



# 5 CASE STUDIES OF LANDCARE GROUPS

The experience of Landcare groups in Lantapan was very diverse, reflecting the diverse contexts, resources, and strategies of farm households and local communities (sitio). At the time of the evaluation study, some groups were continuing to function and grow, many had completely disbanded, and in some cases Landcare activities had been taken on by an existing group or without any organised group structure at all. Twelve case studies were undertaken – four in each of these three categories. The case studies were based on secondary data (especially barangay and sitio profiles), focus group discussions with farmers and Landcare members, and key informant interviews with Landcare, sitio and tribal leaders.

## CONTINUING LANDCARE GROUPS

### Mapawa Landcare Group (Barangay Sungco)

Mapawa was a sitio of Barangay Sungco located on the fringes of the buffer zone, about 3 km from the barangay centre. It had an average elevation of 1,300 masl and steep slopes that were susceptible to erosion when cleared for cultivation. The land use was a mixture of small plots cultivated with maize, root crops, and vegetables; coffee plantations; forest plantations (*Eucalyptus* spp., *Acacia mangium*, *Paraserianthes falcataria*, and *Artocarpus heterophyllus*); open grasslands with cogon and fern; and shrubs, bamboos and other forest regrowth.

The sitio comprised 72 households, dispersed in the sub-sitio of Kilagoyon, Tongogon and Pamati-un. Farming was the main source of income, while a few women engaged in small-scale vegetable trading in the barangay and in neighbouring towns. Sometimes farmers bartered their produce to buy rice or maize. Many farmers did not own draught animals and cultivated the land with hand tools, making farming very difficult and time consuming.

A crucial issue was the expansion of agricultural cultivation into the margins of the remaining forest, posing a threat to the natural ecosystem. The DENR had initiated several livelihood projects to control these pressures. Farmers had been included in the Integrated Social Forestry Program and projects of the Protected Area Management Board, and as forest guards. Almost all the farmers in Mapawa had worked as contract labourers in the Muleta-Manupali Reforestation Project, which covered the entire sitio. In turn, most farmers received training in conservation farming, forest management, and non-destructive livelihood projects. Many were taken on field trips to other provinces to observe good farming practices. The SANREM program had also included farmers from Mapawa as cooperators in some of its research activities.

Two organisations had existed since the early 1990s, namely the Mapawa Integrated Social Forestry Association (MAISFA) and the Mapawa Tribal Cooperative (MATRICO). Despite its inaccessibility and remoteness, the sitio structure and leadership had remained strong. Sitio leaders regularly attended meetings in the barangay centre. A dedicated and charismatic sitio leader also headed the Landcare group.

During a regular barangay assembly in 1999, ICRAF was given the opportunity to be part of the program to present a slide show on conservation farming. The following month, the sitio president and the chair of the agriculture committee organised a sitio-level meeting to discuss Landcare. The farmers readily accepted the idea, since most were already exposed to conservation technologies from previous projects. In May 1999 farmers organised their Landcare group with 35 members. Most of the officers were also sitio leaders.

The farmers prioritised their training needs, including asexual propagation and soil analysis. An old nursery was revived and a new nursery was constructed close to the buffer zone. Fifty-nine farmers adopted soil conservation technologies, including NVS and agroforestry, and 18,500 trees were planted in the buffer zone and on individual farms. NVS adoption in Mapawa was largely a result of spontaneous farmer-to-farmer sharing.

The group also held a community mapping activity where participants mapped out their respective resources and developed individual farm plans, which in turn were collated as a community resource map. Negotiation with the Protected Area Management Board was facilitated to assist the farmers to validate and improve their community resource map as a prerequisite to applying for the Community Based Forest Management (CBFM) program.

The sitio president, Manong Bernardino, was very committed and willingly spared time to help and teach other farmers. At the time of the study the members of the group remained active in Landcare activities and firm in their commitment to protect the integrity of the protected area. There were 46 Landcare members, some of whom, particularly the president, continued to share technologies with other farmers in the neighbouring sitio.

Within the group, strong leadership by sitio officials, who were at the same time Landcare officers, was seen as the key to the group's resiliency. Cooperation and teamwork were also recognised by farmers as important factors to group success. The sitio was very isolated and group cohesion was positively influenced by the lack of basic social services or other economic activities. Farmers had long been exposed to previous projects with conservation objectives, so it was not difficult to facilitate Landcare activities, though

the organised information and education program was helpful. Farmers also felt that consistent and effective facilitation was crucial in maintaining positive relationships.

Nonetheless, farmers were often constrained by their individual farming activities and their occasional employment outside the sitio to augment their farm income. When asked what support was needed for Landcare to flourish in the sitio, they identified infrastructure support, such as improved farm-to-market roads and water systems; finance; working animals; better market linkages; and continuous training and education.

Farmers believed that participating in Landcare provided them with technologies appropriate to their farming conditions. They pointed to the trees they had planted as their major gains from joining Landcare. Adopting NVS also allowed them to diversify their farming systems. Some farmers said they now had more kinds of plants on their farm than before and, although it was difficult to measure their economic value, they felt sure that this variety of crops provided them with more food and income.

One farmer loudly expressed his view that what he learned from joining Landcare was far more than he had received from past projects with livelihood components. Further, he said that although financial support was important, it was not the only solution to their problems. Both money and the knowledge to use it wisely were important for lasting outcomes.

The group was developing its Community Resource Management Plan, as well as continuing to reach out to interested farmers within and outside the sitio. The president expressed his willingness to help other farmers to establish NVS. He had become a farmer-trainer for another project within the Mapawa catchment. When asked whether they would continue with their activities without external support, they proclaimed, "Yes, we would do so, we are doing it now." They added, however, that they would be gratified to receive any form of assistance from government and other external groups.



A view of a landcare member's farm in Sungco

### Kibulay Landcare Group (Barangay Cawayan)

Sitio Kibulay was 3 km from the barangay centre of Cawayan and was accessible only by motorcycle or four-wheel-drive vehicle through a barely-maintained barangay road. The sitio was considered remote because of its inaccessibility and the absence of electricity and water supply systems. It had 39 households, including Talaandig and migrant households. The topography ranged from slightly to steeply sloping.

