facilitators understand some of the dynamics of group decision-making.

Field facilitation situations where decision-making in a group is required

- Identifying priorities
- Designing an experiment
- Planning rules and regulations
- Problem solving
- Formulating a *resource* management plan



Appendix 11

Levelling the Playing Field: Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Trip Reports

University of the Philippines Los Banos (UPLB)

Centre de Cooperation Internationale en Recherche Agronomique pour le Developpment (CIRAD)

Center for International Forestry Research (CIFOR)

Trip Reports

I. Trip Reports of Teodoro R. Villanueva

22-29 September 2004: Puerto Princesa, Palawan

The trip's purpose were: 1) to plan for the facilitation training for communities; 2) planning and coordination with Herlina and the field staff; 3) provide updates with partner institutions in Puerto Princesa; 4) to assess year 1 progress and to get feedbacks from the field.

17-18 October: Los Banos

The trip's purpose was to discuss market chain study with some experts in Los Banos.

Participants: Teodoro R. Villanueva, Marina Goloubinoff, Honorato Palis (ERDB), Merlyn Rivera (ERDB), Eden Piadozo (UPLB), Fe Mallion

22 November–1 December

The trip's purpose were: 1) to coordinate and oversee the implementation of the Training on Facilitation for Communities; 2) to serve as one of the facilitators of the training; 3) update and planning with field staff.

22 November: Puerto Princesa
Participants: Teodoro Villanueva, Azucena Gamutia, Arnel Gamutia, Ma. Eduarda Devanadera, one hired office assistant
Meeting and Preparation for the Training on Facilitation

23-29 November: San Rafael, Tanabag, Concepcion Puerto Princesa City
Participants: Teodoro Villanueva, Azucena Gamutia, Arnel Gamutia, Ma. Eduarda Devanadera, B. Genoves, Trainees from the different barangays in the community
Actual Training on Facilitation Skills

30 Novemeber: Puerto Princesa City
Participants: Teodoro Villanueva, Felizardo Cayatoc, Daniel Tejada, Wilson Pambid
Meeting to Discuss the Forthcoming MAS Modeling Training

13-23 December: Bangkok, Thailand

The trip's purpose were: 1) to participate in the training on MAS modelling, 2) to share with other LPF project implementers in Indonesia and Malaysia experiences in

project implementation; and 3) to plan for the implementation of MAS modeling in Palawan site.

Participants from LPF Palawan team: Paolo Campo, Teodoro Villanueva, Herlina Hartanto
Participants from GOs in Puerto Princesa: Zaldy Cayatoc (DENR), Wilson Pambid (PCSD), Dan Tejada(City Planning)
Training on Multi-Agent Systems

We were introduced to MAS modeling and its different applications. Experiences of different resources persons in its applications were shared. One of the team members, Paolo shared his experiences in using the tool in one project in the Philippines.

The training consisted of lectures, group works and role playing games (RPGs). With our appreciation of the tool after listening in the lectures and participating in the different activities, we were able to firm up plans on how to apply MAS modeling in the Palawan site.

20-26 January 2005

The trip's purpose were: 1) to assist Paolo in introducing the MAS modeling to key stakeholders and to the various government agencies in Palawan; 2) to assess the data available from the different government agencies; 4) to coordinate the Philippine Coordination and Planning Workshop and, 4) revise the plan for the implementation of the MAS modeling activity.

20 January: Puerto Princesa City
Participants: Paolo C. Campo, Teodoro R. Villanueva, Zaldy Cayatoc (DENR-PENRO), Wilson Pambid (PCSD), Dan Tejada (LGU - City Planning)
Meeting with the Cormas team

Paolo discussed the plans for the MAS modeling activity based on the previous discussions on the MAS training held in Bangkok Thailand. A discussion was done about the design of the MAS model and the possible approaches or options that could be taken in terms of achieving the goals of the MAS modeling process. A revised workplan and schedule was prepared based on the discussions with the Cormas team.

21-23 January: Puerto Princesa City
Participants: Paolo C. Campo, Teodoro R. Villanueva, representatives/personnel from different government agencies
Courtesy calls to the various government agencies involved in the LPF project

Ted introduced the LPF project, the MAS modeling activity and Paolo Campo to the different government agencies and identified the various data and information that could be provided by the agency should the need arise. The goals of the LPF project and the MAS modeling activity were discussed and the commitment were asked of the government agencies in participating in the various activities for the MAS modeling process and the LPF project in general. The offices visited were City

ENRO, City Planning, City Agriculturist, Bureau of Fisheries and Aquatic Resources, Provincial Planning Office, Provincial Agriculturist, and DENR. There was an overall acceptance of the specific project activity i.e. MAS modeling. The different offices expressed support in terms of data and possible adoption of the tool if it will de developed.

24-25 January: Puerto Princesa City
Participants: Teodoro Villanueva, Philippe Guizol, Herlina Hartanto, Fe Mallion, Maria Eduarda Deveanadera, Paolo Campo, and Azucena Gamutia
LPF Palawan Team Planning and Coordination Meeting

The planning and coordination meeting started by clarifying objectives of the workshop, the expected outputs and expected behavior from participants or the house rules. Accomplished and planned activities were presented and discussed. A conceptual framework for the implementation of the project was also presented by Herlina. Such framework shall serve as guide in the implementation of the various activities of the project. Proposed activities were therefore identified using the framework as guide. Major activities identified for implementation are Market Study 2, Multi-stakeholders Landscape Assessment, Multi Agent System Modeling, Assistance to Community Projects and the Core Group or Technical Working Group. Any one of the mentioned activities fall under any of the three main activities of the project , namely baseline studies, interventions and monitoring ad evaluation. The calendar of activities for the LPF project for the Philippines was prepared and organized. Projects for community development were also identified.

26 January: Puerto Princesa City
Participants: Paolo C. Campo, Teodoro R. Villanueva, Wilson, Zaldy Cayatoc, Dan Tejada
Meeting with the Cormas team for LPF

The revised plans for the MAS modeling activity coming from the coordination and planning meeting were reported back to the Cormas team and further plans were made. During the meeting it was emphasized that the entire team should participate in the planning and implementation of the activities for the MAS modeling activity. Ted requested the affirmation of the participation of the representatives from the agencies. The representatives confirmed they will make themselves available as long as the LPF communicate this to their office superiors.

Participants: Paolo Campo, Philippe Guizol, Teodoro Villanueva (Ted), Fe Mallion and Maria Eduarda Deveanadera (Dodee)
Meeting with some members of the LPF team

The meeting was intended to explain to the social scientists the concept, objectives and activities of MAS modeling and how it fits in the overall project implementation framework. Doodee and Fe expressed appreciation of the tool and indicated that they can help by providing the information they may have collected in their respective component study. A short presentation was made by Paolo about the process and some clarifying explanations from Philippe and Ted were made to answer the questions of Fe and Dodee about the process.

16 February: Manila

Participants: Manuel, Teodoro Villanueva, Nining,
Meeting with MLA experts

The purpose of the trip were: a) to fetch Manuel and Nining from the airport and to discuss plans for Palawan trip for the implementation of the MLA in one of the barangays in the site; b) to meet the President of the University of Western Philippines where the taxonomist being hired to join the MLA team is connected.

