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Scaling up the Landcare and NRM planning process in Mindanao, Philippines

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The International Centre for Research in Agroforestry (ICRAF) has been conducting research on contour hedgerow technologies for the past decade in Claveria, Misamis Oriental, assessing the management strategies that address key technical constraints of the system. Since adoption of the technology by farmers was low, ICRAF refocused its efforts in finding alternative systems that address the technical and institutional issues of conservation farming. Natural vegetative filter strips (NVS) provided simple solutions to the technical constraints of soil conservation on sloping farms. These are buffer strips laid out on the contour in which natural vegetation is allowed to re-grow into thick, protective cover. NVS also provided the foundation for complex agroforestry systems with fruit and timber trees. This system is being widely adopted, enhanced by a dissemination approach called "Landcare".

Landcare is a movement of farmer-led organisations supported by local governments with backstopping from technical service providers - they share knowledge about sustainable and profitable agriculture on sloping lands while conserving natural resources. This dynamic voluntary movement has grown to include more than 5000 farmers in 250 groups from five municipalities in northern, central and eastern Mindanao. Today, Landcare has become the melting pot for farmers and others who discuss issues, share lessons, invest talents, skills and other resources geared towards better land husbandry and protection of the environment from degradation. It threads a path for constructive, long term and practical action at a community level for tackling environment and sustainability issues for the well-being of people and their communities.

Experiences with and strategies for scaling up the Landcare approach and the locally-led natural resource management planning process are described here.

Farmer innovations in erosion control

ICRAF's project sites are located in two adjoining provinces in northern Mindanao, namely Misamis Oriental and Bukidnon, in the municipalities of Claveria and Lantapan respectively, with

similar biophysical conditions. Rainfall is about 2200 mm/year and soils are degraded, acidic (pH 4.5-5.2) with low availability of P (Mercado et al, 2000). Sloping fields in Claveria experience up to 200 t/ha of soil loss annually. About 95% of the cropping activities (mostly maize and some vegetable) take place on lands of more than 15° slope.

Contour hedgerows of pruned leguminous trees or Sloping Agricultural Land Technology (SALT) had been promoted in Claveria since the early 1980's by the Philippine Department of Agriculture (DA). It aimed at providing effective soil erosion control, organic fertiliser to the companion crops, fodder for ruminants, fuelwood for farm families, and restoration of water quality and quantity in the watershed etc. In spite of these benefits, farmers' adoption was not widespread due to high labour in establishment and maintenance of the hedgerows, resource competition between the hedgerows and associated crops, limited added value from hedgerow pruning, and poor species adaptation.

However, farmers began to adapt the technology. Some placed their crop residues in lines on the contour to form "trash bonds". These accelerated the growth of native grasses and weeds and soon formed stable hedgerows with natural front-facing terraces. Others laid out the contour lines but didn't plant anything. These contour lines eventually evolved into natural vegetative strips (NVS) that controlled erosion but needed less maintenance and labour than the tree based contour hedgerows. (Mercado et al, 2000).

These simple innovations attracted many farmers in the area. In 1994, it was estimated that 150 farmers had adopted contour hedgerow systems while the number of pruned tree hedgerow fields decreased after 1990. The new wave of hedgerow systems was predominantly NVS with contour ploughing replacing up-down tillage.

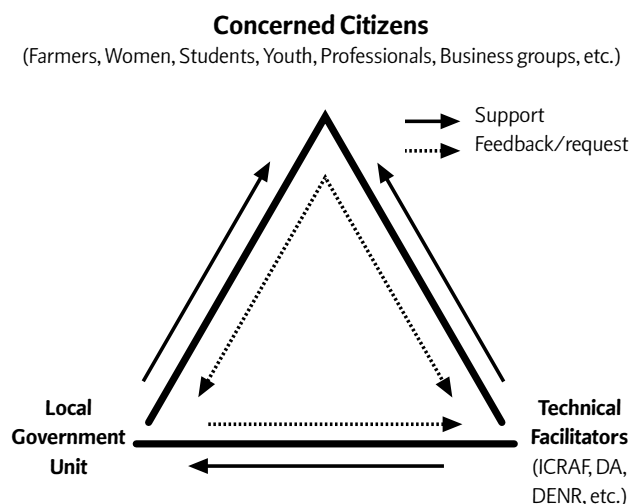
The evolution of Landcare

ICRAF also developed and put into test an extension programme that rapidly and inexpensively diffuses conservation farming and agroforestry technologies using the group approach. This approach was found effective in strengthening government extension programmes and expedited the dissemination process. It also encouraged local governments to provide technical, leadership, logistics and policy support. At the begin-

ning farmers came together to exchange knowledge and skills on soil conservation and agroforestry practices. With time they felt the need to be more cohesive and to look at other degradation issues - a process of group development that required leadership skills. This key institutional innovation for technology dissemination gave birth to "Landcare", a land conservation approach and movement, which has its origin in Australia (Campbell and Siepen 1996).

