

# **Mobilising Communities for Ecoagriculture: Lessons from Landcare in the Philippines and Australia**

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## **COMMISSIONED PAPER ABSTRACT**

Landcare emerged in Australia in the early 1980s and in the Philippines in mid 1990s. In Australia, Landcare became a national program and a movement with strong grassroots support. In the Philippines, Landcare grew out of efforts to disseminate conservation farming and agroforestry technologies based on a three-way partnership between community landcare groups, local government units, and the World Agroforestry Centre (ICRAF). Landcare developed quite uniquely in both countries, but the outcomes were more to do with improving human and social capital to implement better farming practices for improved production, income, and natural resource management. Landcare has thus mobilised community resources to generate larger benefits for ecoagriculture. This paper presents initial results of a study to understand the evolution and success factors of Landcare in the Philippines and in Australia. It was found that the genesis of Landcare in both countries was different and that Landcare has developed through different pathways, but the problems that community landcare groups are trying to address are similar, adhering to the same principles, which is the enrichment of human and social capital to mobilise local action for reversing land degradation issues and improving rural livelihoods, and with emphasis on local demand, volunteerism, genuine participation, partnerships, and use of outside resources. Thus, regardless of differences in circumstances, the driving principles for mobilising local communities to achieve Landcare outcomes are quite general. The essential requirements to facilitate this process are also common, that is, a good balance between community efforts, government partnerships, and support from non-government agencies in the form of technical or institutional innovations, advocacy, and funding. The genesis of these efforts and the pathways these efforts might take will vary from one situation to another, but the philosophy behind these efforts is fundamentally shared. Ultimately, in developing countries with many common problems and an increased emphasis on local governance, the Landcare philosophy might help to mobilise local actions for greater benefits for ecoagriculture with specific variations only in the implementation strategies to suit to varying local conditions.

International Ecoagriculture Conference and Practitioners' Fair  
ICRAF House, Nairobi, Kenya  
September 27-October 1, 2004

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## **Introduction**

In the Philippines, soil degradation is the most prevailing environmental issue associated with current agricultural development. Although technical solutions are available to address soil degradation problems, farmer adoption of these technologies has been limited due to various factors, ranging from their inability to invest in conservation innovation to inadequate institutional structures for facilitating information flow and insecurity of property rights (Arcenas 2001). In recent years, however, interest has focused on the potential of the landcare approach to enhance the development, dissemination and adoption of appropriate conservation farming measures (Mercado et al. 2001; Cramb & Culasero 2003).

Landcare developed in the mid-1980s in Australia and in the mid-1990s in the Philippines as an approach for mobilising collective action by local communities to deal with land degradation and natural resource management issues. The landcare approach centres on formation of community landcare groups supported to varying degrees through partnerships with government and non-government agencies (Cramb & Culasero 2003). Community landcare groups work together to identify problems and mobilise resources to solve them.

In Australia, different ideas are attached to Landcare, as it has become a pervasive term among those who are interested in dealing with land degradation issues. It epitomises both a government program and a national movement, but the most important dimension is the community landcare group referring people who come together to do something positive for the long-term health of the land (Campbell 1994; Carry & Webb 2000). Community landcare groups are linked to influence resource policy and, with strong federal government support, Landcare has been recognised as a model for tackling land management issues across Australia.

On the other hand, the Philippines Landcare Program developed quite independently of the Australian model, as a grassroots initiative based on a three-way partnership of farmers, local government units (LGU), and the World Agroforestry Centre (ICRAF). This grew out of efforts to disseminate soil and water conservation technologies in the uplands, where soil erosion and low production were the major issues. The rapid growth of landcare groups, their diversification into a range of other activities, including participation in municipal natural resource management planning, and the development of municipal Landcare Federations influencing watershed and protected area management, has sparked widespread interest regionally and nationally, and also generated much interest globally (Garrity et al. 2000).

This initiative to encourage greater community involvement in natural resource management paralleled national and international conservation initiatives, and the general shift in development thinking. It is recognised that when people are well organised in groups and their knowledge is sought, incorporated and built upon during planning and implementation, they are more likely to sustain their activities after project implementation (Uphoff, Esman & Krishna 1999). Accordingly, greater political openings through devolution of environmental governance provide the framework upon which local organisations could be promoted and supported for their conservation efforts.

