

MANAGING NATURAL RESOURCES LOCALLY

An Overview of Innovations
and Ten Initial Steps
for Local Governments



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MANAGING NATURAL RESOURCES LOCALLY:

**An Overview of Innovations and Ten Initial Steps for
Local Governments**

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December 2001

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PREFACE

Centralized approaches for managing the upland natural resources in most Southeast Asian countries have generally failed. Controlling from the Capital City no longer works, given the increasing upland populations, meager public resources and inappropriate policies on natural resource use.

There is hope in the horizon. Recent policy reforms in Southeast Asia such as Indonesia, and the Philippines have paved the way for more decentralized and community based approaches to natural resources management. Other countries in the region have also begun to experiment on community based management systems through promising pilot projects.

The International Centre for Research in Agroforestry (ICRAF) and the International Fund for Agricultural Development (IFAD) have launched a strategic partnership to accelerate the development of innovative approaches that enable localized management of natural resources.

This publication is an initial step towards developing those approaches. It aims to build awareness on what is possible in the arena of localized natural resource management ---- and how it can be done.

The experiences cited here were generated by efforts of pioneering Local governments, advocates as well as support projects. Notable support was provided by two USAID assisted projects that ICRAF worked with closely: the Governance and Local Democracy (GOLD) Project and the Sustainable Agriculture and Natural Resources Management Collaborative Research Support Program (SANREM-CRSP).

We first study the experience in the Philippines because it started the earliest policy on devolution in the region. Subsequent articles will cover the case of Indonesia and mainland SEA: Vietnam, Cambodia, and Lao PDR

Support for the publication of this article came from the IFAD Technical Assistance Grant No 486: entitled **“Programme for Technical and Institutional Innovations and Implementation Support to IFAD Projects to Enhance the Participatory Development of the Upland Poor in Asia.”** Under this project, ICRAF will accelerate the development of innovations to support the work of IFAD Projects working with poor upland communities in upland watersheds.

Also, the cases are “works in progress”. They are far from perfect, as the practitioners in focus have to grapple with a host of challenges each day. However we emulate them because they represent initial victories in overcoming what are usually accepted as insurmountable constraints. They reaffirm certain development principles and provide new learnings for all concerned.

Dennis P. Garrity
Director General
ICRAF

INNOVATIONS ALLOW MANAGEMENT WITH LIMITED RESOURCES



Today, concerned local governments and communities are constantly looking for more effective ways to utilize meager budgetary resources to better manage their natural resources. These include land and water resources such as forests, soils, rivers, lakes, springs and coastal resources. Local governments know that their farmers, fishermen and other resource users depend on good management of their natural resources to sustain farm yield, and improve fish catch. By conserving these natural resources, LGUs can sustain the flow of water, food, wood and other products and services from these resources, as well as minimize the occurrence of disasters such as floods, droughts and landslides.

Local government units who embark on natural resource management contend with traditional constraints such as lack of manpower, information and budgetary resources. They work under situations where natural resources are often under the sole legal control of national governments (e.g. forests) or shared by several local governments (e.g. municipal waters). They must also find ways to extract the cooperation of stakeholders whose day to day practices as farmers, fishermen and resource users affect the over-all natural resource management situation.

Resource institutions such as national government agencies, research and development institutions are also concerned with providing the enabling environment to local governments, so that they can overcome traditional constraints to local initiative.

Over the past five to eight years, an increasing number of local governments working with their citizens have applied innovations to overcome the aforementioned constraints. A good number of these innovations have received national recognition and have, in fact, inspired many other local government units to adapt these innovations in their own localities¹.

This article describes selected good innovative practices of local governments and communities in protecting their natural resources with focus on watersheds, forests, and soil resources. It highlights the experiences of selected local governments including that of Lantapan, Bukidnon. They demonstrate how traditional resource constraints to localized management are overcome by being more innovative. Based on these experiences, the article also describes the key steps that other LGUs may undertake to actively manage — and continue to benefit from their natural resources.

¹ Since 1992, annual rapid field appraisals to monitor implementation of the Local Government Code indicate a sustained increase in number of local governments applying innovations to address local environmental problems.

COMBINING INNOVATIONS AND COMMON SENSE: THE LANTAPAN CASE



Lantapan is an upland town 25 km. south of the capital town of Malaybalay in Bukidnon, Mindanao, Southern Philippines. It hosts the biodiversity-rich Mt. Kitanglad National Park and is part of the headwaters of the Pulangi River. This river supports a major irrigation system as well as the biggest hydro-electric plant in Mindanao.

Majority of the constituents depend on income from vegetable crops production. Over the years, production has declined and land use has dramatically changed due to accelerating infrastructure development and agro-industrial investments. This prompted local government officials to prioritize natural resources management as a flagship program.

Deciding to Address the Problem

In 1996, the local government of Lantapan decided to develop a Natural Resources Management (NRM) action program. The program would address the problem of declining productivity and ensure that future generations can continue to benefit from the municipality's rich agricultural resource base.

Invoking its Mandate

The local government invoked its mandate from the Local Government Code that enjoined local governments to prepare their own local environment programs. The code also provides the local governments' authority to tap contributions of the non-government sector as well as alternative financial measures. It empowers them to review, endorse or reject all externally initiated projects with potential environmental impacts.

Tapping Local Volunteer Talents

Instead of hiring an external expert group to prepare the program, the municipality decided to tap locally available talents and leaders. The local volunteers were organized into a Task Force to lead a participatory planning process. The task force consisted of government and non-government resource persons and champions from different sectors.

Identifying the Planning Area

One of the first assignments of the task force was to identify and delineate the area to be covered by the plan. This mapping exercise was designed to include all natural resources falling within the administrative boundaries of the municipality. In addition, the task force also delineated or marked the watersheds that overlapped the municipal territory. Delineating the watersheds that are within the municipal coverage was important because this is the first step in determining how to best ensure the municipality's sustained water supply.