What is Landcare?

The Landcare approach is based on effective community groups being in partnership with local government. Such groups respond to issues affecting them and are more likely to find and implement solutions independently, rather than follow those imposed by external agencies. Landcare is about people and the key to success is based on a mature social capital and a close bond between and among farmers 'communities' and governments. The tripartite relationship of key actors in Landcare: grassroots Landcare groups, local government units (LGU) and technical service providers and facilitators (ICRAF, Department of Agriculture (DA), Department of Environment and Natural Resources DENR, others) is indicated in the figure below. The success of Landcare as an approach is dependent on how these 3 key actors interact and work together.



In 1996, we started our technology dissemination programme in response to farmers' requests for technical assistance in conservation farming. 25 farmers requested for training on the establishment of NVS and decided to form a group and share the technology with other farmers. That group of 25 farmers made the history of Landcare in Claveria. Today, there are more than 250 Landcare groups in Claveria and Lantapan. Most of them are based in the sub-villages (*sitio or purok*) and are federated at the village (*barangay*) and municipal levels. More than 3000 farming families are involved and have successfully extended conservation farming technologies to more than 2000 farmers and established more than 300 communal and individual tree nurseries (Mercado et al 2000). Thousands of fruit and timber tree seedlings are planted on the NVS, on farm boundaries, on buffer zones of protected areas, on riparian areas, and some are planted on small-scale tree plantations. Some groups have also linked with other service providers, including the business sector, for funding of their nursery activities and livelihood projects.

Who is involved in Landcare?

Landcare is a voluntary group that is currently represented by a large number of farmers. However, interests from other sectors

- women, students, youth and professionals - are emerging. This implies a wider applicability of Landcare for a range of community groups in varying situations. They are:

1. Concerned citizens in the community who are:

- Willing to share their talents, skills and other resources
- Usually resource poor and want to improve their livelihoods
- Willing to learn, share experiences and employ new sustainable farming techniques
- Committed to resource conservation and protection and the creation of workgroups for the purpose
- Tillers, non-tillers, owners, tenants of the land

2. Local Government Units (LGUs) who can provide:

- Policy support for the institutionalisation of conservation farming, agroforestry and other practices for sound environment and natural resource management, and budget allocations through creation of local ordinances.
- Leadership in facilitating Landcare groups and related activities
- Capacity-building programmes for the overall development of Landcare
- Financial support for Landcare activities

3. Technical facilitators (ICRAF and other line-agencies) who can provide:

- Appropriate technologies for sustainable agriculture and natural resource management
- Facilitation for Landcare group formation and their activities
- Information, communication and education programmes
- Network support for Landcare groups

What are the aims of Landcare?

The issues in Landcare are varied and usually location-specific, and form the basis for defining goals. Generally, however, Landcare aims at:

- Protecting, conserving and restoring the resource base: soil fertility by controlling soil erosion and other conservation technologies that increase and sustain farm productivity.
- Engaging in field level action research that addresses other issues on sustainable agriculture and natural resource management.
- Developing marketing strategies for agroforestry and environment-friendly farm products
- Strengthening and empowering local people to think, create and initiate activities that improve livelihoods as well as protect the environment from degradation.
- Sharing technical knowledge among researchers, extension agents, local officials, farmers, students, women, professionals, business sector, civic groups and other members of the community about sustainable agriculture and natural resource management.
- Seeking technical and other forms of assistance from government and non-government agencies as well as private companies.
- Drawing support from all sectors for the common interest of land care.
- Fostering and safeguarding the welfare and interest of its members.

Steps of the Landcare approach

During the gestation and evolution of Landcare in Claveria, we identified the following steps in developing this approach as summarised below (Garrity and Mercado, 1998).

1. Select sites with good potential

This is to bring conservation farming technologies to where it is most needed—on sloping lands where soils are prone to

erosion. It also involves meeting with key leaders in the local government units, interested farmers, and other stakeholders. Their understanding of the issues to be addressed and their willingness to support and complement the programme are crucial to the success or failure of Landcare at a given site.

