

Evolution of RELMA's approaches to land management

Lessons from two decades of research and
development in eastern and southern Africa

Kimaru Gathiru and Chin Ong

East Africa



World Agroforestry Centre
TRANSFORMING LIVES AND LANDSCAPES

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Acronyms

| | |
|---------|---|
| ACT | African Conservation Tillage network |
| ASAL | arid and semi-arid and areas |
| CAADP | NEPAD's Comprehensive Africa Agriculture Development Programme |
| CIGs | common interest groups |
| COSOFAP | Consortium for Scaling up Options for improving Farm Productivity |
| CSE | Centre for Science and Environment |
| FAN | Forest Action Network |
| GDP | Gross Domestic Product |
| GTZ | German Technical Cooperation agency |
| ICRAF | World Agroforestry Centre) |
| IIRR | International Institute for Rural Reconstruction |
| IPGs | international public goods |
| KIOF | Kenya Institute of Organic Farming |
| LLI | local level initiatives |
| NAADS | National Agricultural Advisory Service |
| NALEP | National Agriculture and Livestock Extension Programme |
| NGOs | Non-governmental organization |
| NSWCP | Kenyan National Soil and Water Conservation Project |
| RAC | Regional Advisory Committee |
| REFON | Regional Farmers' Organization |
| RELMA | Regional Land Management Unit |
| RSCU | Regional Soil Conservation Unit |
| SCAPA | Soil Conservation and Agroforestry Project Arusha |
| SEARNET | Southern and Eastern Africa Rainwater Harvesting Network |
| Sida | Swedish International Development Agency |
| SSA | Sub-Saharan Africa |
| ULAMP | Uganda Land Management Programme |
| WOCAT | World Overview of Conservation Approaches and Technologies |
| WTO | World Trade Organization |

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Introduction

The Regional Land Management Unit (RELMA) is well known in East Africa for its wide range of easy-to-read publications. These include guidebooks on useful trees as well as extension manuals and technical reports on land management. The popularity of these publications stems from their relevance and practical design. Often they are the only known documentation of local knowledge on trees and innovative land management practices (Box 1).

Much less is known about how RELMA works. Indeed many people assume that it is an extension of the Swedish Development Agency (Sida). RELMA's role stated role is "to promote initiatives to strengthen the role of small-scale land users in order to enhance food security and reduce poverty". Its goal is to improve the livelihoods of small-scale land users and enhance food security for all households by working with extension partners.

RELMA, the successor to the Regional Soil Conservation Unit (RSCU), is based in Nairobi. It operates in six eastern and southern African countries: Eritrea, Ethiopia, Kenya, Tanzania, Uganda and Zambia.

In 2004, RELMA became a project within the eastern and southern Africa region of the World Agroforestry Centre (ICRAF), also based in Nairobi. The merger is meant to ensure RELMA's experience in development contributes to ICRAF's ambition of reaching out to small-scale land users in Africa. What can ICRAF learn from RELMA in terms of research on development and scaling-up of interventions?

In this paper, we document RELMA's approaches over the past two decades. We distil the lessons learned so that research and development organizations can benefit from RELMA's unique and considerable experience in development. Many of these lessons are particularly relevant to the region, where most countries are affected by increasing land degradation and threats to food security despite many decades of development efforts (Djurfeldt et al, 2005).

Unlike many non-governmental organizations (NGOs) and international organizations, RELMA has the advantage of long-term funding from Sida. Therefore, it has been able to evolve unique approaches and a distinct mode of operation.

But how is RELMA unique in terms of approaches and mode of operation? To try and answer this question, we begin by tracing the origin of RELMA's involvement in land management and the evolution of approaches and links with extension providers. We then capture key lessons learned and RELMA's relevance to current challenges facing Sub-Saharan Africa.

Table 1: Recent RELMA publications

Technical handbooks

Managing land: A practical guidebook for development agents in Ethiopia. 2005. No.36

Useful Trees and Shrubs of Kenya, 2005. No. 35

Fruits and Nuts with potential in Tanzania. 2005. No.34

More forage, more milk. 2005. No.33

Water from ponds, pans and dams. 2005. No.32

Agroforestry handbook from the montane zone of Uganda. 2003. No.31

Soil fertility and land productivity. 2003.No.30

Soil and water conservation in Eritrea. 2002. No.29

Management of rangelands.2002. No.28

Edible wild plants of Tanzania. 2002. No.27

Tree Nursery manual for Eritrea. 2002. No.26



Co-published books

Conservation Agriculture in Africa. 2005.

Sustainable Agriculture Extension Manual. 2003

Traditional Food Plants of Kenya. 2002

Endangered Water.2002

Managing Dryland Resources. .2002.

Policy briefs

What is driving the charcoal industry into a dead end? 2005

Amplifying the farmers' voice in the market economy. 2005.

Inclusive dairy policies can reduce poverty for millions. 2005.

Improving traditional practices yields richer rewards! 2005.

2. Overview of land degradation in the region

It is estimated that two-thirds of Africa's arable land will have been lost by 2025 due to land degradation. Every year, land degradation leads to the loss of an average of more than 3% of agriculture GDP in Sub-Saharan Africa (World Bank, 2004). In Ethiopia alone, GDP loss from reduced agricultural productivity is estimated at \$130 million a year.

Most economies in Sub-Saharan Africa (SSA) are based on agriculture on which two-thirds of Africans depend for their livelihoods. A majority of farmers are smallholders, with 0.5 to 2 ha. They earn less than USD1 a day, face 3-5 months of hunger, are malnourished and have large families.

In many areas, agricultural activity has been extended to marginal and poor quality lands without proper management and with little or no external inputs. Unless this situation is reversed, falling agricultural productivity will seriously undermine efforts to ensure food security and to strengthen the foundations of sustainable economic growth in SSA.

