



Caring for the land, the people and the future

Agroforestry in action

World Agroforestry Centre

At a glance ...

Landcare, an innovative approach for encouraging and enhancing local initiatives to address land degradation, was developed initially by farmer and conservation groups in Australia. It subsequently evolved independently in the Philippines, where farmer groups have cultivated a successful grassroots approach to finding new agricultural solutions to

improve the environment and increase incomes.

Attracting outside technical resources from organizations such as the World Agroforestry Centre, these groups have successfully provided new information to farmers throughout the region, and partnered with local government for financial and political support.

When Mr Marcellino Patindol retired from the army, he moved to Mindanao, Philippines' second biggest island, and in 1995 decided to farm in the province of Misamis Oriental. The following year, a neighbour suggested that he visit the World Agroforestry Centre's (ICRAF) office in Claveria for advice, and it was there that he first learned about the Landcare system of farming and natural resource management. He lost no time in joining the Claveria Landcare Association, and was so enthusiastic that two years later he was elected president.

"We now have 3000 members," he says, "with 2000 well established and about 1000 getting started. The benefits we all gain from exchanging ideas and sharing experiences at the twice-monthly meetings of our subgroups scattered all over Claveria are tremendous."

Mr Patindol's own farm is a living example of such benefits. Starting with uncultivated slopes that were eroded from years of misuse, he now successfully grows coffee, bananas, maize, rice and vegetables on three

of the four hectares of land he has contoured with natural vegetative strips. These strips form terraces that hold the soil in place even during the heaviest of rainfalls. They are made up of fodder grasses interspersed with young fruit and timber trees and banana plants.

And Mr Patindol already knows what his farm will look like in the future. "As the trees grow," he says, "they will begin to shade the crops between the strips, so I will cut back on the crops, plant forage grasses and plants, and buy livestock. Eventually, I will end up with an orchard of high-value fruit trees, plus timber trees, which are also in great demand around here."

Mr Patindol's fourth hectare is a multi-species mini forest. "I've learned through Landcare that it is essential that we start now to preserve species biodiversity for future generations of farmers." Besides fruit and timber trees, the forested hectare includes bamboo and four species of rattan, a woody climbing plant whose tough, flexible stems are highly prized by Philippine furniture manufacturers.

Greater entrepreneurship leads to increased farm income

In the Philippines, says Dr Dennis Garrity, director general of the World Agroforestry Centre, there are now more than 250 Landcare groups. Experience there and in Australia, which has 4500 groups, has demonstrated that this approach can provide a means to more effectively generate and



Marcellino Patindol with son Napoleon

Community impacts

Watersheds

Biodiversity

Land regeneration

Better policies

Empowering women

Climate change

Capacity building

share technical information and increase and spread the adoption of innovative agroforestry and other land conservation practices. Landcare also enhances research and promotes planning at farm and watershed levels.

Landcare groups share some characteristics with existing farmer field schools, but Dr Garrity stresses that they are aimed at a broader range of issues concerned with land degradation and natural resource sustainability. They set their own agendas to tackle sustainability issues. The impetus for their formation comes from within communities based in a neighbourhood or small sub-watershed who also design their programme of work.

The Landcare movement is growing fast in Mindanao and providing an example that may be followed all over Southeast Asia wherever fragile, sloping lands are farmed. A key factor in the growth of this system is that it does not have to wait for outside donor funding in order to get started. Instead, local public and non-governmental sectors can assist by facilitating group formation and networking among groups, thus enabling them to grow, develop their managerial capabilities and enhance their ability to capture new

information from the outside world. Where external financial assistance is required, it is usually small, provided by local government project funds, and often linked to sharing costs with the farmer groups.

Needs prompt innovations

“Specific activities of Landcare Association members vary according to their needs and interests, as well as to their biophysical and socioeconomic situations,” says a World Agroforestry Centre’s research officer, Jun Mercado. “The key issues in Claveria are to establish natural vegetative strips along the contours of sloping fields to reduce soil erosion and to plant perennial crops on or just above the strips. These two innovations jointly increase the farmers’ cash income and enhance soil and water conservation. In fact, they were the initial farmer-generated technologies that launched the organization of Landcare in Claveria.”

Other areas of focus are adopting minimum-tillage or ridge-tillage farming systems; planting trees to further increase family income through sale of timber, fuelwood and other products; planting high-quality fruit trees to enhance household nutrition; planting medicinal shrubs

and trees; and establishing tree nurseries.

Could Landcare work in Africa?

According to Dr Bashir Jama, World Agroforestry Centre’s regional coordinator for eastern and central Africa, the approach has great potential. “In my view, the three most important elements that have contributed to Landcare’s success in Australia and the Philippines are strong local community ‘champions’ who sacrifice their time and resources, committed and knowledgeable Landcare facilitators and strong support from state and local governments.”

Dr Jama believes that the approach could work especially well in African countries such as Uganda and Tanzania, where governance is decentralized and local and state governments have authority and budgets to execute grassroot programmes. “Planting trees is an important element of Landcare groups in both Australia and Philippines,” he says. “So the entry point in Africa would be through tree-planting programmes. We would begin in countries that have a strong tree planting culture among farmers.”



World Agroforestry Centre

TRANSFORMING LIVES AND LANDSCAPES

The World Agroforestry Centre improves human welfare by reducing poverty, increasing cash income, especially among women, improving food and nutritional security, and protecting natural resources. It works to enhance environmental resilience by replenishing soil fertility, conserving the soil, enhancing biological diversity, and sequestering carbon.

Established in 1978, the Centre is an autonomous, non-profit research body supported by the donors of the Consultative Group on International Agricultural Research. The World Agroforestry Centre conducts strategic and applied research, in partnership with national agricultural research systems and a wide variety of non-governmental organizations.