A large part of the sitio was owned by absentee landowners. Only 14 of the 39 households owned farming land, averaging 3 ha. Farmers planted maize and rootcrops for home consumption, while vegetables were grown for the market. The remaining households owned residential lots and survived by working as labourers on nearby farms. The establishment of the Dole banana plantation in Cawayan provided off-farm employment to landless labourers and tenant farmers. The main issues for residents were poor accessibility, soil erosion, lack of capital, and the difficulty of marketing.

The sitio was part of the Muleta-Manupali Reforestation Project (1982-1992), in which *Gmelina arborea* was the main species planted on riverbanks. Farmers were also involved in a SANREM research project for nursery activities. Some farmers were able to plant a few trees at that time, but the activity was not sustained. The remoteness of the sitio had left farmers with very little chance to participate in community affairs. Some interested farmers joined a cooperative based in the barangay centre, but members' involvement was rather limited. However, a barangay official was assigned to liaise between sitio residents and the barangay government.

In March 1999, an ICRAF staff member attended a regular public assembly in the barangay centre and presented a slide show on conservation farming. Subsequently a sitio-level slide show was conducted, followed by hands-on training and cross-farm visits. The series of information and education activities culminated in a farmers' tour to Claveria.

Following that, three farmers voluntarily established a tree nursery using their own resources. The volunteers grew in number and in May 1999 formed their own Landcare group with 17 members. At the time of the study, there were 38 farmers listed as members, of whom 31 had adopted NVS and enriched them with trees. Others had planted trees in small blocks, around their residential lots, and along the main road of the sitio. The group had planted and sold almost 12,000 seedlings from their nursery.

Members had expanded their training interests to include asexual propagation of fruit trees (durian and rambutan)

and soil analysis. The group had also implemented a farmer field school for upland rice production, and benefited from a cattle-breeding program sponsored by the Federation of Cattle Raisers in the Philippines (FCRAP).

Farmers remained active in Landcare activities and had the longest-running nursery operation. The group was regularly visited during local and international training and educational events and gladly hosted their visitors and supporters. A Landcare facilitator actively supported group activities. Members were also involved in voluntary activities at the municipal level.

Members believed that without cooperation and effective leadership, the group would not have survived. In addition, the suitability of the technology (NVS) was recognised as key factor encouraging participation. The members identified effective facilitation as a critical factor, together with continuous training and capacity building. It was also important to establish links with other agencies to increase their support network.

According to informants, one of the more tangible impacts of Landcare was that farmers were able to plant better tree species and their sloping farms were now more productive than in previous years. They also earned extra income from their nursery sales. According to Mr. Decano (Landcare president), he had gained more confidence about the future of his family and other farmers. He remarked: "If we carry on what we have started, we will never fail".

Increasing self-confidence and leadership were also evident among sitio leaders. They had never felt prouder of themselves, with visitors continuing to come to learn from their experience. Their once "sleepy" sitio was now felt to be alive and vibrant. The group planned to expand their nursery activities to include fruit trees for commercial purposes, and to continue reaching out to other interested farmers in the area.



*Kibulay Landcare group member, Basilio Decano, shows other farmers around his farm*

### Tulugan Landcare Group (Barangay Victory)

"Tulugan" is a Talaandig term meaning "meeting place" and was used to refer to two adjoining sitio of Barangay Victory – Matampay and Naumpoc. The sitio were located 3-4 km from the barangay centre, close to the buffer zone. The two sitio comprised 55 households, 90 per cent of whom were Talaandig. The sitio also functioned as tribal units.

Most land was considered privately owned, with de facto ownership rights conferred through customary land tenure arrangements. Land tax was paid to the local government, with tax declaration certificates functioning as tenure instruments. Average landholding per household was 2-3 ha, but due to growth in population farmers increasingly cultivated smaller areas of 0.5-1 ha. Farmers grew vegetables such as cabbage, carrots, beans and tomatoes for sale, while a local white variety of maize was commonly grown for home consumption.

Residents were actively involved in sitio activities since they also functioned as a tribal unit with a resident datu or tribal chief. Previous projects in the area included livelihood projects sponsored by the Philippine Eagle Foundation and, more recently, the Conservation of Priority Protected Areas in the Philippines (CPPAP) project. In addition, they were involved in the Kitanglad Guard Volunteers (KGV), facilitated by the Protected Area Management Board and the Kitanglad Integrated NGOs (KIN). Some farmers were also involved as cooperators in SANREM research projects.

After attending a Landcare slide show in the barangay, Mr. Tahuran, the sitio president, approached the facilitator and immediately scheduled a separate slide show for his constituents in Tulugan. Subsequently, hands-on training in NVS and nursery establishment was organised. In May 1999, Mr. Tahuran organised the Tulugan Landcare Group with 33 members.

The group quickly set up a nursery and produced a variety of seedlings of timber trees and coffee. As a result, farmers were able to plant over 3,500 seedlings in their farms, and 42 farmers adopted NVS, representing around 80 per cent adoption. Mr. Tahuran himself assisted most of these farmers.

The following year the group received the Best Nursery Award in a contest sponsored by the barangay government. The group subsequently received a chicken dispersal project from the Landcare Trust Fund. Mr. Tahuran conducted his own research to verify the advantages of NVS. He was monitoring his farm inputs and outputs in a non-NVS field and a field with NVS, both with cabbage and maize as intercrops.

The group did not impose regular meetings and other group rules but operated very informally. Farmers came for meetings and group work whenever there was a need. Otherwise, they focused on conservation practices in their own farms. Facilitators continued to support their activities and had observed the group's growing self-reliance. The group obtained their own seeds for their nursery and had requested training on seed collection. Trainees in conservation farming continually visited the group.

Mr. Tahuran had demonstrated effective leadership by example and a strong commitment to Landcare. He willingly volunteered his time, effort, and resources for the group. Members recognised that unity, cooperation, and understanding were key factors that had sustained their group over three years. Training and good facilitation, based on friendship and respect, were also considered important.