This paper reports on initial results of a study of the evolution of Landcare in the Philippines. The study focuses on the evaluation of different modes of scaling up and its potential for further scaling

up beyond its current domain. Five case studies were undertaken in the municipalities of Claveria, Lantapan, Malitbog, and Manolo Fortich in north-central Mindanao, and in the south-central Mindanao region. These sites were chosen because they all experienced a Landcare program through which different modes of implementation and scaling up were employed. Each site received varying levels of technical and institutional input from ICRAF, from the local government, and from a European Union (EU) funded Upland Development Programme (UDP) in the southern Philippines. These sites encompassed the essential features of the Philippine uplands, including rapid population growth, the expansion of settlement and intensive agriculture into ecologically fragile areas, land degradation, and poverty (Catacutan & Cramb 2004).

The case studies relied on the following sources of data: (1) key informant interviews with farmers, project staff, local officials, and other key partners; (2) focus group discussions with landcare groups; (3) project databases; (4) local government statistics; (5) participant observation; (6) literature review of Australian Landcare; and (7) interviews with key informants of the Australian Landcare Program. The study was conducted as part of a PhD research program and an evaluation study of the Philippines Landcare Program. Data collection was conducted from July 2002 to March 2003. Drawing from Landcare experiences in the Philippines and in Australia, the paper considers implications for the wider applicability of Landcare principles to mobilise ecoagricultural systems in the developing world.

## **Evolution of Landcare in the Philippines**

### ***NVS and the landcare approach in Claveria***

Claveria is an upland municipality in the province of Misamis Oriental. Its landscape consists of steep mountains and rolling hills, comprising 68 per cent of its total land area; only 7 per cent of the lands are classified as level to gently sloping with slopes up to 3 per cent (Stark 2000). From 1997 to 1999, the average annual rainfall was 3,208 mm. Claveria's soils are well drained with moderate depth and various textures. Farmers are concerned with the consequences of excessive soil erosion, since high rainfall causes severe erosion on slopes that have insufficient cover, and 59 per cent of the cropping occurs on lands of more than 15 per cent slope (Fujisaka et al. 1995; Stark 2000). Its proximity to the regional capital, Cagayan de Oro, has made it a major food bowl for the northern Mindanao economic development zone (Catacutan & Cramb 2004).

ICRAF became involved in farmer-participatory on-farm research on contour hedgerow systems in Claveria in 1993. The research goals were to develop practical, low-cost conservation farming and agroforestry systems that were suited to resource-poor smallholders in sloping uplands. ICRAF found that natural vegetative strips (NVS) were effective in controlling soil erosion and provided a superior, low-cost conservation technology for the uplands. NVS evolved as a variant of Sloping Agricultural Land Technology (SALT), or contour hedgerows, when farmers experimented with the hedgerow concept by placing crop residues along the contour lines and leaving the native weeds to re-vegetate in the unplanted strips, eventually forming stable natural barriers to erosion (Mercado & Garrity 2000; Stark 2000). The advantages of NVS are that they: (1) control soil erosion by more than 90 per cent and improve water infiltration during heavy rains; (2) have low labour and cost requirements for establishment and maintenance; (3) display minimal competition effects on adjacent field crops; (4) filter pesticides, nitrates and soluble phosphorus from water runoff; (5) make subsequent land preparation and crop management easier; and (6) provide a good foundation for farmers to develop agroforestry farms to increase productivity.

It was observed that more and more farmers were becoming interested in NVS and were adopting them on their farms quite spontaneously. By 1995, ICRAF recorded 188 farmers adopting NVS, and as farmers were becoming aware of ICRAF's on-going research on conservation technologies, more and more approached to request training. According to Sabio (2002), farmers realised the flexibility offered by NVS and their suitability to varying levels of needs, resources, and

preferences. He adds that farmers were able to recapture their decision-making ability through the technology they themselves discovered.