2. Expose key farmers to successful technologies and organisational methods

The aim is to develop strong awareness among prospective key actors - especially innovative farmers and farmer leaders - of the opportunities to effectively address production and resource conservation objectives through the new technologies. The success of the activities can be measured through the enthusiasm developed to adopt the technologies within the community. Exposure activities include:

- Cross visits to the fields of farmers who have successfully adopted the technology
- Training experience for farmers in the target communities to learn about the practices through seminars in their villages; and
- Opportunities for farmers to try out the technologies through unsubsidised trials to convince themselves that they work. If so, these farmers become the core of a conservation team to diffuse the technology in the municipality

3. Organise conservation teams at the local level

Once it is clear that there is a critical threshold of local interest in adopting the technology and a spirit of self-help to share the knowledge among the villages of a municipality, then the conditions are in place to support the implementation of a municipal conservation team. The team is composed of an extension technician from the Agriculture Office and possibly from the Environment and Natural Resource Office, an articulate farmer who has experience in applying the technology, and an outside technical facilitator. The team will initially assist individual farmers in joint implementation of desired conservation farming practices. Later, they can conduct seminars and training at the village level if sufficient interest arises. During these events, the team can respond to requests for the organisation of formal groups.

4. Evolve Landcare farmers organisation

If and when the preconditions are in place for a Landcare farmer organisation, then the facilitator may assist the community in developing a more formal organisation. A key ingredient for success is identifying and nurturing leadership skills among prospective farmers. This may involve arranging for special training in leadership and management for the farmer leaders and exposing them to other successful Landcare organisations. Each village may decide to set up its own Landcare Association and a Village Conservation Team. A village may organise Landcare Association sub-chapters in their sub-villages. A sub-village conservation team usually includes a local farmer technologist, the sub-village leaders and the councillor assigned in that sub-village. The sub-village conservation teams are the front liners in conservation efforts providing direct technical assistance, training and demonstration to farmer households. They are backstopped by conservation teams at the village and municipal levels. At the municipal level, the Landcare Association is a federation of all village level Landcare groups. The municipal conservation team is part of a support structure, which also includes other organisations that can assist the chapters for the organisational set up of the Landcare Association.

5. Attract local government support

Local governments can provide crucial political and sustained financial support to the Landcare Association in meeting its objectives. The municipality has its own funds earmarked for environmental conservation. These can be targeted to Landcare activities that enhance natural resource conservation. The municipality can be encouraged to develop to a formal natural resource management plan, which can help guide the allocation of funds.

The villages can also allocate financial resources from their regular internal revenue allotment. These funds can be used to organise the conservation teams and Landcare Association activities at the village level. The municipality can complement the funds of the villages, just like it happened in Claveria. The municipality allocated 50,000 pesos (about 1,250 US\$) to each village to support Landcare activities. External donor agencies can best support Landcare development by allocating resources for leadership and human resource development, communication equipment and transportation to enable the Landcare leaders to make maximum use of their time.

We noted that Landcare performed impressively in villages whose activities were mostly funded by the local (village) government. Here the village officials made sure that the activities were well implemented so that their investments paid off, as compared to those that were in part funded externally. This implies that when the investments are coming from local funds to support self-help activities, it is likely that local people ensure the gains of their investment, resulting in good and successful projects, and sustained actions.

6. Monitor and evaluate

Monitoring is a necessary tool to assess the progress of the activity and use outputs for strategising activities or planning actions to make the programme more dynamic and relevant to the needs of the target community. For monitoring purposes, ICRAF has been keeping records of all those who have attended a training or had been assisted with establishing NVS on their farms, as well as farmers who requested assistance. Details on farming and conservation practices, training and follow-up needs are recorded on a diagnostic card, which is updated on regular follow-up visits by ICRAF staff. The leaders of the Claveria Landcare Association (CLCA) chapters and sub-chapters have been supporting this activity by facilitating the distribution and collection of the diagnostic cards to and from the sub-villages and new CLCA members.

Scaling up the natural resource management planning process

In 1996, the local government of Lantapan embarked on a bold step to develop their "natural resource management and development plan". It was probably the first of its kind in the history of local development planning with emphasis on natural resource management. The planning process was designed by the local government and technically supported by an international research consortium in which ICRAF is an active member. The plan drew national recognition and emerged as a model for a local government-led, participatory and research-based planning process. Today, the plan is vigorously implemented through public-private partnership. This means, everybody involved in either research or development activities within the area need to streamline their programmes towards meeting the objectives of the plan.

Based on the experiences in Claveria and Lantapan, different scaling-up modalities were developed (Catacutan et al. 2000).

MODALITY 1: *Scaling up through the local development planning process (From Claveria to Lantapan)*. This mode requires an engagement with LGUs in their local development planning process, resulting in the institutionalisation of the project at the planning stage as in Lantapan. Landcare is embedded in the bigger NRM and development plan of the municipality.

MODALITY 2: *Scaling up through "integration" within the conventional extension programme of local government line agency: Municipal Agriculture Office (MAO) (from Claveria to Malitbog, Bukidnon)*. The local government of Malitbog invited ICRAF to help them develop their Landcare programme.