What explains the widespread adoption of unsustainable farming practices in SSA? Studies point to a three-stage path to soil degradation. To begin with, soils in many SSA regions are poorly endowed with macronutrients. Secondly, policies have failed to create incentives to encourage sustainable land use and management. The there is the high population growth and migration in response to shortage of land resources. (Scherr, 1999).

These findings have led to recent initiatives by the United Nations calling for 'Africa's Green Revolution'. The UN Secretary General called for a major policy change and innovative approaches to meet the Hunger Millennium Development Goal in Africa (MDG, 2004). The World Bank also announced the formation of TerrAfrica. The initiative, which involves a broad range of stakeholders including the UN Convention to Combat Desertification (UNCCD) and NEPAD, aims to provide a coordinated approach by building on good practices and lessons learned as well as the possible benefits of investing in sustainable land management (TerrAfrica, 2006).

3. RELMA's focus on extension

RELMA was created as a small technical unit that would not duplicate the work of other institutions. Instead it was to occupy a special niche from which it networks with stakeholders and collaborating institutions.

RELMA's main objective is to improve the livelihoods of small-scale land users, enhance food security and reduce poverty through improved land management and conservation. The ultimate target groups for RELMA programmes are the millions of smallholder families that make up a bulk of rural populations in eastern Africa.

To address the needs of such a large number of farmers requires systems with adequate capacity and a national outreach. Therefore, right from the onset RELMA has worked with the well-established national extension services. The unit was allowed sufficient flexibility to respond to special needs and gaps identified through linkages with existing country programmes and the respective extension systems.

The region's formal extension systems are in transition towards privatization and a pluralistic approach that facilitates partnerships with farmers' organizations, NGOs, private extension providers and other collaborators.

The diminishing extension systems are constrained by a number of problems that make agricultural technology adaptation and transfer increasingly ineffective. RELMA seeks to support efforts to strengthen extension systems through training and development of improved approaches and technologies.

Linking extension to research

In contrast with trends in research, the extension systems are much weaker than a decade ago. This has been blamed on policies of liberalization and 'down-sizing' that advocate a lesser role for the public service without offering an effective replacement.

Privatization assumes that there is an effective private sector ready to replace the public extension services, but in reality this is not the case. Private institutions are not adequately prepared to take up the functions that were performed by public extension services before liberalization. Deliberate action – policies and programmes – are needed over many years to develop the capacity for private sector participation.

The extension systems are inadequate due to inappropriate training, lack of capacity and fresh staff, and dwindling resource allocations. These shortcomings have weakened services. As a result, the flow of information to farmers is poor.

Furthermore, many extension workers are not trained to deal with emerging problems and the requirements of a modernizing agriculture. This is even more difficult in an environment where production is complex and highly fragmented, with a wide range of traditional enterprises and products from millions of smallholders.

Market information is limited and the potential of regional, continental and trade largely untapped. Although there have been attempts to promote a commercial orientation, the focus is unclear. The basket of choices presented to farmers often

contains too many ideas that are not sufficiently researched to enable them make informed decisions, such as whether or not to pool production to gain from economies of scale.

It is necessary to develop farmers' organizations at various levels to ensure a reliable, timely supply of agricultural produce that can create credibility in the market and give producers sufficient bargaining power. This requires extension staff with current information on production and markets. The national extension services are ill-equipped to be of help.

Opportunities for RELMA in ICRAF

Given the weaknesses in the national extension systems discussed above, there is a great need for information and training for extension services to be able to deal with new issues in the global, regional and local production environments. ICRAF/RELMA has developed useful technologies and approaches that could form part of the solutions needed for agricultural modernization. ICRAF needs new programmes to define what needs to be done and allocate resources to build and maintain links and networks. These would ensure adequate relevant information materials are produced and disseminated to extension staff and farmers.

In addition, ICRAF/RELMA needs to market its capacity to support policy innovations, especially in new investment directions that open up opportunities for wealth creation in agriculture. In particular, it could use its comparative advantage in planning allocation of resources for extension and research to develop production and marketing options that are feasible and economically attractive to farmers and which protect the environment. For example, it could help change the 'culture' of annual cropping for subsistence to market-oriented farming systems better suited to the different areas.

ICRAF/RELMA should also find a place in NEPAD's Comprehensive Africa Agriculture Development Programme (CAADP) by 'tilting' some of the programmes and resources to supporting its regional and continent-wide initiatives that are under the ministries of agriculture and extension systems in various countries.

Collaborative activities involving ICRAF/ RELMA, extension and other relevant stakeholders could include objectives already declared in ICRAF's long-term vision. These are:

- Producing and providing sufficient and regular information to extension systems to help accelerate the scaling up of innovative solutions and replication of best practices. This will require a better focus and improved agricultural research

content. RELMA's tradition of producing excellent publications is a useful basis for packaging information for extension and for farmers. Such publications could also be produced in collaboration with other stakeholders in the different countries.

- Promotion of small-scale water and soil management systems as entry points for innovative development in the vast low rainfall zones of the region (to permit the introduction of high value crops in these areas, including tree crops).
- Working with others to develop an integrated approach to making markets work for the poor by transforming subsistence farming into enterprises
- Policy initiatives (in collaboration with relevant stakeholders) to empower women to increase their access to land, technology, markets and credit.
- Implementing joint activities in areas of common interest such as policy (and long-term planning) activities, staff training, production of extension materials, field trials and demonstrations, regular consultations and sharing of knowledge and information through meetings and special presentations.
- ICRAF has worked closely with extension and other stakeholders in the Lake Victoria Basin, especially through the Consortium for Scaling up Options for improving Farm Productivity (COSOFAP). In western Uganda, the activities of ICRAF are well linked with the needs of the extension system. ICRAF is contracted as a private service provider in response to specific demand for support in applying and scaling up technologies for development of temperate fruits. This involves production of propagation materials and training extension workers and farmers. These experiences could form the basis for a constructive and substantive engagement between research and extension.