The initial uptake of NVS encouraged ICRAF to examine the phenomenon further, to see how public sector research and extension institutions could develop more effective techniques to diffuse the NVS technology rapidly to a large number of interested farmers (Stark 2000). With increasing demand for training in soil conservation technologies, ICRAF established a partnership with the municipal government to set up the Contour Hedgerow Extension Team (CHET) in 1996, comprising a trained farmer, an agricultural technician, and an ICRAF staff member. In late 1996, a number of trained farmers agreed to form a municipal-wide group, which was given the name, Claveria Landcare Association (CLCA). The CLCA then proceeded to set up community landcare groups in the villages and sub-villages of Claveria to help promote NVS. Landcare thus developed into an approach that rapidly and inexpensively disseminated conservation farming technologies based on an effective partnership between farmers, local government, and the ICRAF staff.

This three-way partnership, described as the landcare triangle, has resulted in widespread adoption of NVS and agroforestry practices. By the middle of 2003, the total number of farmers adopting NVS and agroforestry had reached 1,844, representing 27 per cent of the total farming population (6,233). The aggregate area of parcels treated with conservation technologies increased from 75 hectares in 1996 to 1,820 hectares, representing 23 per cent of the total cropped area. Farmers also expanded their repertoire of timber, fruit, and indigenous tree species, and established a total of 421 communal and household nurseries, which produced almost 300,000 seedlings of fruit and timber trees in six years (1996-2002).

It was widely agreed that the technical merits of NVS were a major advantage, but rapid adoption was also attributed to the triadic partnership of the CLCA, the LGU, and ICRAF researchers and facilitators. The CLCA and its network of landcare groups promoted farmer-led extension of technologies, while ICRAF provided technical and logistical support and the LGU provided policy and financial support. LGU informants agreed with Landcare facilitators that the CLCA was the centre of the partnership and was crucial to success. Other important ingredients included the catalytic role of ICRAF in technology development, effective facilitation, and the provision of effective training programs. The stable political situation was also important, in which LGU political leadership and administration were in the hands of one political family, and landcare leaders had an established relationship with LGU officials.

It can be concluded from this case study that the Landcare program flourished in Claveria because of a favourable environment, in which locally adapted technologies had emerged, the LGU was supportive of grassroots initiatives and had the desire to work with farmers and other agencies, and ICRAF provided a long-term research and extension presence

Given this initial success, Landcare was scaled up in other sites using different modes. The hypotheses were twofold: (1) Landcare could be implemented more widely given the differences in farming systems, socio-political, institutional, and economic environments in various Philippine locations; and (2) Landcare could be scaled up at the least cost through partnerships. The latter was based on the fact that ICRAF has limited resources to initiate a scaling up process.

### ***Scaling Up Landcare in Multiple Sites***

At the start, ICRAF did not have a deliberate plan and long-term strategy for scaling up. Hence, without a sophisticated scaling up strategy, ICRAF began at its research site in Lantapan, and in Manolo Fortich where it had an on-going research activity. Meanwhile, the Municipal Agricultural Office (MAO) of Malitbog was approached by ICRAF about Landcare based on the interest of

farmers who had earlier visited Claveria, while the Upland Development Programme (UDP) approached ICRAF about the potential of Landcare in the south-central Mindanao region. The pathways, strategies, nature of activities, and varying levels of technical and institutional inputs constituted the different modes of scaling up at each site (Table 1).

Table 1: Components of the modes of scaling up Landcare

Mode	Site	Year Started	Pathway	Strategy	Nature of Activities	ICRAF Support
1	Lantapan	1997	Local Development Planning	Integration in the Municipal NRM Plan	Direct impact activities	Full staff support but less compared to Claveria
2	Malitbog	1998	Agricultural Extension	Integration in the Agricultural Extension Program	Combination of direct and indirect impact activities	1 full time Landcare facilitator
3	Manolo Fortich	2000	Local Development Planning	Integration in the Municipal Comprehensive Plan	More indirect impact activities	1 half time Landcare facilitator
4	South-Central Mindanao	2001	EU-UDP	Integration in the UDP Framework	Purely indirect impact activities	No Landcare facilitator