On the other hand, members felt that a complacent attitude and insufficient support from local government officials had limited progress. Support was needed for start-up capital, the provision of land for the landless and near-landless, and local policies to encourage the adoption of conservation technologies. Continuing facilitation and communication were also seen as important to sustain the information flows and strengthen group interaction. Regardless of whether such support was provided, farmers felt that the fundamental element of success was the commitment and cooperation of the members, with genuine support from the local government without prejudice due to political party affiliation.

According to members, participating in Landcare reaffirmed their culture and way of life. Despite the pressing needs of day-to-day survival, they had shown that production and conservation objectives could be reconciled, using low-input interventions. They identified the implementation of NVS and the trees planted on their farms as the major benefits gained from Landcare. They believed that these improvements would give them economic benefits. According to Mr. Tahuran, he could now harvest 20 sacks of cabbage from his NVS plot, which used to yield only three sacks.

In addition, increased friendships and networks with other farmers and service providers were also perceived as important benefits. Now other people were coming to learn from them, which Mr. Tahuran claimed was a big improvement for the once "sleepy" sitio. The group planned to reconstruct and expand their nursery operations. With more seedlings grown in their nursery, farmers were excited at the prospect of becoming part of a municipal-wide initiative to produce quality seeds and seedlings as an alternative source of income.

### Purok 2 Landcare Group (Barangay Baclayon)

Baclayon was a relatively small barangay close to the municipal centre, with flat to gently sloping farmlands. Purok 2 comprised 73 households, or about 25 per cent of the total households in the barangay. It was located along the main road and so had access to infrastructure and basic services.

Farmers predominantly grew maize, although sugarcane was now extensively grown in the area. Coffee and local fruit trees were planted on a small scale. Cultivation was mostly mechanised, using tractor-drawn implements. Lack of capital and poor prices were the major issues identified by farmers. Selling and renting of land to wealthy sugarcane planters was also a common practice. The establishment of the MKAVI and Dole-Skyland banana plantations in 1999 induced farmers to work as daily-paid labourers to augment their farm income, earning P160 per day, double the prevailing wage rate.

Being close to the municipal centre, Baclayon had ready access to various health, social, economic, and environmental programs. There was considerable scope for economic activity and opportunities to obtain credit and financing. There were also active groups for women and youth, religious groups, civilian volunteer forces, and farmer groups. Community participation in public affairs was high, influenced by strong leadership in the barangay council.

The Purok 2 Landcare Group was organized in May 1999, with 20 active members. The group set up its nursery, which was still operating at the time of the study. After a series of training events and cross-farm visits, farmers became more cohesive and implemented two farmers' field schools for maize and rice production, one for integrated pest management (IPM) and one for soil conservation. The group also initiated a creek rehabilitation project at Tuhob Creek. Members were instrumental in the growing interest of farmers in indigenous tree species, including arranging for a landowners' meeting in Baclayon. Forty-one farmers adopted NVS and agroforestry, with 3,200 trees planted on farms. Many group members were actively involved in municipal-level activities, such as organising training events and setting up the Lantapan Landcare Office and Information Centre. The group had also received a small project grant from the Landcare Trust Fund for fruit tree seedling production.

As with Tulugan, the group did not impose rules on its members. Leadership was highly collegial. Farmers came and went, but a core group of dedicated officers and members continued to pursue their activities. In particular, the group had a dedicated leader who shared considerable time and energy in communicating with members and

coordinating group activities. Many members were older farmers who were more committed to conservation. Respect for and confidence in these mature leaders within the group had made the group more sustainable.

Though off-farm and non-farm livelihood activities had often limited members' participation, they felt that consistent facilitation, interaction, and sharing knowledge were the keys to their success. Though farmers could be self-reliant, they needed on-going support to reinforce their motivation and creativity. In addition, they felt that policy support from a genuine, "non-politicised" local government would make a difference.

Informants commented that participating in Landcare had boosted their morale as farmers. With Landcare, they were able to realise their potential to work together, without depending on external support. Apart from the on-farm developments, such as reduced erosion, a greater diversity of crops, and a more stable farming system, group members saw greater benefit in the development of networks. With the skills they had acquired from participating in various training events they were able to train other farmers. The group planned to continue expanding their nursery on a commercial scale, and further expand their horizons, particularly in the area of low-input farming.

**DISBANDED LANDCARE GROUPS**

**Landcare groups in Barangay Alanib**

Alanib was one of the larger and more progressive barangays of Lantapan. The total land area was 4,812 ha, including 2,973 ha of alienable and disposable Land and 1,839 ha of public forest land. Located at an average elevation of 800 masl, it had rugged topography, with 35 per cent of the land area dominated by slopes of 30-50% and a further 30 per cent classified as mountainous (>50% slopes). The 2000 census recorded a population of 3,864 in 726 households. Settlement was concentrated in the barangay centre, with 230 households. The Talaandig tribe accounted for about 45 per cent of the population. Migrants from the Visayas and elsewhere in Mindanao had settled in Alanib before the Second World War.

Farming had been the main source of income. The Municipal Agriculture Office (MAO) recorded a total of 444 farming households (60 per cent), with an estimated average monthly income of P4,000, and 300 non-farming households (40 per cent), with an estimated monthly average income of P3,000. Of the latter, agricultural labourers accounted for 35 per cent and traders for 5 per cent. About three quarters of the farmers were recorded as landowners and one quarter as tenants and renters. Farmers grew maize on fragile,

sloping lands towards the foothills of Mt Kitanglad. Sugarcane production (200 hectares) was continuously expanding to the upper slopes, while old-growth coffee was a minor crop. The MKAVI banana plantation (800 ha) was established in what used to be a prime area for maize and sugarcane. As mentioned in Chapter 2, the company rented lands from farmers at P12,000 per hectare annually, under a 25-year lease agreement. In turn, the company employed farmers and others as labourers.

