



The **SPARK newsletter** is a quarterly publication produced in Thai, Bahasa Indonesia and English aimed at practitioners of community-based natural resource management in Thailand, Indonesia and the Philippines. It is received by about 900 organizations in these countries. The newsletter is intended to serve as a networking tool to encourage the sharing of knowledge, experiences, ideas, and cooperation amongst different groups implementing CBNRM activities in the three program countries.

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# SPARK

## newsletter



Promoting community-based approaches to natural resource management in Southeast Asia

*Editorial*

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## Alternative Livelihoods and Developing the Role of the Local Government in CBNRM

This quarter, the SPARK newsletter focuses on two significant topics in natural resource management (NRM) and secure livelihoods, which we are presenting as a special double issue.

The first part of this issue delves into the interesting and complex topic of alternative livelihoods. As we will see, the various articles show that there are many interpretations of alternative livelihoods, and perhaps raise the question of why we need to look into alternative livelihoods at all. In fact, it highlights the importance of developing a range of livelihoods strategies, be they core or alternative, for natural resource dependant communities. If not, then we may never really achieve sustainable livelihood development!

In many cases, natural resource management practitioners have realized that the day-to-day activities of eking out a livelihood based on limited and highly-contested resources take their toll on the environment. There are countless stories of seas being over-fished and soils becoming exhausted due to intensive agricultural practices. An alternative livelihood in this scenario implies that communities need to diversify their livelihood practices, explore other options that would prevent the over-utilization of natural resources. In cases where the resources are already under severe pressure, alternative livelihoods divert attention and activities away from these resources in order to allow them to recover. An article from the Philippines, from the experience of two volunteers working in areas where resources are being pushed to the brink, shows how people who are in decision-making and influential positions need to carefully think out what "alternative" livelihoods are appropriate to particular communities and contexts. Paul Watts and Eve Oatley rightly point out that in many cases, what are originally thought out as alternative livelihood activities are actually activities carried out *in addition* to existing, traditional livelihood strategies - unfortunately, some of these tend to be short-lived, thus, they are not really effective in relieving the pressure on the environment. Alternative livelihoods, they point out, need to be designed with the family in mind, and implementing these livelihood programs needs to be done with an accompanying education program that will keep stakeholders informed and aware.

Also from the Philippines, in the province of Eastern Samar, the government is promoting mud crab culture as the next "big thing" for livelihoods, creating much hope and optimism among traditional fishing communities. With increasing pressure on the province's fisheries, mud crab culture seems at first to present a viable livelihood option. The VSO volunteer, Steve Fennelley, points out an important question for those who plan and implement livelihood programs. While a particular project may seem to be a good idea, especially when, as in the case of Samar the resource in question is naturally present and abundant, the proper preliminary steps must be taken before giving communities the go signal. First of all, a proper resource assessment and feasibility study must be conducted. This is a critical first step that is often overlooked, especially in cases where governments are under pressure to implement projects.

In other cases, alternative livelihoods give communities options and choices. This idea of choice is especially important when the current livelihood activity is shown to have negative effects on the environment. While Indonesia and Malaysia have had a long experience with oil palm plantations, the Philippines is just beginning to promote this industry seriously. Financial support is provided to farmers that are open to planting oil

>> Continued overleaf

## &gt;&gt; EDITORIAL, Continued

palm. Many groups, aware of the negative effects of oil palm are striving to inform communities of these consequences, and are giving them hope with other livelihood strategies.

The stories from Indonesia present communities that are branching into natural resource based enterprises, particularly in post harvest processing. Farmers in Indonesia that grow bananas in forestlands used to be captive to the traders and middlemen to sell their produce. With a venture into banana chip production, these farmers now have an alternative to the prevailing system and show how this community-based enterprise can translate into increased incomes and more secure livelihoods. In another story from Pacitan, Indonesia, farmers with very few options found that they had a rich resource growing wild in their area. Through persistence, trial-and-error and training from another farmer's group, this community now produces yam chips that they sell in local markets for extra income.

In some cases, what starts out as alternative livelihood later develops into a mainstream livelihood activity. In Agusan del Sur, an abundance of raw materials spurred the development of a weavers' group, composed mostly of housewives at first. Later, what was simply a sideline project gained notice, especially when investments in product development and marketing were made. Soon the whole household, even the children, became involved in weaving activities. Today, the weavers are not only producing items for local markets, but also for foreign buyers.

These stories give us some idea of the different experiences of people who are engaged in or who are trying to develop alternative livelihoods. Perhaps the importance of these activities is in the range of choices that they provide to natural resource dependent communities. In areas where resources are already scarce, alternative livelihoods allow the communities to gain an income and relieve pressure on a resource. For communities affected by natural disasters, such as storms or droughts, having an alternative livelihood and an alternative source of income ensures that people don't put 'all their eggs in one basket.' For people whose livelihoods are vulnerable to natural shocks, and even to seasons and market fluctuations, an alternative livelihood activity can provide a good safety net.

The second half of this double issue focuses on governance, and on the role of local government units in NRM. In the three SPARK countries, decentralization and policy advancements have increased the involvement of local government units in the management of natural resources within their boundaries. SPARK focuses on community-based natural resource management, looking at the community as the main actors in livelihood and NRM programmes. Yet, we realize the importance of working with local governments in order to ensure that posi-

tive changes in the management of resources and improvement to the livelihoods of natural resource dependent communities are sustained. Local governments are mandated to provide basic services to their constituents. It makes sense that these services should be expanded to include those related to environmental and natural resource management, particularly for those resources within their jurisdiction. Local governments are also closer to the people they serve, thus, they have a better view of the needs and concerns the people face. In terms of sustainability, working through local government units increases the chance for long-term impact, since they have the structure and finances to implement development programs. Capacity building needs to be done at all administrative levels, such that these structures and enabling mechanisms can be institutionalized for sustainability.

In the Philippines, laws that gave local government units greater responsibilities have been a good way to get them involved in programs on NRM. The Local Government Code, together with the Revised Fisheries Code, not only gives local governments the mandate to manage their municipal waters; they also support broader, participatory governance through partnership with the NGOs and with the communities of fishers themselves.

In Thailand, the creation of the Tambon Administrative Organization set up a local administration at the village level. This local authority is in a good position to focus on the development needs of the community. The experience of Amphai Silalert shows how an authority or administration that has a local perspective is in a better position to design programs and development interventions that really respond to the people's needs. The article on Prayao shows how sometimes communities cannot take on the whole burden of natural resource management on their own, and how working together with the local government unit can bring about greater achievement than by simply working on their own.

In Indonesia, district-level policies give village level government institutions the mandate to implement community-based forest management. The village government, working with the CBFM stakeholders' forum, can work closely with its constituents to implement activities to build commitment to good forest management and the prevention of illegal logging.

So while SPARK may often focus on community-based programs and initiatives, it is crucial not to lose sight of the importance of forging a partnership with the local government or administration. It is also important to ensure that local governments are made aware of the significant role they play in the development of their territories and in supporting their constituents in terms of their livelihoods. Local administrations need to be capacitated to fulfill their role as service providers and need to know how to work with the communities that they serve.

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## About the Awareness and Regional Knowledge Information System (ARKIS)

In line with SPARK's main objective of promoting community-based approaches to natural resource management and sustainable livelihoods in Indonesia, Philippines and Thailand, the Awareness and Regional Knowledge Information System (ARKIS) database was developed to facilitate networking and the sharing of information among practitioners of community-based natural resource management (CBNRM) in the three countries.

The ARKIS database, a virtual resource centre for CBNRM practitioners and partners, evolved from the former on-line SPARK Directory of CBNRM Practitioners in Indonesia, Thailand and the Philippines. Like its earlier version, the ARKIS is a tri-lingual database directory with English as the default language and with translations in Bahasa Indonesia and Thai. The ARKIS database contains basic profile of organizations (non-government organizations, people's organizations, government agencies, funding agencies, academic institutions, local government units and religious institutions) involved in CBNRM, such as their areas of operation, key activities, addresses, contact persons, areas of engagement and e-mail/website (if available). An expansion over the original SPARK directory is that the ARKIS will also con-

As a venue for information exchange on the Web, ARKIS encourages local communities, people's organizations, non-government organizations, local governments and other assisting agencies to document local experiences and learnings in CBNRM and to share these with others who can benefit from these experiences.

tain available knowledge/information resources or published materials that the organizations will want to share with other users.