17-20 February

The purpose of the trip were: a) to coordinate the activities of the MLA team; b) present the LPF project in a public hearing in Brgy. Concepcion.

17 February: Puerto Princesa City
Meeting with Pastor Samuel, Dan Tejada, Suzie Gamutia, Doodee, Manuel and Nining

Ted welcomed the team and introduced the importance of MLA in the LPF project. Suzie brought a problem, permit to collect herbarium specimens that is being requested from PCSD. Ted on the other hand reported the result of his meeting with the President of the WPU from where the taxonomist Lita will come from.
Doodee reported that the LPF will be allowed to collect specimens if these will be brought to PSU in PPC and not to any other place in Palawan or outside Palawan. Since Beth is from PSU, Ted thought that maybe there is another chance that Beth may change her mind so that she may join in days that she can however there must be a stay-in taxonomist. So Ted decided to call Beth and discussed what days she can join. Beth expressed that she can join the team when they go up to Kalakwasan the next day up to Monday morning. She can come back again and every time she goes down to PPC she will bring the specimens to their herbarium and during the days that she is in PPC she can work in the herbarium to work on specimens collected. So what happens when she is not in the field? She suggested a colleague who will stay, a forester who had worked in a PCSD project and has worked a lot in the vegetation survey of Palawan.

18 February: Tanabag, Puerto Princesa
Takeoff activities to Kalakwasan

Woke up early to go to Wilson at 6AM to request him to go to his office early to make for us the more appropriate map.

Arrived Tanabag at 10AM. Had courtesy call with the Captain Abrea and his council who had been waiting for us enthusiastically since 9AM. That is how supportive the captain now is to the project. He assured us we are welcome and he and his council are very happy for helping their community. He gave us two guides.

Courtesy call at the Wscom, the military detachment in Tanabag. We were very happy the commanding officer is a former student of Beth at PSU so we were cordially accommodated in te detachment. We explained we need not be escorted. This is alright with him since he is said ther is actually no problem with security up there.

Before proceeding to Kalakwasan, Nining once again discussed procedures, and assigned each to the specific MLA task: Manuel and Samuel for ethnobotany, Beth and Raymart in Botany, Ningning, Dan and Suzie in socio-economic of village.

19 February: Concepcion, Puerto Princesa
Participant: Ted Villanueva
Public Hearing in Brgy. Concepcion

Ted presented the LPF project before the Barangay officials and the community members for its adoption in Barangay Concepcion. With the assistance of another Barangay Captain, Abrea of Tanabag, the people of Concepcion finally accepted and adopted the LPF project.

7 March: Manila, Traders' Hotel

Meeting with Manuel and Nining about the finished activities of MLA in Kalakwasan. Manuel and Nining reported how happy they are with their experiences in Kalakwasan and the work that the team had accomplished. They relayed to Ted their good impressions of the people who had joined to help them in the MLA fieldwork and data gathering and analysis. The two scientists proposed that Ted look at the possibility of increasing the compensation given to the local experts and people who had joined in the MLA team. Ted promised he will do the appropriate action.

18 March: Makati

Participant: Teodoro Villanueva
Attend a seminar workshop on Best Practices in Grant and Proposal Writing: Tools and Techniques to Get the Funds You Need

28 March – 3 April

The purpose of the trip were: 1) to organize the LPF Provincial Steering Commmittee; 2) to assist Paolo in introducing MAS modelling activity of the LPF project to the stakeholders through a short lecture and a role-playing game (RPG) called Chering Game, and 2) to conduct interview on perception of the community members with regards to their livelihood and resource use.

28 March: Puero Princesa City, Palawan
Participants: Paolo Campo, Teodoro (Ted) Villanueva, Maria Eduarda Deveanadera (Dodee), Azucena Gamutia (Suzie), Zaldy Cayatoc, Wilson Pambid and Dan Tejada
Meeting in preparation for the Chering game

The meeting was conducted with the agenda of discussing the process design of the workshop to introduce the MAS modelling activity of the LPF project to the stakeholders. During this meeting, Paolo discussed the guidelines for facilitating such a multi-stakeholder activity. Also, the tasks of each person during the Chering game were discussed and assigned to each member of the group.

Practice for the Chering game – Puero Princesa City, Palawan

Except for Dodee, the group practiced the Chering game to be re-acquainted with the process of the game and get a feel of the roles of each member during the game. This is also an opportunity for Suzie to familiarize herself with the game, as she hasn't played it before.

29 March: Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Maria Eduarda Deveanadera, Azucena Gamutia, Zaldy Cayatoc, Wilson Pambid, Dan Tejada,
Organization of the Provincial Steering Committee and
Introduction of MAS modelling to the PrSC

Presided in the interim the organizational meeting of the PrSC which was fully attended by the invited representatives of the different government agencies, NGOs, and local government units. The project progress report was reported, The roles and responsibilities of the PrSc were affirmed and the new set of officers of the committee were voted on. Dir. Devanadera of PCSDS was elected as Chair and Engr. Jovenee Sagun as Vice-chair.
There were some priority tasks identified including the writing of a manual of operation ofhte PrSC.

After the PSC was organized, the group continued with the days work by conducting a workshop to introduce the MAS modelling activity of the LPF project. Paolo gave a short lecture on MAS modelling and gave examples by showing a computer simulation and playing the Chering game. The game consisted of four scenarios, with 5 rounds per game. There were 9 participants in the Chering game.. A debriefing on the Chering game followed wherein the group discussed the results of the game with Paolo displaying the results of the game thru graphs and a map on the projector. After the debriefing, the group discussed the relevance of the Cormas modelling and how it may be of help to them in the future. Lastly, they were asked as to what they wanted to see in the Cormas model when it is already done. As each represented an organization, their respective organizations may have different perspectives or interests in terms of what the model should show. The workshop ended with high hopes for the MAS modelling activity for the LPF project.

30 March: Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Maria Eduarda Deveanadera, Azucena Gamutia, Zaldy Cayatoc, Wilson Pambid, Dan Tejada, representatives from different government organizations (GOs) and non-government organizations (NGOs)
Introduction of MAS modelling to the government and non-government organizations

Provided brief explanation of the LPF project and the MAS modelling activity.. There were 13 participants in the Chering game. As in the previous day, a debriefing after the Chering game was made and a discussion about the relevance and possible helpfulness of the MAS modelling activity would be to the community and the organizations in general, and also what they would like to see in the model. The participants also had high hopes for the modelling process and some of the organizations were interested in replicating the process and its results. Ted invited the participants in the future activities of the MAS modelling process.

31 March: San Rafael, Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Azucena Gamutia, Zaldy Cayatoc, Wilson Pambid, Dan Tejada and members of the community of San Rafael, Tanabag and Concepcion
Introduction of MAS modelling to the community

Ted gave the introductory preliminaries like explanation of the activity to be undertaken. The presentation about MAS modelling followed and was delivered by Paolo. An example of a MAS simulation model was shown and the Chering game was played with the participants. The usefulness of the MAS modelling process was discussed with the community members as well as what they wanted to see or what they wanted to be included in the model.