Scaling up Landcare in the study sites was met with flexibility using different modes of scaling up to adapt to specific conditions, conforming to Berman and Nelson's (1997) view that success depends upon adapting a model program to the local situation. However, this did not come easily; in the process of adaptation, some aspects of the Landcare Program were changed to fit to the local conditions, at the same time as the Landcare Program changed the local situation. It was hard to juggle the compromises and tradeoffs between process and outcomes, especially where Landcare involved both technical and institutional innovations. For instance, the promoted technologies were more easily adopted than was the Landcare process itself because they were less complex and easier to implement. In the south-central Mindanao area, with large project funding, technology adoption was induced through support of livelihood and infrastructure services, diminishing the value of volunteerism and institution building. Although, Berman and Nelson (1997) support the view that outcomes are more important than fidelity to the adopted model, this provided some philosophical and operational challenges in scaling up, and raised concerns about the sustainability of the adoption process. There was a concern about how technology adoption could be extended in the south-central Mindanao region without continued support from the UDP. The relative importance of scaling up just the technical innovations or the institutional innovation was a matter of institutional choice. In this case, ICRAF was rather free flowing, because it did not perceive Landcare as a prototype, nor had it established a long-term scaling up strategy at the outset.

Implementation was met with a myriad of issues including political conflict, leadership, participation, and sustainability issues, but the overall outcomes were impressive. The most important outcome was the improvement of human and social capital, enabling farmers to adopt conservation technologies and agroforestry practices with foreseeable improvements in natural and financial capital. By the middle of 2003, the total number of NVS and agroforestry adopters in the five sites was more than 7,000. Agroforestry practices in this case involved the enrichment of NVS with timber and fruit trees and perennial crops such as banana or coffee, or with several trees planted along farm boundaries or in small woodlots within a farm unit. Figure 1 shows the comparative adoption of these technologies in the study sites. Clearly, the decreasing trend in technology adoption coincided with the decreasing level of ICRAF's technical and institutional support in the first four sites (see Table 1). However, since Landcare did not start at the same in these sites, it was hard to establish the causal effect between degree of external input and technology adoption, without considering the element of time and other socio-economic and

political factors. Obviously, the south-central Mindanao area, the newest site, which did not receive institutional support from ICRAF obtained the highest adoption due to the presence of the UDP, which provided livelihood and other support services.

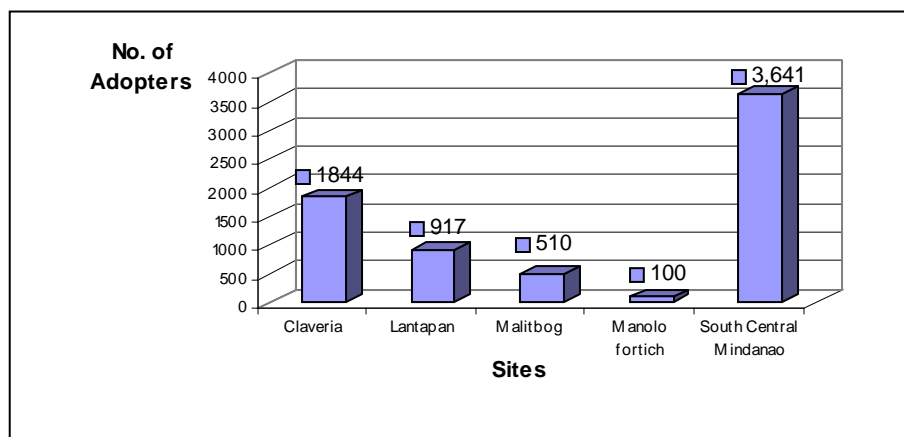


Fig. 1: Cumulative adoption of NVS and agroforestry practices in five sites, mid-2003

There was evidence that Landcare had, in one way or another, reoriented the extension system and effected changes in local budgeting and policy formulation. At the farmer level, it regenerated the culture of volunteerism and cooperation, and fostered community participation. Relative to varying levels of investments and different timescales at each site, the extent to which the goals were achieved (e.g., technology adoption) and the positive spillover effects demonstrated cost effectiveness. For instance, the number of trees planted by farmers covered 472 hectares, which could amount to 8 million pesos if established as a reforestation project of the Department of Environment and Natural Resources.

The total area applied with conservation technologies reached 3,440 hectares, representing 23 per cent of the total cropped area in Claveria; 24 per cent of environmentally critical areas (ECA) in Lantapan; and about 5 per cent of the cropped area in Malitbog. The economic and environmental benefits of technology adoption are difficult to document, because of the longer-term and complex nature of the impacts. However, considering that farmers continued to adopt and increase the repertoire of adopted technologies, and have moved on to broader-impact activities, significant environmental and economic benefits could be expected.