As a venue for information exchange on the Web, the ARKIS encourages CBFM practitioners and partners to document local experiences and learnings in CBNRM and to share these with others who can benefit from these experiences. The ARKIS is being designed as an

interactive website, which will eventually allow organizations to be actively involved in maintaining and updating their respective organizational data as necessary and in sharing knowledge resources with other organizations or users.

The organizational information contained in the ARKIS database is derived from the replies of the organizations to the survey forms accomplished in 2004. At present, the ARKIS is being updated and refined in preparation for its launching before the end of the year. Also part of the preparation of the database is the translation of the information in the English language into Bahasa Indonesia and Thai to facilitate regional information sharing.

After the updates, translations, and refinements will have been finished, we shall make an announcement as to when the ARKIS website will be available on the Web. When this time comes, we will invite you to visit the website and to register your organizations in the database so that you will be able to gain access to your organization's data, to update or change these data as would be necessary and to upload your information resources (in pdf format) onto the Web. This invitation for registration and uploading of information materials will also be extended to organizations that are not yet included in the on-line directory. After the ARKIS website launching, users will be able to search the database for organizations or information resources that are available. Updates and announcements on the developments of the ARKIS website will be posted on the SPARK newsletter.

The new ARKIS website, which has enhanced functions, is currently being developed by VSO volunteer Ruud de Ruiter. It will replace the on-line SPARK Directory of CBNRM Practitioners designed by former VSO volunteer Steve Collingham which was launched in December 12, 2001.

The ARKIS website will be hosted by the Environmental Science for Social Change (ESSC), the SPARK hub organization in the Philippines.

For more information on the database, and if you are interested in becoming part of the directory, please email the author at [dallay\\_annawi@yahoo.com](mailto:dallay_annawi@yahoo.com) or Mariel de Jesus at [marieldejesus@essc.org.ph](mailto:marieldejesus@essc.org.ph).

to regulate the extraction of fishery resources unless the LGUs muster political will to impose prohibitions and penalties on fishery law violators. The LGUs play an important role in regulating the judicious use of said resources given their mandates pursuant to the Local Government Code and the Philippine Fisheries Code. This requires that the local governments be adequately informed of their roles in CRM. In a tri-partite partnership, the task of managing coastal resources would be less daunting for POs and NGOs if the local government units are made aware of the basic provisions of pertinent national laws. This capacity-building needs to be regularly conducted for local government staff, especially since they hold their positions for only three years. This period has to be maximized in order to generate positive results. It is often the case that good programs of local administrations are not sustained when rival politicians win in succeeding elections.

Often, conflicts over access to the coastal resources arise between commercial and municipal fishers. The LGU is in a position to act as an arbiter between the two

parties. The effective implementation of regulatory functions of the LGUs comes into play especially in giving permits on the establishment of mariculture and aquaculture structures. Under the 1986 Constitution, preference is accorded to the municipal fishers in grants of fishing privileges. Efforts of NGOs and fisherfolk themselves to organize into POs and to be more informed of their rights increases the fisherfolk's leverage in negotiating for access to fishing areas. As a partner of LGUs in local development, a strong grassroots base of organized and informed fisherfolk can lobby local government to sustain good resource management programs especially when elected leaderships change. Organized fisherfolk can also continue advocacy efforts in the local communities even when their partner NGOs have already phased out.

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## SPARK Newsletter: Call for Articles

Do you have an article or view on the topic, **marketing and the global economy vis-à-vis CBNRM and sustainable livelihoods**, to share with other CBNRM practitioners?

The SPARK Programme is currently inviting articles and views for the last issue of the SPARK Newsletter (with the above theme) for year 2005.

The deadline for submission is **December 23**.

Here are some guidelines on writing articles for the newsletter: The submitted material should not exceed 800 words in MS Word Rich Text Format. It must include the author's name, organizational affiliation and email address (or other contact details). Contributors should include photographs, graphs or figures related to their articles. Photos must be saved in jpeg format, 200dpi resolution, with an image size of around 4 inches x 5 inches.

For more information about the themes of the newsletter, you may email *Jocel Pangilinan* at [jocel.pangilinan@vsoint.org](mailto:jocel.pangilinan@vsoint.org). Newsletter articles may be sent to *Mariel de Jesus* through email at [mariedejesus@essc.org.ph](mailto:mariedejesus@essc.org.ph) or through fax at (+632) 4265958.

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## Fostering Active Community Participation Development of Alternative Livelihoods in the Province of Agusan del Sur, Mindanao, Philippines

Alternative livelihoods can be defined as livelihood activities that supplement people's basic income. These activities usually depend on people's spare time, their skills, resources and art. The Technology Livelihood Development Center-Agusan Economic Research and Business Assistance Center (TLDC-ASERBAC) of Agusan del Sur province in Mindanao, Philippines focuses on developing alternative livelihoods. These range from handicraft making, jewelry making, home-based food processing, rootcrop processing, production of corn beverages, agribusiness, cultivation of high-value crops, horticulture and apiculture.

The main task of TLDC-ASERBAC is to identify and support the development of livelihood programs for economic development, and to help increase productivity of upland and lowland communities. The province of Agusan del Sur has a large population that is dependent on its wealth of natural resources for their livelihoods. Many people's livelihoods depend on agriculture and forest resources. Alternative livelihood development is critical to the development of these communities.

Developing or pursuing alternative livelihoods requires a process of enterprise selection and development, market and product development. The following steps are fundamental when pursuing alternative livelihood development activities: enterprise selection and development, market and product development, technology transfer and enhancement and improved market access. Communities exploring alternative livelihoods would also benefit from capability building activities (such as skills training, workshops and study or exposure visits) and resource mobilization.

### An entire household participates in weaving



### Talacogon women training in basket weaving



One of the community groups in Agusan del Sur has experienced the transformation of what was once an "alternative" livelihood activity into a major source of income. A small group in Talacogon began by making handicrafts. Over time, membership in the group grew and they linked up with groups in other municipalities of Agusan del Sur to form the Agusan Weavers Association. Initially, they had no skills in basket and bag weaving. Trainings were conducted to develop their skills, and soon they were able to produce items for local sale. Product development training and marketing assistance through TLDC enabled the group to improve its products, and to link up with international buyers. At first, the group was challenged by the demand of international buyers who placed large orders for the products. They would usually have to work late into the night to produce the required volume, but due to lack of light, they would be forced to stop. The association requested assistance from the Governor of Agusan del Sur, Adolph Edward G. Plaza, and received a generator, making it possible for them to work, even until late at night.

The SPARK programme of VSO also extended additional assistance to the Talacogon Weaver's Association. SPARK support enabled the group to participate in the Manila FAME international trade fair. The visit to Manila also included an exposure tour to organizations supporting community handicraft production.

The handicraft development initiative has increased employment for the association members and their families. The group members have experienced positive changes, such as income to supplement household budgets. Now some are able to send their children to school.

The group has also established nurseries to replenish the forestlands and maintain a sustainable source of raw materials.

Adopting alternative livelihoods requires active community participation. Communities must be encouraged to work together to fulfill their potential. Communities should explore and learn from examples of best practices. It is also important to involve target beneficiaries in identifying an alternative livelihood sources. The focus must be on the people: they should be involved at all stages of livelihood development – from the planning process, production stage, to marketing and selling. Given the appropriate technical assistance and support, the

community members themselves are in the best position to identify the solutions that best fit their needs.

Alternative livelihoods are critical to community development because these give people a wider range of choices and opportunities to increase income and improve their lives. Alternative livelihoods activities in Agusan del Sur have given target groups increased self-esteem and self-reliance.