Residents in Alanib were known to be active in community affairs. Government agencies and NGOs had implemented numerous projects that exposed farmers to conservation technologies. Among the most prominent were those implemented by Mr Boy Tan, a farmer-activist who had become a Sectoral Representative in Congress. Mr Tan, who also ran an agricultural high school in the area, organised farmers to tackle agrarian reform issues and conservation farming. Based in the adjacent barangay (Sungco), the Muleta-Manupali Reforestation Project also employed some farmers in Alanib for reforestation activities. Since 1995, the SANREM project had had a very strong presence in the barangay. Several farmers were involved as cooperators in a number of research activities. The Heifer Project International (HPI) was popular for their livestock dispersal project, with a site office in the barangay. Alanib was also rapidly urbanising, given its proximity to the municipal centre where economic activities were flourishing. Hence some better-off farmers engaged in entrepreneurial activities. In brief, residents of Alanib had been heavily exposed to a range of research and livelihood projects and activities.

The formation of Landcare groups in September 1999 was coordinated through the Barangay Council, which committed funds to establish tree nurseries for each sitio



*Baclayon Landcare group members in front of their group nursery*

in Alanib. The barangay captain also designated the chair of the agriculture committee to coordinate Landcare activities. After several meetings, public presentations, training sessions, and cross-farm visits organised by ICRAF facilitators, four sitios formed Landcare groups with the help of barangay officials.

Facilitating the formation of Landcare groups in Alanib was a big challenge. At that time, farmers had little time to attend meetings since many of them were now working for MKAVI. Two of the groups quickly disintegrated after electing their officers, while the two groups from very remote sitios survived much longer than expected. These two groups established nurseries, and members planted just over 2,000 trees on their farms. Fifty-one farmers also adopted NVS, more than doubling the recorded number of adopters of contour farming from the previous 15 years.

However, after planting the seedlings, most of the members began working for MKAVI. By then, 75 per cent of the farmers in Alanib were employed by the company. Nevertheless, there was no evidence of the discontinuance of conservation practices among the early adopters. Former members who were now working in the plantation had either leased out their lands or they continued to be cultivated by other family members.

At the time of the study, only one group remained active – a women's organisation facilitated by the Municipal Social Welfare Office (see page 63). The women decided to integrate Landcare in their activities since their spouses were now employed in the banana plantation while they were left to tend their farms. An ICRAF facilitator supported their Landcare activities.

Farmers were initially encouraged to participate in Landcare because of the technologies that Landcare was promoting (especially tree planting), the attractive slide shows and farm visits, and the friendly and well-prepared facilitators. However, poor economic conditions prevented farmers from participating in group meetings and activities. Many farmers had to work as daily labourers for large farms and the banana plantation. Informants identified the major factors limiting the development of Landcare as: poverty, a distorted value system, insecure land tenure, inadequate government support, the farming system, and the boom of agribusiness in the area.

Despite these apparently intractable constraints, they identified a number of positive steps to enhance group development: clearer support from government through budget allocation for Landcare-related activities; provision of a long-term capacity-building program; improved visibility of technicians and facilitators to monitor activities; a group development focus, building cooperation and nurturing

leadership and commitment; and continuous technical guidance and assistance to improve farming practices and decision-making.

Farmers expected high future benefits from conservation farming and participating in Landcare activities, but their conservation objectives were often overtaken by their dire need for immediate cash income for survival. When other livelihood opportunities were readily available, poor farmers grabbed them for additional income. According to Mr Jun Paje, a former barangay official and designated coordinator of Landcare, the present situation in Alanib encouraged the remaining committed farmers to go back to basic farming, employing conservation practices in a resource-constricted environment. He believed it was a matter of time before farmers returned to their land and used their resources more judiciously.

### Landcare groups in Barangay Kibangay

Kibangay was the largest and most populated barangay in Lantapan. It had a land area of 5,090 ha and a population of just over 6,000 people. It was located in the upper portion of the watershed at an altitude of around 1,200 masl, with a climate suited to growing high-valued temperate crops. About a third of the land was rolling country that stretched southward to the Manupali River, while the remainder was rolling to mountainous land stretching northwest to the Kitanglad range.

Over three quarters of the territory (3,923 ha) was classified as public forest land, while the remaining area (1,167 ha) was alienable and disposable land, hence privately owned. However, only 272 ha were used for agriculture, mainly small, intensively managed vegetable farms, while 863 ha were left idle. About 30 per cent of the presently cultivated lands ranged from rolling to steeply sloping. On these slopes, farmers grew high-valued vegetables such as potato, cabbage, carrots, beans and cauliflower for commercial purposes, while native maize was grown for household consumption.

Bukidnon, Talaandig and Higaonon tribes accounted for 80 per cent of the population while 20 per cent were migrants. Eighty per cent of the households were engaged primarily in farming, while 15 per cent depended on labouring, and 5 per cent on small business. The estimated monthly income of the 716 farming households was P4,500, and of the 179 non-farming households, P3,000. Over 90 per cent of the farmers were identified as landowners while the remainder were tenants.

A barangay official commented that the level of participation in community affairs had been high. Residents regularly attended the monthly public assembly. Being part of the

former Muleta-Manupali Reforestation Project, many farmers were contracted to plant trees and in various ways exposed to conservation technologies. Several other organisations had projects ranging from cooperative development, biodiversity protection and conservation, and sustainable agriculture. Farmer cooperatives and women's organisations had also been established, though they rarely lasted for more than a few years. At the time of the study, the Adventist Development Relief Agency (ADRA) had two major sites in Kibangay for an area-development project. Protected Area Management activities were also keeping some farmers busy with forest patrolling and livelihood projects. However, informants revealed that farmer groups had rarely survived in Kibangay, especially if they did not readily provide economic benefits.

In 1999 ICRAF conducted a survey to determine the level of farmers' interest in conservation technologies. Farmers in Kibangay responded positively and on that basis the barangay was given priority in the Landcare Program. Barangay officials were supportive of Landcare but did not allocate financial resources due to previous commitments.

Five sitios formed Landcare groups after a series of meetings, training sessions, slide shows and cross-site visits, and 64 farmers were registered as members. Nurseries were established and members planted out 11,775 trees on their farms. Ninety-one farmers also adopted NVS, though this was a small proportion (about 13 per cent) of the total number of farmers.