The study also found that scaling up could proceed with fewer requirements of institutional and technical input from an external agency. For ICRAF, the resources used in implementing Landcare were more technical or human, rather than purely financial. Although the latter was important, the fiscal cost was cut down significantly through consolidation of gains, decentralising training at the farmer level, and testing different modes of scaling up. The different modes showed that ICRAF's cost of scaling up per site was significantly reduced, with local partners sharing the overall cost of implementation. From the point of an external agency, the use of indirect impact activities was a cost-effective approach for scaling up; a combination of direct and indirect impact activities could thus be promoted as a two-pronged approach for scaling up. The UDP case differed in that, while ICRAF input was limited, the partner was extremely well resourced, raising concerns about post-project sustainability.

### *Some Generalisations*

Some broad generalisations can be made about the preconditions for successful scaling up, with the relative importance of each precondition depending on local realities.

- First, the wider adoptability of NVS, and the flexibility to develop complex agroforestry systems from this starting point, was an advantage. Hence a set of widely adoptable technologies would be desirable for effective scaling up. Where a proven technology is absent, a locally adapted technology could well be a starting point.
- Second, it appeared that Landcare succeeded in areas where farmers were wholly focused on farming, conservation efforts were promoted and supported, and farmers were not affected by rapid economic change, such as the growth of large-scale agribusiness or non-agricultural employment. However, where these conditions are absent, Landcare could potentially expand its scope to include NRM-based livelihood options, industry-based strategies and foster private sector support.
- Third, Landcare had better prospects where local politics were stable, allowing the landcare triangle to prosper. However, in cases where LGU support is limited or where the political situation is hostile, a committed and highly competent external agency is an essential ingredient, offsetting the immediate need for LGU support.
- Fourth, and in connection with the above, a highly competent external agency proved desirable, not only for offsetting the weakness of the LGU, but also for providing the necessary technical expertise and longer-term presence to explore different strategies and adopt a step-wise development approach. However, this requires high institutional competencies that might be uncommon even with experienced NGOs and with other research and development (R&D) institutions.
- Fifth, an initial level of human and social capital is desirable, but is not essential for scaling up, as Landcare involved investments for maintenance and expansion of human and social capital within a sensible timeframe.
- Finally, effective training, communication, and facilitation are essential ingredients for scaling up, without which the essence of farmer-based extension embodied in the landcare approach would be difficult to achieve and maintain.

In summing up, Landcare could be only partially scaled up where the conditions that made it successful in one site were not fully replicated in the other sites. This supports the finding of Lovell et al. (2003) that scaling up research in NRM was challenging because the rules or relationships that hold at one scale often do not transcend scales. Several authors (Berman & Nelson 1997; Schorr et al. 1999) agree, and stress that successful scaling up depends on replicating the conditions where the program has worked rather than replicating the program itself. The implication is that these conditions should be considered in planning for the scaling up of Landcare beyond its current domain, as they define the mode, strategies, and scope of the scaling up process. Finally, the case studies have shown that to mobilise communities for Landcare outcomes, a balance has to be sought between community-initiated change, partnerships with local governments, and promotion of technological and institutional innovations by external actors, this balance depending on a range of contextual factors.

### **Landcare in Australia**

In Australia, Landcare had its genesis in a range of policy initiatives in the early 1980s, including the National Soil Conservation Program (NSCP) in 1983. During this time, the Victorian Government recognised that dryland salinity was a major environmental threat and, upon the instruction of then Minister Joan Kirner, the Department for Conservation, Forests and Lands established a broad community based program to deal with a range of land degradation issues, requiring community involvement in planning and implementing program (Campbell 1994). The title “Landcare” was given to the program and the name was registered in Victoria in 1986. In 1987, Landcare was offered to the Federal Government suggesting that it become a national program.