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## Building Better Support Systems for Sustainable Agriculture: Working Towards Alternatives to Oil Palm Plantations

Based on the 2004-2010 Philippine Midterm Development Plan, the Philippine government aims to develop two million hectares of land into agribusiness plantations. Half of these proposed plantations are targeted for Mindanao. The Southern Philippines Development Authority (SPDA) has thus identified a total of 304,350 hectares of land in Mindanao for oil palm plantations ([www.da.gov.ph](http://www.da.gov.ph)). The Arroyo government touts oil palm as the "tree of peace", a magical tree seen as the solution to conflict and poverty in Mindanao.

However, the establishment of oil palm plantations comes with grave costs. The conversion of natural foliage and forests to plantations endangers biodiversity and natural pest controls. Lack of soil cover leads to soil erosion, soil degradation and flash floods. Heavy use of pesticides is likely to contaminate potable water sources, thereby posing risks to people's health. Documented cases in Malaysia reflect how oil palm plantations have affected the health of field workers. Women workers are especially vulnerable to sickness related to exposure to heavy pesticide use (Tenaganita, 2003). The conversion of local food production areas into export crop plantations raises questions of food security and transforms local economies. Further, the experience of oil palm plantations in the Philippines reflects displacement and harassment of indigenous communities, as in the NDC-Guthrie oil palm collaboration in Agusan del Sur in the early 1980s where at least 440 Manobo families and farmer settlers were displaced. (ARC, 1986)

In view of these risks, what environmentally sustainable and economically viable economic alternative can we promote?

### Promoting sustainable agriculture in Mindanao

On July 14-15, 2004, a network of NGOs and Peoples Organizations called Oil Palm Watch<sup>1</sup>, organized a forum to discuss alternatives to plantation, particularly oil palm plantation establishment. Sustainable Agriculture (SA) was raised as a potential alternative to large-scale agribusiness plantations<sup>2</sup>. Economically viable organic farming systems, which do not use inorganic fertilizers and chemicals, offer a key to balancing food security, economic gain and environmental conservation.

Organizations as Tabang Mindanaw (TM), KATAKUS<sup>3</sup>, TACDRUP<sup>4</sup> and MASIPAG<sup>5</sup> related their experiences in sharing SA with farmers.

In the wake of the 1998 famines in Mindanao, Tabang Mindanaw introduced SA through orientations, appropriate tools, test plots, provision of organic inputs and establishment of nurseries. As of March, 2004, 2,271 families in their partner communities were practicing SA (Assisi Development Foundation, 2005). TM credits its success in promoting SA to the communities' unity and determination; the program's rootedness in *lumad*<sup>6</sup> tradition, needs, education, training<sup>7</sup>; the *lumad* farmer-technicians' innovativeness; and the support of the local government, church and NGOs.

KATAKUS told of farmers' innovations in developing organic inputs (like "tsaihi" an alternative liquid fertilizer made from composting and animal urine), live mulching and alternative pest management techniques. Katakus' achievements include the community's internalization of SA principles and practices; women's easy adoption of

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## Coastal Resource Management Enhancing LGU-PO-NGO Initiatives

### National landmark laws on coastal resource management

The enactment of the Local Government Code (R.A. 7160) in October 1991 in the Philippines opened significant windows for the participation of basic sectors in the planning, implementation and monitoring of local development programs. Not only did this law allow the local government units (LGUs) to assume the responsibilities of providing basic social services like health, education and infrastructure, but it also mandated them to take the lead in the management of their own natural resources. The landmark legislation made it possible to design targeted development interventions that focused on the real situation of local communities. Effective and efficient performance of administrative and regulatory functions of local governments helped spur efforts to protect and conserve the remaining natural wealth of the country.

On the other hand, the signing into law of the Philippine Fisheries Code (R.A. 8550) in 1998 addressed the need for the sustainable management of our rapidly depleting coastal and marine resources. R.A. 8550 mandates the LGUs, through the Bureau of Fisheries and Aquatic Resources, to form Fisheries and Aquatic Resources Management Councils (FARMCs) that would serve as policy recommending bodies to the local councils on fishery issues and concerns. Through the FARMCs, the participation of ordinary fisherfolk and other resource users in the management of coastal resources is ensured.

Both laws encourage the collaboration of LGUs, non-government organizations (NGOs) and people's organizations (Pos) in coastal resources management (CRM). This LGU-NGO-PO tri-partite partnership is slowly becoming an accepted framework for targeting local development goals.

### Learnings from the ground

Successful PO-NGO-LGU collaboration illustrate good practices that can be replicated.

The FARMCs in the municipalities of Mercedes in Camarines Norte and Panukulan in Quezon are instrumental in passing important local ordinances such as the establishment of fish sanctuaries. At present, Municipal Ordinance # 100-2002 reserves more than 30 hectares of San Miguel Bay as a fish sanctuary in Mercedes, while Municipal Ordinance # 08-2003 reserves 10 hectares of Lamón Bay for the same purpose in Panukulan. No fishing activities are allowed within these protected areas to

facilitate the regeneration of fish stocks. Deputized fish wardens (*Bantay Dagat*) conduct regular seaborne patrols to ensure that the fish sanctuaries are protected. *Bantay Dagat* volunteers also monitor illegal fishing and encroachment of commercial fishers in the municipal waters. The LGUs contribute funding for *Bantay Dagat* operations.

Moreover, local POs and NGOs are actively pursuing coastal resource protection in partnership with the LGUs. For instance, the Inter-Island Management Council (IIMC), a fisherfolk organization in Mercedes, formed their own *Bantay Dagat* specifically to assist in the enforcement of fishery laws. The Ugnayan ng Nagkakaisang Samahan ng Panukulan (USAPAN) in Quezon also formed local bodies such as the Local Training Team to conduct information, education and communication campaigns and the Local Research Team to conduct monitoring of fish stocks and assessment of coastal resources like mangroves, seagrass and coral reefs. Initial training programs on resource assessment have been conducted with the help of

The enactment of the Local Government Code in the Philippines opened significant windows for the participation of basic sectors in the planning, implementation and monitoring of local development programs. This law mandated local government units to take the lead in the management of their own natural resources. The landmark legislation made it possible to design targeted development interventions that focused on the real situation of local communities.

a CRM specialist formerly from the Voluntary Service Overseas (VSO). The POs also conduct mangrove reforestation and coastal clean-up activities with the help of partner NGOs and the private sector. Community-Based Coastal Resources Management (CB-CRM) as a practical approach to resource management is starting to become a way of life in these coastal communities.

### What needs to be done?

Given the open-access nature of waters, it is difficult

areas. Now, approximately 50 hectares of forest land has been turned into croplands, mostly for wet farming. This declining forest situation has been made worse by the inappropriate policies of the national forest authority, such as allowing the cutting of trees located in high slopes that are vulnerable to erosion and landslides.

In 2000, an unexpected landslide wrought destruction on two of three hamlets in this village. The village road, which was the only road that connected Jabranti to other places, was totally ruined. Electricity was cut off, and most of the inhabitants of one hamlet had to be relocated through the local transmigration programme. The landslide was a wake-up call for all the affected parties – from the village to the district level – to join forces in addressing their environmental problems. Since that disaster, the village government has started to focus on improving natural resource management in the village.

From 2000 to 2001, the village government faced the challenge of finding a solution to forestland conversion and restoring the original use of the opened areas. The farmers were unwilling to abandon their farms and the government feared this might lead to a violent confrontation. The village government stepped in to bridge the interests of all the stakeholders in the village.

### CBFM System as an alternative solution

From 2000 to 2001, the village government faced the challenge of finding a solution to forestland conversion and restoring the original use of the opened areas. The farmers, who were then making use of the opened lands, were unwilling to abandon their farms because the land was their main source of livelihood. This generated a conflict of interest, which the government feared might lead to a violent confrontation among the people. The village government stepped in to bridge the interests of all the stakeholders in the village. After some negotiations, they managed to reach a compromise: the forestland would be restored to its original use, but opportunities would be provided for the farmers to earn their living.