Three Landcare groups soon disintegrated after receiving their share of seedlings from the nursery, while Kimanga and Calamba Landcare groups, which were 2-4 km from the barangay centre, remained active after the first year. These groups were receiving material support from ADRA.

At the beginning, farmers were influenced by the attractive and elaborate slide shows, the attitude of the Landcare facilitators, the NVS technology, perceived future benefits, and their own personal interest in something that was new and useful. Nonetheless, it was observed that the early participants of Landcare were mostly family members, friends or supporters of the two women officials who were actively supporting group formation. Members of the people's organisation supported by ADRA said that their participation in Landcare was directed by the project management.

Lack of capital and the need to pursue alternative sources of livelihood were the major issues faced by farmers. Income from their small farms was insufficient for family needs, so farmers had to find other economic activities. In Kimanga, for example, 80 per cent of the farmers left the sitio in search

of better income opportunities, especially during the drier months.

During interviews, farmers pointed out that the farming system, including the credit and marketing arrangements, was the major constraint to the development of Landcare in Kibangay. Farmers planted high-value vegetables in small areas (0.1-0.2 ha), since high levels of inputs were used and maintaining the farm was labour-intensive. Day-to-day activities in vegetable farming left farmers with limited time for extra activities.

Farmers depended on credit for vegetable production from financiers and traders. Financiers provided fertilisers, pesticides and seeds, which were usually marked up by 15-20 per cent from the market price. Transportation services were also provided during harvesting and delivery. Farmers could easily obtain advances of cash or food from financiers during the growing season. In return, farmers sold their produce to financiers at a price controlled by the market in Cagayan de Oro. The high cost of credit, low market prices, and lack of post-harvest facilities resulted in low profits for farmers.

They were also obliged to plant the crops dictated by financiers in order to maintain their access to credit. This credit relationship had discouraged the adoption of conservation technologies, since the financiers demanded quick returns on their investment and provided money only for the production of the crop of interest.

In addition, farmers also found off-farm employment with a few prominent farmers who cultivated large tracts of land. The same farmers controlled the local economy since they had retail and transport businesses in Kibangay. This, however, had created a local job market in areas such as carpentry and retailing.

Farmers felt that support for the Landcare groups from the barangay and municipal governments had been insufficient.



*Students at the Xavier de Kibangay High School are involved in many activities in the Landcare in Schools program*

Ineffective leadership and poor cooperation among members exacerbated the situation.

They also pointed to their poverty as a cause of their lack of involvement, though a non-Landcare member argued that it was as much an attitude problem as an economic one. He said it would take a long time to change farmers' perspective on conservation – although it could be claimed that environmental protection was part of their culture, that same culture was seen to limit their ability to escape from poverty. With farmers tied to the present financing and marketing system, it was felt unlikely that conservation groups would be successful in their efforts.

### Landcare groups in Barangay Cawayan

The population of Barangay Cawayan was recorded as 1,686 in 2000. The indigenous Talaandig accounted for 60 per cent of the population and migrant groups, 40 per cent. About 300 farming households obtained an estimated monthly income of P3,000, while the few non-farming households averaged P2,600. The barangay occupied 1,452 ha of mainly grasslands, including both alienable and disposable lands and public forest lands. Large tracts of land were controlled by absentee landowners and pasture leaseholders. Rental or sharecropping agreements were very common.

The Talaandig used to grow upland rice and abaca before migrants from Bohol, Cebu and Ifugao arrived in the mid-1950s. The settlers bought or rented lands and introduced maize, vegetable and potato production. Maize and vegetables were grown on both level and sloping lands and, over time, inappropriate farm practices had resulted in soil erosion. Movement of both Talaandig and migrant vegetable farmers to the upper slopes had resulted in increased pressure on the natural ecosystem in the foothills of Mt. Kitanglad.

The Dole Skyland banana plantation was established here. As mentioned in Chapter 2, the company rented farmers' prime lands at P15,000 per ha annually under 25-year contracts. The barangay council supported the establishment of the plantation in the hope that it would bring employment opportunities and infrastructure development, as well as increase local revenue and improve the living conditions of the residents.

Residents of Cawayan were used to attending regular public meetings. Farmers were involved in two multi-purpose cooperatives. Cawayan also hosted several research activities of the SANREM program, where farmers received exposure to and training in conservation technologies. The Philippine Eagle Foundation and the Pilot Provincial Agricultural Extension Project (PPAEP) also initiated several

group formation activities and supported technology promotion and livelihood activities. Proximity to Barangay Sungco also exposed farmers to the activities of the Muleta-Manupali Reforestation Project.

The early stage of Landcare in Cawayan appeared very successful. In early 1999, the slide shows during public assemblies were greatly appreciated, farmers were very receptive, and six sitio readily formed Landcare groups, with 74 registered members. All the groups received slide shows and underwent training and field visits. The groups were very enthusiastic in their nursery activities. The barangay leaders provided moral support to Landcare members by becoming involved in some of their activities. Landcare members raised and planted over 18,000 trees on their farms, and 81 farmers adopted NVS and agroforestry practices. Active members also participated in municipal-level activities.

By 2000, Dole Skyland had begun its operation and many farmers opted to work in the banana plantation. The company relocated the families affected by the plantation and some vegetable farmers had to transfer to other barangay in search of land. Landcare activities started to deteriorate, with fewer farmers attending group meetings. By then Dole employed 60 per cent of the farmers, who left their lands uncultivated or rented them out. Only a few farmers had continuously cultivated their lands.

By this stage, support from barangay officials had also declined. An informant disclosed that community affairs were also affected – attendance at public meetings had declined since the majority of the residents were now employed by the company. At the time of the study, only one Landcare group in the most remote sitio remained active.

Although the demands of farming activities often constrained farmers from participating in group activities, they were, at the start, encouraged to learn about the technologies that the Landcare Program was promoting and recognised the relevance of these technologies to their farming situations. The Landcare facilitators significantly influenced the farmers to get involved in Landcare. Trust and confidence in the facilitators and the favourable reputation of the host institution (ICRAF) were early motivators for farmers' involvement in Landcare. However, working for Dole appeared to be a more viable option compared to their risk-prone farming investments, especially for farmers who were cultivating small areas without sufficient capital.