Knowing How the Natural Resources are Managed

The mayor and the task force tapped emerging information derived from an on-going site research activity in the area. Using this information, the task force classified the land within the territory as: *Lasang ubos* and *lasang taas* or lower and upper forests, respectively, *kasagbutan* or grasslands and *kapatagan* or flatlands. For each land class, the task force identified and documented the management practices. They also asked occupants within each land class the reasons behind their practices and also identified the perceived key constraints and opportunities. The information gathered later gave the task force an idea where limited municipal budgetary resources should be focused to better improve the local natural resources management.



Leaders from key sectors in the municipality joined the local government to analyze the issues and establish priority strategies.

Drawing Stakeholders to the Table

The municipality invited key leaders and representatives from all sectors that affect, or are affected by the condition of the natural resources to a participatory planning workshop. The workshop facilitator used an innovative group discussion process called the Technology of Participation or TOP. With the help of organised data about the current situation, participants identified trends, accomplishments, challenges and opportunities. Through the TOP process, they collectively developed their shared practical vision, strategies and priorities.

Determining the Specific Activities

Using the workshop results as its “marching orders,” the task force then completed the participatory planning process by preparing specific draft action programs that would translate priorities into specific activity descriptions. These sets of action statements were then assembled into a draft program document. The task force presented the draft program to various barangay development councils and assemblies to ensure that they truly represented the aspirations of citizens of the municipality.

Based on the endorsement made by barangay development councils, the Sanggunian Bayan approved the program on March 1998, the first of its kind at that time.

Assigning Responsibility

As required by the program, the municipality created a municipal Natural Resources Management Development Council or NRMDC. The NRMDC is composed of leaders representing a cross section of community groups, local legislators, municipal and provincial leaders serving on a voluntary basis. The local government also created a municipal natural resources management staff that would provide day to day back up to the NRMDC. Among the first acts of the NRMDC and staff was a team building session.

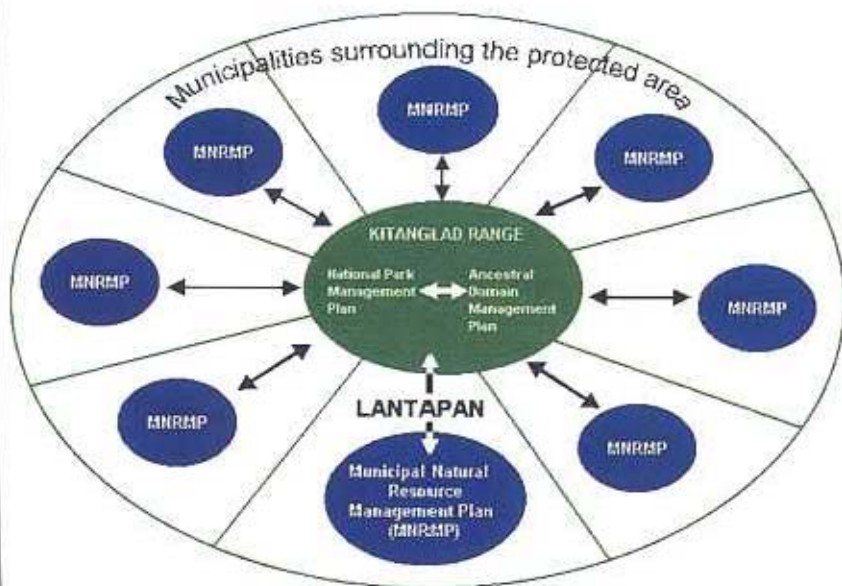
Early Impact

Before, government programs for the upland areas of Lantapan were short termed and lacked direction. Today, the local government determines its annual program of activities and budgets for natural resources management by reviewing the long term NRM plan. The same plan guides the local offices of national government agencies in preparing their sectoral annual targets. Leaders and citizens use the plan as basis for reviewing implementation progress.

Inspiring Other LGUs

Inspired by the example set in Lantapan, other adjacent municipalities took the first steps in preparing their own management programs. Eventually, the individual NRM programs of the municipalities surrounding Mt. Kitanglad would support the sustained protection of the park, hand in hand with improved productivity of the people who depend on this resource.

Linkages between three types of Natural Resources Management Programs (NRMPs):
National Park, Ancestral Domain and Municipal Programs





The Lantapan Natural Resources Management Program supports entrepreneurial farmer groups set up nurseries as business. They now grow and sell good quality seeds for Lantapan as well as to meet requests from all over the country.

Lantapan Program Highlights

The Lantapan NRM Plan derives inspiration from a shared practical vision crafted by the consensus workshop. This vision calls for "Stronger community partnership towards well-managed natural resources and ecologically balanced environment for sustained development of Lantapan."

Key pillars of this vision include: (a) improving water quality, quantity and distribution; (b) conserving soil for sustained productivity; and (c) protecting the remaining forests. To support these, the NRM plan calls for support to programs for natural resources management and improving the capability of the LGU and community groups for program implementation.

Among the most promising on-going activities is the municipal support provided to disseminate innovations developed to improve farm productivity. These innovations include the following:

- ♦ *Application of low cost conservation measures such as natural vegetative strips or NVS, which would serve as alternative to labor intensive soil conservation technologies.*
- ♦ *Promotion of smallholder tree farm enterprise utilizing species that would best match site conditions and potential markets*
- ♦ *Entrepreneurial production of good quality planting materials for important tree species.*



Landcare and ATSA members with farmers in one of their hands-on training on nursery establishment.

SELF HELP ACTIONS ALL OVER THE COUNTRY

Lantapan represents a growing number of local government units who have decided to take charge of their natural resources – traditionally a domain of the national government. They have embarked on self help initiatives made possible by more creative partnerships with citizens as well as technical resources organizations. A few of the many are cited here:

In the municipality of **Arakan, Cotabato**, the Environment and Natural Resources Council (ENRC) composed of very active LGU, NGO and PO representatives marshaled resources to take control of their local watershed and set up a small farmer agroforestry program. The ENRC catalyzed the formation of barangay level ENRCs to implement the program at the grassroots level.

