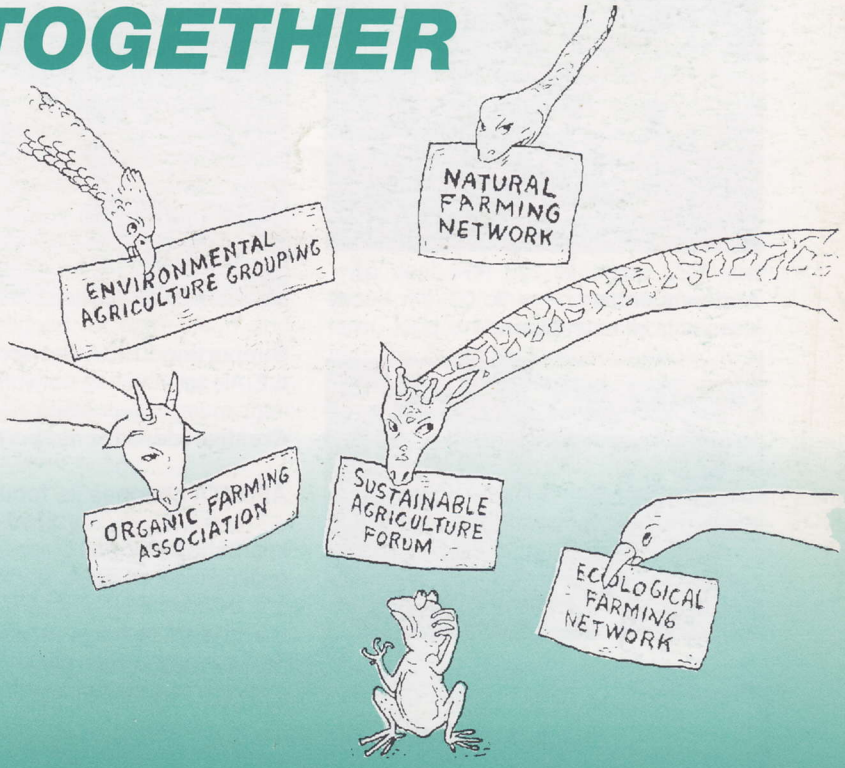
REPRINT

ILEIA NEWSLETTER

FOR LOW EXTERNAL INPUT AND SUSTAINABLE AGRICULTURE

2|92

LET'S WORK TOGETHER



workshop report: networking for LEISA

farmers' networks are the key

NGOs discover benefits of networking

• DEAR READERS •

This (reprinted) issue of the ILEIA newsletter is a special one in the sense that it is based on the input and output of an international workshop. In March 1992 ILEIA organized its third international workshop. The first one was organized in 1988 and dealt with methods for Participatory Technology Development. The second workshop, on assessing LEISA techniques, was held in 1990. In 1992, ILEIA organized a workshop together with two partners, IIRR and World Neighbors, on the theme "Networking for LEISA". This cooperation led to the mobilization of a great variety of experiences and allowed the workshop to be held in the Philippines.

The articles report on experiences with networking by farmer groups, NGOs and researchers. Positive effects of "joining hands" as well as difficulties in "getting our hands tied" have been documented. We have been impressed by the enthusiasm of the workshop participants in preparing the workshop, in clarifying the concepts and potentials of networking and in formulating recommendations for future developments.

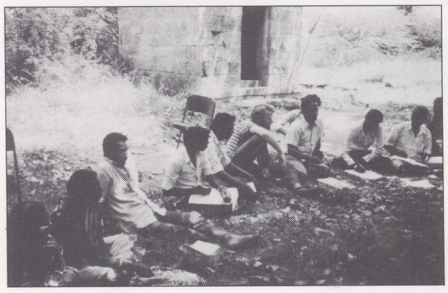
This newsletter also contains the report of the workshop as a separate section. In this report, the general conclusions of the workshop and recommendations for the future are presented. The initiative for a number of international task forces for enhancing LEISA through networking is announced.

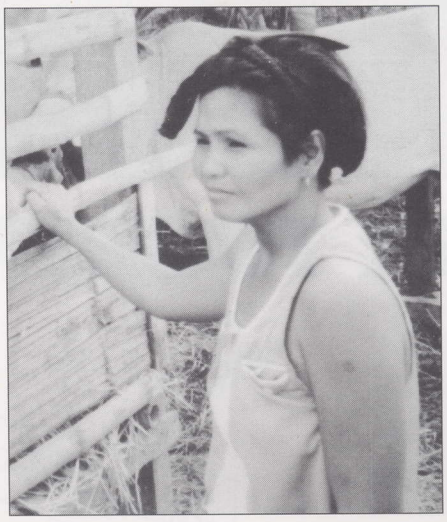
We are confident that, through this workshop, we have been able to clarify the concepts and potentials of networking and have increased the momentum for networking to enhance LEISA.