The supply of improved germplasm is critical. The extension systems and farmers depend on research to develop and introduce high-value tree crops such as those for fodder, fruits and wood. Such species are especially important in the drier zones that require alternatives to unreliable annual crops.

For decades, the arid and semi-arid and areas (ASAL) have been the main source of wood for charcoal, which is in high demand in urban areas. This has caused serious degradation through continuous depletion of vegetation and contributed to worsening poverty. To make matters worse, migration into these areas has swelled the

population, increasing pressure on land. This situation presents a unique opportunity for RELMA/ICRAF to collaborate with others to develop innovative research and development programmes that address the special problems affecting the people in these areas.

Higher rainfall areas also require suitable approaches to promote fruit trees and wood development as a source of income. Trees planted in the past two to three decades are now being harvested but there is no clear system in place to ensure they are replaced. This is particularly evident in central and eastern Kenya.

4. RELMA's role in land management projects

This paper draws primarily from the experiences of three projects in which RELMA played an important role from the beginning. These are the Kenyan National Soil and Water Conservation Project (NSWCP), the Soil Conservation and Agroforestry Project Arusha (SCAPA), and the Uganda Land Management Programme (ULAMP). The projects started as small pilot projects designed to create a better understanding of local needs, farmers' resources, their operating conditions, constraints and opportunities.

In the three East African countries of Kenya, Uganda and Tanzania, there had been widespread use of coercive approaches during colonial rule. This led to rejection of conservation work after independence in the early 1960s. Over the next two decades, land degradation became a serious threat to food, livestock and agricultural production in many areas. The three projects were started at a time when the countries were looking for fresh approaches acceptable to the people and which fitted into the new socio-political environment.

In Kenya, NSWCP started in 1974, following the 1972 UN Conference on the Human Environment (Republic of Kenya. 1971). Developed with Sida assistance, the programme gradually developed into a land husbandry programme that approached erosion control as an integral part of farm management and improvement of agricultural productivity (Lundgren, L. and G. Taylor. 1993). The project lasted until 2000, when it was converted into the National Agriculture and Livestock Extension Programme (NALEP). The new programme was expected to build on the positive experiences accumulated in the NSWCP to sharpen its focus on agricultural development, business orientation and poverty reduction. RELMA participated actively in transforming NSWCP into NALEP.

The Kenyan NSWCP inspired the creation of the Regional Soil Conservation Unit (RSCU) in 1982 to promote conservation in East Africa. Sida was already supporting other natural resource sectors in the region, notably forestry, water and livestock

improvement. The early success of the revival of conservation activities in Kenya would later provide useful lessons for the other countries (Lundgren, L. 1993; Kiara, J.K., Pretty, J. and Thompson, J. 1993).

Responding to requests from local officials in Arusha, Tanzania, RSCU/Sida started training extension workers, farmers and administrators in 1984. These training activities lead to a small pilot project in Arusha four years later. The project, Soil Conservation and Agroforestry Project Arusha (SCAPA), was set up in 1989 with technical support and limited funds from the RSCU based in the Swedish Embassy in Nairobi (Assmo 1994).

The pilot project was scaled up in 1993 into a bilaterally funded project covering Arusha and Arumeru districts in Northern Tanzania. RELMA provided technical support to the project, giving focus to the development of a land husbandry approach with the participation of various stakeholders. Soil and water conservation and tree planting were used as the initial entry point, but other income-generating components were later added. These were selected by farmers' groups out of a 'menu of offers' developed in collaboration with various stakeholders. The options included improved livestock, beekeeping, high-value crops and local processing. Selection was done based on calculation of the costs and returns. Training of staff and farmers was central to all the programmes.

SCAPA was eventually wound up in a rather hurried process that scattered the capacity generated over many years. The well-trained staff was redeployed without adequate plans for continuity and future use of the accumulated capacity and experience. However, there is a possibility of some of the ex-SCAPA personnel being used in other regions of the country as private service providers.

The Uganda Land Management Programme (ULAMP) grew out of an earlier project, the Uganda Soil Conservation and Afforestation Pilot Project (USCAPP), started by Sida at the Uganda Government's request. The pilot project covered Bugamba sub-county of Mbarara district, which was experiencing increased population pressure, poor management of land, soil erosion and frequent food shortages. The project's aim was to improve the yields of bananas, the country staple. It also promoted better conservation and management of the land.

As ULAMP, the project extended its activities to cover five districts: Mbarara, Bushenyi, Kabarole, Kapchorwa and Arua. The focus remained on addressing problems of land degradation and low farm productivity.

ULAMP has now been absorbed into the National Agricultural Advisory Service (NAADS) to integrate useful approaches developed through its work and that of

USCAPP. They include farmer empowerment through participatory approaches, formation and organization of farmers' groups -- including their role in planning from the grassroots to higher administrative units -- and articulation of demand.

With RELMA support, both USCAPP and ULAMP also encouraged local savings as well as business and enterprise orientation in the groups. The projects' participatory M&E approaches have been adopted by NAADS as part of its activities to modernise agriculture in Uganda.



In the 1960s, land degradation was a serious threat to agricultural production in East Africa.

Starting with erosion control

By the late 1960s, farmers and governments in the region had become aware that increased land degradation was leading to poor crop and livestock production and lowering incomes from the smallholdings. Conservation had become a high priority national concern integrated into the programmes of several government departments.