In the same province, five municipalities who depend on the Libungan Alamada river for their agriculture were concerned that heavy siltation shrunk their irrigated rice land from 14,000 to 5,000 hectares. Together, they prepared a watershed program that unified the fragmented efforts of five local governments as well as programs of the national government. A multi-sectoral support body delineated the watershed and sub-watersheds, and mobilized priority actions for the critical portions.

In *Claveria, Misamis Oriental*, the municipality supports a farmer driven "landcare" movement. This movement involves approximately 200 village based landcare groups with membership of several thousand households. Through these groups, farmers help one another test and apply more effective methods of land management, particularly in conserving soil and integrating perennial crops in their farming systems. The landcare groups develop their own agenda, and are based around neighborhoods or small sub-watersheds.

The local government supports farmer groups through technical and organizational assistance, as well as local ordinances that provide a range of incentives leading to the widespread adoption of soil and water conservation technologies.



Farmer landcare groups in Claveria, Misamis Oriental help one another test and disseminate better farming practices such as soil conservation, natural vegetative strips (NVS) and the incorporation of perennial crops into the NVS, forming an agroforestry system.



The recently prepared Philippine Watershed Management Strategy has recommended that the case of Claveria be used as model for building a community-based and LGU-assisted approach to sustainable upland agriculture and natural resource management. Leaders in the agriculture sector are increasingly looking at Claveria as a source of insights for improving the farm research and extension system. Based on the Claveria experience, extension agents move from the role of a teacher to a facilitator of farmer group initiative.

The municipal government of **Maitum, Sarangani**, in cooperation with the Provincial Government and the local DENR prepared a forest land use plan that would guide both the LGU and the DENR to make decisions in allocating management responsibility of forest to various interested user groups. Based on this plan, upland communities including indigenous people are being awarded with community management agreements.

In **Aborlan, Palawan** the municipality joined hands with other local sectors to prepare its environmental program. The program helps the local government allocate the annual budget for environmental management. To sustain the citizens enthusiasm and volunteerism, the local government conducts an Annual Environmental Summit. Each summit includes creatively designed public events that celebrate the program's achievements, promote sharing and citizen feedback.

The whole province of **Nueva Viscaya** has been declared by an earlier Presidential Decree as a Watershed Forest Reserve, which means that tenure security cannot be issued to upland farmers. The provincial government worked out an agreement with the Regional Office of the DENR to issue 25 year Land Management Agreements (LMA) to responsible farmers in the Barobob Watershed—source of water for the provincial capital. With farmers having security of tenure, they are motivated to protect the remaining forests as well as government forest plantations.

In **Baguio City**, the local government in cooperation with local NGOs and the school system drummed up massive citizen support to protect the Busol watershed through its ECOWALK Project. The project involves conducting open air classrooms in the forests for school children. Part of the children's activities included actual replanting of denuded forest patches, which total to about 80, 000 seedlings to date. The children's hands on involvement sparked all other sectors to pitch in, resulting into a 20% increase in forest cover and a reduction of illegal cutting activities.

To protect **Iloilo City's** water supply, the provincial government and DENR encouraged the private sector to adopt portions of forests to be under their care and protection. With the help of non government organizations, the LGU – DENR initiative further provided a range of support to upland farmers occupying the headwaters so that they, in turn, can apply better farming practices that reduce soil erosion and water run-off. Farmer support included community organizing, assistance in obtaining tenure security, and help in developing family and community level livelihood enterprises.



The Maasin Watershed in Iloilo.

In **Bukidnon**, the provincial government approached watershed protection by helping smallholder farmers establish tree farms. The Bukidnon Environment Small Scale Tree Farm Project or BEST provides start up financial support to tree farmers payable in the form of 15 trees on the 10th year. In 1999, the provincial government convened a province wide Watershed Summit with municipal governments and other sectors participating. The summit reviewed the various initiatives and learnings generated locally. Participating municipal governments identified the watersheds where their administrative territories coincide. They identified the various LGU clusters that would correspond to seven key watersheds. Two clusters began to develop their joint watershed programs, with the provincial government providing facilitation and technical assistance.

Without funds of its own for reforestation, **Bohol** province cooperated with the local Chamber of Commerce, DENR and the local agriculture college to promote small tree farms especially in private lands. The purpose: to ease the pressure on the remaining forest lands and improve farmers income. The LGU further organized a corps of “hands – on” tree farm trainers and facilitators from among interested government, non government practitioners as well as farmer leaders. The trainers were trained on tree farm practices and were tasked to pinpoint those that farmers can immediately apply to improve plantations and ensure good profitable growth of remaining stands. To help defray the costs of farmer training, registration fees were charged or farmers were encouraged to bring their ‘baon’ (packed meals) to seminars.

In **Dumarao, Capiz**, the municipality fully optimized efforts of various government and NGOs for upland development by ensuring that they shared objectives and that roles were clearly defined. This was achieved by conducting regular "People's Congress." The event brought in all sectors to jointly plan and monitor progress in jointly identified work programs. More recently, they fortified their forest management and flood mitigation programs by using the watershed as the planning unit. The results of the 1988 elections affirmed the community's satisfaction of the participatory and strategic approaches being undertaken. The former mayor became vice governor by a huge margin while the former vice mayor ran unopposed as mayor.

Nagged by the perennial flooding problem, **Naga City's** local government mobilized volunteer professionals and concerned government personnel to delineate the watershed that fed into their Naga River – venue of the Annual Peñafracia Fluvial parade. Once delineated, they mobilized targeted interventions for the various zones: forest, agricultural and zones and the central business district. Because all sectors were involved, the otherwise piecemeal approaches of various government and non-government organizations were maximized.