Due to lack of space not all articles could be reprinted and regular columns like 'New in Print' had to be left out. Photocopies of articles not reprinted can be requested from ILEIA. Although the lay-out has been changed considerably, the text remained the same.We will keep readers informed about new developments on networking and are preparing a reader containing more elaborate case descriptions and reflections on the subject (to be published as a book by IT publishers). Therefore, we would be grateful if readers would keep us informed about their experiences and thus help us to update our information in this respect.

the editors

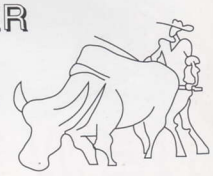
• CONTENTS •





ILEIA
NEWSLETTER

july 1992
volume 8 no.2



The ILEIA Newsletter is a publication of the Information Centre for Low-External-Input and Sustainable Agriculture (ILEIA), Kastanjelaan 5, PO Box 64, NL-3830 AB Leusden, Netherlands. Tel. +31-33-943086; Telex 79380 ETC NL; Fax +31-33-940791.

SUBSCRIPTIONS
Individuals and organisations in the Third World and students: US$ 12.50 or DFL 25/year. Others: US$ 25 or DFL 50/year. Payment by direct bank transfer to RABO Bank Leusden, Account No. 3359.44.825 (or to this account via Postal Account No. 27.81.35), or by cheque (if Eurocheque, in DFL) made payable to ILEIA, mentioning "ILEIA Newsletter". Third World organisations may ask to receive the Newsletter free of charge.

CONTRIBUTIONS
Articles, short communications and news items should be written in easy-to-read English. Articles should be less than 1200 words long, and should include at least 2 illustrations. Authors of published articles will be paid DFL 165 per printed page. A guideline for preparing articles can be obtained from ILEIA.

EDITORIAL TEAM
Carine Alders, Wietse Bruinsma, Bertus Haverkort, Wim Hiemstra, Coen Reijntjes, Laurens van Veldhuizen, Ann Waters-Bayer.

RESPONSIBLE FOR THIS ISSUE
Carine Alders, Bertus Haverkort and Laurens van Veldhuizen.

TYPING
Lyanne Alons, Marian de Boer, Lila Felipie, Suzanne Gosman, Ellen Radstake, Lhai Kasala, Jel Montoya.

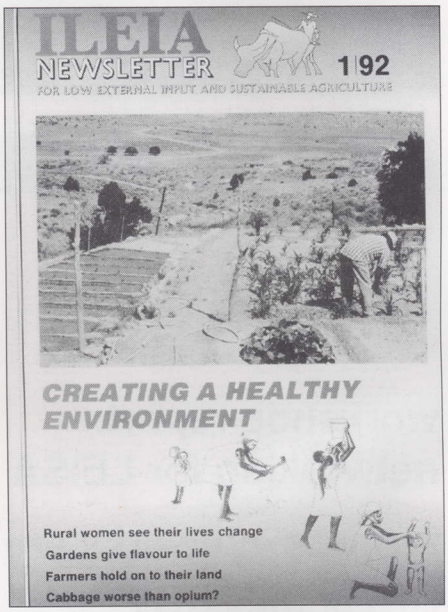
ADMINISTRATION
Carine Alders, Marika van den Brom, Lila Felipie

DRAWINGS
Annemieke de Haan, Studio Driya Media

DESIGN & LAYOUT
Jan Hiensch

PRINTING
BDU Barneveld

ISSN: 0920-8771



BACK COPIES of the ILEIA Newsletter are available **(see p 32).**

Cover photo: Networking through face-to-face contacts can be a valuable key to enhance LEISA. Let's work together! Photo: Chris Pennarts. Drawing: Studio Driya Media.

Photo: LSP.

Stewards of the land

While farmers and environmentalists often find themselves at odds, especially on public policy issues, most farmers personally identify with the notion of land stewardship. This refers to the responsibility of farmers and landowners to strive to leave the land in as good or better condition than when it was acquired. The Land Stewardship Project (LSP) builds on this commitment of farmers and supports them in improving their practices. Meetings and discussions encourage farmers to experiment, exchange knowledge and raise awareness with the public. Networking therefore plays a key role in the activities of LSP.