This solution was worked out by allowing the farmers to intercrop *palawija* (crops other than rice, such as corn, nuts, and cassava) with seedlings of perennial trees, which the communities planted using seeds obtained from the Perhutani (the forest authority) to reforest the opened areas. As these young trees grew taller, their canopies blocked the sunshine, making the farming of *palawija* difficult. The farmers then planted fruit trees, such as jackfruit and durian. The communities would get about

20 % of the yield from the wood that would be harvested from the forests within the village territory as additional benefit. Furthermore, they were also allowed to cultivate herbal plants and harvest the honey of wild bees that could be found easily in the forest.

These local initiatives to manage the forest were being carried out at the same time as the issuance of a district-level policy to implement the Community-Based Forest Management (CBFM) scheme in the national forest area. The year 2002 was an important period in forest management in Jabranti with the implementation of CBFM in the national forest within the village. A CBFM Forum at the village level was formed to encourage coordination and cooperation among the stakeholders in managing the natural resources of the village.

The village government has been working closely with the village CBFM Forum. In 2003, Mr Caslam, the head of the village CBFM Forum, was elected by the people as the head of Jabranti village. His leadership strengthened the role of the village government in natural resource management. Environmental awareness among the community members was increased through various formal and informal venues, such as village meetings, Friday prayers and social gatherings. The communities made their commitment to minimize illegal logging and, in relation to this, they agreed to prohibit the entry of chainsaws in the forest. As part of the commitment they made, all the residents, especially the youth, would participate in preventing illegal logging.

### Best CBFM Forum in Kuningan District

The CBFM Forum of Jabranti village was recognized as the best CBFM Forum in Kuningan district in 2005. At present, the effort is to encourage all government officials, from the village officials down to the heads of *Rukun Tetangga* ('neighbourhood association'), to be actively involved in activities to strengthen the CBFM system. The village government, together with the CBFM Forum, is exploring and developing the potential of non-timber forest products (such as herbal plants) and water sources (about 30 water sources). The rehabilitation of the forest is being carried out continuously through the initiative of the community groups in coordination with related agencies, such as *Perum Perhutani* (the forest authority) and the district government through forestry development programmes. The local government of Jabranti village is committed to developing a sustainable forest environment that incorporates the sustainability of the villagers' livelihoods.

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the technology; family participation; maximization of resources; and the farmer's diligence to implement SA.

Likewise, a coordinator of MASIPAG, a well-known lead network of POs, NGOs and scientists, related MASIPAG's achievements in promoting SA – namely, the development of viable farming techniques, a sound seedbank system and a growing and sustained adoption of the MASIPAG farming practices.<sup>8</sup>

### The challenges of promoting SA

Katakus and MASIPAG representatives also pointed out challenges to SA implementation, which include landlessness, land conversion, mining, marketing (post harvest), biopiracy and genetically modified organisms (GMOs). The easy access of farmers to inorganic inputs may also be a reason for the slow adoption of SA.

To overcome these challenges, support systems for SA need to be established, such as loan mechanisms, infrastructure, post harvest facilities, organic fertilizers, and marketing outlets to help the farmers minimize risk and ensure their economic viability.

### Support systems for promoting SA

It is difficult for farmers to shift from plantation and intensive agriculture, especially when they have no other source of credit or ready buyer for their produce. They are also usually indebted to local traders who promote inorganic inputs. This situation will continue if traders and plantation owners remain as the only source of capital. Loan mechanisms need to be developed that will enable farmers to repay traders, with an arrangement based on projected harvest schedules from farms using SA technology. Freed from debt, they can be more open to test and implement SA techniques.

Organic fertilizer should be made readily available at affordable rates. SA advocates should promote milling stations and post-harvest facilities servicing SA produce. SA proponents should plan pick-up and delivery services, thereby establishing a ready market for SA goods.

### Conclusion

In sum, SA advocacy must include a complete package of services aimed at improving the capacity and support systems of farmers. Setting up loan mechanisms, facilities and markets for SA technology will promote an economy embracing SA, thus, ensuring its viability and continuity. Partnership among SA promoters, farmer advocates, NGOs and local governments is critical in developing projects to providing these services to farmers. Model SA farms or multi-partner SA projects may be replicated to better promote SA. With properly packaged support systems and services to SA practitioners, SA presents a viable alternative to costly plantation agriculture.

Sustainable Agriculture (SA) advocacy must include a complete package of services aimed at improving the capacity and support systems of farmers. Setting up loan mechanisms, facilities and markets for SA technology will promote an economy embracing SA, thus, ensuring its viability and continuity. With properly packaged support systems and services to SA practitioners, SA presents a viable alternative to costly plantation agriculture.

### Endnotes

<sup>1</sup> Oil Palm Watch is convened by AFRIM. Other participating groups are NTFP-EP, LRC, Mindanawon, FVCTLDC, PAFID, KHI, IDIS, Kadtuntaya Foundation, BRMFI, MPUMATRIC, IPA-Kidapawan, CMEM, Demasku, RDISK, KABAKAS, CBCS, Green Mindanaw, Balay Mindanaw, TBST, IPEX, and other organizations.

<sup>2</sup> There are possibly many economic alternatives to plantations but Sustainable Agriculture was the one discussed during the forum. The discussion in this paper will be limited to this alternative.

<sup>3</sup> *Kababayan-an alang sa Teknolohiya nga Haum sa Haum sa Kinaiyahan ug sa Kauswagan* (literally translated as Women for Technology Appropriate for Nature and Development)

<sup>4</sup> Technical Assistance Center for the Development of Rural and Urban Poor

<sup>5</sup> *Magsasaka at Siyentipiko para sa Pag-unlad ng Agrikultura* (Farmers and Scientists for the Development of Agriculture)

<sup>6</sup> *Lumad* is a common term often used in Mindanao to refer to indigenous communities/peoples.

<sup>7</sup> The inclusion of SA in primary level literacy curriculum also ensures the continuity of SA practices for the next generation.

### References

- Alternate Resource Center, *Mindanao Focus*, Vol 2., No. 5, p.41.  
Assisi Development Foundation, 2005. Evaluation of Assisi Development Foundation-Tabang Mindanaw Sustainable Agriculture Program.  
Tenaganita 2003, "Poisoned and Silenced. A Study of Pesticide Poisoning in Plantations", *WRM Bulletin* N°69, April 2003.  
[www.da.gov.ph](http://www.da.gov.ph)

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### what say you, may we know?

We invite you to share with us your comments on or reactions to this double issue of the SPARK newsletter - the themes, articles or layout. Please send your views to SPARK Hub Philippines at emails [marielejesus@essc.org](mailto:marielejesus@essc.org) or [dallay\\_annawi@yahoo.com](mailto:dallay_annawi@yahoo.com). Your feedback will help us improve the next issues of this newsletter. Thank you.

## Gadung Chips as an Alternative Source of Income

Pak Mahayad has two sons: one is 12 years old and the other is just 8 months. Pak Mahayad is a farmer from the Gemah Harjo hamlet, Pager Lor in East Java. Pager Lor village is one of the poorest villages in Pacitan district due to the stony and dry soil and the low levels of rainfall. Education levels in the communities of this area tend to be low.

Pak Mahayad works in his paddy field from 5:30 to 9:00 every morning. He walks for half an hour to reach his field, which is 1,250 square metres, to tend to his rice. Rice can only be planted during the rainy season (from November until February), when there is enough water for paddy planting. He can produce about 100 kg of unhulled paddy or about 70 kg of rice during this season. For the other months, he plants cassava and other secondary crops such as corn and nuts that grow in the dry season. Water availability is the main consideration not only for agriculture activities but also for daily life. Pak Mahayad depends on the water supply from the village pipe system for his family's daily needs. For the use of this water, he must pay about Rp 1,500 (\$0.25) per month.

### The alternative income strategy

Life for Pak Mahayad is difficult but it does not stop him from trying to find ways to secure his livelihood. Strong will and the demands of life motivate Pak Mahayad to find a solution. Together with four female farmers, he formed a small business group called the Gemah Harjo Women's Group. They tried to develop a number of business initiatives and decided that producing *gadung* (yam) chips was the most appropriate opportunity for them on account of two factors. First, the chips are a popular traditional food in East Java, so a market already exists. Second, the main ingredient - the *gadung* yam (*Dioscorea hispida*) - grows wild in the area.