10 STEPS FOR LOCAL GOVERNMENTS TO PREPARE AND MOBILIZE THE LOCAL NRM PROGRAM

There is a growing wealth of experience, which include both successes and mistakes, in local natural resource management. Based on these experiences, a local government who wishes to develop its own natural resources management program using its own resources can apply the following ten basic steps:

1. Organize an Ad-hoc Multi-Sectoral Planning Team

Most LGUs, given the lack of manpower and logistical resources to solely undertake the process, take advantage of local talent from various sectors in the community. The local government unit can create an ad-hoc multi-sectoral planning team composed of both responsible government leaders from the national and local governments, as well as interested volunteer representatives from the non-government sector such as farmer organizations, social development NGOs, the academe and religious sector. Mandate the team to accomplish the tasks cited below.

2. Determine the Area of Responsibility

The local government's administrative area may cover the topmost mountain, down to its rolling hills and lowland agricultural areas and the coasts and municipal waters. Under the Local Government Code, the LGU shares responsibility with the national government in managing and protecting the natural resources within its administrative boundaries. However, certain portions of these natural resources such as public forests, are under the control of line agencies.

To have a quick picture of one's area of shared responsibility for natural resources, develop a base map derived from available topographic maps, administrative maps, land use and vegetation maps. The base map should indicate the local government's administrative boundary, the major roads and river networks, and an initial reference to the remaining natural forests and other important landmarks.

In addition to marking the natural resources falling within the municipal boundaries, the key watersheds that affect the municipality should also be determined. A watershed is the total land area that contributes to the flow of a river. It is important to know where the waters originate (headwaters). The forest cover in this area must be protected among others to minimize the incidence of floods and drought downstream.

Occasionally, the headwater of a watershed that drains into a municipality is found in the territory of another municipality. This area is not under the administrative responsibility of the former but it is nonetheless an area of concern. By knowing how the watershed boundaries coincide with LGU's administrative boundaries, the LGU will know who to collaborate with.

3. Know the Natural Resources Situation

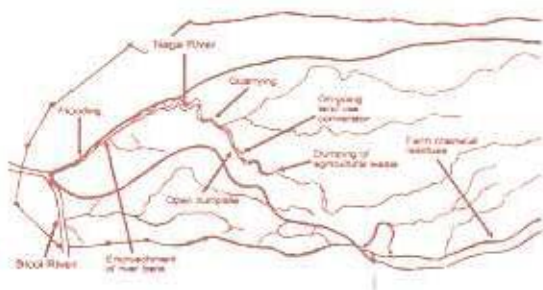
Using available land use and vegetation maps, observe and mark on the base map the remaining natural forests, and the various kinds of forest cover left, i.e. old growth, residual growth, brushlands, open grassland areas. Be sensitive to how the forests are distributed along the slope e.g. rolling to steep areas (In general, steeper slopes require more forest cover). With the help of key informants such as old folks among forest occupants, try to establish trends in the extent of deforestation.



Issues map of the Naga River watershed.

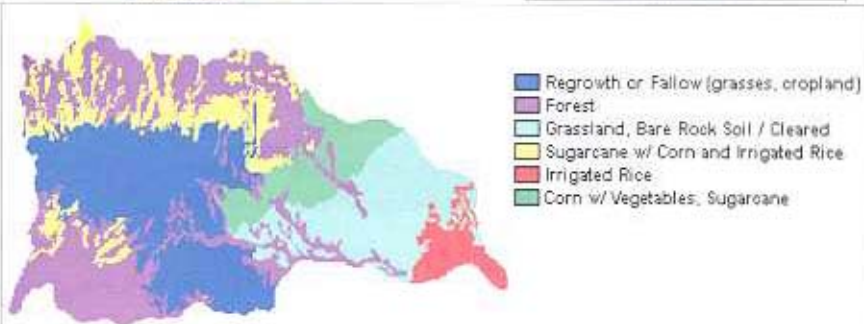
An issues map is a simple way of presenting issues on the watershed.

Source: Local Governance Notes, GOLD.



Watershed where two local government units are located.

Source: Local Governance Notes, GOLD.



Actual Land Use Map of Lantapan (1994)
Source: SANREM/CRSP GIS Maps

Identify and mark on the map other important natural resources such as major springs, streams, and rivers. Again, with the help of key informants establish trends in quantity and quality of water produced. Take note of the historical rainfall patterns, and the nature of soil and relate these with the current farming practices.

4. Know the Rules in Resource Use that Apply in the Area

With the help of the local DENR office, review "DENR Control Maps" and identify the legally classified timberland and Alienable and Disposable Areas as well as various sub-classification of the land. Determine the national rules and regulations that govern access to and utilization of natural resources within the LGUs administrative territory. Pay particular attention to rules that encourage local upland communities to co-manage and benefit from these resources. Review key administrative orders that spell out what forest management functions are being devolved to the LGU and how this will be done.

There are LGUs whose territories or portions thereof coincide with Nationally Proclaimed Protected Areas. By law, the natural resources within these areas are managed by a Protected Area Management Board or PAMB. In these situations, the local government should work with the PAMB right at the onset to avoid possible conflict in plans. LGUs should take advantage of their status of being senior members of the PAMB.

Keeping the Cost of “Surveys” Within the LGU’s Means

Communities initiating their local natural resources management programs are usually overwhelmed by the amount of time, effort and cost associated with conventional forms of resource appraisal such as forest inventories, and formal socio-economic surveys. In recent years, an increasing number of LGUs and communities nationwide have tried simpler, less time consuming and more affordable ways of studying their local natural resources situation. They applied appraisal tools that focus on immediately capturing only critical indicators instead of gathering voluminous data. This is made possible by involving several individuals from different disciplines, e.g. agriculture, forestry, social sciences, etc. The multi-disciplinary team combine observations from secondary data, field observations and interactions with key informants. Also, the appraisal tools present information in such a way that all stakeholders, not just the technicians are able to understand their problems and contribute to the solutions.

For LGUs who want to conduct their own natural resources appraisal right away, the practical approach may not be so much about learning the skills itself (although this would help in the long term). Rather, it involves creatively identifying and organizing available talents and resources to do the job. These resources are found in different places — certain local offices of national government agencies, technically oriented NGOs, state colleges and universities.