In Tanzania, the Hifadhi Ardhi Dodoma (HADO) project was started in 1973, covering the Irangi Hills (the Kondoa eroded area) in Dodoma Region in semi-arid north-central Tanzania (Christiansson et al 1993). Other areas of the country were also getting increased attention. However, at the national and regional level, there was still a shortage of experienced technical staff to train farmers on the necessary approaches and technologies. The major objective of SCAPA was therefore to fill up these gaps.

In many parts of Kenya, there was evidence of accelerated soil erosion and land degradation due the increased pressure from rapidly a growing population in the mainly smallholder areas. Concerned over erosion, Kenya requested international

assistance. In 1974, Sweden responded with financial and technical support to form the National Soil and Water Conservation Project (NSWCP). This project started on a pilot basis in a few selected areas, but eventually expanded to cover the whole country (Eriksson, A., ed. 1992).

Uganda, too, was experiencing increased soil erosion and land degradation. The country requested Sida to extend the support it was then giving in national resources management to include soil and water conservation. The RSCU was mandated to start a pilot project. This led to the initiation of the Uganda Soil Conservation and Afforestation Pilot Project (USCAPP) in 1993. By this time, there was already much accumulated experience in the region.

However, USCAPP was able to develop useful approaches, including full farmer participation in the articulating demand for services. It provides important lessons in farmers organization, enterprise management and the participatory M&E already mentioned.

The wide adoption of these approaches by farmers, as well as the increased yields and improved soil and water conservation formed the basis for the up-scaling of USCAPP into the Uganda Land Management Project (ULAMP).

Responding to demand

Following requests from the relevant authorities in each case, the RSCU (later RELMA) would hold discussions with national officials in the relevant ministries and departments to collaborate in project identification, programme planning and budgeting, and to arrange for seed money to start off pilot activities. The RSCU/RELMA concentrated mainly on the training of staff and farmers through seminars and workshops. The training sessions included extension methods, farmer empowerment and organization.

There were also many demonstration plots for practical training and introduction of new technologies. Efforts were made to promote a wide range of conservation measures suitable to the different physical and socio-economic conditions. These included cultural and biological as well as physical measures.

RSCU/RELMA has played an important role in promoting a diversified approach to agroforestry development, particularly for fodder, fruits, wood and timber as well as for soil fertility improvement and soil conservation. As local institutional capacity was strengthened through the training and equipment, RELMA would gradually hand over the pilot projects to the national staff.

However, some areas were not given adequate attention. Although a large number of RSCU/RELMA publications were devoted to promoting agroforestry for smallholdings, non-wood products only got brief mentions. Not much attention was given to oils, gums, waxes, dyes and fibres in the publications.

Wood and charcoal development is another area that needs attention. None of the three East African countries have a clear policy in this area despite region having started experiencing wood deficits by the late the 1980s (see Table 1 below).

RELMA, like other research and development institutions, did not respond adequately – through planning and programming – to worsening problem. The limited tree planting promoted in 1980-1990 was supposed to ‘improve the environment, and to maintain a healthy hydrologic cycle’. However, such macro-level goals are too remote for farmers moved more by direct short-term individual and family benefits.

Table 1 Fuelwood supply and demand

| Fuelwood supply-demand balance (million cubic metres) | | | % annual rate of deforestation |
|---|-------|-------|--------------------------------|
| Country | 1980 | 2000 | 1980s |
| Kenya | -4.5 | -58.4 | 1.7 |
| Tanzania | -5.1 | -74.0 | 0.3 |
| Uganda | -18.7 | -57.3 | 0.8 |

Source: Cleaver and Schreiber 1994.

The supply-demand balance is defined as the increase in the stock of fuelwood minus the total use of fuelwood in a given year. Negative figures therefore indicate decreasing stocks and inability to meet household and other needs. Recent efforts by RELMA have highlighted neglect by policy makers as the single biggest factor responsible for the unsustainable charcoal production that renders vast tracts of forest lands desolate in many East African countries (Ong & Mugo, 2005).

Roles of key stakeholders

The main stakeholders in RELMA’s work were the Regional Advisory Committee (RAC), ministries of agriculture, the local district administrations, some NGOs, farmers’ institutions at various levels, specialized networks, universities and colleges, and various research organizations.

Initially, the soil conservation sections of the ministries of agriculture were RELMA’s main collaborators. However, increased interaction with the extension and livestock departments has widened the range and scope of the problems and opportunities to be considered during the joint planning sessions. To build the capacity of its partners, RELMA supported many extension staff on fellowships to study specific subjects and

to produce technical reports under the supervision of the unit's staff. The subject areas were mainly selected by national networks working with the RAC members in each country, while RELMA staff chose areas that could generate results applicable across the region.

RELMA also collaborated with NGOs to expand the outreach to farmers, especially in poverty reduction at the grassroots. Most formal programmes are unable to reach the poorest sections of communities unless special measures are taken. On the other hand, NGOs are often well equipped to focus on the lowest levels of the social stratum.

One of the NGOs RELMA worked with was the International Institute for Rural Reconstruction (IIRR), which was brought on board to offer a special training programme on integrated planning and helped create cohesion within RELMA in outreach approaches.

With support from RELMA, Forest Action Network (FAN) trained community groups on peoples' rights and responsibilities in relation to natural resources. The training sessions focused on land and resource tenure, access, use, conservation and management of natural resources.

Africa2000 and Kenya Institute of Organic Farming (KIOF) collaborated with RELMA to promote sustainable agriculture technologies and approaches. KIOF trained extension staff on organic farming and use of local materials to improve soil fertility.

RELMA also supported IIRR and Africa2000 to produce useful publications targeting extension workers and farmers.