The process of producing *gadung* chips did not run smoothly at first. The yam is extremely toxic if eaten unprocessed, thus, producing the chips is not a straightforward process. They tried five times to make the chips, with poor results. Once, they served the chips they cooked to friends and family, but instead of giving them an enjoyable snack, they poisoned several people! This made many of their friends lose faith in the business, which was a bad start as these would be their potential customers in the future.

This incident did not stop them from making the chips. They kept trying to produce the chips and it was only their resilience in the face of failure that kept them going. Finally, the group contacted a local NGO, LEM 21, for assistance. LEM 21 facilitated a study tour for the

### Gadung yam, newly harvested



group to a neighbouring district to meet other community groups producing *gadung* chips. On their return from the tour, LEM 21, a SPARK partner, introduced the Gemah Harjo Women's group to the SPARK programme. After learning about SPARK, the group applied for funds from VSO Indonesia to buy the necessary equipment.

### The production process

Preparing *gadung* chips is not simple. The process takes about 4-5 days, starting with the peeling and chopping of the *gadung* yam. The flesh is then fermented with pineapple leaves for a couple of days to begin the neutralisation process. The next step is very important: the yam is submerged in a fast-flowing stream or river to neutralize and wash away the poison. Every after three days, the group has to walk three kilometers down a steep mountain side carrying 25 kg of wet *gadung* on their shoulders to get to the stream. Afterward, the yam is dried and then fried.

On average, the group can produce chips 5 or 6 times a month. One hundred kg of wet *gadung* yields 10 kg of *gadung* chips. One bag, usually weighing about ¼ kg, sells at the local market for Rp2,000 (US\$0.2). The group earns about Rp750,000 (US\$75) per month, providing each group member approximately Rp5,000 (US\$0.5) per day.

The chips are sold in small food stalls and local markets. At present, marketing the chips is easy because of the affordable price. Also, the chips are also crispier and more delicious compared to other types of chips made from cassava or banana. To maintain the supply of the raw material, the group has started to collaborate with other farmer groups to plant *gadung* as a secondary crop.

There are several interesting learning points from this group's experience. Their motivation to secure their livelihood drives them to succeed. Their product also has

per village to extend the community forest into new villages in the Tambon.

The incorporation of natural resources concerns in local government plans and activities resulted in a shift in the pattern of TAO work, which tended to prioritize infrastructure. The natural resource plan generated tangible results, such as the increase in the community forest area coverage from four to eight villages. Forest resources have also increased, such that there were enough forest products to sell, without jeopardizing the forest. As a result of their forest conservation efforts and the expansion of non-timber forest products (NTFP) marketing networks, livelihoods seem to be improving in Baan Chaat. The community has received numerous awards for their efforts from government agencies at every level.

Amphai also pioneered a formal role for women in forest conservation. Previously, only the men were allowed to carry out patrol duties. Amphai and her women's group proved that women could carry out this duty as well as the men, or even better in some cases. Unlike the men who occasionally failed to show up for patrol duty, the women kept regular attendance. The women would patrol the forests while collecting food. Now, they report to the committee about the forest condition out of their concern for forest conservation. Amphai also proposed that the patrol shifts be changed from an individual to a household basis, such that a person who was unavailable could delegate another family member in their place.

Promoting community-based forest protection was not always smooth sailing. When Amphai and the forest network sought to extend the community forest area into Huay Yang, a neighboring village, the villagers refused because some claimed that they bought land rights to the forest, which is in a prime location. When negotia-

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## The Village Government's Role in Ensuring Forest and Livelihoods Sustainability in Jabranti Village

Jabranti village is located about 50 kilometers from the center of the Kuningan district, West Java. The village is similar to other remote forest villages lying on the slope of Mount Ciremai. Most people in Jabranti rely on agriculture for their livelihood, working on their private land or on government-owned land. The road going to the village is badly damaged and in poor condition, which makes the transport of products from the communities to the markets difficult.

tions with this village turned hostile, the TAO discontinued the plan and decided to instead focus on strengthening their community forest.

Aside from the natural resource plan, Amphai also helped develop a proposal for a TAO development plan for the poor, the elderly and the disabled. The TAO approved the plan and allocated funding. Twenty-two beneficiaries received wheelchairs, increasing their livelihood opportunities.

After completing her term, Amphai decided not to continue with the TAO, and instead chose to concentrate on other work. She continues to farm, chairs the village weaving group, and deals with other community work in the village. She is still involved in NRM: for example, she is working on a community-based research on the benefits of NTFP. She has been instrumental in the awards that have been given to the community and in pushing for sustainable development at the local level. Her only regret is that she has been unable to accomplish all the TAO tasks due to her limited time.

Amphai sees the TAO as a key local government body that can address local development and environmental protection. She recommends that the TAO council understand the community's real situation and be willing learn and analyze the issues. The members can collaborate with and learn from government agencies, academic institutions, NGOs and the people themselves. It is important that the TAO has a unified vision of development work that they should pursue regardless of the dictates of funding agencies.

*Amphai Silalert* was a SPARK study tour participant in 2001 and in our Regional Workshop on Sustainable Livelihoods in 2003. To get in touch with Amphai, you may contact the Community Forest Unit in Ubon Ratchatani ([wanphenforester56@yahoo.com](mailto:wanphenforester56@yahoo.com)).

- The Tambon Administrative Organisation recognized the importance of the Community-based Health Master Plan.
- Good relationships and collaboration between the TAO of Ban Tam Nai and the Foundation was established.

If you would like more information about this story, please email the *Sustainable Development Foundation* at [preecha@mozart.inet.co.th](mailto:preecha@mozart.inet.co.th)

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## Making Local Government Work for the Community

Severe conflicts over forest resources in her community motivated a woman leader in Ubon Ratchatani to venture into local politics. Ms. Amphai Silalert, a leader from Baan Chaat village and former representative in Nam Thang sub-district council in Ubon Ratchathani province, shares a chapter of her life with us.

Amphai explains why she decided to run for election as a member of the Tambon (i.e. Sub-district) Administrative Organization Council: "How else would I convince the men and the community? If only I had specific powers and a role to find ways to solve this conflict and make people listen to me."

From 1994 until 1996, there was significant forest encroachment within Baan Chaat, where the forest was rapidly being opened up for cultivation of crops, particularly rubber, which was then being widely promoted. The forest conversion resulted in reduced food resources for the community and it also made cattle raising difficult.

In response to this, the community and the village committees, especially the men, called on the government to arrest the forest encroachers. The dispute between the community and those engaged in forest conversion worsened and became violent to the point that the community began to threaten to kill those encroaching on the forest. Amphai, a village committee member at the time, moved for a non-violent solution to the conflict by raising the community's awareness of the value of forests and by establishing a forest conservation area.

At about the same time, the District announced the elections for Tambon Administration Organization (TAO). The TAO was a recent innovation included in Thailand's 1997 Constitution. Amphai viewed the role and authority of the TAO as a venue for her to develop a natural resource plan for her area. In 1997, she was elected and appointed by the TAO Council to the Secretariat, whose functions included critical management tasks like developing the TAO plan and coordinating with other government sectors in the district and provincial levels.



**Amphai discussing the demarcation of the Oyster Conservation Area and oyster culture with the community members of a village during a SPARK study tour in 2001**

Amphai swiftly introduced the idea of setting up a community forest and improving the rules and regulations on forest conservation, which she saw would help resolve conflicts arising from forest encroachment and create a model for forest conservation. She then contacted the Community Forest Unit of the Royal Forest Department (RFD) in Ubon Ratchathani to start the process of registering the community forest in Baan Chaat. Amphai herself learned from the Pone Klang community, which had already registered a community forest. In 1997, the TAO organized a study trip there to allow some villagers to learn from that example. At first, the RFD could not provide funding, but she negotiated with them to sponsor community trainings on forest knowledge and skills. The Baan Chaat community forest was officially established a year later.

