CHAPTER

11

Landcare - a landscape approach at scale

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Highlights

- Landcare is an approach based on the notion of caring for your landscape as a community
- The model uses a grassroots socio-political lens to find technical solutions to landscape-level land degradation
- The modality of the Landcare model has evolved to suit the land management issues and governance environment in which it operates
- The approach has demonstrated its extensive capacity to operate in various contexts and in multiple scales through adhering to the key principles that make it distinctive, yet adaptive to differing conditions
- Landcare exemplifies that an effective landscape approach is as much about an investment in people as it is in technical solutions

1. Introduction

With an increasing focus on people-centred approaches to integrated landscape management (Sayer et al., 2013), there is demand for models that strike a social-ecological balance to engage disconnected communities and to support strengthened institutional arrangements. One such approach is Landcare, a method centred on community-based collective action in addressing land degradation and natural resource management issues within the landscape.

Landcare is an approach based on the notion of caring for your landscape as a community. The model is based on the values of community empowerment and collective action to develop and apply innovative solutions to natural resource management challenges, networking farmers with the broader community and promoting sustainable land management practices. The Landcare model, which has often been identified as 'bottom-up' rather than the conventional programme design approach of 'top-down', is founded on four basic cornerstones: community driven, appropriate technologies and land management practices, partnership development and institution building. These foundations are based on farmers' interest in gaining and sharing knowledge about practices that can improve income generation whilst conserving and protecting natural resources. This approach is underpinned by the acknowledgement that land management issues do not exclusively impact or occur at the farm scale, but also ramify into the surrounding landscape.

Subsequently, to minimize the risk of the notion of Landcare being a synonym for natural resource management, the South African government, as part of their national Landcare programme, developed six core principles of Landcare to aide in defining the landscape approach (Prior & Holt, 2006):

1. *Integrated sustainable natural resource management* embedded within a holistic policy and strategic framework where the primary causes of natural resource decline are recognized and addressed
2. Fostering *community-based and led* natural resource management within a participatory framework that includes all land users, both rural and urban, so that they take ownership of the process and the outcomes
3. The development of *sustainable livelihoods* for individuals, groups and communities utilising empowerment strategies
4. Government, community and individual *capacity building* through targeted training, education and support mechanisms
5. The development of active and *true partnerships* between governments, Landcare groups and communities, non-government organisations and industry
6. The blending together of appropriate upper-level *policy processes* with *bottom-up feedback mechanisms*

This chapter explores the Landcare approach, from its early beginnings to scalability as a global movement in landscape management, with the intent of presenting the importance of community-based natural resource management as underpinned by the above six principles of Landcare.

2. The development of Landcare

In Australia, Landcare has for 25 years played a major role in raising awareness and influencing farming and land management practices with the intent of achieving environmental outcomes across the landscape. Landcare first emerged in 1986 as a distinctive entity in the state of Victoria (Lockwood, 2000) and was initiated by the then, state government, in response to worsening land degradation. Initial focus was on property and farm planning to address salinity issues. Through the alliance of the National Farmers Federation and Australian Conservation Foundation, bipartisan support was secured from the Australian government and the National Landcare Programme (NLP) and the Decade of Landcare was launched in 1990. From the government perspective, Landcare was a catalytic programme that attempted to engage the rural population and produce more aware, engaged, informed, skilled, and adaptive resource managers with a stronger stewardship ethic (Curtis & De Lacy, 1996*a*).

Landcare captured the broad spectrum of technical and social aspects in natural resource management (Johnson et al., 2009); hence, it quickly spread as a grassroots-led movement, and a new discourse entered into environmental policy that included partnerships, reciprocity, community building and inclusiveness. Community-based natural resource management (CBNRM) was then, emerging as a powerful idea and a central organizing platform for public policy.