Poor organization denies farmers a voice in the development of policies and programmes. There is also lack of collective bargaining power, leading to continued exploitation of farmers by traders. RELMA therefore supported the strengthening of national farmers' unions or federations into credible institutions to represent farmers' interests.

At the regional level, RELMA initiated the formation of the Regional Farmers' Organization (REFON), a network of apex organizations from Kenya, Uganda, Tanzania, Rwanda, Ethiopia, Zambia and Malawi.

REFON, supported by the New Partnership for African Development (NEPAD), aims to improve sharing of information and encourage the growth of strong apex organizations. It is also expected to influence the formulation of favourable land, agricultural and natural resource policies. Other key areas in its mandate include dealing with global issues affecting farmers and member organizations, such

international markets and trade, establishing links to other organizations in the rest of Africa and globally, and helping to create a continental farmers' organization.

Over the years, RELMA has also worked with and through various specialized networks. The objectives of these links include expanding RELMA's capacity to implement planned activities and improve outreach to institutions, extension systems and farmers' organizations. The networks also helped to obtain feedback from users and create better information flows and opportunities for mutual learning. The networks included those dealing with water, livestock, soils, agriculture and forestry.

However, only a few networks were directly supported by RELMA. One of these was the World Overview of Conservation Approaches and Technologies (WOCAT), a consortium of soil and water conservation (SWC) specialists in national and international institutions. Its aim is to facilitate international information sharing and closer relations with development programmes. It also seeks to maintain practical ties to land management and conservation regionally and worldwide. RELMA is a long-standing member of the network's management committee.

Also supported by RELMA is the Southern and Eastern Africa Rainwater Harvesting Network (SEARNET). The network was conceived in June 1998 following a regional rainwater harvesting workshop organized by RELMA at Machakos, Kenya, which brought together delegates from Ethiopia, Kenya, Uganda, Tanzania, Zambia and Zimbabwe. SEARNET aims to promote efficient ways to conserve and use rainwater. This is a critical role because rapidly worsening water shortages are already negatively affecting agricultural and economic development in many countries. Such shortages are also a potential source of conflict between communities.

SEARNET is an international NGO bringing together national rainwater harvesting networks in Ethiopia, Eritrea, Uganda, Somaliland, Kenya, Tanzania, Rwanda, Malawi, Zambia, Mozambique, Zimbabwe, and Botswana. It has strong links with India, Pakistan, Sri Lanka, Nepal, Bangladesh and Bhutan through the Centre for Science and Environment (CSE) in New Delhi, India. The partnership brings together a total of 18 countries. Other African countries are free to join the network.

SEARNET and CSE are implementing a Green Water Harvesting Programme in eastern and southern Africa and South Asia that is sponsored by the Global Water Partnership (GWP) secretariat in Stockholm, Sweden. The programme is co-financed by Sida (through RELMA) and the Netherlands Ministry of Foreign Affairs.

Another association, the African Conservation Tillage (ACT) network aims to improve and maintain soil fertility, conserve the soil and water and reduce the costs of land preparation through conservation tillage. The African network started in 1998

with support from GTZ. Initially, the network admitted individuals and institutions. RELMA has since promoted the creation of the country networks and brought them together into a larger Africa-wide association. RELMA provided technical support and seed funds for this transformation.

RELMA's collaboration with universities centred on short-term studies and production of publications. There was some limited use of university staff to train extension workers. RELMA also supported and supervised some special fellowships (minor studies) that were undertaken by Swedish students and young professionals as part of their education and training. Many of these studies yielded useful information on the basic resources at the command of smallholders as well as constraints to and opportunities for improving research and extension approaches.

From its inception, RELMA was accommodated at the ICRAF Nairobi campus. This led to many links with agroforestry research programmes in the region. However, these links were generally at an informal level until RELMA were integrated into ICRAF two years ago. Since the merger, the range publications produced has been broadened and emphasis on agroforestry, an activity started earlier in the RSCU period, reduced. This trend is in line with a regional and international shift towards more integrated approaches including better farmer organization and empowerment, production and marketing.

Main features of the activities

RELMA-supported programmes included the following key elements: Capacity building, development of participatory methods, livestock producers' associations, common interest groups (CIGs), local level initiatives (LLI), integrated agricultural production, and publications.

Catchment (focal area) approach

The conservation programmes in the region started with a focus on individual farmers. This led to slow progress in conservation activities. RELMA and RSCU before it worked closely with the programmes to gradually develop participatory approaches based on a catchment or focal area. The focal areas were particularly suitable for organization and management in high rainfall areas where crop farming is the main activity and land is demarcated, not used as a communal resource.

The focal areas provided the first steps towards farmer organization and empowerment. They were also used to introduce new technologies and high value crops through common interest groups (CIGs), many of which are run by women.

For the drier areas, RELMA worked with the programmes to develop a more suitable approach that emphasised agroforestry solutions for poverty reduction and environment conservation. In Kenya, RELMA commissioned two studies in to improve information for the development approaches and planning of activities in these areas. One study compiled an inventory of dryland woodland resources. It looked into the quantity, composition and coverage of woodlands in Makueni District. The second was on indigenous management of plant species (Kithinji and Critchley, 2002, Critchley et al 1999).

Common interest groups (CIGs)

RELMA promoted the concept of a ‘menu of offers’ comprising a broad range of options developed with extension workers and farmers in specific areas. The farmers would then join their preferred activity. They would form common interest groups (CIGs) such as those focusing on fruit and vegetable production, tree nurseries, poultry, milk production, goat rearing, and water harvesting. These groups were also involved in local processing and marketing besides being a channel for introduction of improved approaches and technologies. The groups provided a good forum for training farmers in areas such as organization and governance. CIGs formed a basic building block for higher-level farmer institutions.