A few of the expanding menu of rapid appraisal tools worth mentioning are the following:

- ◆ Marking the watershed boundaries — helps the community find out where the water comes from and where it will all drain.
- ◆ Overlaying the administrative and watershed boundaries — helps LGUs know the other LGUs whom they must collaborate with in order to protect the watershed.
- ◆ Transect map — marks the issues and opportunities on the cross section of the community from the mountain top to the sea.
- ◆ Issues map — marks the issues on a watershed map, along the route of the river.
- ◆ Problem tree analysis — helps establish the relationship between causes (roots) and effects (branches) of a community problem.

To know more about these tools, refer to the Local Governance Technical Notes cited under the section on References of the article.

5. Determine What Motivates or Discourages the People From Managing the Local Resources More Soundly

Visit and interview forest occupants and upland farmers. Get to know their forest use, farming practices, and what they consider as their key concerns. Often, farmers' concerns usually revolve around access roads to markets, prices of farm products, lack of planting materials, water availability, tenure and labor shortage. Establish how these concerns influence the kind of land issue decisions they make (e.g. reluctance to invest in planting perennial crops). The planning team may help representative communities conduct a "Problem Tree Analysis" where observations are classified as either root causes, intermediate causes, and the intermediate and final effects.



Informal discussions of community facilitators with farmers on issues and problems besetting their communities.

6. Know the Good Local Management Practices: What Works? What Doesn't?

Other local governments have pioneered in natural resources management. Visit them or read about their work to know more on what works on the ground and what doesn't. This will help prevent repeating costly mistakes. A good source of information on promising practices is the Galing Pook Awards Program sponsored by the Asian Institute of Management (AIM). The program has awarded and documented several dozen LGU programs that creatively harnessed local manpower and fiscal resources to better protect their forests, uplands and coastal resources.

7. Conduct Consensus Building Sessions Among All Stakeholders

Use the results of the previous steps (knowing the situation and knowing the various good practices) to build community consensus. The central question that this consensus building session will answer is *"Given the situation and with the knowledge of what can possibly be done, what should be our objectives and priority actions in the next five years to protect and manage our natural resources?"*

The first step in building a consensus is to identify and know the three types of stakeholders to the natural resources in a locality. They must all be involved in deciding how the natural resources may be used to benefit the greatest number. The first type includes those who affect the management of the natural resources (e.g. direct users of forest products, upland farmers, households and business firms throwing waste). The second type are those who are affected by it (e.g. lowland farmers, residents). The third type are the intermediary organizations (government and non-government organizations) concerned with the public good. In many instances, stakeholders can assume the dual role of the one affecting and the one affected by conditions of the natural resource.

How do we bring all stakeholders together to come up with a consensus without making it too costly and time consuming for the LGU? Try the Technology of Participation or TOP which was applied in the Lantapan case and in over 200 other LGU environmental program initiatives nationwide. (See box on *“Managing the cost and time of being participatory.”*)

8. Prepare an Action Program Document to Guide Annual Planning and Budgeting

Using the results of the consensus (previous step) as basis, prepare a simple action program document consisting of statement of objectives, clusters of priority activities, timeframe (3 – 5 years), organization and budgets. The document can guide the LGU how to prioritize and allocate its annual budget resource. Concerned citizens can use it as guide in their interaction with local government. It can save LGU planners from having to come up with new, short term activities each year—that often do not produce a lasting impact (e.g. roadside planting without maintenance). Finally, a program of action can help better obtain external funding.

Assign a local writing team to prepare the document using the results of the consensus building session. If the TOP process was used in this session, the team can copy portions of the session proceedings verbatim as actual text of the document. Examples are “statements of vision, strategies, and priority action arenas.” The writing team can then focus on clarifying the scope, interphasing and budgets of agreed upon activities. Review and validate the output of the writing team and subject it to further validation at the barangay level and the local development council.

Learning from the Pioneering Innovators:

How to make the most of it

An increasing number of local governments and communities have successfully experimented on better and less expensive ways to protect and manage their natural resources. LGU's and communities who are just starting to address their natural resources management concerns do not have to "reinvent the wheel" to do this. By learning from their pioneering peers, they can cut the "trial and error period" in starting something new and minimize repeating costly mistakes. Here are recommended steps to obtain useful knowledge and guidance from the experience of pioneering peers.



- ♦ Get to know and understand your locality's own natural resource management problems and opportunities. Know what's being done about it and what the gaps are.
- ♦ Read available references about innovative practices. Alternatively, attend "sharing sessions" or conferences where many good practices are usually highlighted. The last section entitled "Resource Organizations" contains a list of information sources. After getting to know the range of innovations, pinpoint selected LGUs and communities that you would like to know more about.
- ♦ If resources are available, visit the LGUs whose practices are most relevant to your situation. Make sure that key decision-makers and local champions in your locality join the educational visit.
- ♦ Prioritize the questions to be asked to ensure that you are able to get all the information needed to plan your own initiative.
- ♦ After the visit, the visiting group should review observations made and identify outstanding learnings. Pinpoint those that are applicable to your situation. The group should prepare a brief report that can then be presented during a consensus building session.

Examples of Actions that Can Be Done Immediately Using Local Resources

The local natural resources management priority action program may initially consist of activities that can be done immediately using local community organizations, volunteer work, corporate donations, etc.). For instance, an action program protecting the community's upland forests and watersheds could have several clusters of activities. The following are examples of activities that have been tried out by pioneering LGUs:

For instance a cluster of activities can aim to assist forest occupants and upland farmers such as:

- ◆ Sponsor cross visits by farmer leaders to other successful farmers.
- ◆ Identify and help pioneer farmers demonstrate improved farm practices to other farmers.
- ◆ Set up a farmers "clinic" during market days.
- ◆ Help community organizations or families set up small but profitable nurseries.
- ◆ Identify mother trees for good quality planting materials.
- ◆ Facilitate processing of tenure instruments to upland farmers.
- ◆ Disseminate information on price trends of farm products.
- ◆ Provide non monetary incentives to farmers applying soil conservation (e.g. priority in receiving other agricultural services)



Another cluster of activities can aim to directly and indirectly protect remaining forests and riverine areas:

- ◆ Incorporate proper land use in community watersheds and riverine areas in the zoning ordinance.
- ◆ Sponsor community events to reforest community watersheds.
- ◆ Assign patches of forests and river banks for particular volunteer organizations to maintain; and announce their efforts.
- ◆ Form river watch groups to monitor water quality.
- ◆ Introduce improved "housekeeping" measures in the dumpsite.
- ◆ Hold an awards program during the fiesta for outstanding volunteer initiatives.