Landcare now exists in more than 30 countries with varied social conditions and political environments, alongside a myriad of government and non-government projects, programmes and initiatives (Figure 11.1). It has also been mainstreamed within the missions and work programmes of multilateral organizations, for example, the World

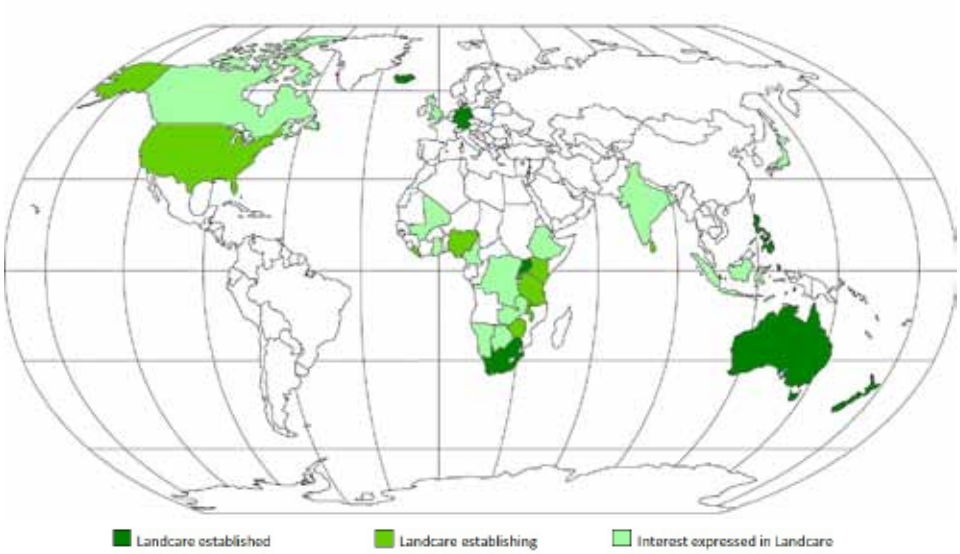

Figure 11.1 Countries where there is an interest in Landcare and where Landcare initiatives currently exist.

Agroforestry Centre (ICRAF) has explicitly adopted a Landcare approach with support from various donors in the Philippines, Kenya and Uganda. The spread of Landcare has occurred primarily by word of mouth through Landcare champions and networks, without any formalized systematic scaling-up strategy. With a focus on empowering communities and farmers, Landcare has been explored as a viable and complementary approach to existing activities and programmes addressing sustainable livelihoods and natural resource management (Prior & Johnson, 2009).

Landcare programmes at the local and country level are both different, and similar, as each approach has been adapted to meet local conditions and local needs. However, wherever Landcare is implemented, implementers, supporters and advocates remain committed to the key principles of Landcare (Catacutan et al., 2009). This approach recognizes the value of information sharing and the use of social pressure amongst land managers for change. This encompasses all land users within the landscape (including rural and urban areas), allowing them to take ownership of the process and outcomes to facilitate sustainable adoption of the change in practices. Additionally, the Landcare model recognizes the importance of simultaneously improving peoples' livelihoods and natural resource base upon which they depend, paying particular attention to social, economic, environmental and cultural sustainability. Finally, Landcare is about integrated sustainable natural resource management programmes in which the resource components are linked in time and space.

3. Landcare at work

3.1 Addressing local problems

While staying true to the central objective of local communities developing, sharing and implementing more sustainable ways of managing land and water resources, conserving biodiversity and creating sustainable livelihoods, the global spread of the Landcare model has demonstrated many different approaches and adaptations. The modality in which the

Figure 11.2 Community members working through a Landcare project to repair the erosion of Mafidhi gully with gabion walls in Chivi District, Masvingo Province in Zimbabwe (Photo courtesy of Anold Musoki, CARE Zimbabwe).

model has evolved within various landscapes is paramount to the relevance of community participatory processes that drive Landcare.

Evidence of these drivers can be seen in the locally relevant issues for Landcare communities. For instance, community groups in Nigeria have prioritized conservation efforts to protect an indigenous primate, *Cercopithecus sclateri*, through awareness raising and re-vegetation activities with local farmers (The Tropical Research and Conservation Centre, 2012). Conversely, issues surrounding soil erosion and abatement through the adoption of farmer innovations, including natural vegetation strips, facilitated the developments of the Landcare initiative in the Philippines (Landcare Foundation of the Philippines, 2009). Such examples highlight the role of community groups in identifying and addressing locally relevant natural resource and land management priorities. This role of community at the forefront of managing natural resources through collective action has not gone unnoticed from government initiatives.