Livestock producers’ associations

Livestock production is the main economic activity in the arid and semi-arid areas (ASALs). The key problems facing livestock keepers in these areas include water and fodder shortages, especially in the dry season, inadequate veterinary services, poor disease control, disorganized marketing, poor infrastructure, ethnic conflicts, insecurity and cattle rustling.

Communities in ASALs depend almost absolute dependence on livestock, they lack alternative economic activities and have not been integrated into national affairs. Due to all these constraints, ASALs are among the poorest areas despite their great potential for wealth creation.

RELMA’s response has focused on empowering livestock keepers by supporting them to form producer associations. The objective is to create local forums through which appropriate approaches can be developed to improve production, disease control,

marketing and the ability to demand adequate government services, including security, physical infrastructure and general development of the ASAL areas.



RELMA has empowered livestock keepers by supporting them to form producer associations.

Local level initiatives (LLI)

RELMA has also supported local level initiatives through which communities organize into groups to tap into local knowledge and build on traditional cohesion and the self-help spirit to reduce poverty. This approach encourages communities to discuss their problems and constraints as well opportunities to improve farming and start other income-generating activities.

Local level initiatives provide a forum for the people to discuss pertinent issues, taking into account present and past activities. The result is a better understanding of a community's perceptions of their roles in development and their attitudes towards change.

By involving the people, local level initiatives encourages them to take ownership of development activities, including those supported by external organizations.

In recognition of the important role of such grassroots initiatives, RELMA supported the production of several publications on farmer initiatives and innovators.

Integrated agricultural production

Many conservation programmes in the region have not incorporated some important components necessary for improved and sustainable livelihoods such as effective farmer organization, high-value production and marketing. RELMA addresses these gaps by promoting integrated agricultural production.

Farmers are involved right from the beginning of such projects. They help to compile information on their resources, needs and aspirations. They also identify constraints and opportunities. Next they work with experts to develop a range of locally acceptable solutions to problems affecting livestock and crop production.

Other activities in local level initiatives include technology identification and adaptation, as well as farmer training and organization. For instance, farmers select candidates who are trained as artisans to help the community build tanks for water harvesting. Women are trained in home economics, food processing and preservation, while both men and women are given new skills in organizing and management.

Training is designed to encourage the people to adopt a business approach to farming while safeguarding the environment. Farmers are advised to choose high-value enterprises and trained in book-keeping and how to add value to and market their produce.

5. Evolution of RELMA approaches

Identifying the problem

RELMA works with a range of stakeholders (discussed above) and national extension systems to identify farmers' problems and constraints as well as the opportunities for solving these problems and improving rural livelihoods.

Workshops that bring together various interest groups identify problems and agree on how to go about solving them. In some cases, information is obtained from field studies to help in determining what needs to be done.

Initially, RELMA focused on developing activities to support national programmes through training and technical support. This has given way to a greater emphasis on regional activities, leaving the national land management programmes to address local problems. However, RELMA continues to provide support at national level as appropriate.

Role of RELMA advisors

RELMA advisors come from a wide range of technical fields, including water and water harvesting, soil conservation and fertility, agroforestry, livestock, socio-economics, publication, extension approaches and capacity building. Through its advisors RELMA has been a:

- Development promoter. It has promoted technology transfer through training and field demonstrations of water harvesting, fodder production and preservation, as well as food and nutrition.
- Catalyst through use of technical interventions backed by limited funds to provoke desired actions within existing programmes.
- Partner to other institutions and NGOs.
- Collaborator, working with others to implement activities and organizing joint training, especially with NGOs.
- Micro-financier, providing seed money to start pilot projects and to support activities identified through the RAC. These small grants are important to encourage extension workers and farmers to implement new ideas and activities not budgeted for in existing programmes. This adds value to the programmes and helps introduce improved technologies and approaches in soil fertility, water harvesting and farmer organization.
- Network hub, receiving and transferring information, connecting institutions and individuals within and among the countries of the region. The network function of RELMA opened links between the extension services and research institutions, NGOs and farmers' organizations.
- Service provider to extension systems by arranging training, study tours, seminars and workshops.

RELMA also advises other Sida-funded programmes, providing back-up to the project staff.

RELMA advisors coordinate development of content in their specialised areas. They also work with national extension systems to design activities to be included in RELMA's annual work plan and budget.

Within RELMA, the advisors help maintain close internal links to achieve integrated planning and organizational cohesion. But they also help to create, maintain and use contacts with other institutions and individuals in the region.

From soil conservation to marketing

Soon after the 1972 UN Conference on the Human Environment held in Stockholm, Sweden, the East African countries started to focus on soil conservation. Erosion and land degradation were then the highest priorities because they were seen as the biggest threats to the environment and to agriculture.

The countries instituted new policies that gave soil conservation a higher priority than ever before. This resulted in considerable government support through institutions, policies, legislation, finances and training of personnel. There were also new public information and education campaigns to popularize conservation technologies and approaches. Many conservation projects were initiated at national and lower levels with financial, training and technical support from the international community.

Emphasis was put on physical conservation works. The ‘fanya juu’ terraces – bunds in which the bank is above the ditch, promoting natural terrace formation – were pioneered in Machakos, Kenya, and soon became the technology of choice in many areas. However, there was not much application of vegetative soil conservation solutions until later in the 1980s. Similarly, most early soil conservation research concentrated on controlling runoff. However, progress was slow due to the insistence on physical conservation works and lack of direct incentives to communities.

In the 1980s, the RSCU concentrated on soil conservation as the major land management problem of the day and an important aspect in improving agricultural production and food supplies. Over the years, however, it became clear that soil conservation alone was inadequate. Physical conservation measures and tree planting had to go hand in hand with efforts to improve soil fertility and promote high value production and marketing.