Some former Landcare members indicated their interest to go back to farming and involvement in Landcare. This interest, however, would need to be continuously nurtured

by providing more technology options. Farmers suggested that facilitation and education activities during public meetings should be sustained and improved, so that farmers were continuously informed of available options to help them make better decisions.

### Landcare groups in Barangay Capitan Juan

Capitan Juan was an isolated barangay, but accessible by vehicle via Malaybalay City, the neighbouring municipality. The barangay had a population of 1,574 residents in 284 households. Of the total population, sixty per cent were Talaandig and 40 per cent migrants. Seventy per cent were dependent on farming as their main source of livelihood, 20 per cent were labourers, and 10 per cent were engaged in small business. The barangay had a land area of 1,978 ha at an altitude of up to 2,150 masl. The topography was characterised by moderate to steeply sloping and mountainous terrain. Conditions for the production of annual and perennial crops were favourable throughout the year.

Up to the 1990s maize and vegetables were the major crops. Now prime lands were predominantly planted to sugarcane, while maize and vegetables were grown mostly for household consumption. In early 2000, large-scale, intensive poultry businesses began to be established. Farmers started selling their lands to poultry businesses as well as to sugarcane planters. At the time of the study about 60 per cent of the maize farmers were employed in eight poultry farms, as well as in four telecommunication projects. Recently, the lower portion of the barangay was allocated for the expansion of Dole's banana plantation.

Apart from Landcare, the Heifer Project International was successful in establishing groups in Capitan Juan. These were popular since they were linked to livestock dispersal and micro-finance for livestock production. Some farmers were also involved in forest protection activities through the Kitanglad Guard Volunteers (KGV). The Philippine Eagle Project also supported some forest protection activities. In 1997, the municipal government and the Regional Agriculture Office implemented a large cattle dispersal project, but the activity was not sustained as farmers mostly sold or slaughtered their animals.

According to one barangay official, before the boom in the poultry industry farmers were active in community activities, but today only the wives participated in public meetings since the husbands mostly worked on poultry and sugarcane farms.

Capitan Juan was one of the first barangay to form a Landcare group, in May 1999. Farmers were very receptive, believing that Landcare would bring new ways of farming, which in turn would provide economic benefits. Participation

was high, with both men and women involved in a range of Landcare activities. The barangay government was very supportive. Together with the Landcare facilitator, barangay officials were involved in the establishment of nurseries and the formation of Landcare groups in six sitio, which were formed into a barangay association. The chair of the barangay committee for agriculture and environment was chosen as leader of the barangay-level association.

Membership in Landcare rose to 117 farmers, 64 of whom adopted NVS. Landcare members planted around 8,420 trees on their farms. Regular meetings were held and members were also very active in training activities at the municipal level.

Farmers were at first attracted to Landcare due to the technologies being promoted and the positive attitude of the facilitator. In addition, extension activities were rare due to the remoteness of the barangay, so expectant farmers always appreciated any new program. However, farmers' involvement in such community activities was constrained by the demands of farming and other livelihood activities. In addition, community leaders found themselves with duplicated responsibilities.

Soon after, the barangay captain, who was a great supporter of Landcare, passed away, leaving a political hiatus. Landcare activities slackened, since the officials who had been actively supporting Landcare were now at the disposal of the new barangay captain, who was from a different political faction. The Landcare facilitator was also constrained by this unstable political situation, hence had to limit his activities.

At this time, a private group called Jerusalem came to the area and made false promises to put up an integrated area development project. Farmers expected much but the project did not materialise, leaving them frustrated. Feeling deceived by Jerusalem, farmers were discouraged from participating in any activity.

Landcare activities thus became very limited, with fewer and fewer members attending the meetings. The introduction of the poultry industry, the establishment of telecommunication systems, and the expansion of sugarcane aggravated the situation. As mentioned above, many farmers sold or rented their lands to poultry businesses and sugarcane planters and withdrew from farming on their own land to work in the poultry farms.

During interviews, former active members revealed that they felt like landless farmers and that the main constraint to the progress of Landcare was that farmers continued to give up their lands to agribusiness investors. The Landcare facilitator assigned to Capitan Juan also recognised that the



*Leo Zambrano from Barangay Kaatuan demonstrates contour establishment to a group of farmers and agricultural technicians*

remoteness of the area and his other responsibilities made it impossible for him to spend more time with the farmers, which he believed could have been helpful in those times when farmers were in crisis.

However, four dedicated members remained hopeful that Landcare groups would be revived, though with fewer members. The focus would be on tree farming and organic farming, to take advantage of the supply of chicken manure from the poultry farms. These members still attended meetings whenever they were called and still proudly claimed membership in Landcare.

### OTHER TYPES OF LANDCARE GROUPS

#### **Palamboon Landcare Group (Barangay Kaatuan) — landcare adopted by an existing group**

Kaatuan was an interior barangay located 3 km from the main road and adjoining the buffer zone. It had a land area of 3,976 ha, including both public forest lands and alienable and disposable lands. The average elevation was 2,150 masl. The topography ranged from slight to moderately rolling hills (35 per cent), to hilly (40 per cent), to mountainous (25 per cent). The barangay included the Chinchona Reforestation Project (CRP), established in 1929 by the national government on 1,994 ha of public forest land and the only remaining quinine plantation in Asia.

Kaatuan was divided into seven sitio with a total population of 1,404 in 272 households. Seventy per cent of the population were Talaandig and 30 per cent migrants. Farming, wage labour, and trading were the major sources of livelihood. Labour exchange (*hunglos*) was practised, especially during land preparation and planting. Maize was the predominant crop, but sugarcane was also becoming

important, particularly on flatter areas, while coffee (90 ha) and vegetables were grown on sloping land.