3.2 Networking

Landcare also espouses a community scale philosophy to land management. This is particularly evident in landscapes where the presence alone of Landcare activities within the community has been attributed to farmers not affiliated with any specific Landcare group still adopting practices promoted through Landcare initiatives. Information sharing, awareness raising and redefining the 'norm' are all important aspects of Landcare, in addition to activities on-the-ground. Two such examples of Landcare networks are the Claveria Landcare Association, which is a network of village-based Landcare groups in the southern Philippines, and the African Landcare Network (ALN). The ALN was founded in 2006 as part of the third South African Landcare Conference, with the purpose of building a network of country Landcare programmes as a general strategy to support the delivery of the Millennium Development Goals (MDGs) in Africa. At the global

level, Landcare International, represents numerous local Landcare networks that all aim to promote the Landcare approach internationally.

3.3 Financing

Funding for Landcare activities and facilitation comes from different sources and in various amounts. For example, the South African Landcare Programme is government-led and funded whereas the Philippines and Uganda programmes are funded through multi-lateral research projects. German Landcare in contrast receives both local government and European Union funding. Landcare in Australia is exceptionally well-resourced as the NLP received federal and state funding, enabling it to support a nation-wide network of Landcare facilitators in addition to investments at the national, regional and local level. This funding has facilitated farmers, landholders and community groups to undertake locally identified and relevant on-the-ground action. The collective impact of these activities has resulted in landscape transition across rural and urban Australia. Through Landcare, millions of trees, shrubs and grasses have been planted, riparian zones restored and water quality improved through fencing out of stock and controlling erosion on riverbanks, protected tracts of remnant vegetation and regenerated areas of bushland to provide habitat for native wildlife, and improved ground cover, grazing practices and soil management (Australian Framework for Landcare Reference Group, 2010).

3.4 Social norms of landscape management

Landcare has been credited with acting as an agent that creates social capital, bringing neighbours together to share ideas and implement cooperative projects. In turn, social capital has been credited with positively influencing natural resource management outcomes particularly through people working collectively and cooperatively to manage resources and improve natural capital (Compton & Beeton, 2012). Linking social capital to environmental and livelihood improvement is based on the premise that social capital can make other forms of capital (e.g., cultural, human, political) more efficient through increasing the productivity of individuals and groups (Putnam, 2000).

The idea of social capital for conservation originates from the beginning of the 20th century. Hanifan (1916) observed that, as a whole, a community will benefit by the cooperation of all its parts, while the individual will find in his associations the advantages of the help, the sympathy, and the fellowship of his neighbours.

As investing in and building social capital becomes a social norm, this leads to long-term commitment and benefits. When people are well connected in groups and networks, and when their knowledge is sought, incorporated, and built upon during planning and implementation of conservation and development activities, then they are more likely to sustain stewardship and protection over the long term (Uphoff, 2002; McNeely & Scherr, 2003).

Landcare in the Philippines is a good example of where farmers and their communities have taken control of their own problems regarding degraded landscapes through the implementation of locally relevant solutions. In the 1990s, ICRAF had been conducting research on contour hedgerow technologies in northern and central Mindanao, Philippines. The extension focus was on addressing key technical constraints of the contour hedgerow system, but adoption by farmers was low. The low adoption of the conventional hedgerow system was due not only to technical capacities, but also socio-economic and institutional

constraints faced by poor farmers in the uplands (Catacutan & Mercado, 2001). ICRAF took another approach and supported the establishment of Landcare groups where farmers shared knowledge, skills, leadership and experiences. Through this approach, Landcare was able to achieve the necessary change in attitudes and adoption of new farming systems 'from the inside out' (Landcare Foundation of the Philippines, 2009).

In a different context, the adoption of Landcare in Germany has experienced similar processes in establishing social norms on what good landscape management is, and making it economically attractive to do so. The approach was established as a process to improve cooperation between farmer groups, conservation groups and government agencies. Driven from by the community, the multi-stakeholder approach of Landcare in Germany has been paramount in raising awareness within the community of what appropriate land management practices are, to support the conservation values of cultivated landscapes.

As the Landcare model has developed, a natural evolution has occurred in the model, projects no longer just involve planting trees or hedges, but are focused on integrated approaches to maintain the diversity within landscapes for production and conservation. New economically motivated strategies have also emerged, for the betterment of the environmental values within the landscape. Products produced through environment-friendly production systems are being labelled, promoted and marketed to attract a premium in the market. These products are often associated with particular regions or landscapes, such as lamb from dry limestone pastures in Germany, which has prompted farmers to implement sustainable grazing management strategies to ensure continuous product supply to the market (Bluemlein, 2009).