The following is another cluster of activities that promote tree farms in idle lands:

- ◆ Identify idle private lands for tree farms.
- ◆ Facilitate agreements between landowners of idle lands and tree farm growers.
- ◆ Sponsor training on tree farming (participants can pay small registration fees or bring their own "baon").
- ◆ Sponsor farmers dialogue with government agencies to facilitate harvesting rights for planted trees.
- ◆ Help schools establish small "Tree Farms for Tuition Fees".
- ◆ Declare real property tax discounts for idle lands planted with trees.

Another set of activities may involve strengthening the capability of municipal staff and allied organizations. Examples are:

- ◆ Organize the Municipal Environment and Natural Resources Unit using existing staff.
- ◆ Invite resource persons to train local staff and volunteers on new environmental planning tools.
- ◆ Conduct a teambuilding session for the local environment council.
- ◆ Become a member of Coalitions and Networks promoting natural resource management and attend their sharing sessions.

Quick Look at Helpful Policies

What policies can help the local government protect their natural resources, encourage participation of all sectors and enable them to benefit from the resource? Take note of the following three sets of helpful policies:

Community based resource protection and management. The first set of rules govern how forests, agricultural lands, and fishery resources will be protected and utilized. The most relevant of these regulations promote the approach called "Community Based Resource Management." The policy of Community Based Forest Management (CBFM) for example, encourages upland forest communities to co-manage and protect the very natural resources that they depend on. In return, they are given security of tenure and utilization rights based on sound resource management plans. Working with the DENR, local governments can utilize the CBFM policy to encourage farmers, communities and local business groups to invest private resources in reforestation and other resource management ventures. With the non-government and private sector investing, local governments does not have to shoulder all the cost of resource protection and management.

Local Government Code: devolving community watersheds. The code reaffirms the local governments' authority as Area Manager. The code mandates that LGUs review all major projects that may affect them before they are implemented. It also devolves specific responsibilities and authorities, including the power to levy fees. One of the key authority devolved that interests many LGUs is the management of community watersheds that are most important to the locality.

Environmental Impact Assessment. Watersheds, mangroves and other natural resources are considered as Environmentally Critical Areas under the laws on Environmental Impact Assessment (EIA). LGUs can fully utilize the EIA process as a tool to ensure that planned projects do not adversely affect their resources. For instance, LGUs can fully participate in the scoping sessions to ensure that all local concerns are studied. Their positions will be considered in determining whether proposed projects meet the social acceptability criteria needed before clearances are granted.

Managing the cost and time of being participatory



For citizen participation to work, effective methods are needed. Without effective methods, participation could cost lots of time and money. Opinion surveys for instance take time and money. Sometimes in a public hearing, only a few people dominate the discussions. In many other public sessions, one often observes that all participants say whatever they feel is appropriate and the session eventually achieves nothing.

The Technology of Participation (TOP) is one method recommended for facilitating group discussion at the local levels. Numerous LGUs and communities all over the country, including some of those cited here, have used this tool to prepare various programs on solid waste management, coastal resources management and watershed management.



To ensure sustainability, key sectors through their representatives must participate in implementing the program through self-help activities.

9. Provide Policy Support to Enforce the Program

Program activities should be supported by appropriate local policies that encourage or require everyone to observe certain practices that contribute to the proper management of the locality's natural resources. For instance, certain land use practices advocated by the NRM program should be incorporated in the LGU's official land use plan and zoning ordinance. The local government may also establish policies that provide incentives for good land use practices, such as relaxing real property taxes for areas planted to perennial crops. It can also negotiate with the national government to adapt certain national policies to local circumstances such as Nueva Viscaya's Land Management Agreements.

10. Organize the Local Manpower and Partners

To ensure that the program is implemented on a sustained basis, organize two kinds of manpower resources. First, form a multi-sectoral council to provide over-all direction to programmed activities, monitor progress and serve as venue for citizen feedback and dialogue. Empower the body with the above powers and functions through an Ordinance. In general, members of the council should include representatives from those who affect or are affected by the natural resources management, as well as intermediary groups concerned with the public good.

If there are existing active bodies with current or potential interest in natural resource management they can also perform the same functions.

Second, organize a specific Line Unit within the local government to handle natural resources management affairs. Since hiring new staff is usually prohibited, assign these functions to an existing line unit such as the Planning or Agriculture Units. Alternatively, organize a new unit using seconded staff from other units. The key criteria for selecting the people to do the job is not so much on having technical skills but having the interest in the topic and resourcefulness to mobilize people and limited resources.



Seed collection and propagation of various tree species by farmer groups in Lantapan.

Sustaining the Energy of Multi-Sectoral Bodies

Those who are actively working on natural resources management are familiar with the increasing number of multi-sectoral bodies or technical working groups created to address local environment and natural resources



management concerns. The concept: to draw stakeholders to the table and agree on how to manage the resource that they all share. Recent observations, however, indicate that a good number of these bodies hibernate or disintegrate. One of the more common reason is the unsustained local government support due to changes in administration.

Environmental practitioners are concerned with these developments, because they know that natural resources management requires sustained attention over many years. Communities can not afford to see their multi-sectoral bodies hibernate or disintegrate because it will bring them again to square one in terms of solving their natural resources management issues.

What options then are available to enhance the sustainability of these bodies? Both local governments and community leaders can introduce a range of short term and long term measures. An important prospective mechanism is to provide budgetary support so that these bodies are able to demonstrate and to "deliver." It is especially effective if budgetary allocations for maintaining the Council are made mandatory. Still another key mechanism is to strengthen the legal basis for creating these bodies and improving the members' security of tenure.