The federal government acted on this initiative and announced the 1990s as the “Decade of Landcare”, outlining a US\$340 million funding allocation for ten years through a National Landcare Program (NLP) (Campbell 1994; Lockie & Vanclay 1997). This propelled the formation of landcare groups, bringing them to the centre of farming and rural communities (Bebbington & Farington 1993). The explosive growth of the Landcare Movement has continued with now more than 4,000 landcare groups and one-third of Australian farming families involved. The NLP became the umbrella of the Landcare Movement, and even programs of Commonwealth agencies that support community activities were aligned to form part of the NLP. The main source of Landcare funding was the Natural Heritage Trust set up by government. Landcare Australia Limited was established to raise public awareness of Landcare, and to provide a vehicle to generate and disburse corporate sponsorships for projects. The Australian Landcare Council was established in conjunction with the NLP to provide ministerial advice and to create a platform for Landcare views to be discussed and to be presented to the Commonwealth Government. The National Landcare Facilitator Program was set up to look after the training needs of Landcare facilitators and coordinators.

The most important component of Australian Landcare is the community landcare groups, which are basically composed of people concerned about land degradation problems, and who are interested in “working together to do something positive for the long-term health of the land” (Campbell 1994). There is no standard definition of a landcare group, but its distinguishing mark is “volunteerism”. Farmers with a common agenda come together and discuss how things could be solved through their own means or with some external help. Landcare groups are engaged in varying activities from total farm care, to catchment care, bush care, property planning, revegetation, coast care and many others. Landcare facilitators and coordinators are key actors at the interface between government agencies and landcare groups. With such government recognition and support of landcare groups, there is a clear message about bottom-up versus top-down approaches. In this case, neither approach is likely to work on its own; they are mutually dependent (Campbell 1994). The value of high profile, committed political leaders to grassroots initiatives and their support for community participation is profound, and it is unlikely that Landcare would have grown quickly with the same degree of support from government and landcare groups, without such obvious commitment to it right at the top (Campbell 1994).

Landcare outcomes were much broader than its advocates had predicted. A recent survey by the Australian Bureau of Agricultural Resource Economics showed that the participation rate of farmers in Landcare has grown to reach over 37 per cent, and that 60 per cent of farmers had learned about land degradation issues from their involvement with Landcare (AFFA 2003). Several reviews have identified the social and economic outcomes of Landcare (Cary & Webb 2000). However, despite millions of trees planted across Australia, there is an ambivalent result regarding the actual impact of Landcare on land management practices (Lockie 2000). Often, levels of participation are held up as evidence of success. This, at the very least, indicates profound cultural changes in rural people’s understanding of their relationship with each other and their environments (Lockie 2000). In a book called *Critical Landcare*, Lockie & Vanclay (1997) examined the broader socio-political fabric that fostered the initial conditions for Landcare. They found that government and community partnership was a milestone to success, but that much remains to be done to address a comprehensive list of challenges for the future of Landcare, including gender considerations, extension practice, and inter-farm cooperation.

In 2003, six years after the publication of the *Critical Landcare* book, the Australian Government, reviewed the NLP to examine its effectiveness with a view to further funding of A\$122 million for three years (AFFA 2003). The review highlighted the effectiveness of Landcare in raising awareness, changing attitudes and behaviours, and in improving NRM outcomes. It reports that

funding of landcare groups and other support through the program have been highly effective in building awareness and skills, transferring knowledge, and stimulating adoption of better farming practices, resulting in improvements in resource conditions at the farm and local level, and creating significant public benefits. The review concludes that Landcare has been part of the fabric for achieving sustainable ecosystems, and that it has been the necessary link between farmer, catchment, and regional approaches, and government policy to deliver broader landscape change. Ultimately, Australian Landcare demonstrated a grassroots-driven and government supported initiative. The strong critical mass established from below triggered government action that was responsible for scaling up Landcare.