Meeting with the team

In the evening, the group planned for the logistics for the following day's activity, which is interviewing the community members. Also, the group decided on the type of community members that they will interview depending on their main occupation. The group had to interview community members who are doing livelihood activities across the three landscapes, namely, the coastal area, the lowland area and the upland area. Since it was important that the team interviewed as much people as possible from the three barangays, the group decided to do the interviews individually.

1 April
Participants: Paolo Campo, Teodoro Villanueva, Azucena Gamutia, Zaldy Cayatoc, Wilson Pambid, Dan Tejada, and members of the community
Interview on perception – Brgys. San Rafael, Tanabag and Concepcion

Debriefing on the interview activity – San Rafael, Puerto Princesa City
An important issue came out from the discussion of the just finished interviews about the similarity of the three barangays in terms of their natural management system. It seemed that the livelihood activities in the three barangays are not the same, thus there may be a need to develop models applicable and unique to each barangay and not one model for the whole community consisting of the three barangays. Paolo then suggested that he would consult Francois Bousquet, Herlina Hartanto and Philippe Guizol regarding the issue.

3 April: Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Maria Eduarda Deveanadera, Azucena Gamutia, Zaldy Cayatoc, Wilson Pambid, and Dan Tejada
Meeting with the team

A meeting with the LPF team was done at Royal Oberoi to discuss the activities that were done for the week as well as to plan for the next activities of the group. A discussion about the design of the MAS model and the method to use in gathering information about the activities of the stakeholders related to livelihood and resource use. An important issue about the model design was the possibility that the three barangays may not be that similar at all in terms of livelihood activities and resource use. Issues such as access and availability of the resources in the three barangays came out. As the group couldn't make the decision about which method to use, they suggested that Paolo come up with several proposals depending on the results of his discussion with Francois, Herlina and Philippe regarding the issue on similarity of the three barangays and the results of the household survey conducted by Fe Mallion. Paolo was tasked to submit a proposal on what kind of activity to conduct, whether it would be a workshop or a focus group discussion, the information needed to be acquired or the questions to ask and the type of community members to invite given the need of data duplication and the amount of workshops to be conducted in the community. Then the decision would be made depending on the comments and suggestions of the team.

1-7 May

The purpose of the trip were: 1) to conduct focus group discussions in barangay san Rafael and Concepcion in connection with MAS modeling; 2) to onduct the LPF Philippine coordination meeting, and 3) to make preparation for the forthcoming LPF Regional Meeting and Visit to the Palawan site

1 May
Participants: Paolo Campo, Teodoro Villanueva, Maria Eduarada Deveanadera (Dodee), Azucena Gamutia (Suzie), Wilson Pambid and Dan Tejada
Review of the FGD questions – Puerto Princesa City

The group reviewed the FGD questions and determine if the participants would be able to answer the questions that have been prepared. English and Filipino versions of the guide questions were prepared prior to the meeting. The group reviewed if the translation of the questions into Filipino were still in the same context as the original English set of guide questions. As Dodee, Dan, and Suzie have had experience in conducting FGDs, they were able to give their opinions about the questions. The guide questions were revised a bit to be able to fit the planned length of the each FGD session.

Also, during that day Paolo requested the assistance of Wilson to help prepare the maps that were going to be used for the FGD sessions.

2-3 May: Barangay San Rafael, Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Azucena Gamutia and Dan Tejada
FGD Sessions in Brgy. San Rafael

1st FGD Session – Upland area
The FGD sessions for the San Rafael were held at Duchess beach resort. Most of the participants for the 1st session of FGD were coming from the upland areas with some from the lowland area. It was facilitated by Ted, with Dan as recorder and Paolo as the video camera operator. .

2nd FGD Session – Lowland area
Ted facilitated the 2nd FGD. The session was attended by members of the community doing livelihood activities mostly from the lowland areas of Barangay San Rafael, with some doing activities at the coastal areas. The same process was followed as the one used in the first session. The activity discussed in the afternoon was about seaweed farming.

Debriefing session
On the night of 2nd May, the group decided to meet and discuss the activity during the day. It was observed that the sessions were running very long so the group decided to revise the guide questions to make the process more efficient. Initially, the first task of the participants during the FGD was to identify the livelihood activities their community members were involved with. However, this task consumes a lot of time and therefore was removed from the FGD. Instead, the participants would be asked which livelihood activity they would like to discuss. It was also observed that the mapping activitiy was difficult to do because there were not enough landmarks on the map to guide the participants in locating the areas of interest. In the end the group decided to still do the mapping activity, as it is still useful to some degree. Also they prepared the materials for the next session on the following day.

3rd FGD session – Coastal area
Facilitated the 3rd session of FGDs in San Rafael with participants doing livelihood mostly in the coastal areas with some of them doing some activities in the other landscapes.

Preliminary analysis

The remaining members of the team, namely, Paolo, Wilson and Dan, met during the night of the 3rd of May to discuss the results of the FGD sessions for San Rafael. From the recorded information in manila papers, they started constructing the activity diagrams for each of the livelihood discussed in the three sessions. However, since the electricity was weak and was only until 10pm at the place they were staying, and since the exercise of making activity diagrams was tedious, they were only able to finish one activity diagram, which was for seaweed farming.

4-5 May: Barangay Tanabag, Concepcion and San Rafael
Meeting with TWG to prepare for the visit of the LPF Regional coordination and PSC meeting
Participants: Teodoro Villanueva, Herlina Hartanto and Azucena Gamutia

6 May: Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Herlina Hartanto, Maria Eduarada Deveanadera and Azucena Gamutia
Philippine coordination meeting

The group met to prepare for the coming LPF regional meeting and steering committee meeting to be held in Manila. The group discussed about the information that needs to be prepared for the regional meeting as well as the logistics for these activities. Herlina asked the group as to who would like to facilitate some of the sessions and which sessions they would like to facilitate. There was an initial preparation of the presentation materials for the regional meeting.

II. Trip Reports of Paolo Campo

13-22 December 2004: Bangkok, Thailand

The trip's purpose were: 1) to receive additional training on MAS modelling, 2) to be a resource person with regards to experience in companion modelling and MAS modelling, and 3) to clarify his role in the LPF project as computer scientist, and 4) to prepare an initial plan for the MAS modelling activity for the Philippine study site.

Participants: Paolo Campo, Teodoro Villanueva, Philippe Guizol, Herlina Hartanto, Levania Santoso, Zaldy Cayatoc, Wilson Pambid, Dan Tejada, LPF Indonesia and Malaysia teams, resource persons and trainers for MAS from different Thai universities

Training on Multi-Agent Systems

Most of the participants of the training were introduced to the concept of MAS modelling and Companion modelling (ComMod) as these methods would probably be used in their respective study sites. The training consisted of lectures, group works and actual participation in role playing games (RPGs). Through the group activities, each country team was given the task to try and incorporate the concept of ComMod and MAS modelling into their study sites if these methods were to be used, especially the use of RPGs. Paolo was one of the resource persons tapped for the training and was given the opportunity to discuss his experiences in MAS modelling and RPGs, specifically on the case of the Smallholder agroforestry options for degraded soils (SAFODS) project in Claveria, Philippines. The other resource persons did the same with their respective study sites. A short presentation on guidelines in conducting RPGs was also made by Paolo, Panomsak Promburom (Thai resource person), and Warong Naivinit (Thai resource person) based on their experiences in conducting RPGs with stakeholders.