Ron Kroese
Cornelia Butler Flora

Efforts to bring farmers together to discuss the ethics of using farmland were started where the problems of soil erosion were felt worst. In the west central region of the USA, the blowing dust of the last year made it clear to many that drastic measures were needed to change the way the land was farmed. While erosion from wind and runoff had been historically high in these counties, the problem had been aggravated by federal farm policies of the 1970s that pushed farmers to expand production and brought some 60 million acres of new farmland, much of it highly erodible, into row-crop and small-grains production. With the cooperation of county soil district officials, LSP staff organized meetings in church basements and public meeting rooms, drawing attention to the local erosion problem and facilitating discussions on reasons for the problem and possible solutions.

Planting in the dust

Non-farmers as well as farmers need to be concerned about soil and water degradation if effective public policies are to be implemented to deal with these problems. LSP created several cultural programs for general audiences - a one woman play, titled "Planting in the Dust", about a young farmwoman's struggles on a present-day family farm, a puppet show for kids about the role humans can have in restoring the earth, a one-man "Music of the Land" program that features songs and singalongs about farming and care of the land. These programs, designed for both urban and rural audiences, continue to be in wide demand. By mid-1991 "Planting in the Dust" had been presented in more than 400 churches, schools and meeting halls in the Midwest and Canada.

Influencing policy

Apart from informing the public about the seriousness of the situation, the problem of unfavourable government policies was also approached in a more direct way. Government policies encourage specialization and over-production and the consequent misuse of agri-chemicals and degradation of the soil and water. It is important to encourage good stewardship and to help farmers implement environmentally sound and more economical methods of raising crops. However, there are overwhelming economic considerations, driven by government policies, that are virtually dictating which crops and livestock farmers raise and how they are raised. As farmers sometimes put it, "You need to farm the government to survive."

To deal with this situation, LSP staff joined with 20 other primarily Midwestern farm, food and environmental groups to form the Sustainable Agriculture Working Group. By pooling resources and raising funds together, this network was able to hire its own representative in Washington to inform law makers about needed policies. With the help of its farmer constituents this representative devised a set of policy options for law makers. Despite well-financed opposition from chemical companies and agri-business interests, ▶

the network's efforts helped bring about modest changes in federal farm legislation.

Stewardship Farming Program

Practical examples of success on the land are needed as much as changes in attitudes and policies. In 1987, LSP staff began a five-county project that became the Stewardship Farming Program. The program focused on organizing farm families into peer-support, information-sharing chapters of what became known as the Sustainable Farming Association (SFA). The chapters encourage farmers to experiment with alternative farming practices on their own farms and at their own pace and facilitate the exchange of information among nearby farmers about what they have learned.

Farmers share research

Experiments, which are valid, but not generalizable, are done by individual farmers attempting to solve particular problems of sustainability on their farms. Other farmers can learn from them and some extension agents are passing on the results of these experiments and trials. The data gathered cannot always be aggregated for cross-farm comparisons. This is not as problematic for the farmers as it is for academics, as the process of sustainability means adapting technology to the specific conditions of one's own farm. The documentation of the efforts, despite flaws, allows for further dissemination of technology that proves to be appropriate and effective, through farmer to farmer contacts and through the efforts of the Cooperative Extension Service.

Participating farmers are most enthusiastic about their current experiments. They question each other in detail, analyze what they have done, or explain why it does or does not work. The lack of competitiveness as people share research results is particularly noteworthy, quite in contrast to the usual coffeeshop talk of whose yield is highest, whose row is straightest, and who has the fewest weeds.

Setting up farmers' networks

Networking starts at regional level, where chapters of the Sustainable Farming Association are formed. This is a time-consuming process. Both inside commitment and outside interest and funding are needed. A site to start networking is chosen after looking at local need, local demand (which is often different from need) and potential for institutional support. Staff is chosen by the LSP through careful screening for organizing ability, commitment and knowledge of sustainable agriculture and the environment. Once the staff is in place in a site, an advisory board is formed. LSP staff chooses local people known for their environmental concern and their community linkages and affiliations.