### **Landcare: A Shared Philosophy?**

The idea of grassroots-driven movements as key to reversing land degradation has been widely accepted. Their effectiveness for sustainable environmental and economic outcomes has been amply demonstrated in several African and Central American countries, South Asia, Australia, and the USA (Pretty 1998; Pretty & Ward 2001; Farrington, Turton & James 1999; Scherr et al. 2001). Pretty and Ward (2001) estimate that more than 50,000 watershed groups have become active in these countries in the past two decades. Community landcare groups in the Philippines and in Australia, the campesinos (farmers) in Nicaragua, watershed self help groups in India, and watershed networks at the tambon level in Thailand are examples of these. Such local organisations vary in terms of their genesis, focus, and scope; for instance, many local groups in the Philippines were mostly organised by external organizations, particularly NGOs, while most local groups in Indonesia were organised by government agencies, and many NRM groups in Thailand were self-initiated (Scherr et al. 2001). Nonetheless, the range of activities is common, such as on managing common property resources, adoption and dissemination of sustainable farming technologies, knowledge-sharing about NRM, land tenure claims, policy advocacy, market linkaging, and resource generation for livelihood financing. Democratic participation, community empowerment, local ownership, and being locally demand-driven are the guiding principles on which local group formation has been based. According to Scherr et al. (2001), local organisations in Southeast Asia have demonstrated impacts on local welfare, local resources and watershed environments. However, despite these developments, there are still various claims of successful grassroots initiatives in natural resource management that have not had broad level impacts due to their inability to spread beyond their limited domains (Pretty 2001; Binswanger 2003). The common reason for this is that local organisations and supporting institutions (e.g. NGOs) lacked the capacity to expand and governments did not support expansion efforts.

In the Philippines, the challenge for scaling up Landcare beyond its current domain was in replicating the conditions that had made it successful at the local level. As mentioned above, there are identifiable preconditions for success, but these come down to finding a balance between community efforts, local government partnership, and support from external agencies. Similarly, Australian Landcare could not have grown quickly without government funding, private sector support, and strong grassroots efforts. Hence, even in such extremely different conditions as the Philippines and Australia, grassroots initiatives could not go very far without the concerted support of local and national governments and other external actors. Further, this implies that even if local organisations are strong, external organisations, whether government or non-government, are not freed of the responsibility to help mobilise resources and support grassroots efforts.

The problem in the Philippines, however, lies in the inability of the national government to respond to such grassroots initiatives at a scale that would make meaningful improvements in livelihoods and natural resource management. Unlike in Australia, the Philippine government is poorly resourced. Although the emphasis on government devolution is supportive of grassroots initiatives, the resources needed to provide the same level of support as in Australia for community landcare

groups are lacking. Given this limitation, Landcare in the Philippines might continue to scale up along a different pathway. With the growing network of like-minded LGUs, NGOs and project partners that have embraced Landcare, it may be possible to scale up to the national level through a coalition approach, emerging from the bottom and later influencing the broader policy agenda. Nonetheless, despite the differences in the genesis, scope, and development pathway of Landcare in the Philippines and in Australia, there is a shared Landcare philosophy, which is the enrichment of human and social capital to mobilise local action for reversing land degradation and improving livelihoods, with emphasis on local demand, volunteerism, genuine participation, and importantly, partnerships and support from beyond the local level.

## Conclusion

Landcare developed quite uniquely in the Philippines and in Australia because of their different circumstances, but the problems and objectives that community landcare groups are trying to address are similar, and the same set of principles (e.g., participation and volunteerism) are adhered to. In Australia, the government's machinery is well in placed to scale up Landcare throughout the country, but in the Philippines, government support has been so far limited to the local level. Non-government agencies have compensated for this limitation, but in both situations, government support is important and would be crucial for long-term success. Hence, due to a severe lack of government resources, Landcare might take a different pathway to scale up more broadly in the Philippines, perhaps through a coalition of Landcare supporters and practitioners, which is emerging in the southern Philippines.

The larger message is that, regardless of differences in circumstances, the driving principles for mobilising local communities to achieve Landcare outcomes appear to be quite general. The essential requirements to facilitate this process are also common, that is, a good balance between community efforts, government partnerships, and support from non-government agencies in the form of technical or institutional innovations, advocacy, and funding. The genesis of these efforts and the pathways they might take will vary from one situation to another, but the philosophy behind them is fundamentally shared. Thus, in developing countries where many common problems are faced and governments are moving towards a new emphasis on local-level governance, the Landcare philosophy might help to mobilise local actions for greater agroecological benefits, with specific variations only in the implementation strategies to suit to varying local conditions. The study confirms the global experience that grassroots efforts are essential but not sufficient. Local organisations cannot single-handedly take responsibility for reversing the world's environmental problems. The contributions of other actors and institutions, government or non-government, are also crucial.

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