Landcare was then embedded in the extension programme of the MAO in Malitbog that provided both human resource and financial support. Local champions – persons committed to Landcare – play an important role.

MODALITY 3: *Scaling up through the local development planning process and integration in existing local programmes* (Lantapan to Manolo Fortich, Bukidnon).

This modality is a marriage of the two modes cited above.

MODALITY 4: *Province-wide scale scaling up through integration of programmes implemented by government-line agencies and special local warm bodies at the provincial level* (Lantapan and Claveria to other municipalities in the two provinces). This mode requires a review of the different line-agencies and special warm bodies operating within a provincial scale and involves an understanding of their mandated programmes and identifying committed local champions who can mobilise programs on a provincial scale.

MODALITY 5: *Scaling up through networking, collaboration and integration in existing special projects implemented by both public and private sectors* (for provincial, regional to national levels). We identified pathways whereby NRM can be streamlined in the development goals of different government line agencies from the provincial level down to the municipalities such as the Protected Area Management Board, Provincial Planning and Development Office, National Government Agencies such as Department of Environment and Natural Resources (DENR) and the Department of Interior and Local Government (DILG) and the League of Municipalities. The challenge was to contextualise NRM in respective programmes and mandates of these agencies.

We also have had interaction with other development service groups engaged in this issue, such as the Governance on Local Democracy (GOLD) project of the Associates in Rural Development Inc., and recently again, the Philippine Watershed Coalition. A potential partner for future scaling up is the Forest Management Bureau in implementing the Philippine National Watershed Management Strategy.

Keys to Success

In our experience, there are key principles that should be applied when scaling up technologies, concepts or processes. These are:

1 - Identify your strategic partners. You can do this, by critically examining your potential entry points that can be government officials, government offices, government programmes or NGOs, POs and their programmes. Be sure to get as much knowledge about your potential partners - their programmes, skills and even their personal interests. Be conscious of the different personalities of people.

2 - Build that strategic partnership. Partnership is about relationship. It is important to approach the relationship as equal partners and be open on what each partner can invest. We are very careful as we carry the banner of an International Centre. We usually begin by saying, “we are here, not as a bank, a donor, or a sponsor, but—we are here to share our experience and our little successes”.

3 - Use opportunities to build upon the programme. Don't create confusion or chaos in an already organised system. Refrain from being identified as “Organiser” but as “Innovator and Facilitator”. Avoid creating foreign structures. The key word is “Refinement” not “Re-engineering”. Your proposed programme should be put in the context of already existing programmes by reviewing their working structures and relations and building on it. Be subtle and kind, and don't impress upon them that you are there to solve their problems. At the end of the day, they should claim ownership to the programme.

4 - Be flexible. Flexibility is very important in partnership building, from conceptualisation to implementation, but avoid “double standards”. Each locality has its own unique conditions. Your scaling-up modes and even the project level approaches for the delivery of outcomes should vary according to local conditions.

5 - Maintain good communication and a friendly attitude.

Just as in any relationship, communication is essential to success. Occasionally, socialise with your partners, but don't lose the limits. Be respectable by avoiding broken promises - don't promise anything you are not able to deliver.

6 - Be dynamic and innovative. Make things exciting by bringing in new and relevant information to your partners from time to time. Don't forget to be humble - yet show that you know something and that you are willing to share it with them.

7 - Be reflective and encourage your partners also to reflect on issues, problems and past events. It is always important to evaluate how things were delivered and look forward to mid-course corrections, if necessary. This can be a mutual learning exercise by the partners themselves.

8 - Networking. Invest in network building and maintain a supportive role to the network. Building networks is like building relationships - it is therefore, important to show an untiring effort and sincerity to potential networkers.

Challenges and future plans

Our analysis indicates that there is more to be done in further releasing the power of the Landcare concept. The public and non-government sectors can assist in facilitating group formation and networking among groups, enabling them to grow, develop their managerial capabilities, and enhance their ability to capture new information from the outside world. They can also provide leadership training to farmer leaders to ensure the sustainability of the organisations. Cost-sharing external assistance can also be provided. For this, the use of trust funds can be emphasised, where farmer groups can compete for small grants to implement their own local Landcare projects. This has been remarkably successful in the Australian Landcare Movement. We envision that the Landcare approach may be suited to other locations in the Philippines and elsewhere, providing a national focus for the sustained management of resources by farmers with minimal local government support (Mercado et al, 2000). On the other hand, the NRM planning process manifests a strong basis in the implementation of provisions mandated in the Philippine Local Government Code. Both Landcare and the local NRM process exhibit the essence of local governance. The modalities for scaling up provide more options for project implementers to contextualise approaches for scaling up on the basis of opportunities and build the blocks for accelerated progress in that local condition. ■

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