20 December: Bangkok, Thailand
Participants: Paolo Campo, Philippe Guizol, Herry Purnomo and Wahyu Whardana

During the meeting, Philippe expressed with Paolo, Herry and Wahyu his desire that the computer scientists for the LPF project would work as a team and work together in the development of the MAS models for Philippines and Indonesia sites, and possibily, for the Malaysia sites. This would involve electronic correspondence and arrangement of meetings in Bogor to discuss the developments of the MAS modelling process for the study sites and build upon the experiences of each other in furthering the development of the models. Also, during this meeting, Philippe discussed the possibility of Paolo doing his PhD studies under the context of the LPF project, with the funding to be provided under the LPF project until the end of the project. This option might be taken if Paolo fails to be accepted at ZEF. Paolo was also invited to attend the facilitation training to be held in Malaysia on February 2005.

20-26 January 2005

The trip's purpose were: 1) to familiarize Paolo with the conditions in the field, 2) to introduce the MAS modeling activity to the barangay captains and various government agencies, 3) to determine the data being offered by the different government agencies and get their commitment in providing data for the MAS modeling activity, 4) to participate in the Philippine Coordination and Planning Workshop and revise the plan for the implementation of the MAS modeling activity.

20 January: Puerto Princesa City
Participants: Paolo C. Campo, Teodoro R. Villanueva, Zaldy Cayatoc (DENR-PENRO), Wilson Pambid (PCSD), Dan Tejada (LGU - City Planning)
Meeting with the Cormas team

Paolo discussed the plans for the MAS modeling activity based on the previous discussions on the MAS training held in Bangkok Thailand. From this, a discussion was done about the design of the MAS model and the possible approaches or options that could be taken in terms of achieving the goals of the MAS modeling process. A revised workplan and schedule was prepared based on the discussions with the Cormas team.

21 January: Puerto Princesa City
Participants: Paolo C. Campo, Teodoro R. Villanueva, representatives/personnel from different government agencies
Courtesy calls to the various government agencies involved in the LPF project

The LPF project, the MAS modeling activity and Paolo Campo was introduced to the different government agencies and identified the various data and information that could be provided by the agency should the need arise. The goals of the LPF project and the MAS modeling activity were discussed and the commitment were asked of the government agencies in participating in the various activities for the MAS modeling process and the LPF project in general.

22-23 January: Brgys. San Rafael, Tanabag and Concepcion, Puerto Princesa City

Participant: Paolo Campo, Azucena Gamutia, barangay captains and some TWG members of the three barangays
Familiarization visit to the study site

As Paolo is just new to the project, this was the opportunity for him to familiarize himself with the field conditions of the study site. Courtesy calls were made to the three barangay captains and the MAS modeling activity was introduced to them, including its objectives and the possible activities that could be done where the participation of the community would be needed. Paolo was also introduced to some of the TWG members so that they would also be given some information of the new activity to be implemented in their community.

24-25 January: Puerto Princesa City

Participants: Philippe Guizol, Herlina Hartanto, Teodoro Villanueva, Fe Mallion, Maria Eduarda Deveanadera, Paolo Campo, and Azucena Gamutia
Philippine Planning and Coordination Meeting

The accomplished and planned activities were presented and discussed. The plans for the MAS activity based on the discussion on 20 January 2005 was reported to the LPF team and were later on discussed and revised through discussions with a smaller group. The plans for the other upcoming activities were also discussed and revised, such as the MLA survey, through group works/discussions. Later, the results of these group works were presented to the entire group for comments and suggestions. The calendar of activities for the LPF project for the Philippines was prepared and organized. Projects for community development were also identified.

26 January: Puerto Princesa City

Meeting with the Cormas team for LPF
Participants: Paolo C. Campo, Teodoro R. Villanueva, Wilson, Zaldy Cayatoc, Dan Tejada

The revised plans for the MAS modeling activity coming from the coordination and planning meeting were reported back to the Cormas team and further plans were made. During the meeting it was emphasized that the entire team should participate in the planning and implementation of the activities for the MAS modeling activity and, therefore, the contact information of the Cormas team were taken to ensure the easy and efficient communication with the entire team.

Meeting with some members of the LPF team
Participants: Paolo Camp, Philippe Guizol, Teodoro Villanueva (Ted), Fe Mallion and Maria Eduarda Deveanadera (Dodee)

As Fe and Dodee were not familiar with the MAS modeling process, there were some confusion with regards to the objectives and methodology of the said activity. Since the time during the planning and coordination meeting was limited, this meeting was made to explain further the said activity to them. A short presentation was made by

Paolo about the process and some clarifying explanations from Philippe and Ted were made to answer the questions of Fe and Dodee about the process.

31 January – 5 February: Kuala Lumpur, Malaysia

The trip's purpose were: 1) for Paolo Campo to attend the Facilitation Training in Malaysia together with other LPF members. This is so that he would be familiarized with the techniques and guidelines in facilitating multi-stakeholder discussions and activities and be able to help in planning for the activities for the MAS modeling activity. 2) to discuss the Pro-active concilation tool (PACT) method for institutional analysis

Participants: Paolo Campo, Philippe Guizol, Herlina Hartanto, Azucena Gamutia, Joy Madriñan, and members of the LPF Malaysian team

Training on the Art of Multi-Stakeholder Facilitation

The various members of the LPF team from different countries were trained in the principles of multi-stakeholder facilitation. The participants were trained on the different aspects of facilitation such as how to listen, how to ask questions and how to record discussions properly, as well as the basic guidelines a facilitator should follow when conducting multi-stakeholder activities. It also included some principles in designing multi-stakeholder activities, which was called process design, to guide the facilitator in conducting a specific activity. The training was a combination of lectures and actual practice or application of the principles of facilitation. Participants were also given the opportunity to practice an actual multi-stakeholder activity being planned for their respective sites and comments and suggestions were given to each team.

5 February
Participants: Paolo Campo, Philippe Guizol, Levania Santoso
Meeting to discuss the PACT method

As there is a possibility of using the PACT method for institutional analysis in the Palawan study site, Paolo needed to be introduced to the said method. As Levania Santoso and Philippe Guizol have experienced using the said method, they explained the main principles of PACT method, its objectives and the process of implementing such method. Since an actual test of the PACT method at that time was not possible given that its a lengthy process and there was very limited time, they recommended further reading on the said method.

28 March – 3 April

The purpose of the trip were: 1) to make an introduction about the MAS modelling activity of the LPF project to the stakeholders through a short lecture and a role-playing game (RPG) called Chering Game, and 2) to determine the self-perception of the community members with regards to their livelihood and resource use.

28 March: Puero Princesa City, Palawan
Participants: Paolo Campo, Teodoro (Ted) Villanueva, Maria Eduarda Deveanadera (Dodee), Azucena Gamutia (Suzie), Zaldy Cayatoc, Wilson Pambid and Dan Tejada
Meeting in preparation for the Chering game.