The Landcare model has also had evidence of providing a link to conservation values, whilst addressing land management challenges within the landscape. In the Kapchorwa District Landcare Chapter (outlined in Box 11.1), a Landcare by-law, sponsored by the International Union for Conservation of Nature (IUCN), was developed to specify rules and regulations for land use, as a means of capitalizing on the community interest in addressing degraded lands as a collective problem, through support from the local government and district authorities. The Landcare by-law mainly focused on unrestricted grazing and the resulting tree destruction, but was expanded to integrate other management aspects such as restricting farming and grazing in riparian zones. The by-law was also instrumental in enabling other actions such as soil conservation terracing and tree planting. Success of this by-law was seen in the consolidation of community demand for policy support aimed at addressing land degradation issues, but also the application of the by-law as surrogate management plans for the farmland and fostering trust in the interactions between the Mount Elgon National Park and the indigenous Benet people who were displaced from the protected area (Barrow et al., 2012).

Landcare in these examples is seen as an enabler of achieving landscape scale change through ensuring community identification and ownership of land management issues. Through collective awareness of land management challenges at the grassroots level, government and other stakeholders are effectively coerced to make appropriate policy responses for the betterment and protection of land and natural resource assets across the landscape, benefiting both human and natural communities. Furthermore, approaching these issues through a Landcare mindset is critical for the sustainability of these initiatives.

Box 11.1

Kapchorwa District Landcare Chapter: managing the landscape for livelihoods

Prior to the formation of the Kapchorwa District Landcare Chapter (KADLACC), community members in the Kapchorwa District along the northern slopes of Mount Elgon in Uganda, had been struggling with a myriad of complex and linked landscape management issues including:

- Indiscriminate removal of vegetation cover
- Declining soil fertility as a result of eroding soils, exacerbated by steep slopes
- Conflict in the protected areas of Mt. Elgon National Park, including the displacement of the indigenous Benet people
- Forest encroachment into the protected areas for firewood collection, grazing and hunting
- Land abandonment in lowland areas of the district due to cattle rustling, displacing the population to the highlands
- Gender inequality with women providing 90% of the agriculture labour, but with no decision-making power
- Poor governance around natural resource management resulting in policy contradictions and compliance with limited local enforcement capacity and budget allocation

The combined effect of these challenges was nowhere more evident than in the challenge of effectively managing excessive run-off and landslides, which destroyed crops, property, infrastructure and even lives. Through the support and facilitation of the African Highland Initiative, KADLACC, an indigenous platform of smallholder groups was formed in 2003 with a shared vision for integrated natural resource management. Through convening discussions on the challenges faced in Kapchorwa, the local community and other stakeholders were engaged in realizing that the long-term solution to their landscape challenges would only materialize through a holistic approach that harmonized livelihoods and conservation efforts. Through inculcating Landcare principles and building partnerships, the community was at the forefront of the establishment of the KADLACC platform to spearhead the adoption of an integrated landscape management approach.

By empowering the community in the decision-making process under the auspices of the Landcare approach, KADLACC has facilitated a multi-stakeholder platform across the landscape to take ownership and accountability of individual actions under the common vision for improving the natural resource base. This has included partnership creation and collaborations with stakeholders at a range of levels within the community, supporting training, cross-learning and knowledge-sharing activities, whilst promoting a conducive policy environment for these activities within the district level government.

Specific socio-economic and wellbeing achievements made by the groups have included increased production, such as average milk production increase per household from 2.5 litres to 6.5 litres and maize production increases from 13 to 25, 100 kg bags/acre per season. Fundamental to the objectives of KADLACC is realizing sustainable natural

resource management outcomes for the community by addressing landscape-level challenges through soil and water conservation, agroforestry and watershed management whilst maintaining productive farming systems. Subsequently, bio-physical achievements have been made such as forest protection, nature-based enterprises including apiary, zero grazing initiatives, and soil fertility and watershed management activities through practices such as agroforestry. These initiatives have positively supported social outcomes such as income generation and improvements in food security, including fuel sources and crop diversification, they have also modified the landscape evident by the reduction in landslides within the district (Mowo et al., 2009).