A few cases are cited here as examples of successful efforts to enhance the sustainability of the multi-sectoral bodies. The locally established Environment and Natural Resources Council of Arakan, South Cotabato is an example of how the non-government sector, in cooperation with the

LGU leadership ensure that there is a constant and strong demand for the existence of such bodies. The Palawan Council for Sustainable Development is an example of a sustainable multi-sectoral body because it has both strong legal mandate and a mandated fiscal base.

In the US and Canada, there are over 3,000 local Soil and Water Conservation Districts. The conservation districts are responsible for programs and practices that promote responsible use of natural resources at the county level. They function very much like our multi-sectoral bodies. A Board of Supervisors for each District is elected periodically. This has proven very important in ensuring the sustainability of the districts over the long term. Annual budgetary allocations for the work of the district are mandatory. The District Council (or Board of Supervisors) maintain very close rapport with the local Chief Executives. But since the local council members are elected, they also have a crucial responsibility and accountability directly to the citizens for the protection of natural resources.

Sustaining multisectoral bodies can also be achieved by sustaining their dynamism. Peer support networks would be one way, as demonstrated by the US National Coalition of Conservation Districts. Facilitators involved in Australia's Landcare movement is another way.

The US National Coalition of Conservation Districts provides means for various conservation districts to interact and share new ways of solving problems. Hence, learning costs are reduced and at the same time, positive reinforcement and enthusiasm are promoted.

In the Philippines, the Philippine Watershed Management Coalition promises to be an important peer support network among local practitioners in watershed management.

In Australia, local volunteer groups called Landcare serve as multi-sectoral working groups similar to the Philippine working groups. The Landcare groups are composed of volunteer stakeholders who undertake localized activities to improve farm productivity and rehabilitate the land. Stakeholders include farmer groups, school, urban and business, media, and other sectors. Both national and local governments help these self-help groups by providing on call "facilitators." The facilitators help the groups organize their agenda, obtain useful information and training, and broker external financial support to their activities.

RESOURCE ORGANIZATIONS

Local governments and concerned citizens can avail of four kinds of information that can help them formulate their own NRM programs.

New Ideas and Training Resources

First, visit or get information about selected pioneering LGU and community based programs to get ideas on what development approaches and practices work, and what doesn't. It will help you avoid costly mistakes. Most of these organizations also provide training programs and information materials. Take note of innovations by LGUs, NGOs and farmer organizations as well as business groups.

LGU innovations. For more information on LGU innovations there are four primary sources.

- ♦ **The Galing Pook Program** annually recognizes 20 innovative programs. Almost half of the annual awardees deal with environmental issues.

The Galing Pook Awards

Asian Institute of Management, Paseo de Roxas, Makati

Tel: +63 2 8672529

Internet: www.galingpook.org

- ♦ **The Annual Gawad Pangulo sa Kapaligiran** also awards outstanding LGU work in forest protection, solid waste management and protection of water bodies.

Clean and Green Program

c/o BLGF/The Department of Interior and Local Government

3/F Francisco Gold Condominium

EDSA Corner Mapagmahal Street, Diliman, Quezon City

- ♦ **The Philippine Watershed Management Coalition** is a network of multidisciplinary watershed management teams nationwide. It sponsors annual sharing and training sessions on localized watershed management.

Philippine Watershed Coalition Secretariat

25-B, Magsaysay Village, La Paz, Iloilo

Tel: +63 33 3202373

Internet: www.watershed.org.ph

- ♦ **The Solid Waste Management Association of the Philippines** can share information on immediately doable practices to handle municipal waste that would otherwise degrade rivers and bodies of water.

The Solid Waste Management Association of the Philippines

Unit 202 Loyola Heights Condominium

E. Abada Street, Loyola Heights, Quezon city

Tel: +63 2 4345954

Email: swapp@edsamail.com.ph

Farmer and community based innovations. For more information on farmer and community based initiatives, the following three organizations may be noted.

- ♦ **The International Centre for Research in Agroforestry – ICRAF, Philippines**, provides research and development services to promote profitable small farm agroforestry systems. It provides technical assistance to several self help farm groups and local government units in northern Mindanao using landcare approaches.

ICRAF-Philippines

2/F, College of Forestry and Natural Resources

Administration Building

University of the Philippines Los Baños

P.O. Box 35024, College, 4031 Laguna

Tel: +63 49 5362925; +63 2 8450563, 8450575 local # 544

Fax: + 63 49 5364521

Email: ICRAF-Philippines@cgiar.org

Internet: www.icraf.cgiar.org/sea

ICRAF-Claveria Research Site
MOSCAT, Claveria, Misamis Oriental
Tel: +63 8822 720964; +63 88 3581057
Fax: +63 8822 720964
Email: icrafcla@cdo.weblinq.com

ICRAF-Lantapan Research Site
Songko, Lantapan, Bukindon
Tel: +63 9173341571; Tel/Fax: +63 49 5364521
Email: icraf@mozcom.com

- ◆ **The Philippine Council for Agriculture and Resources Research and Development (PCARRD)** regularly disseminates information on useful technological innovations through its TechnoPinoy Program.

PCARRD
Los Baños, 4030 Laguna
Tel: +63 49 5360015 to 19
Web: www.pcarrd.dost.gov.ph

- ◆ In each region, selected NGO groups or state colleges of agriculture and fisheries provide information on successful community based practices in agroforestry and natural resources management. The **Upland NGO Assistance Committee** or **UNAC** has a directory of NGOs and training institutions working directly with upland farmers.