The meeting was conducted with the agenda of discussing the process design of the workshop to introduce the MAS modelling activity of the LPF project to the stakeholders. During this meeting, Paolo discussed the guidelines for facilitating such a multi-stakeholder activity. Also, the tasks of each person during the Chering game were discussed and assigned to each member of the group.

Practice for the Chering game – Puero Princesa City, Palawan

Except for Dodee, the group practiced the Chering game to be re-acquainted with the process of the game and get a feel of the roles of each member during the game. This is also an opportunity for Suzie to familiarize herself with the game, as she hasn't played it before.

29 March: Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Maria Eduarda Deveanadera, Azucena Gamutia, Zaldy Cayatoc, Wilson Pambid, Dan Tejada, top or high personnel from different government organizations (GOs), baranggay captains of San Rafael and Tanabag, and representatives of the technical working group (TWG).
Introduction of MAS modelling to the PSC

After the PSC was organized, the group continued with the days work by conducting a workshop to introduce the MAS modelling activity of the LPF project. Paolo gave a short lecture on MAS modelling and gave examples by showing a computer simulation and playing the Chering game. The game consisted of four scenarios, with 5 rounds per game. There were 9 participants in the Chering game. The barangay captain of Brgy. Tanabag, had to leave in the afternoon as he had important matters to attend to and was replaced by one of his council members. A debriefing on the Chering game followed wherein the group discussed the results of the game with Paolo displaying the results of the game thru graphs and a map on the projector. After the debriefing, the group discussed the relevance of the Cormas modelling and how it may be of help to them in the future. Lastly, they were asked as to what they wanted to see in the Cormas model when it is already done. As each represented an organization, their respective organizations may have different perspectives or interests in terms of what the model should show. The workshop ended with high hopes for the MAS modelling activity for the LPF project.

30 March: Puerto Princesa City

Participants: Paolo Campo, Teodoro Villanueva, Maria Eduarda Deveanadera, Azucena Gamutia, Zaldy Cayatoc, Wilson Pambid, Dan Tejada, representatives from different government organizations (GOs) and non-government organizations (NGOs)
Introduction of MAS modelling to the government and non-government organizations

The workshop started with the registration of the participants and introduction of each participant and the members of the LPF staff. There were 15 participants from 13 different government and non-government organizations. A brief explanation of the LPF project and the MAS modelling activity was given by Ted. Paolo followed afterwards with a presentation about MAS modelling. Again, he gave examples on the tools for MAS modelling by showing a computer simulation and playing the Chering game with the workshop participants. There were 13 participants in the Chering game. As in the previous day, a debriefing after the Chering game was made and a discussion about the relevance and possible helpfulness of the MAS modelling activity would be to the community and the organizations in general, and also what they would like to see in the model. The participants also had high hopes for the modelling process and some of the organizations were interested in replicating the process and its results. The day ended with the LPF team inviting the participants in the future activities of the MAS modelling process and expressing their desire that the differenet organizations would support and actively participate in the future activities of the MAS modelling process and of the LPF project.

31 March: San Rafael, Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Azucena Gamutia, Zaldy Cayatoc, Wilson Pambid, Dan Tejada and members of the community of San Rafael, Tanabag and Concepcion
Introduction of MAS modelling to the community

The same process for conducting the workshop in the two previous days was followed for this workshop with the community members as the participants. There were 20 participants, larger what was expected, and some of those present were asked to be observers. Zernan Teodoro assisted the LPF team in conducting the workshop. The day started with the registration of participants, followed by an opening prayer. The participants were introduced and an opening remark by Ted was done. The presentation about MAS modelling followed and was delivered by Paolo. An example of a MAS simulation model was shown and the Chering game was played with the participants. There were 17 players for this session of the Chering game. The debriefing of the Chering game followed wherein the results of the game were discussed. The usefulness of the MAS modelling process was discussed with the community members as well as what they wanted to see or what they wanted to be included in the model. Zernan, having participated already in the Chering game for PSC, also expressed his enthusiasm in the process saying that it would be a big help to their community. Before the workshop ended, the participants were told that they might be interviewed for the following day to gather more information about them that would be very helpful in the building of the model. They agreed to be interviewed.

Meeting with the team

In the evening, the group planned for the logistics for the following day's activity, which is interviewing the community members. Also, the group decided on the type of community members that they will interview depending on their main occupation. The group had to interview community members who are doing livelihood activities across the three landscapes, namely, the coastal area, the lowland area and the upland area. Since it was important that the team interviewed as much people as possible from the three barangays, the group decided to do the interviews individually.

1 April
Participants: Paolo Campo, Teodoro Villanueva, Azucena Gamutia, Zaldy Cayatoc, Wilson Pambid, Dan Tejada, and members of the community

Interview on self-perception – Brgys. San Rafael, Tanabag and Concepcion:
As there was limited time, the team divided up and did the interviews individually. Dan and Wilson were left at barangay Tanabag to interview the community members there, while the other went to barangay San Rafael for the interviews with community members there. When the groups in San Rafael were done, they went to pick-up Dan and Wilson at Barangay Tanabag and proceeded to barangay Concepcion to do the interviews there. Again, the team did the interviews individually to be able to interview more community members.

Debriefing on the interview activity – San Rafael, Puerto Princesa City:
A meeting was set to discuss the results of the interview and try to develop a typology of the community members based on the interviews. The interviewees' names, livelihood and the barangay they belonged to were listed down and they were grouped together in terms of livelihood and the barangay they belonged to. An important issue came out from the discussion about the similarity of the three barangays in terms of their natural management system. It would seem that the distribution in terms of the livelihood activities in the three barangays are not the same. Paolo then suggested that he would consult Francois Bousquet, Herlina Hartanto and Philippe Guizol regarding the issue.

2 April: Puerto Princesa City
Participants: Paolo Campo, Francois Bousquet, Herlina Hartanto, and Philippe Guizol
Online discussion with Francois, Herlina and Philippe

From the meeting the previous night, an important issue came about regarding the similarity of the three barangays in terms of their natural resources management system. Paolo posted a question with regards to

3 April: Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Maria Eduarda Deveanadera, Azucena Gamutia, Zaldy Cayatoc, Wilson Pambid, and Dan Tejada
Meeting with the team

A meeting with the LPF team was done at Royal Oberoi to discuss the activities that were done for the week as well as to plan for the next activities of the group. A discussion about the design of the MAS model and the method to use in gathering

information about the activities of the stakeholders related to livelihood and resource use. An important issue about the model design was the possibility that the three barangays may not be that similar at all in terms of livelihood activities and resource use. Issues such as access and availability of the resources in the three barangays came out. As the group couldn't make the decision about which method to use, they suggested that Paolo come up with several proposals depending on the results of his discussion with Francois, Herlina and Philippe regarding the issue on similarity of the three barangays and the results of the household survey conducted by Fe Mallion. Paolo was tasked to submit a proposal on what kind of activity to conduct, whether it would be a workshop or a focus group discussion, the information needed to be acquired or the questions to ask and the type of community members to invite given the need of data duplication and the amount of workshops to be conducted in the community. Then the decision would be made depending on the comments and suggestions of the team.