The barangay had several peoples' organisations, namely, the Kitanglad Guard Volunteers (KGV), a fire brigade, the Civilian Volunteers, the Disaster Coordinating Council, women's and youth groups, and cooperatives. Having the Cinchona Plantation in the area, residents had long been exposed to environmental conservation programs. A large religious congregation was also strong in the area.

The Palamboon Farmers Association (PAFA) was self-organised in 1998 by a clan whose members all belonged to one religious denomination ("Iglesia ni Cristo"). PAFA was organised to strengthen family relations and to support every member of the family. Starting with a small stock of financial capital, the group put up a small store and shared labour for planting abaca and other crops. Later the group was able to access some project grants from government. Mr. Sambrano, the president, who also led their church activities, decided to register the group as an association with the Department of Labor and Employment (DOLE), thus PAFA was recognised as a legitimate people's organization.

In 2000, some members of PAFA, including the president, attended a barangay assembly where, as elsewhere, a Landcare facilitator gave a slide presentation. The president and others approached the facilitator and requested an exclusive slide show for PAFA members. Although some members were reluctant, most were keen to learn about conservation technologies.

Subsequently, the group held training sessions on NVS establishment, soil analysis, and propagation of other tree species for the expansion of their old nursery. Its officers also attended a leadership training course organised by ICRAF for Landcare leaders. Members were also very motivated by what they saw from other farmers during cross-farm visits. As a result, 13 member-families adopted NVS and 13,900 seedlings were produced in the nursery in a matter of 3 months. The nursery was then expanded to cater for the members' needs and for commercial purposes. The group also received a project grant for goat raising from the Landcare Trust Fund.

The group decided to integrate Landcare activities into their program since members believed that the technologies were simple and relevant. Landcare and PAFA shared common goals and members believed that including Landcare activities would not harm their objectives but in fact complement them by helping meet their technical needs. No changes were made from the pre-existing structure of PAFA but the integration saw an expanded range of activities. The group also considered the Landcare

facilitators as providers of technical knowledge for group members.

Members observed that group cohesion had improved with the addition of Landcare activities. These activities had diversified the group's program and encouraged more interactions among members, as well as expanding the range of outside linkages. Farmers felt it was too early to measure the benefits they had gained from Landcare. However, they readily pointed out positive changes, including more contoured farms, more tree species in the nursery, the goat dispersal project, new linkages, the training events attended which built friendship with fellow farmers in Lantapan, and the sense of belonging to a larger cause. All of these were expected to provide economic, social, and environmental benefits.

### **Dipa Landcare Group (Barangay Victory) – an intermittent landcare group**

Dipa was one of seven sitio in Barangay Victory, situated more than 3 km from the barangay centre. It could be reached via a small access road that was very difficult to traverse during the rainy season. This sitio had 27 households, 25 of which were Talaandig. The community had an elected sitio leader who liaised with barangay officials regarding the needs of sitio residents.

Farming and farm labour were the major sources of livelihood. Sixty per cent of farmers owned land, ranging from 0.5 to 3 ha, while 40 per cent were tenants. A large portion of the sitio was owned by an absentee landowner who employed local residents as tenants. Farmers mainly cultivated maize, vegetables, and traditional root crops such as cassava, sweet potato, and taro.

There was no electricity or water supply – residents depended on a small creek that often failed to run during dry months. Due to scarcity of water for irrigation and household use, farmers usually left the sitio to work for other farms during the dry season.

Farmers attended a Landcare orientation that was organised by the barangay council in April 1999. This was followed by a training session on NVS. In July, the sitio president facilitated the formation of a Landcare group with 14 members. Members participated in farm visits and attended training on different techniques of laying-out contour lines. Subsequently, the group underwent training on nursery management and established a communal nursery. Twelve farmers adopted NVS and planted almost 1,900 trees on their farms. The officers also attended several Landcare meetings at the municipal level.

By the middle of 2000, group activities had declined as farmers started to leave the sitio in search of off-farm livelihood opportunities, including in the nearby banana plantation. This was largely due to the water scarcity problem mentioned above. Towards the beginning of the wet season, the municipal agricultural technician encouraged the farmers to develop a proposal for a cattle dispersal project. The Landcare members came back and again participated in meetings, but the project never materialised. The farmers were so frustrated that only 11 households remained in the sitio. More recently, however, these farmers had expressed interest in re-establishing their nursery for fruit tree production.

Farmers recognised that there were benefits from participating in Landcare. They had planted trees and established NVS, and had developed linkages and friendships with other farmers in Lantapan. However, the water supply problem was beyond their modest resources to solve. Farmers remained hopeful that the local government would soon attend to their needs for potable water and a reliable farm-to-market road so they could plant crops on a year-round basis and easily deliver their produce to the market.

### **Sitio Bul-ogan (Barangay Sungco) – landcare without a landcare group**

This case study shows how members of the Talaandig tribe in Bul-ogan practised "Landcare" without having to form a Landcare group. Bul-ogan was a sitio of Barangay Sungco located on the fringes of the Park at an altitude of 1,135 masl. The topography consisted of rolling to steeply sloping lands and mountain gorges. The sitio was around 3.5 km from the barangay centre and was accessible by motorcycle and four-wheel-drive vehicles. The major source of livelihood was high-value crops such as cabbage, tomato, beans, and sweet peas. Some farmers also grew maize, mainly for home consumption. Farm labouring and non-farm employment also provided a source of income.

There were 59 households at the time of the 2001 census, of which 90 per cent were Talaandig and 10 per cent were immigrants (Cebuano and Igorot). Binukid, the indigenous dialect, and Cebuano were the major dialects spoken. Literacy levels were low. A tribal leader or *datu* governed the sitio according to customary law. However, the tribal community also recognised a sitio leader, usually elected by the residents to represent them in the formal government system. The men were organised into a cooperative called BUTRICO (Bul-ogan Tribal Cooperative), while the women were organised in women's groups. The sitio had been the site of a number of on-farm research projects of the regional



*Women play major roles in many landcare activities*

Agricultural Research Office and of SANREM. It was also part of the Muleta-Manupali Reforestation Project from 1982 to 1992.