During her TAO term (1997-2001), Amphai set about linking the existing networks in the area such as the women's network and the Community Forest Network. The TAO subsequently approved 12,000 baht (US \$ 300)

many advantages. By using local resources, they do not depend upon outside resources that can affect their business. Their product is competitive because of its unique taste. Plus, it is affordable, hence, accessible to the poor and the middle class in the community. Pak Mahayad feels that *gadung* chips have the potential to provide income for him and his business partners for a long time to come. He is happier now, knowing he has an income

to rely on.

"... no matter how big or small the income is, as long as it is enough to support our needs. It depends on how you manage it. We thank God for what He has given to us ....," says Pak Mahayad.

This article was made possible by KSM Perempuan Gemah Harjo (the Gema Harjo Women's Group). *Putu Widhiantara* can be reached at [putu.widhiantara@vso.org](mailto:putu.widhiantara@vso.org).

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## The Children of Alternative Livelihoods

Understanding the concept of alternative livelihoods is important when working with natural resource dependent communities in different areas of the Philippines. It is particularly important in our areas of work, where there has been significant over-fishing by communities.

There is indeed a need to reduce the pressure on Philippine marine and large freshwater systems. However, with increasing populations, many fishers are just focused on putting food on the table for their children. Alternative livelihood initiatives provide opportunities to

**Alternative livelihood initiatives provide opportunities to obtain additional income for food, but these alternatives tend to be applicable only for short periods of time.**

obtain additional income for food, but these alternatives tend to be applicable only for short periods of time. Furthermore, they do not elevate the fishers' families to the level of prosperity that most of their children now observe on television. As the reach of mass media spreads to the developing world, the idea of 'needs' is enhanced, and the desire to obtain more grows. All too often, alternative livelihoods are a short-term diversion from fishing and fail to allow the ecosystems to recover. In times of need, many traditional fisher folk, who have started raising pigs for example, will sell or consume the pigs and return to fishing the sea and lakes as their main activity.

### Family-oriented livelihoods

In most cases, fishing is considered a "male-dominated" activity (either as part of a diversified livelihood strategy or where there are specialized, skilled fishers who own gear). Fisher folk Peoples Organizations (POs) in the Lake Mainit and Aurora Province areas tend to be male dominated and the alternative livelihoods offered

may be designed around male needs. However, women are also primarily involved in the livelihood strategies of the household and excluding them from project designs could be why some initiatives are failing.

For instance, in most fishing communities women and children, if not actually fishing, spend much of their time doing fishing-related activities such as taking fish to market, displaying and selling fish. Increasing the success of alternative livelihood initiatives may require the facilitation of direct action initiatives by women, especially in situations when the poor and very poor fishing communities have no access to other resources such as land and, therefore, have limited opportunities for alternative income sources. Fishing should thus be considered a family activity, where women and children go with the men and are also full-time fishers. Ideally, alternative livelihoods should be designed around the whole family. Also, it may be counter productive to require the poor to pay PO membership fees related to livelihood development. Other forms of non-monetary contribution need to be systematically considered.

The culture of fishing goes beyond the daily activities of the people and real change must occur at a deeper level. Many people in the Philippines combine livelihood activities from both the land and the water. This indicates that perhaps the focus should be more on enhancing rather than changing livelihoods (as implied by "alternative").

### Education for livelihoods

In another case, the Mayor of the Municipality of San Luis in the Province of Aurora took the lead on promoting alternative livelihoods for the farmers/fishermen of their coastal barangay. A two-day workshop was held on investment opportunities in one-hectare farms to produce high-value commercial crops. Some of the crops, however, require tending for several years before they return profits. This is one example of focusing on the long-term ends when pursuing alternative livelihoods. Though these activities will not result in immediate benefits, like

putting food on the table, they will perhaps make it more feasible to send children to school in the next few years.

Advocacy activities such as 'look-and-see visits' of successful projects are usually effective learning activities. However, such education and empowerment programs should be tailor-made for different groups of stakeholders. The content and style of a program for local chief executives would be very different from that for government technicians or fisherfolk. Training programmes should differentiate between development workers and politicians, and even between adults and children. Different stakeholders have different agenda and interests. It would be useful to work with the concept of "the team" and try to build up a broad base of consensus among stakeholders.

### Local strengths, local knowledge

In the Lake Mainit area in CARAGA Region, there have been some successful livelihood projects. At the same time, there are also many examples of failures due to a variety of reasons. The role of "politics" and lack of people's capacity are often central issues. In some alternative livelihood projects, simple technical problems or misunderstandings could otherwise have been avoided if 'experts' from outside agencies considered the local capacity and expertise. In another example in Luzon, a local desire for a cross-cultural learning centre has been somewhat ignored by a foreign NGO intent on purchasing scuba equipment for indigenous peoples that have continually stated that they are not yet ready for that level of 'ecotourism' interaction.

The dynamics of natural resources and people dic-

tate that the flexibility of the approach is given priority. Building on and collaborating with local strengths is very important. For sustainability in development, livelihood programs should be continually refined and adapted, especially as mass media facilitate the exchange of information.

Effective livelihood intervention requires institutional involvement and development through democratic decentralisation (as through the Local Government Code) and through the education systems. Foreign assistance should further strengthen institutional facilitation.

Efforts need to be focused on promoting sustainability and how we can heal damaged ecosystems. This is a big change in perspective and in many ways requires education, programs oriented towards adult learning and in-school learning. But this will take active and committed leadership. No one agency or short list of individuals can be entirely responsible. Perhaps now more than ever, leadership must come from those who are best able to respond to the time and situation. Educational activities of government and non-government agencies need to be focused on future needs, and should include evaluation of learning objectives reached. The promotion of ideas, learning, and shared reading between adults and children has the potential to make the children of today's alternative livelihood projects more empowered.

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## Look Before You Leap

The province of Northern Samar has an abundant natural supply of giant mud crabs (*Scylla serrata*). One of its coastal municipalities, Pambujan, is derived from the local word, *pambubuhan*, which means "place of many crab cages". Small-scale crab farming has been a livelihood practice in the province for decades. However, the idea of crab fattening and culturing as a way to capitalize on the resource, and to meet Metro Manila's growing demand, is a new idea.

### Promoting mud crab culturing

The Bureau of Fisheries and Aquatic Resources (BFAR) came up with this plan in response to the observed illegal harvest of large quantities of undersized crabs from river inlets and mangrove areas, which are then sold to buyers in Metro Manila. By introducing mud crab production-based livelihoods, BFAR aims to curb the excessive extraction of crabs, 90 percent of which

The province of Northern Samar has an abundant natural supply of giant mud crabs (*Scylla serrata*). Small-scale crab farming has been a livelihood practice in the province for decades. However, the idea of crab fattening and culturing as a way to capitalize on the resource, and to meet Metro Manila's growing demand, is new.

die mid transport. The plan will also allow Northern Samar to benefit economically from this locally available resource.

Crab culturing and crab fattening are activities that are not only easy to implement and maintain, but that also have a product with a ready market. Thus, the BFAR,

resource assessment in the watershed, closely examined 12 creeks, and also invited the local community members to share their views about the drought phenomenon. The discussions led to the crafting of a plan to conserve the forest area (within the watershed of Prayao Lagoon) where many communities were located.

The drought struck many communities, but sufficient supply of water continued to flow through the Mae Tam Nai creek, which is a tributary within the watershed of Prayao Lagoon. Based on these observations, the Foundation and the community began to study the history of the community around the creek and how their presence contributed to the creek's continuous water flow. The study revealed that a long period of forest concession led to increased soil dryness and water scarcity in the area, which motivated the community to establish the community forest of Ban Tam Nai. Through collabo-

The Ban Tam Nai community served as resource persons for the people invited to learn about the community forest management. The community also brought these officials to visit learning sites in the forest. The officials expressed that it was their first time to experience and truly see the Tam Nai Forest: "We never knew that our Tambon is endowed with such precious resources and we would like to assist the community in keeping up this good work."

ration with the Prayao Development Foundation, information about traditional beliefs and practices in forest management as performed by the community, such as the worship of forest spirits, were highlighted and disseminated to other CBNRM practitioners and communities in the nearby areas through study tours and publications. The community forest of Ban Tam Nai has now developed into a learning site for people who are interested in learning more about community forestry.