1-10 May

The purpose of the trip were: 1) to conduct focus group discussions in barangay san Rafael and Concepcion, 2) to attend the LPF Philippine coordination meeting, and 3) to attend the LPF regional coordination meeting.

1 May: Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Maria Eduarada Deveanadera (Dodee), Azucena Gamutia (Suzie), Wilson Pambid and Dan Tejada
Review of the FGD questions

The group reviewed the FGD questions and determine if the participants would be able to answer the questions that have been prepared. English and Filipino versions of the guide questions were prepared prior to the meeting. The group reviewed if the translation of the questions into Filipino were still in the same context as the original English set of guide questions. As Dodee, Dan, and Suzie have had experience in conducting FGDs, they were able to give their opinions about the questions. The guide questions were revised a bit to be able to fit the planned length of the each FGD session.

Also, during that day Paolo requested the assistance of Wilson to help prepare the maps that were going to be used for the FGD sessions.

2-3 May: Barangay San Rafael, Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Azucena Gamutia and Dan Tejada
FGD Sessions in Brgy. San Rafael

1st FGD Session – Upland area
The FGD sessions for the San Rafael were held at Duchess beach resort. Most of the participants for the 1st session of FGD were coming from the upland areas with some from the lowland area. It was facilitated by Ted, with Dan as recorder and Paolo as the video camera operator. Once, in a while, Paolo would pass small notes to Ted containing some questions and a time check to manage the time. There were 18

participants in the session, more than the 15 that were expected, as some participants decided to come in the morning, as they will not be able to attend the afternoon session for that day. On that session, the following livelihood activities were discussed:
- Upland farming
- Lowland farming

There was also a short mapping exercise wherein the participants were asked to locate where they usually perform their livelihood activity. Dan assisted them in locating the areas.

2nd FGD Session – Lowland area
The second session for the day was composed of members of the community doing livelihood activities mostly from the lowland areas of Barangay San Rafael, with some doing activities at the coastal areas. The same process was followed as the one used in the first session. The activity discussed in the afternoon was about seaweed farming.

Debriefing session
On the night of 2nd May, the group decided to meet and discuss the activity during the day. It was observed that the sessions were running very long of the planned length of each session so the group decided to revise the guide questions to make the process more efficient. Initially, the first task of the participants during the FGD was to identify the livelihood activities their community members were involved with. However, this task consumes a lot of time and therefore was removed from the FGD. Instead, the participants would be asked which livelihood activity they would like to discuss. It was also observed that the mapping activitiy was difficult to do because there were not enough landmarks on the map to guide the participants in locating the areas of interest. In the end the group decided to still do the mapping activity, as it is still useful to some degree. Also they prepared the materials for the next session on the following day.

3rd FGD session – Coastal area
The following day the third session of FGDs in San Rafael was held with participants doing livelihood mostly in the coastal areas with some of them doing some activities in the other landscapes. There were 10 participants for that session and the activities discussed were the following:
- Fishing
- Bangus fry gathering

Preliminary analysis
The remaining members of the team, namely, Paolo, Wilson and Dan, met during the night of the 3rd of May to discuss the results of the FGD sessions for San Rafael. From the recorded information in manila papers, they started constructing the activity diagrams for each of the livelihood discussed in the three sessions. However, since the electricity was weak and was only until 10pm at the place they were staying, and since the exercise of making activity diagrams was tedious, they were only able to finish one activity diagram, which was for seaweed farming.

4-5 May: Barangay Tanabag, Puerto Princesa City
Participants: Paolo Campo, Wilson Pambid and Dan Tejada

The first FGD session for Brgy. Tanabag was composed of members of the community doing livelihood activities in the upland areas. The session started with Dan as the facilitator and recorder and Paolo as the video camera operator. Later during the session, Wilson arrived and took over the video camera, while Paolo became the recorder for the session. During the first session of FGD for Tanabag, the following activities were discussed:
- Swidden farming
- Charcoal making

For the second FGD session for Tanabag, the following activities were discussed:
- Nipa/coconut shingles making
- Hog-raising

And for the third session, which was done in the morning of 5 May, the following activities were discussed in the session:
- Copra-making
- Hunting
- Almaciga resin collection

After the third FGD session for Tanabag, the group headed back to Puerto Princesa City so that Paolo could attend the Philippine coordination meeting the following day.

6 May: Puerto Princesa City
Participants: Paolo Campo, Teodoro Villanueva, Herlina Hartanto, Maria Eduarada Deveanadera and Azucena Gamutia
Philippine coordination meeting

The group met to prepare for the coming LPF regional meeting and steering committee meeting to be held in Manila. The group discussed about the information that needs to be prepared for the regional meeting as well as the logistics for these activities. Herlina asked the group as to who would like to facilitate some of the sessions and which sessions they would like to facilitate. There was an initial preparation of the presentation materials for the regional meeting.

8-10 May: Manila
Participants: Paolo Campo, Herlina Hartanto, Philippe Guizol, Maria Eduarda, Teodoro Villanueva, Deveanadera, Azucena Gamutia, Levannia Santoso and members from the LPF Indonesian and Malaysian teams
LPF Project coordination meeting

This meeting gives each country team to share their experiences in implementing the LPF project at their respective study sites to the rest of the teams. The baseline studies were reviewed and the interesting methods, results and assumptions that may have been challenged during the implementation were presented by each country team. Lectures about the concepts used in the LPF project were also done by Philippe Guizol and Herlina Hartanto. The contents for the website of LPF project per country

were also discussed. The basic information that needs to appear in the website were listed and agreed upon by the group. Paolo, as well as the other participants of the meeting had a chance to facilitate some of the sessions in the meeting. A team building exercise was also done at the end of the coordination meeting.

1-8 August

The trip's purpose were: 1) to interview representative from government and non-government organizations identified as major stakeholders in the community and acquire information on their activities for natural resource management, 2) to play the Chering game with the Bataks in Sitio Kalakuasan, and 3) to conduct FGD sessions with the Bataks and Barangay Concepcion.

1 August: Puerto Princesa City

Visit with a doctor
Participants: Paolo Campo and Azucena Gamutia (Suzie)

Considering that there was a malaria threat in the village of Kalakuasan, Paolo was brought to a doctor to have a preventive medicine against malaria.

Interview with the representatives from different government and non-government organizations
Participants: Paolo Campo and Azucena Gamutia (Suzie)

In the afternoon, Paolo and Suzie went around visiting government offices and interviewing their representatives to acquire information regarding their activities in the communities in terms of natural resource management. The interview started out with Paolo and Suzie introducing themselves and stating the objectives of the interview. Also, the interviewees were given the opportunity to ask questions to Paolo and Suzie about the LPF project and the MAS modelling activity. A total of three offices were visited that afternoon starting with BFAR-FRMP office, City ENRO and, finally City Agriculture. The interview at the City Agriculture wasn't complete as the person to be interviewed for the fisheries sector was quite busy at the time. So it was promised that she will be interviewed when there is available time for both parties.