Although conservation farming was known through previous projects in the area, adoption of conservation technologies was not widespread until 49 households took part in an agroforestry project funded by the Conservation of Priority Protected Areas in the Philippines (CPPAP) program. Datu Mansalalang was an employee of DENR-IPAS and so was aware of funding agencies and their requirements. He was successful in getting funds for the agroforestry project for BUTRICO members. Datu Mansalalang also maintained a 3-ha agroforestry farm, which was utilised as a knowledge-sharing centre for farmers within and outside Lantapan.

Farmers commented that previous projects had not had an explicit strategy for disseminating technologies, other than bringing farmers on field-trips, sponsoring training events, and establishing demonstration or research plots. The effects were short-lived and did not result in a change in farmers' attitudes and practice. Moreover, no support mechanism was in place to help farmers adopt the technologies. During the Muleta-Manupali Reforestation Project, many farmers were merely contracted labourers in reforestation activities.

At the time of the study, each household had at least a hectare under agroforestry, with timber and fruit trees intercropped with high-value vegetables and root crops. According to Datu Mansalalang, now that the farmers had confidence in the system, they would continue to practise it on their own and extend the system to other parcels.

Farmers interviewed in Bul-ogon had heard of Landcare from different sources – some from barangay meetings, some from the Landcare radio program, and some from friends and neighbours. They perceived that Landcare referred to farming technologies that prevent soil erosion and conserve natural resources.

They felt that the concept of Landcare was already important to them. Taking care of and paying respect to nature was part of their life and culture. They regarded the forest as the source of life, and the integrity of the adjoining protected area symbolised their integrity as a people. However, given growing economic pressures, farmers expressed the urgent need for continuing education about the land and about practices that could improve production sustainably, removing the need to encroach on the forest.

Farmers felt that formation of a new Landcare group was unnecessary, since BUTRICO was still strong and active and was planning to put up its own office and meeting place. However, it was thought that Landcare activities could well be integrated into the programs of BUTRICO. It was proposed that Landcare be discussed with the tribal leaders in a meeting with farmers and a Landcare facilitator. Farmers identified the need for a continuing information and education program for BUTRICO members, which they observed was an essential part of Landcare. However, a fundamental condition for success was a good relationship between the tribal leaders and the initiators of Landcare, as well as farmers' interest in and willingness to adopt the Landcare program. Once these basic conditions were met, it was felt the barangay government should intervene to provide support. "We have high regard for our tribal leaders and government officials. We follow what they say," Datu Malunay said.

Additional factors that were seen to enhance the development of Landcare in the community were: use of appropriate technologies; information and education activities; effective group leadership and management; effective and consistent facilitation; and financial and policy support from government.

On the other hand, farmers who were busy with off-farm employment, especially after the planting season and during dry months, would be less likely to get involved in Landcare activities. Similarly, tenant-farmers, those with insecure land tenure, and those cultivating a very small area would impede the development of Landcare.

However, when asked about the future of Landcare in their community over the next five years, farmers were optimistic that Landcare would succeed, with local government playing an active supporting role. They felt that if Landcare activities were sustained, unlike other projects that come and go, improved farming systems, increased incomes, and better living conditions would result.



*Workers at the MKAVI plantation packing shed in Alanib*

### Lawgawan (Barangay Alanib) – landcare in a women’s association

Lawgawan was a small sitio in the far north of Barangay Alanib, 5 km from the barangay centre. It was accessible only by the draught animals that farmers used for hauling farm produce, and by motorcycle. There were 37 households with an average farm size of 0.5-1 ha. Most households had very small farms, while a few had large tracts of land. The most common crops were maize, root crops, and vegetables such as beans, squash and eggplant. If their lands were becoming unproductive, farmers could easily find renters for sugarcane production.

Farmers depended mainly on their farm income for survival until the establishment of the MKAVI banana plantation in Alanib. The majority of male farmers were employed by MKAVI. Those who opted to stay on their farm occasionally worked as farm labourers for large farmers. The main problems identified by farmers were insufficient capital, low yields, and poor prices, hence off-farm employment was sought as a way to augment farm income.

In 1996 the local government, through the Social Welfare Office, initiated a project for the women in Lawgawan, who formed the Lawgawan Women’s Association. The women were funded to implement livelihood projects ranging from production activities to retailing of basic commodities in the barangay through a *sari-sari* (smallgoods) store. Twenty-five women were involved. The first projects were successful, with 100 per cent repayment of the approved loans. Based on that success they were given a larger loan. Their subsequent activities focused on savings and fund mobilisation.

Informants recalled that their first encounter with Landcare was during a barangay assembly in 1999 at which a Landcare facilitator made a slide presentation. Others heard about conservation technologies from the Landcare radio program. The sitio leader became interested in Landcare

and made arrangements with the Landcare facilitator for a special meeting and slide presentation in their sitio.

Both men and women in Lawgawan participated in different training events and cross-farm visits. The women were very glad to have participated in such activities for the first time. They expected that Landcare would help them better understand their farming situation. In turn, they could better assist their husbands in the farm. Soon after, more and more men started to work for MKAVI. Many farmers abandoned (or “fallowed”) their farms, or rented them out. However, some of the women took on the management of the farm when their husbands left to work off-farm.

The Women’s Association decided to take on the Landcare activities that their husbands had left when taking up off-farm employment. The women established a nursery and planted over 2,000 trees. They participated in cross-farm visits and attended training on soil analysis. They believed they could combine their own objectives and activities with those of Landcare. At the time of the study, 30 members of the women’s group were also listed as Landcare members, and Landcare was part of the agenda in their regular meetings.

The women appreciated that they could now grow the tree species they preferred. With their planted trees and conservation practices, they expected that their farm income would increase. The members emphasised that effective facilitation was the key factor to keeping the group’s momentum. They expected to learn more farming techniques that improved production and provided higher income, as well as help in establishing markets for their farm produce. When asked what kinds of support was needed to sustain their initiatives, their list included better market linkages, continuous training and education, continuous facilitation, and capital build-up. They also expressed the need for an effective extension program that was reaching out to farmers in isolated areas.