

## **INTERNATIONAL LANDCARE: WHAT DOES THE FUTURE HOLD?**

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### **Summary**

The Landcare movement in Australia has made major contributions in mobilizing rural grassroots effort to protect and regenerate the country's land resources. This institutional innovation is of deep interest to many other countries struggling with land degradation.

The question for other countries, particularly in the developing world, is how the concept might be applied and adapted to their own unique situations. The first major grassroots Landcare initiative that evolved outside Australia and New Zealand was the Landcare movement in the Philippines. It has now expanded to more than 300 farmer groups in Mindanao and the Visayan Islands since 1996. Another major international landcare effort has been evolving in South Africa. Based on the encouraging experience from facilitating the development of Landcare in the Philippines, the World Agroforestry Centre (ICRAF) has been exploring the enabling conditions for landcare approaches in other countries in Southeast Asia and eastern Africa. Australia is uniquely suited to support international landcare. Exposure and training for key groups from developing countries should be a crucial element of that support, and it should be increased. This support should be coordinated with strategic Australian financial and technical assistance to emerging landcare efforts in key countries throughout the world.

### **Landcare in Asia**

The Landcare movement in Australia has made major contributions to the goal of mobilizing rural grassroots effort to protect and regenerate the country's land resources. It is an institutional innovation of great potential interest to other countries also struggling with land degradation on a massive scale. The question for these countries, particularly in the developing world, is how the concept might be applied and adapted to their own unique biophysical, social, economic, and political structures.

The first major grassroots landcare movement that evolved in Asia outside of Australia and New Zealand was in the Philippines. It began in several upland farming villages in the town of Claveria, in northern Mindanao. The World Agroforestry Centre (ICRAF) had been facilitating a farmer-led approach to technology development and dissemination there. That resulted in brisk farmer adoption of soil conservation technologies and agroforestry (Mercado et al, 2000). Farmer groups in the local area began to self-organize to accelerate the spread of the innovations. Landcare thus began as a means to rapidly and inexpensively diffuse agroforestry practices among upland farmers. It quickly grew into a federation of community organizations led by farmers.

The movement attracted strong support from local government, and technical support from NGOs. Today, there are more than 300 self-governing groups in 14 municipalities in five provinces who are members of Landcare associations. Families in these groups are maintaining hundreds of voluntary fruit and timber tree nurseries and are actively doing farmer-to-farmer extension work to disseminate conservation farming technologies among thousands of fellow farmers.

The core of the Landcare model in the Philippines is effective local community groups and partnership with government. Groups respond to the issues that they see as locally important,

solving problems in their own way. In some areas, such as in Lantapan, central Mindanao, Landcare groups have pursued community-wide environmental protection by assisting in the planting of thousands of trees to develop the riparian buffer zone along their local river to alleviate pollution. The Landcare groups on the boundary of the Kitanglad National Park have collaborated with park management to reduce encroachment into the park by 95% in the past few years (Garrity et al, 2002). As in Australia, the focus of Landcare is increasingly shifting toward catchment management through the participation of local Landcare groups.

There is also an exciting program that called 'Landcare in Schools' that introduces school children to environmental issues and solutions through the Landcare Program (Vandenbosch, 2002). Currently there is a project funded by the Australian Centre for International Agricultural Research (ACIAR) that links Philippine Landcare with Australian Landcare to exchange experiences and accelerate impact (see Muir et al. in his proceedings).

Landcare has multiple dimensions and is implemented in different ways but the core concepts include:

- Grassroots structure and empowerment of local groups: It is a movement and not a project that is largely self-financing and governing.
- Support of local government: There is support by local government, at the very least in encouraging the activities; in more advanced Landcare countries, financial support is available to local groups but Landcare does not lose its grassroots identity.
- Technology innovation: Technologies derived from scientists and local people are adopted and adapted; there is a premium on flexibility and low risk.
- Linking better land management practices to livelihood and enterprise options: This element is increasingly important as practitioners learn that technologies designed for improved environmental management have to result in increased revenue.

Based on the encouraging experience of Landcare in the Philippines, the World Agroforestry Centre (ICRAF) has been exploring the basis for landcare approaches in other countries in Southeast Asia during the past several years. This initiative started with studies of the rich experiences of other farmer-based groups in Indonesia, Thailand and Vietnam. There is particular emphasis on how farmer groups can effectively network with each other to achieve critical mass, and thereby stimulate greater public support.

### **Landcare in Africa**

Land degradation presents an enormous threat to Africa's land resources. This degradation is exacerbated by the urgent need to raise food production and reduce poverty. Food insecurity is acute in sub-Saharan Africa, where its attainment is intrinsically linked with reversing agricultural stagnation, safeguarding the natural resource base, slowing population growth rates, coping with HIV/AIDS, and reducing poverty.

In contrast to sustained increases in other parts of the world, per capita food production continues to decrease in Africa. To reverse this situation by the year 2020, sub-Saharan Africa needs a sustained annual growth rate in agricultural production of 4%. Such an ambitious target can only be achieved and sustained if greater attention is given to the restoration and maintenance of the land resource base.

But the state of Africa's natural resource base is deteriorating. Average fertilizer application rates in many African countries are less than 10 kg/ha and are less than 1 kg/ha in some countries. Most farmers cannot afford sufficient quantities to effectively replenish soil nutrients on a sustained basis. Thus, African soils are being exhausted and yields are declining. Nutrient management systems that integrate organic and inorganic nutrient sources in practical, cost-effective ways are urgently needed.

Land degradation across Africa is also the result of accelerated soil erosion and the degradation of soil structure and soil physical properties. Soil erosion affects 227 million ha on the continent, wind erosion affects 187 million ha, chemical degradation affects 62 million ha, and physical degradation affects 19 million ha (Oldeman et al. (1991).