Meeting with Cormas team
Participants: Paolo Campo, Azucena Gamutia, Zaldy Cayatoc and Dan Tejada

At 6 o'clock in the evening, Paolo and Suzie met with Zaldy and Dan to brief them of the task in the coming days. Wilson Pambid wasn't available therefore the activities had to be planned for the four team members. During the meeting, the objectives and schedule of the activities were expressed and the tasks for the Chering game with the Bataks and the FGDs to be conducted for were assigned for each member. Also, the logistics for the week were also discussed. It was also decided that Paolo should extend his stay at PPC for one more day because there might not be enough time to finish all the interviews with the representatives of the different organizations.

2 August: Puerto Princesa City
Participants: Paolo Campo, Azucena Gamutia, and Dan Tejada
Interview with the representatives from different government and non-government organizations

The interviews for the different government and non-government organizations continued the following day. In the morning, Paolo and Dan went around Puerto Princesa for the interviews while Suzie went to buy the supplies and do other logistic tasks for the trip to Kalakuasan and the FGDs and interviews at the community. Suzy later joined Paolo and Dan at the interview for KSK. The first office visited was ELAC, followed by Haribon Palawan, and then BRDFI. In the afternoon, the office of Fundacion Santiago, KSK, DENR-CENRO and DENR-PENRO were visited for interviews. Dan had to leave the group after the interview with KSK as he had other matters to attend to.s

3-4 August: Sitio Kalakuasan, Barangay Tanabag, Puerto Princesa City
Participants: Paolo Campo, Azucena Gamutia and Zaldy Cayatoc
Chering game and FGD session with the Bataks

Due to the inclement weather and conditions of the river leading to Sitio Kalakuasan, the Chering game started at three in the afternoon, with Paolo as the game manager, Suzie as the assistant to the game manager and Zaldy as the operator of the video camera and observer. From time to time, Zaldy would help out in the explanation. The purpose of the game and the rules of the game were explained to the Bataks and the group was able to play 2 scenarios before ending the session for the day. During the game, the group had to transfer to one of the houses as it started raining again. Because of the rain and the continuous rise of water at the river it was decided that the 2 other scenarios for the Chering game be played the following morning. The session ended at five in the afternoon. It was decided that the continuation of the Chering game would start at eight in the morning the following day.

The continuation of the Chering game started at nine in the morning and ended at eleven am. The results of the game were discussed with Paolo displaying the results of the game thru his laptop computer. The participants of the Chering game were still a bit confused about its purpose so this was explained again. The discussion of the game was brief as the group still had to conduct the FGD with another group of Bataks, which was initially planned at ten in the morning.

The FGD session with the Bataks followed as soon as the discussion of the Chering game ended. The FGD session was facilitated by Zaldy with Suzie as the recorder and Paolo as the operator of the video camera and observer. Zaldy stated the objectives of the FGD session and how it figures in the LPF project. As there were still some questions with regards to the purpose of the LPF project, Suzie also helped out in answering some of the questions. The FGD focused on the activities of the Bataks in terms of resource use. The participants of the FGD were also given the opportunity to ask questions about the MAS modelling activity and the LPF project and, together, the team answered their questions. The team had to leave at three in the afternoon as the threat of rain might make it impossible for them to go back to Brgy.

Tanabag if they should stay longer. The group had to go back that day if they were to conduct the FGDs and interviews the following day. Also, the supply brought by the team for the trip to Kalakuasan was only enough for one night. The water at the river was still rising and the flow was getting stronger. The goup arrived at Brgy. Tanabag at 4:30pm.

Preparation for the FGDs

At 8:30 pm, Paolo, Suzy and Zaldy had a meeting to prepare the materials for the FGD the following day. A short debriefing of the activities conducted at Kalakuasan was done prior to the preparation of the FGD materials. It was also decided that Paolo would facilitate the FGD in the morning with Zaldy doing the recording. In the afternoon, Paolo and Zaldy would switch roles. Suzie would be in charge of the video camera.

5 August: Barangay Concepcion, Puerto Princesa City
Participants: Paolo Campo, Azucena Gamutia and Zaldy Cayatoc
FGD sessions in Brgy. Concepcion

The morning FGD session with members of Brgy. Concepcion was facilitated by Paolo. There were eight participants from community doing livelihood activities in the lowland area. The FGD started with the registration of the participants. This was followed by an explanation of the purpose of the FGD session. The FGD focused on the livelihood activities of the community in the lowland area. The participants also had a chance to ask questions regarding the FGD and the LPF project to which the team replied to.

The afternoon session was facilitated by Zaldy. There were also eight participants who were doing upland activities. The same process for the FGD was followed.

After the FGD session in the afternoon, Zaldy had to leave and go back to the city proper as he had to attend classes the following day. Because of this, Paolo and Suzy decided to move the last FGD session 2 days later and do the interviews at Brgys. San Rafael and Tanabag the next day. This was because the Paolo and Suzie might not be able to conduct the FGD session with just the two of them. Suzie later arranged the change in schedule.

6 August: Brgys. San Rafael and Tanabag, Puerto Princesa City
Interview with the community members

The interview with community members from Brgy San Rafael and Tanabag was done to clarify some items in the FGDs that were conducted in May 2005. It was also a chance to ask questions on matters that were not included or were missed during those FGDs. A total of 14 community members coming from the three landscapes in the two barangays were interviewed during that day. During the interview, the interviewees also had a chance to ask questions to Paolo and Suzy regarding the MAS modelling activity and the LPF project. At the end of the FGD sessions, the participants were again invited for the future activities of the LPF project.

7 August: Barangay Concepcion, Puerto Princesa City
Participants: Paolo Campo, Azucena Gamutia and Zaldy Cayatoc
FGD session in Brgy. Concepcion

The last FGD session for Concepcion was conducted in the morning with Suzie as the facilitator, Zaldy as the recorder and Paolo manning the video camera. There were only six participants at the start of the FGD. The last participant came at around 11 am. The same process of the previous FGDs was also followed during this session. The FGD focused on the coastal actities.

8 August: Puerto Princesa City
Participants: Paolo Campo and Azucena Gamutia
Interview with the representatives from different government and non-government organizations

The interviews for the different government and non-government organizations continued on this day visiting the office of PCSD, NCIP, fisheries sector of the City Agriculture, PPDO, NATRIPAL and BFAR-RTC. The same process for the interviews of government and non-government organizations was followed. The interview with the executive director of NATRIPAL yielded interesting information. Although NATRIPAL has been identified as one of the major stakeholders, the interviewee didn't believe that NATRIPAL is a major stakeholder having only assisted in the processing of the ancestral domain of one of the IPs in San Rafael and having a store in San Rafael, there were no other activities that have been undertaken or being conducted by the organization at the three barangays. Earlier this year, there was a project proposal from NATRIPAL to the IP in San Rafael regarding honey, but it was turned down by the IP, according to the executive director of the organization. Because of this, the organization has been avoiding the activities of the LPF project, as its members believed that they might not be able to provide any useful information to the project. Paolo and Suzie clarified the objectives of the LPF project and the objectives of the MAS modelling process. The interviewee expressed her desire to know the results of the project and hopes that it can be replicated in other areas should it succeed.