The committee of Ban Tam Nai had to sacrifice their time and energy to promote community forest management. However, with rising poverty levels and economic setbacks (particularly increased debt among the community members), less and less community members were able to participate in the activities and they began to get tired of the work. The community realized then that they could not manage alone and came up with the idea of collaborating with the local government. At that time, the local government unit, particularly the Tambon Administrative Organisation, was focused on infrastructure development (roads, electricity, water supply) to improve the quality of life and environment. Despite the availability of budget for environmental activities, the

involvement of the Ban Tam Nai TAO in natural resource management was limited.

Under the project of Knowledge Management in Mae Tam Watershed for Local Development, the Foundation and the community worked to compile indigenous knowledge and practices in community forest management. This knowledge was to be shared with the other community members through local authorities at the Tambon level, such as the village chief, Kam Nan, schools in the area of Mae Tam watershed and Tambon Administrative Organisation of Ban Tam Nai. The project aims to achieve overall collaboration in forest management among all sectors in the Tambon, and will hopefully lead to a strategic plan for watershed management in the TAO Ban Tam Nai in the near future.

Building a relationship with the official unit at the Tambon and leaders such as Kam Nan, the village chief, and other representatives from official agencies as well as the members of the TAO began by learning about and understanding the roles and potentials the different stakeholders. The Ban Tam Nai community served as resource persons for the people invited to learn about the community forest management. The sharing was focused on what the community knows about forest productivity and forest conservation as well as how resources are utilized and managed to ensure a longer reserve of the resources. Additionally, the community also brought these official staff members to visit their learning sites in the forest. Many expressed that it was their first time to experience and truly see the Tam Nai Forest: "We never knew that our Tambon is endowed with such precious resources and we would like to assist the community in keeping up this good work." The officials concluded that there should be a committee on forest management at the Tambon level.

After the visit and a series of participatory activities, the representatives from different agencies at the Tambon level and the community began establishing networks. The networking resulted in an agreement to develop a Community Based Health Master Plan. Formulating the plan involved a process of dialogue among the stakeholders to assess the current social, economical and environmental problems faced by Tambon Tam Nai. The role of the Foundation was to facilitate the discussion.

### Factors that influenced the success of TAO's participation

1. The process of formulating a Community-Based Health Master Plan for Ban Tam Nai provided opportunity for people from different sectors of Tambon Tam Nai to meet, providing a venue for a sharing of experiences and knowledge that can be adapted. During this sharing, the local officials, NGOs and other groups of people related what they learned and how they could apply their learning, for example, the production of soil manure and organic farming.

assisted in conducting trainings on biological monitoring, and resultant surveys have indicated an improvement in Dibut fish production. (See sidebar.)

Enhancing organizational relationships and fostering shared leadership are a significant part of a CRM program that has been formulated by ASCOT called *Aurora Province and the Global Village Coastlines: Communication and Coordination*. This ASCOT vision of coordination and communication may yet provide some opportunities to realize answers for some of San Luis municipality's concerns and challenges in CRM and ecotourism.

#### Reference

Amos, L. 2003. "Cultural Integrity": Promoting Cultural Survival and Decentralizing Ancestral Domains of the Agta Dumagat People, Province of Aurora, Philippines." In *Proceedings of the 10th Workshop on Community-based Management of Forestlands held in Chiang Mai, Thailand 30 June - 25 July 2003*, edited by K. Suryanata, et. al. East-West Center, Hawaii and Community Forestry Training Center, Thailand.

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## Working Together with Tambon Administrative Organisation Towards Sustainable Natural Resource Management: The Case of Ban Tam Nai, Prayao Province

Prayao Development Foundation is a small non-government organization established in 1986 in Prayao Province, Northern Thailand. At that time, the region, including Prayao province, was experiencing serious drought, but Mae Tam Nai creek, which is part of the Prayao watershed, continued to have flowing water. Based on these observations, the Foundation began to study the history of the community around the creek and how their presence contributed to the creek's abundant water supply.

Prayao Development Foundation is a small non-government organization, established in 1986 in Prayao Province, Northern Thailand. The Foundation promotes and supports community-based natural resource management in Ing Watershed, one of the tributaries of the Mekong River.

The Foundation began promoting community participation in Ing River management in 1986. At that time, the Northern Region, including Prayao province, was experiencing a serious drought. Many rivers, including the tributaries of Prayao Lagoon (locally known as Kwang Prayao) originating from the Pee Pan Nam Mountain Range, ran dry. The drought caused inadequate water supply for farming. The Foundation conducted a natural

#### >> PROMOTING ECOTOURISM, continued

respect for the local culture. The People's Alliance will work with municipal staff to iron out financial arrangements and to organize visits and associated alternative education opportunities. The revenues will be reinvested into the Center to help sustain alternative education and community development.

An essential approach to building the capacity of the Dibut indigenous community to relate with outsiders is through appropriate education that will strengthen the Agta-Dumagat's cultural integrity. A system of alternative education that maintains the cultural integrity of the Agta-Dumagat would help prepare the community to receive visitors to their area. PAFID maintains that the standard education system does not work for the Agta-Dumagats. A recent paper by Lourdes Amos further suggests an alternative education program that integrates formal education with a traditional learning approach for this indigenous community.

Considering the current developments in Aurora, it is inevitable that the indigenous community of Dibut will change. With the assistance of the LGUs, academic institutions and NGOs, the Agta-Dumagat can have a hand in managing this change so that they can maintain their cultural heritage as they participate in defining their future.

the provincial and municipal government and NGOs have taken interest in mud crab production. The BFAR has presented the province with the challenge of becoming the "Mud Crab Capital of the Philippines", and has already held an information drive and other related activities encouraging every municipality to culture mud crabs.

#### Missing a preliminary step

This is all sounds fantastic, and it is: one of the poorest provinces in the Philippines has found a promising livelihood that can potentially boost the economy of the entire region. Toward this objective, the BFAR is conducting information campaigns throughout Northern Samar to ensure broad awareness of and participation in the project. People's Organizations (POs) are being strengthened to assume new crab-based livelihood projects. The provincial government and local NGOs are providing financial assistance and exploring marketing opportunities. However, one crucial preliminary step appears to be missing.

Preparatory to plans of exploiting mud crabs, a stock assessment would have been essential for the project planners and implementers to know the actual population of mud crabs. But this has taken a backseat to production and marketing, owing to the BFAR's limitations in human and financial resources for undertaking initial stock assessment and delineation of sanctuaries.

#### Ensuring sustainability

Although BFAR missed the basic step of stock assessment, it is exploring strategies to ensure environmental and livelihood sustainability. These strategies include monitoring and establishing sanctuaries and enforcing measures to stop the illegal export of crablets. The province is also looking into enforcement of measures to stop the illegal export of crablets. In this case, where mud crab culture seeks to replace illegal and over exploitation of mud crabs, an alternative livelihood is meant to be a new option, in the face of a livelihood that

is dependent on resources that are facing destruction. To implement a project on a massive scale without proper preemptive sustainable measures is only creating more problems.

It is easy, in hindsight, to say that BFAR and the province should have first focused their strategies on initial stock assessment and setting aside sanctuaries, but to organize such an enormous task in a developing country such as the Philippines would have required human, financial and technical resources as well as massive provincial organization that are simply not available. To have waited for this first step would mean that Northern Samar would likely never see their most abundant natural resource be fully developed at all.

While I do not have a solution to this catch-22, I wish to bring these important issues to light before introducing a new livelihood activity. In BFAR's case, they decided that the best option was to assist the already impoverished people of Northern Samar and to tackle the issue of sustainability as they go. But not taking the first step of assessing the potential for sustainability of livelihoods has negatively affected the environment in the past, as in the cases of logging, mining and fishing projects. While this project might be well-intended, it may actually result in further destruction, leaving the communities worse off than before. Any project should undergo an assessment of what repercussions it would have on the environment before commencing.