Other challenges faced by African farmers are lack of appropriate extension approaches to address environmental problems, little investment in poor upland communities, and few mechanisms for cooperation on land management. Most of the efforts to improve agricultural production and productivity have been focused at the farm level. Soil and water management have been implemented in a highly top-down fashion. A second major international landcare effort in the developing world has been that in South Africa. It has been inspired and led by the country's Minister of Agriculture, particularly as a means to vitalize the smallholder sector.

Some other African countries are now adopting a decentralized approach to extension and, within some institutions, farmer-to-farmer extension is an increasingly effective way to reach larger numbers of farmers. Soil and water conservation approaches are becoming participatory in some institutions (for example, Kenya's National Agriculture and Livestock Extension Program). But they may not be enough. Many community-based natural resource management (CBNRM) efforts are project-oriented and as such start with costly efforts at pilot sites, which may not spread widely.

We have been asking whether the Landcare approach can provide impetus to community land management efforts in many parts of Africa. Can the introduction of Landcare be structured so that it builds on African initiatives and innovations? These issues are being addressed in ongoing investigations in Kenya, Uganda, Tanzania and Ethiopia. The work is examining:

- Under what conditions would a Landcare approach "take off" in Africa?
- What is the appropriate role of government in supporting collective action for natural resource management (NRM) in the African context?
- Which types of local groups could form the nucleus of Landcare?
- What is the strategy for institutionalizing (scaling-up) Landcare approach at the various levels?
- Where and when is it more appropriate to scale up the resulting Landcare approach or to scale up the process of systematic development of a Landcare methodology?
- What types of contributions do the different types of collaborators make in the process of developing and implementing the Landcare approach?

The evidence from the Philippines points to the success of Landcare being in part derived from its grassroots nature: groups form themselves at the neighborhood level, they are voluntary, diverse and set their own agendas. If they federate, they do not lose this strong grassroots focus.

Grassroots groups in Africa take such forms as rotating credit associations (ROSCAs), mutual aid societies, kinship organizations, and labor-sharing groups. Could these groups form the nucleus

of a Landcare movement? What other forms does collective action for NRM take? Because natural resource management “projects” tend to be site-based, expensive and rigid, they have had limited effectiveness. Landcare and other forms of collective action hold the promise of bringing about significant improvement over a wide area in a cost effective manner. Additionally, they foster real empowerment because landcare aims at increasing the natural resource users’ capacity to innovate and manage the resources.

We are looking at the “enabling environment” for Landcare type activities including national policies, involvement of local government (officially and as individuals investing in their areas), financing, investment opportunities, infrastructure and other factors. Some key points that emerged from the studies (Russell et al, 2002) are that:

- A Landcare approach may be a valuable addition to existing initiatives because resources (particularly extension resources) are very thin on the ground.
- Farmer-to-farmer extension as promoted in Landcare is a good way to move forward to fill these gaps and can also contribute to empowerment of farmers where extension is still largely carried out in a top-down manner. Financial and technical resources are available to groups, but this information is not well disseminated.
- There are entry points for Landcare found in all the study site, building around existing groups, networks and initiatives of government and NGOs.
- A wide range of indigenous and “modern” technologies are available to be the basis of Landcare extension. Farmers and scientists can identify improvements to existing soil and water conservation technologies. Improved and diverse germplasm, access to credit and markets were also identified as key entry points for Landcare facilitation.
- Policy constraints have been identified that Landcare could address such as registration of groups, and policies with respect to use of sloping and mountainous lands.
- The history of settlement in an area is a key variable for understanding land use and farmer organization in relation to government and NGOs.
- The characteristics of group formation and “good groups” have been identified at sites in Uganda and Kenya but more needs to be done to see how groups network, communicate and sustain themselves over time.
- There may need to be technologies ready for adoption that may not necessarily be conservation-related but which would address pertinent issues or constraints considered to be of high priority to poor farmers.

This work is setting the stage for a strategic approach to assisting the launch of landcare in eastern Africa in the near future.

### **Conclusions and Recommendations**

The experience of the Secretariat for International Landcare has emphasized that international interest in Landcare “is best served by exposing people to Landcare and assisting them to interpret the principles of Landcare in their own contexts, rather than by trying to anticipate or second guess local conditions and market a discrete product. The principles of Landcare will travel well but not necessarily the practice. These principles are based on lessons learned through Landcare experiences, which teach us that lasting solutions to environmental problems are most likely to evolve where:

- Solutions are developed with full involvement of those expected to implement them;
- Conservation and production aspects are considered together;
- All relevant stakeholders (not just those who agree with each other) have an acknowledged seat at the table and an equal opportunity to contribute;
- Local communities have a fair degree of ownership of both problems and solutions;
- Constructive partnerships/balance are fostered between: scientists and non-scientists; government and non-government; 'top down' and 'bottom up' approaches; urban and rural; and between young people and adults;
- Problems are examined and solutions developed at a scale relevant to the issue at hand;
- Costs of any sustainability investment are equitably shared among the beneficiaries of that investment.

Exposure and training for key groups from developing countries ought to continue to be a crucial element of Australian support for landcare, and it should be increased. But for exposure and training to be effective, it needs to be coordinated with more vigorous continuing support for landcare efforts as they evolve in developing countries. And more work needs to be done to investigate the enabling conditions for landcare in countries throughout the tropics. This argues for a broader base of more active Australian financial and technical assistance to landcare as an international public good, and for more targeted and comprehensive support to emerging landcare efforts where they may occur in key developing countries.

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