By the late 1980s, it became critical to develop links between conservation and improved land use that would lead to higher soil fertility and increased productivity. A further link to markets was also vital to ensure proposed solutions to conservation problems were economically attractive to individuals and not merely from society's point of view (Lundgren 1993).

RELMA was created out of the RSCU in 1998 in response to increasing demand for approaches that would go beyond conservation. The need was for approaches that would address broader needs by helping farmers to increase and diversify production and reach markets.

Connecting production to markets

Today, modernizing agriculture to fight deepening poverty and land degradation is top of East Africa's agenda. The need to push for significant improvements in production and better access to markets that is now being emphasized was first felt during the implementation of the soil conservation projects.

The change of emphasis from conservation to production and then to marketing has been gradual and in line with RELMA's flexible planning approach. Work in this area has focused on developing credible farmers' organizations and groups that can articulate demand for services beyond the traditional extension content that was restricted to input supplies and agronomy. Other elements in the process include planning starting from grassroots groups to higher-level organizational or administrative units, developing business and enterprise orientation in the groups, and promoting a culture of local savings.

RELMA has recorded significant achievements in its aim of encouraging smallholders to adopt a business approach and improving access to markets. Good progress has been made in establishing high-level links to create partnerships among political leaders, scientists, researchers, policy makers and service providers from within and outside East Africa.

Key results include formation of REFON and the joint professionals' association Link ProVaMP, also a regional network. Both organizations aim to promote links among farmers' organization and professionals to promote adoption of improved technologies and approaches as well as market orientation, all key to modernising agriculture.

Among other activities, the two networks will encourage the introduction of high value products, train farmers for contract farming and develop capacity for local processing of agricultural produce.

Shift in publication focus

Publications produced by RSCU/RELMA have reflected the shift in focus from conservation to production and marketing. Early publications were mostly technical handbooks on subjects such as Agroforestry. There was not much on broader issues such as farmer organization, processing and marketing. However, this has changed and more recent publications include policy briefs such as *Amplifying the farmers' voice in the market economy* published in 2005. (see Box 1).

Role of Regional Advisory Committees (RAC)

The Regional Advisory Committees has played a key role in planning and implementation of RELMA's work. The basic objective in creating RAC was to have a way to work with local extension systems to develop activities relevant to the conditions facing farmers. The arrangement also recognizes RELMA's limitations in staff and other resources and, hence, the need to work with other institutions.

The RAC comprises key staff and managers of various Sida-funded programmes, local universities and representatives of non-governmental organizations. The RAC members are at various times regarded as clients, collaborators or partners, each of these labels denoting slightly different expectations from RELMA. However, the basic function of the RAC has been to assist RELMA to develop annual work plans that to help solve priority problems as identified by those working closely with the ultimate beneficiaries. This way, the work adds value to national programmes.

The RAC members in each country, therefore, have to work with a number of institutions and individuals in a 'national network' to identify and rank the issues to be forwarded to RELMA each year. RELMA supports the preparatory meetings.

The process of working with RACs enables RELMA to focus its work on providing information and support to activities through field interaction with staff and training activities designed to meet unique demands.

Identifying existing solutions

RELMA has worked with research institutions to identify existing solutions and practical innovations that can be used to scale up best practices and pilot projects addressing various problems. Links to collaborating institutions have included fellowships involving their junior and middle-level personnel.

Useful information for programming has also been obtained through the minor field studies conducted by Swedish students as part of their graduate courses.

Box 2 Key features of current RELMA approaches

RELMA's approaches have evolved over the years. In 2004, RELMA stopped its role as a donor for projects and greatly reduced its hands-on involvement, especially in national activities, following an external review in 2000.

Key features in current approaches are:

- 1. Work on demand:** This is operated through a Regional Advisory Committee consisting of heads of agricultural departments in various ministries or universities, and, lately, regional organizations.
- 2. Practice flexibility:** RELMA has provision in its budget for responding to new ideas and partners.
- 3. Entrepreneurial approach:** RELMA has broadened its partnership to include private sectors.
- 4. Focus on land management:** RELMA has tried to maintain its focus on land management issues and a small core team, using consultants where necessary.
- 5. Maintain limited hands-on experience:** Hands-on activities now limited and national activities have been phased out in favour of regional ones.
- 6. Link research findings and indigenous knowledge:** Documentation of new research findings and local innovations and knowledge is a major cornerstone of RELMA approaches.
- 7. Networking:** RELMA has supported networks through workshops, study tours and other means. In recent years, RELMA has study tours to Asia to encourage South-South Cooperation. Formal networks partly supported by RELMA are SEARNET, WOCAT, ACT.

6. Key lessons learned

In this section, we examine how each feature of RELMA's approaches has been applied or adapted for use by ICRAF from 2003-2006 in order to obtain some lessons learned.

1. Work on demand

New research and extension activities should be in response to felt needs as expressed directly by farmers and their leaders through the Regional Advisory Committee; not to meet narrow individual or institutional interests. In principle, the activities should contribute to development at local and national levels rather than fill gaps. This calls for an understanding of the relevant sectoral policies, their focus, objectives and gaps.

Over the years, proposals from each country have been consolidated so that they have a strong regional relevance. For example, in 2003, over 90% of the activities were regional and the remainder national. The consolidation has created a sense of ownership among stakeholders. However, the process was not based on a thorough review of the existing literature or needs of the region. Therefore, in 2004, the RAC was reconstituted to include regional institutions such as the East African Committee, African Centre for Technology and Science, and VI Agroforestry.

2. Practice flexibility: In addition to the planned activities, RELMA has ‘planning reserves’, 5% of the total RELMA budget, to respond to opportunities and requests from partners and unexpected quarters. Usually, these are small requests to support study tours, conference attendance, or publications. However, this practice was questioned by Sida because RELMA became known as a ‘mini-donor’ without a rigorous selection procedure. It was discontinued in 2004.