For a livelihood coordinator, there is nothing more exciting than to have full community willingness to participate and to gain provincial support. However, we must be fully aware of the abundance of our resource stock before rushing in to exploit it.

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## Pursuing Livelihoods and CBFM in Mount Ciremai

Every year, forest fires occur in Mount Ciremai, the highest mountain in West Java. The biggest fire occurred in 2002, which destroyed 2500 hectares of Ciremai's forest. Last year, fires burned 112.65 hectares of forest. The local forest authority, with only fifty employees, is not enough to handle the problem.

Every year, forest fires occur in Mount Ciremai, the highest mountain in West Java. The biggest fire occurred in 2002, which destroyed 2500 hectares of Ciremai's forest. Last year, fires burned 112.65 hectares of forest. The local forest authority, with only fifty employees, is not enough to handle the problem.

In 2002, the Community-Based Forest Management (CBFM) programme was implemented in the area. (The Forest Authority of Kuningan, the Kuningan District Government, the Kuningan LPI PHBM or Institute for CBFM Implementation Service and several NGOs developed the CBFM programme.) As a result, communities became



Edi Syukur (right) and Nana Juana (assistant from KANOPI) showing off Jaya Mekar's banana chips

bananas and additional equipment. The Group then submitted a proposal to the SPARK programme for additional capital. With SPARK's support, the group received Rp8,975,000 to buy equipment and to augment their business capital.

Now, the group led by Pak Edi can fry 25 – 30 kg of bananas in a day. By seeking advice from the facilitators of the Work Training Body and experts, they have greatly improved their products.

They learned how to choose and preserve the bananas as well as how to make the chips crisper. They also found out that customers preferred ¼- and ½-kilogram packs instead of one-kilogram packs. Jaya Mekar sells the chips at Rp11,000 per kg. Every month they can sell 150 kg of banana chips, worth Rp1,650,000. Part of their income is saved, while the rest is used to purchase bananas from forest farmer groups.

The Jaya Mekar Group is a great help to the forest farmer group members. The group does not only buy bananas from them: it also provides loans without interest if the farmers have urgent needs. Slowly but surely, the Jaya Mekar Group is replacing the middlemen as the buyer of bananas from the farmers. Unlike the middlemen, the group does not change the price of bananas abruptly or lend money with high interest rates. Gradually, the farmers are being released from the control of the middlemen.

Aside from bananas, the other high value products being grown in the CBFM areas are coffee, cloves, patchouli and seasonal crops. In general, these have increased incomes and generated positive impact on the livelihoods of the communities. Pak Edi shares, "Before the CBFM programme, the communities had difficulties paying tuition or school fees and taxes (for lands and/or houses) on time. Now, they can pay tuition fees and taxes on time. In addition, we do not have difficulties working together to build a school; it is no longer difficult to ask for contributions up to Rp30,000 per family."

The implementation of the CBFM programme in Mt. Ciremai not only resulted in better forest management, but also enabled communities to engage in livelihoods in the forests that are not necessarily using forest products. By allowing the communities to grow crops in forest areas as they helped local forest authorities plant and protect trees (which are the main crops), CBFM started to forge a partnership between the communities and the forest authorities in managing Mt. Ciremai. Managing Mount Ciremai is the responsibility not just of the government but of the communities as well.

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more actively involved in managing the areas in and around Mount Ciremai. "I can feel and see the increase in the sense of responsibility of the communities towards the forest area in Mount Ciremai, especially the forest area in their own villages, after the implementation of the CBFM programme," said Pak Edi Syukur.

In turn, CBFM has benefited the communities in the area. First, the communities may utilize the forest to plant crops for their own needs, while planting and maintaining the crops managed by the Forest Authority. Second, the communities are given sufficient time – that is, the duration of one cycle for growing a main crop from planting to harvesting – to utilize the forest area. For example, one cycle for teak wood is about 35 years, while for pine trees around 20 years. Third, aside from the direct benefit from the crops planted, the communities also share in the profit from the main crops. Today, the communities get between 20% and 30% profit share.

Bananas are abundant in the CBFM forest areas. However, because of the high supply of banana and the control of middlemen of its market, its price tends to be low. This prompted Pak Edi to think of other ways to market bananas that would avoid the middlemen. After discussing with his Jaya Mekar Group and after seeking assistance from Kanopi (one of the NGOs involved in the development of CBFM programme in Kuningan), Pak Edi and his Group decided on developing a banana chips business.

The Jaya Mekar Group started the business in August 2003 with an initial capital of Rp350,000 from Kanopi. They began by producing chips from Pak Edi's garden. At that time, they could fry 15 kg of bananas every day. The chips were sold to communities in Trijaya village and at Cilimus market and Mandirancan market. After two months, the demand rapidly increased, especially during Lebaran (Moslem holiday after the fasting month). However, they could not meet the orders immediately because their group's savings were insufficient for buying

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## Progressions in Coastal Resource Management (CRM) and Eco-tourism in the Municipality of San Luis, Aurora

Over the past two decades, the fish catch per unit effort along the Aurora coast has been reduced by 75%. In response to this alarming trend, the municipal government of San Luis, with the assistance of Aurora State College of Technology (ASCOT) and non-government organizations (NGOs), has been undertaking efforts toward ensuring coastal resource management (CRM).

The barangay Dibut in San Luis has been the focus area of the CRM activities of the San Luis municipal government. Dibut is an indigenous coastal community which is largely made up of indigenous Agta-Dumagat with migrant Tagalogs, Bicolanos, Ilocanos and Cebuanos. Most Dibut residents depend upon fishing combined with seasonal upland farming to feed their families. With the gains of the CRM efforts, Dibut can now perhaps serve as a model for other indigenous coastal communities.

### Gains in CRM

In 1998, the municipal staff of San Luis visited the provinces of Palawan and Zambales to learn about protected marine areas. As a result of this visit, a 250-hectare fish sanctuary was established in Dibut. This sanctuary was enhanced through a three-kilometer buffer zone along the entire coast of the San Luis. Furthermore, the LGU facilitated consensus building and formulated local ordinances to protect sting rays, giant clams and sea turtles, and to limit the residents' fishing to the use of traditional methods. A *bantay dagat* (fish warden service) was established in each community. The *bantay dagat* of San Luis has been responsible for the arrests and imprisonment of violators. The illegal logging activities that adversely affected the fish sanctuary were also stopped.

Today, the LGU has a CRM budget line to cover expenses for CRM projects, like fish sanctuaries and patrol activities. In addition, the local officials now has the capacity to ask critical questions that focus on the sustainability and viability of fishing in the municipality, such as "What is the root cause of the fish depletion?" "What is the allowable and sustainable catch per hectare?" and "How can we change the current situation?". Clearly, answering these questions would require coordination with the LGUs and communities adjacent to San Luis as well as with national agencies and even international specialists.

### LGU partnerships with NGOs and ASCOT

In its CRM and ecotourism plans, the municipal leadership continues to benefit from the assistance of NGOs and the ASCOT. For instance, ASCOT, VSO and the Philippine Association for Intercultural Development (PAFID)

### Pushing for Eco-tourism in Dibut

Capitalizing on Aurora province's tourist attractions (such as the scenic and biodiversity-rich Sierra Madre for eco-tourism and its shores for surfing and diving), the provincial government has adopted eco-tourism as a development strategy. In line with this, the municipality of San Luis is also exploring eco-tourism to promote its local economy.

It is not, however, possible to fast-track the promotion of eco-tourism in Dibut as a means of creating additional sources of livelihood. Whether the indigenous community is prepared for eco-tourism and how the people will manage tourism in their area need to be addressed first.

Recently, the LGU, working with ASCOT and VSO, proposed a Cross Cultural Learning and Visitor Center (figure 1) which will be managed by the People's Alliance of Dibut to promote tourism that will be anchored on cross-cultural respect and sharing. The Center will serve as a meeting place for discussing community goals and hosting visits - planned and unplanned. To manage the activities of tourists, the People's Alliance of Dibut will design visitor activities that will emphasize

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