Appendix 12

Levelling the Playing Field:
Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Financial Expenditure of Year 2

University of the Philippines Los Banos (UPLB)

Centre de Cooperation Internationale en Recherche Agronomique pour le Developpment (CIRAD)
Center for International Forestry Research (CIFOR

UNIVERSITY OF THE PHILIPPINES
LOS BAÑOS FOUNDATION, INC.

2004-106 Levelling the Playing Field:Fair Partnership for Local Development in Southeast Asia

Statement of Support and Expenses
As of August 31,2005

	Approved Budget	Cash Flow for the period 09/01/04-08/31/05				UPLBFI Contribution
		Peso Trans	Dollar Equiv	Dollar Trans	Total to Date	
Receipts				$ 33,227.50	$ 33,227.50	
Expenses						
Personnel Services						
Social Scientist	2,712.00			1,760.00	1,760.00	75.00
Forester	672.00	43,080.00	788.65	672.00	1,460.65	65.00
National Coordinators	6,072.00			6,072.00	6,072.00	840.00
Computer Scientist	3,600.00			3,600.00	3,600.00	
Sub total	**13,056.00**	**43,080.00**	**788.65**	**12,104.00**	**12,892.65**	**980.00**
National Travel						
Air Tickets	1,430.00	90,213.70	1,657.43		1,657.43	
Per diem and Hotel	5,000.00	225,856.77	4,149.49		4,149.49	
Local Workshop	7,600.00	369,113.76	6,781.44		6,781.44	
Sub total	**14,030.00**	**685,184.23**	**12,588.36**	-	**12,588.36**	
Equipment and Supplies						
Rent of vehicles	2,871.00	101,054.50	1,856.60		1,856.60	200.00
Office equipment (Projector)	1,200.00	68,000.00	1,249.31		1,249.31	
Consumables	1,650.00	109,680.67	2,015.08		2,015.08	
Office space at UPLB						3,000.00
Sub total	**5,721.00**	**278,735.17**	**5,120.98**	-	**5,120.98**	**3,200.00**
Others						
Field site mediators						
Field Assistant	3,120.00	184,131.16	3,288.06		3,288.06	
Site-level facilitator	200.00	6,840.00	127.26		127.26	
Local facilitator	2,640.00			2,640.00	2,640.00	
Marketing specialist	400.00			400.00	400.00	
Secretarial support at UPLB	660.00	36,960.00	670.72		670.72	
Insurance	75.00				-	
Sub total	**7,095.00**	**227,931.16**	**4,086.03**	**3,040.00**	**7,126.03**	
Administrative Fee	**3,990.20**			**3,990.20**	**3,990.20**	
Total Expenses	**43,892.20**	**1,234,930.56**	**22,584.02**	**19,134.20**	**41,718.22**	**4,180.00**
Funds Available	$ 43,892.20				$ (8,490.72)	

Prepared by:

Marilou C. Atanante

Noted by:

Romualdo B. Fiñalino
Executive Director

Appendix 13

Levelling the Playing Field: Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

Proposed Budget for Year 3

University of the Philippines Los Banos (UPLB)

Centre de Cooperation Internationale en Recherche Agronomique pour le Developpment (CIRAD)

Center for International Forestry Research (CIFOR

Proposed Budget For Palawan Site, Philippines (Year 3)

Expenses			Unit	Unit rate US$	No of units	LPF Contribution	UPLB-FI Contribution
Human Resources	Salaries (gross amounts, local) Technical / local experts	Social scientist/Conflict Resolution	Pers-month	1,000	1	1000	205
		IEC Expert	Pers-month	800	1	800	205
		National coordinator	Pers-month	1,200	6	7200	1365
		Computer Scientist	Pers-month	600	6	3600	
Subtotal Human Resources						12600	
National travel	Air tickets	Manila-Puerto Princesa City (return)	flight	110	18	1980	
	Per diem and hotel	Manila	day	100	5	500	
		Puerto Princesa City	day	40	79	3160	
		San Rafael	day	22	134	2948	
	Local workshop (micro and long term)	Meals and venue rental				10135	
Subtotal Travel						18923	
Equipment and Supplies	Rent of vehicles	Puerto Princesa City	day	45	28	1260	
		Los Banos-Manila-Los Banos	day	70	20	1400	210
		Bus fare Puerto Princesa-San Rafael or vice versa	trip	8	60	480	
	Lecture equipment (TV and DVD player)		unit	1		636	
	Consumables – for UPLB and field					2150	
	Office space, electricity & field equip ments,						3000
Subtotal Equipment and supplies						5926	
Others	Field site mediators	Field Assistant	Pers-month	300	12	3600	
		Local facilitator	Pers-month	500	4.82	2410	
		Site-level facilitator	Pers-day	10	80	800	
	13th month pay of Suzie				300	300	
	Secretarial support at UPLB		Pers-month	220	3	660	
Subtotal Other costs, services						7770	
SUBTOTAL						45219.00	
ADMINISTRATIVE COST (10% OF THE SUBTOTAL)						4521.90	
TOTAL						49740.90	

About CIRAD

Centre de coopération Internationale en recherche agronomique pour le développement (CIRAD) is a French scientific organisation specialising in agricultural research for development for the tropics and sub-tropics. It is a State-owned body, which was established in 1984 following the consolidation of French agricultural, veterinary, forestry, and food technology research organisations for the tropics and subtropics.

CIRAD's mission is to contribute to the economic development of these regions through research, experiments, training and dissemination of scientific and technical information. The Centre employs 1800 persons, including 900 senior staff, who work in more than 50 countries.

CIRAD is organised into seven departments: CIRAD-CA (annual crops), CIRAD-CP (tree crops),CIRAD-FLHOR (fruit and horticultural crops),CIRAD-EMVT (animal production and veterinary medicine), CIRAD-Forêt (forestry), CIRAD-TERA (land, environment and people), and CIRAD-AMIS (advanced methods for innovation in science).CIRAD operates through its own research centres, national agricultural research systems and development projects.

About CIFOR

The Center for International Forestry Research (CIFOR) is a leading international forestry research organization established in 1993 in response to global concerns about the social, environmental, and economic consequences of forest loss and degradation. CIFOR is dedicated to developing policies and technologies for sustainable use and management of forests, and for enhancing the well-being of people in developing countries who rely on tropical forests for their livelihoods. CIFOR is one of the 15 Future Harvest centres of the Consultative Group on International Agricultural Research (CGIAR). With headquarters in Bogor, Indonesia, CIFOR has regional offices in Brazil, Burkina Faso, Cameroon and Zimbabwe, and it works in over 30 other countries around the world.

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LPF

Levelling the Playing Field:
Fair Partnership for Local Development to Improve the Forest Sustainability in Southeast Asia

The project is working in contexts where multi-stakeholders with different views and power act on forest management. The project aims to improve the forest management by facilitating stakeholders' coordination and capacity building. It will develop approaches and tools for stakeholders to share views and create condition to manage the forest together.

Centre de coopération internationale en recherche agronomique pour le développement (CIRAD) and Center for International Forestry Research (CIFOR) are managing this project with three partners, universities well known for their involvement in forest management research, which are Gadjah Mada University (UGM), University of the Philippines Los Baños (UPLB) Universiti Putra Malaysia (UPM).

http://www.cifor.cgiar.org/lpf

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