3. Entrepreneurial approach: Following a 2000 external review, RELMA broadened its partnership to include the private sector. Among the first partners was the Agriculture Council of Uganda, which RELMA supported to become an apex farmers’ organization in 2001. Its initiative eventually led to the formation of the Regional Farmers Organization Network (REFON) and support to one member to attend the World Trade Organization (WTO) negotiations at Cancun, Mexico.

With its links to the private sector growing, RELMA also supported a PanAfrican meeting on Contract Farming in Entebbe in 2005. Such an entrepreneurial approach is strongly supported by both Sida and ICRAF which consider it vital for African smallholders to move from subsistence to commercial farming.

4. Focus on land management: Over the years, RELMA has maintained a small core team with expertise in land management. This is still the focus of the current project at ICRAF, which is increasingly engaged with partners at a higher level. For example, the recent conferences on Contract Farming and Conservation Farming were conducted in partnership with the New Partnerships for Africa’s Development (NEPAD). At ICRAF, the RELMA team is firmly placed in the Land and People Theme, which focuses on sound land management.

5. Maintain limited hands-on involvement: Unlike in the past, field activities by staff are now limited. Instead, there is a greater need to conduct analysis and synthesize the lessons learned in development in the region and beyond.

6. Link research findings and indigenous knowledge: Documentation of indigenous knowledge on land and water management remains a feature of RELMA in ICRAF. Recent work is looking into runoff harvesting innovations in Lare district, near Nakuru, backed by satellite analysis of deforestation of the nearby Mau forest.

7. Networking: Networking is still a major approach in the RELMA projects at ICRAF. Good examples are SEARNET and ACT.

Previous external reviews of RELMA’s work have pointed out a few gaps and limitations that are now being addressed. A recurrent issue is the need for focus because RELMA is a relatively small organization and cannot claim to have expertise on all development matters.

A mid-term review of the current RELMA project recommended greater focus but also suggested that activities be limited to land management relevant to agroforestry. ICRAF and Sida accepted this recommendation and RELMA's workplan was consequently modified in 2005.

Another persistent issue is the question of monitoring and evaluation, especially of the impact of RELMA's flagship publications programme. This will now be undertaken independently by the International Institute for Rural Reconstruction.

Finally, it has also been suggested that ways be found to deal with cross-cutting issues such as gender and HIV/AIDS that cannot be ignored.

7. Way forward and challenges

ICRAF is the intended main beneficiary of RELMA's experience and mode of operation although other institutions might be interested in RELMA's experience. During the past three years, RELMA's approaches and contacts have provided a unique channel for ICRAF to reach out to extension services and policy makers at various levels. It is too early to judge how this will influence ICRAF's long-term development strategy and operationS. However, it is likely influence ICRAF to be fully involved with TerrAfrica on land management, both on the technical and policy fronts.

The biggest challenge is that Sida will no longer provide financial support to RELMA after 2006. Therefore, only RELMA activities that match the needs of ICRAF and are successful in attracting funding will continue beyond this year.

Another challenge is that development activities that do not generate international public goods (IPGs) will not be acceptable to ICRAF. ICRAF defines IPG as information, understanding, a technology, policy or practice that is 'public'. An IPG can be used by anyone can use as long as and doing so will not deny its use to others. Such a good is also widely applicable beyond a single location, community or institution, and probably across several countries.

In the recent External Review of ICRAF's research and management (EPMR), the panel strongly recommended that ICRAF focuses on emerging research and development support rather than on carrying out development activities. ICRAF is not a development agency. This role will be left to international, government and non-government organizations that are designed and funded to implement development activities.

What is the difference between development-support and development? Development refers to the process of bringing beneficial changes to the lives of people and their

environment. Development support means bringing information, expertise and materials to development agencies in a format they can use. ICRAF undertakes development support as it is an essential component of doing the research and generating IPGs. According to these criteria, RELMA's publications are highly relevant to ICRAF as IPGs. RELMA's shift to analysis and away from hands-on field activities will make it easier to integrate its approaches into ICRAF.

Thus, RELMA's legacy at ICRAF will be determined both by ICRAF's particular needs, especially for IPGs, as well as the success in attracting donor funding. At this stage, it is premature to predict RELMA's legacy in terms of its mode of operation and approaches outlined earlier.

At least three broad areas which RELMA has introduced into ICRAF should continue beyond 2006. The most likely is rainwater harvesting and networking, which has been co-funded previously by the Netherlands Government and has an agroforestry component. The second area is watershed rehabilitation and land management on the Tekeze and Gash-Barka river basins along the disputed Eritrea-Ethiopia border. The third is on impact of conservation agriculture on the Lake Victoria Basin and in West Africa.

Above all, RELMA's influence on policy relating to land issues and links to NEPAD will have a lasting influence on ICRAF.

Finally, it is important to establish the indicators for assessing RELMA's influence on ICRAF. These must include RELMA's approaches and mode of operation. Subsequent papers in this series will describe in more details the lessons learned from each of the RELMA activities.

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The World Agroforestry Centre is the international leader in the science and practice of integrating 'working trees' on small farms and in rural landscapes. We have invigorated the ancient practice of growing trees on farms, using innovative science for development to transform lives and landscapes.

Our vision

Our Vision is an 'Agroforestry Transformation' in the developing world resulting in a massive increase in the use of working trees on working landscapes by smallholder rural households that helps ensure security in food, nutrition, income, health, shelter and energy and a regenerated environment.

Our mission

Our mission is to advance the science and practice of agroforestry to help realize an 'Agroforestry Transformation' throughout the developing world.



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