Together they put on a series of informational meetings. Initial meetings in a farm community are usually held in a church meeting hall and often begin with a presentation of one of LSP's plays or a presentation from a musician, since these cultural programs have proven to be an engaging and non-threatening means of introducing controversial issues. Using existing networks and the interest shown at the meetings, LSP requests applications from farmers to participate in on-farm experimentation for sustainable agriculture. Participation in this research is seen as a key element in building interest and involvement in the SFA chapters.

Motivated members

Criteria for selection include the reputation of the farmer, previous attempts to experiment with sustainable agriculture and an assessment of motivation for participation. Farmers desperate to try anything to save the farm usually are excluded. Each farmer chosen is known by the advisory board. They look for families viewed as respectable by the community, although not excluding individuals viewed as somewhat odd but hardworking. These farmer-experimenters then form the core of a research and outreach group that evaluates potentially more sustainable practices, shares them with their neighbors through field days and discussions, and provides a support group for other farmers interested in trying new techniques and exploring possibilities of reducing their negative impact on soil, water and wildlife.

Regional chapters encourage the formation of informal local groups through a house-meeting format, where clusters of neighbors interested in sustainable farming meet with a member of the SFA and an LSP staff member to begin discussions. They then continue meeting as an informal support group to share information and validate each others' efforts to be better stewards of the land.

Who participates?

Participants are not the stereotypical aging hippie back-to-the-landers, hoping to somehow maintain the 1960s in the pastoral setting of rural America. A number of the male farmer innovators are people who have been off the farm for a while, often in city jobs that allowed them to finance their farms, since they did not inherit them. But they are all of farm backgrounds, born and reared on a farm (although not all of the women have farm backgrounds).

Encouraged by working together

At this point in time, despite efforts by the staff to document the results of on-farm experiments and demonstrations, it is too soon to quantify the environmental benefits of the SFP. However, the social impacts are impressive. Participation in the on-farm research and demonstrations has amazing impacts on the individuals involved, according to their testimony. All had been innovating before participating in the program, and all had felt very alone doing so. Established sources of information, including the Cooperative Extension Service, had not met their needs. At times each had felt labeled as some sort of nut or deviant for trying to implement more sustainable practices, particularly since not everything attempted was feasible or profitable. Yet, driven by a land ethic and by the desire to experiment and control the conditions under which they farmed, they constantly experimented, constantly tried new things, constantly sought out a wide variety of information sources on their own as they attempted to create sustainable farms which met their ethical and economic needs. Once they were brought together, they realized they were not alone, they were not so odd and they could learn from each other. Their newfound ability to set up parallel experiments, to share the results, to go over details and to be able to talk about it in public is perhaps the most important result of three years of on-farm experimentation.

Farmers in control

An extremely important part of the impact of the Land Stewardship Project that complements the technology and the environmental land ethic is the type of organization being fostered. There is a highly participatory ethic that involves challenging the established hierarchy of expertise and changing learner/teacher roles in the creation and dissemination of agricultural technology. The strategy of the LSP staff is to step back and let the farmers make the decisions. Initiation of action may take longer, but its continuity is ensured by farmer control of the process.

Impact is not limited to the members of the network. Often fertilizer dealers now ask what was on the land in previous years in order to determine fertility requirements. Extension agents include the technologies developed by SFP farmers in the alternatives they offer, and Land Grant researchers participate in field days sponsored by the LSP. And now an environmentally-aware approach to agricultural production has been legitimized to the point it can be discussed at church and in the coffee shop.

Ron Kroese and Cornelia Butler Flora, LSP,
14758 Ostlund Trail N, Marine on St. Croix,
Minnesota 55047, USA

■

Networking for LEISA development

In Tamil Nadu and Pondicherry, South India, a LEISA Network was founded in 1990. Its members are small and marginal farmers and NGOs searching for alternatives to the actual unsustainable land use practices. Networking for sustainable agriculture is challenging but to get started is not without difficulties and takes quite some time.

Oswald Quintal Gandhimathi

The members of the Network are operating in the semi-arid zone of Tamil Nadu and Pondicherry. Most farmers depend on rainfed agriculture and livestock keeping as they have no or only limited access to irrigation. Rainfall fluctuates between 300 and 600 mm and soils are of medium to low quality a.o. due to nutrient depletion and erosion.