UNAC
59 C Salvador Street, Loyola Heights, Quezon City
Telefax: +63 2 4360706
Email: UNAC@skyinet.net
Web: www.geocities.com/dbped/unac

- ◆ **National Government Agencies** often sponsor projects that pilot innovations in natural resources management. These are often donor assisted projects. An example is the **Agrarian Reform Support Program** or **ARSP**. Contact the national or regional offices of key agencies such as the **Department of Science and Technology (DOST)** (Internet: <http://www.dost.gov.ph>), the

Department of Environment and Natural Resources (DENR) (Internet: <http://www.denr.gov.ph>), the **Department of Agriculture (DA)** (Internet: <http://www.da.gov.ph>), or the **Department of Agrarian Reform (DAR)**. As a starting point, ask about their donor assisted programs.

Business initiatives. To get a quick look at how the business firms can contribute to preventing pollution (especially water pollution), visit the **Philippine Business for Environment** (Internet: <http://www.pbe.org.ph>)

Maps, Surveys and Appraisal Services

Second, avail of the technical resource institutions that can provide technical maps and professional personnel to help delineate and characterize natural resources in your locality. Key organizations:

- ◆ **National Mapping and Resources Information Authority (NAMRIA)** Fort Bonifacio, Makati City. Tel: +63 2 8104835 to 37; Internet: <http://www.psdn.org.ph/namria>; or their Regional offices in Cebu, Davao and Cagayan de Oro cities.
- ◆ **Local NGOs** that offer technical assistance such as the Environmental Science for Social Change in Malaybalay, Bukinon
- ◆ **Soils Services Units** - Department of Agriculture Regional offices
- ◆ **Selected Universities and Colleges** such as the Water Resources Center of the University of San Carlos in Cebu City, the Isabela State University in Northern Luzon or Xavier University in Cagayan de Oro, Mindanao.

Facilitation Services

Third, obtain the services of professional facilitators who can design and run consensus building workshops using the TOP, conduct community consultations and mobilization. Get to know:

- ♦ **Bulacan Sate University (BSU).** c/o Dr. Modesta Lugos, Coordinator-Center for Local Governance (CLG). Institute of Local Government Administration, Dr. Rosario Pimentel, President (BSU) Malolos, 3000 Bulacan. Tel: +63 44 7917117
- ♦ **The Gerry Roxas Foundation.** c/o Ms. Raquel Olandia, CLG Coordinator, or Ms. Agnes Q. Villaruz, Executive Director. Dayao, Roxas City, Capiz. Tel: +63 36 6211922, 6212832, 6210093, 6211328; Fax: +63 36 6210538. Email: grf@l-rox.net.ph
- ♦ **Divine World College (DWC).** c/o Ms. Cynthia Ayco, CLG Coordinator and Head-DWC Research Center. Reseach Center, Tagbilaran City, Bohol. Tel: +63 38 4113658. Email: research@dwc.edu.ph
- ♦ **Ateneo de Naga University (ADNU).** c/o Dean Alfredo Fabay, CLG Coordinator, or Fr. Joel Tabora, SJ, President. Bagumbayan Sur, Naga City 4400. Tel: +63 54 4739253, 4738447, 4730756. Email: acfabay@sili.adnu.edu.ph. Internet: <http://www.adnu.edu.ph>
- ♦ **Ateneo de Davao.** c/o Ms. Lourdes Mamaed, Executive Director, or Fr. Edmundo Martinez, SJ, President. Jacinto Street, Davao City. Tel: +63 82 2212411 local 602/604; Fax: 63+ 82 2264116; Mobile: 0917 7002395. Email: clg@addu.edu.ph. Internet: <http://www.addu.edu.ph>

- ♦ **Southern Philippines Research and Extension Foundation (SOPREX), Inc.** c/o Mr. Rosello C. Macasantos, CLG Coordinator and Executive Director, SOPREX, or Engr. Marcelo P. Salazar, Acting Chancellor, MSU-IIT. Mindanao State University-Institute of Technology, Tibanga, Iligan City. Tel: +63 2214056, 2238077, 2238481; Fax: +63 2212654 local 2359; Mobile: 0918 4907943. Email: soprex@ccl.msuiit.edu.ph
- ♦ Trained Staff of selected local government units who have used the TOP. Notable examples are those in Nueva Vizcaya, Bulacan, Naga City, Bohol, Negros Oriental, Palawan, General Santos City, Sarangani, North Cotabato, Lanao del Norte.

Financial Resource Mobilization

Fourth, for information on financing options:

- ♦ Local government units can avail of grant and loan resources of the **Community Based Resource Management (CBRM) or the LOGOFIND** c/o the Department of Finance, The Central Bank Building, Roxas Boulevard, Manila.
- ♦ Partner NGOs can avail of funding from special windows for NGOs in environmental work such as the **Foundation for Philippine Environment**. No. 97 Matahimik Street, Teacher's Village, Diliman, Quezon City. Tel.: +63 2 9272186.
Internet: <http://www.psdn.org.ph/fpe>
- ♦ For assistance in preparing specific feasibility studies involving some infrastructure (roads, waters supply), check with the **Project Development Assistance Center or PDAC**. They are based at the Regional Offices of the National Economic Development Authority or NEDA. The PDAC's of Region 4, 10 and 13 are currently among the most active.

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APPENDIX

Acronyms Used

AIM	- Asian Institute of Management
ARD	- Associates in Rural Development, Inc.
ATSAL	- Agroforestry Tree Seed Association in Lantapan
BSWM	- Bureau of Soil and Water Management
CBFM	- Community Based Forest Management
DENR	- Department of Environment and Natural Resources
DILG	- Department of Interior and Local Government
EIA	- Environmental Impact Assessment
ENRC	- Environment and Natural Resources Council
GOLD	- Governance and Local Democracy Project
ICRAF	- International Centre for Research in Agroforestry
LGU	- Local Government Unit
LMA	- Land Management Agreement
NGO	- Non-Government Organization
NRM	- Natural Resources Management
NRMDC	- Natural Resources Management Development Council

PAMB	- Protected Area Management Board
PO	- People's Organization
SALT	- Sloping Agricultural Land Technology
SANREM-CRSP/SEA	- Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program/Southeast Asia
TOP	- Technology of Participation
UNAC	- Upland NGO Assistance Committee

For more information, contact:

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