4. Landcare and monetization of conservation

An emerging challenge for the role of community-based natural resource management through Landcare is the growing prominence of rewards, incentives or payments for ecosystem services. These incentive-based programmes (IBPs), which include monetary compensation, revenue-sharing schemes, and conservation concessions, in which direct economic incentives are tied to the conservation behaviours of local people, raises some concerns about the driving factors of voluntary collaborative action for conservation, as modelled by Landcare. Practitioners seek to make conservation economically attractive and commonplace, routine in the decision-making of individuals, communities, corporations, and governments (Daily & Ellison, 2002). However evaluations of incentive-based conservation programmes indicate that the approach continually falls short of the rhetoric (Spiteri & Sanjay, 2006). Specific issues for IBPs include the inability to generate uniform community support, deficiencies in the development and implementation, distribution of benefits (inequities), and maintaining benefits over a longer time frame. IBPs do have their place in a suite of approaches that communities can utilise, and can be designed to consider the complexities of heterogeneous communities, including marginalized communities, but it needs to ensure that social norms of conservation are not completely replaced by monetization of conservation.

5. The landscape approach at scale—insights from Landcare

Minang et al. (Chapter 1, this book), highlights the multi-scale dimension of landscape approaches. The fact that Landcare has expanded across the world from its roots in Australia, and has been adapted to such a diverse array of cultures and societies, with only minor external support, suggests that the Landcare approach has broad value and appeal for landscape management at multiple scales. Landscapes are of interest to multiple stakeholders. Thus, it has been extremely challenging to imagine how the global environment, constituting of thousands to millions of landscapes, might be managed. Using different entry points, various international environmental conventions (e.g., Desertification, Biodiversity and Climate Change) and programmes such as Reduced Emissions from Deforestation and forest Degradation (REDD) all attempt to provide a basis for doing so. International frameworks sign-posted by global leaders provide implementation guidance to achieve global goals of reduced emissions, biodiversity conservation and combating desertification. Guidelines, targets, funding, compliance and reporting, among others, are the focus of these international frameworks, whilst aspiring to mobilize local actions, empowering communities, and developing effective

partnerships and genuine participation from beyond the local level. Landcare provides a platform to facilitate such strong participatory and empowering processes connecting the local to the global, by addressing the landscape scale.

The main point of difference between countries with Landcare projects or programmes is the socio-economic context; some countries shoulder a greater proportion of the world's environmental and socioeconomic problems, yet have the least capacity to face these challenges (Catacutan et al., 2009). What this means for a landscape approach at scale is that while adhering to key principles, adjustments have to be made to address specific local contexts. Landcare too is viewed as both a technical and social approach to landscape management, although the latter is given more weight in its initial approach.

Emphasis on capacity development and building a landscape management ethic amongst local communities has been the defining feature of Landcare locally, and globally. The emphasis on people and communities in finding and implementing solutions for natural resources management made Landcare especially unique amongst its contemporaries. Today, no social norms of grassroots conservation are pursued in such a universally networked approach as is Landcare, even though it has yet to be fully mainstreamed into the global agencies responsible for fostering sustainable land management worldwide.

The trajectory of Landcare in the developing world can be greatly enhanced if the major international organizations now become active partners in its advancement. It would be ideal to have major global agencies' support for the Landcare approach, actively promoted by global development organizations and global and regional development banks. These organizations control vast resources deployed through hundreds of land management projects. Landcare could provide a common platform and agenda for these organizations to more effectively and comprehensively address integrated landscape management challenges in synchrony and in partnership with local communities.

The Landcare movement is positioned to work more closely with such key global organizations, particularly to identify and support Landcare champions and create supportive platforms within each of them. Embedding the Landcare approach in their project portfolios can stimulate a convergence in their approaches to sustainable land management, with a view of accelerating the successful advance of Landcare at the local, national, regional and global levels.

One of the most effective ways that Landcare can be more effectively mainstreamed into development is by also gaining recognition as a superior way to achieve the objectives of the global environmental conventions. As this chapter has highlighted, Landcare is gradually emerging as a global norm for effective landscape management at scale. Throughout history and across the globe, local communities have always been, and should continue to be, the primary social unit for achieving sustainable landscape management.

References

Australian Framework for Landcare Reference Group. (2010). *Australian Framework for Landcare*. Canberra, Australia: Australian Government Department of Agriculture, Fisheries and Forestry.

Barrow E., Fisher, R., & Gordon, J. (2012). *Improving ecosystem functionality and livelihoods: Experiences in forest landscape restoration and management*. Gland, Switzerland: IUCN.

Bluemlein, B. (2009). Landcare in Germany. In Catacutan, D., Neely, C., Johnson, M., Poussard, H., & Youl, R. (Eds.). *Landcare: Local action – global progress*. Nairobi, Kenya: WorldAgroforestry Centre.

Catacutan, D., & Mercado, A. (2001). Technical Innovations and Institution Building for Sustainable Upland Development: Landcare in the Philippines. The International Conference on Sustaining Upland Development in Southeast Asia: Issues, Tools and Institutions for Local Natural Resource Management. Makati City, Philippines: ACCEED.

Catacutan, D., Neely, C., & Youl, R., (2009). Globalising local actions an introduction to the ever expanding story. In Catacutan, D., Neely, C., Johnson, M., Poussard, H., & Youl, R. (Eds.), *Landcare: Local action – Global progress*. Nairobi: Kenya: World Agroforestry Centre.

Compton, E., & Beeton, R. J. S. (2012). An accidental outcome: Social Capital and its implications for Landcare and the "status quo". *Journal of Rural Studies, 28*(2), 149-160.

Curtis, A., & De Lacy, T. (1996). Landcare in Australia: Does it make a difference?. *Journal of Environmental Management*, 46, 119-137.

Hanifan, L. J. (1916). The Rural School Community Center. *Annals of the American Academy of Political and Social Science*, (67), 130–138.

Johnson, M., Poussard, H. & Youl, R. (2009). Landcare in Australia. In Catacutan, D., Neely, C., Johnson, M., Poussard, H., & Youl, R. (Eds.), *Landcare: Local action – Global progress*, Nairobi, Kenya: World Agroforestry Centre.

Landcare Foundation of the Philippines. (2009). *Landcare in the Philippines: a practical guide to getting it started and keeping it going*. ACIAR Monograph No. 138. Canberra: Australia: Australian Centre for International Agricultural Research.

Lockwood, A. C. M. (2000). Landcare and Catchment Management in Australia: Lessons for State Sponsored Community Participation. *Society & Natural Resources, 13*(1), 61-73.

McNeely, J. A., & Scherr, S. J. (2003). *Ecoagriculture: strategies to feed the world and save biodiversity*. Washington, D.C: Island Press.

Mowo, J., Tanui, J., Masuki, K., Nyangas, S., & Chemangei, A. (2009). The Landcare approach to sustainable land management in the highlands of eastern Africa: the case of Kapchorwa, Uganda., Limpopo, South Africa: 4th Biannual Landcare Conference, 12-16 July.

Prior, J., & Holt, R. (2006). Tools for International Landcare – Lessons Learnt from South Africa and Australia. Melbourne, Australia: Landscapes, Lifestyles, Livelihoods, International Landcare Conference, 8-11 October 2006.

Prior, J., & Johnson, M. (2009). The rise, and rise, of international Landcare: what trajectory could be possible?. Sydney, Australia: National Landcare Conference.

Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York, USA: Simon and Schuster.

Sayer, J., Sunderland, T., Ghazoul, J., Pfund, J. L., Sheil, D., … Buck, L. (2013). Ten principles for a landscape approach to reconciling agriculture, conservation and other competing land uses. *Proceedings of the National Academy of Sciences of the United States of America, 110*(21), 8349-8356.

Spiteri, A., & Sanjay, K. (2006). Incentive based conservation programs in developing countries: A review of some key issues and suggestions for improvements. *Environmental Management, 37*(1), 1-14.

The Tropical Research and Conservation Centre. (2012). *An overview of the Nigeria Landcare initiative*. Nigeria: Akwa Ibom State.

Uphoff, N. (2002). *Agroecological innovations*. London, U.K.: Earthscan.

Landscape-level constraints and opportunities for sustainable intensification in smallholder systems in Kamonyi District, Southern Rwanda. Constraints in the form of sloping land requiring terracing for cultivation and opportunities in the form of fertile valley floors enabling more demanding crops and production of fish, poultry and rabbits. Photo credit: A. Sigrun Dahlin