History of Agriculture in Southern India like elsewhere in the world is one of slow evolution. In the traditional farming systems the human use of natural resources was kept more or less in balance. The change from traditional systems to that of modern commercial and chemical farming has led to severe exploitation of scarce natural resources and breaking down of the balance between human consumption and renewable natural resources. This process has affected soil quality, water table, forest resources, genetic resources of plant and livestock all alike and consequently agriculture, which directly supports 70% of the population. In the same process the main part of the agricultural resources got concentrated in the hands of few. Actually about 20% of the population is using 80% of the available land resources. The increasing impoverishment of the majority of the rural population causes near starvation and large scale migration in search of employment thus creating unhealthy growth of urban areas. Moreover, farmers find it difficult to cope with the present farming systems as they have no control over resources like seed, fertilizers, pesticides knowledge and market situation.

The need for a network

To arrest these trends and improve the ecological situation, the necessity of two immediate steps are recognised:

- Massive and effective afforestation, leading to regeneration of the soil and plant resources.
- Transition of the present high-input, commercialised system of farming toward a sustainable, ecologically sound and socially just system.

So far, afforestation has gained importance among the Government and Non-Government Organisations. Though the efforts have been inadequate and not always in the right direction there is growing awareness among the people on forestry issues. Alternatives for high-external-input agriculture had not widely emerged so far in India. There have been few attempts by motivated farmers and organisations about such possibilities and to explore further into evolving locally appropriate and sustainable alternatives. The interest of the government is still very limited and research started to look at integrated farming systems only recently. At this juncture, it was felt that it was no use to wait for initiatives from the government and that a local network of farmers and NGOs would enhance the speed and quality of field action and motivate others who are interested in the concept of low-external-input and sustainable agriculture.

The founders of the network

The founders of the network had come together informally for the past four years, discussing and sharing their experiences, before they finally took the initiative to start the network. Most of them were readers of the ILEIA Newsletter and the articles regarding case studies and networking in other regions deepened their understanding and conviction. Among the founders were NGOs with social and agricultural backgrounds as well as some ecological farmers. One of the founders, the Agriculture, Man and Ecology programme (AME), has been involved in training NGO staff from Southern India in ecological agriculture for many years.

First regional workshop

To initiate a process of mutual cooperation at regional level, the founding members made an inventory of farmers and NGOs involved in developing sustainable agriculture. The next step was to invite these farmers and NGOs for a workshop. In February 1990 around 24 NGOs and 7 farmers from Tamil Nadu and Pondicherry came together to discuss the need and objectives of the network.

Objectives

The following objectives were formulated by the emerging network:

- To understand the problem faced by farmers in different areas in the context of changes that have taken place in agriculture and in the context of environmental problems.
- To motivate farmers and organisations towards taking up alternatives in sustainable agriculture.
- To study and document traditional agricultural practices from different areas that are ecologically sound.

▶

Photo: Bertus Haverkort

The founders of the network informally discuss the possibilities to start up networking activities.

- To increase interaction between farmers and organisations and encourage exchange of experiences, knowledge and skill in sustainable agriculture.
- To disseminate information regarding sustainable agriculture to a wider circle of farmers and organisations.

Activities

The activities of the network formulated during the workshop were:

- To conduct meetings, workshops and seminars to facilitate exchange of ideas and skills.
- To organise tours to existing ecological farms.
- To establish a documentation centre to collect and document traditional and other agricultural practices that are ecologically sound.
- To undertake an ecological study to sensitise the NGOs of agro- ecological situations in the villages.
- To conduct training and arrange for consultancy to NGO personnel in the area of sustainable agriculture.
- To bring out educational material on sustainable agriculture like booklets and posters and slides.
- To bring out a newsletter in Tamil.

The participants strongly felt that the network should be semi-formal. A network secretariat should be created for recording, publishing a newsletter and maintaining a library and documentation centre. SFIP, Kudumbam and AME were given the responsibility of organising the activities of the network for the first 3 years. In January 1991 HIVOS, a private funding organisation from The Netherlands, agreed to support the network activities for the period April 1991 to March 1994.

Putting plans into action

In 1991, after funding was realised, network staff were appointed. Zonal level workshops were organised and zonal level field study tours to ecological farms were conducted. A process of understanding the agro-ecological situation at village level and identification of NGOs and farmers searching alternatives for to arrive at a more sustainable farming system had been initiated. NGOs are now involved in the ecological studies at village level. Identification of ecologically sound techniques has begun. Three newsletters have been published and a start has been made with the library and documentation centre. As result of these activities some farmers started to experiment with ecological techniques in their farms and some NGOs initiated ecologically related programmes. More experienced members provide assistance to other members in designing ecological farms and programmes. Many farmers and NGOs joined the network. In the planning workshop of 1992 more than 100 members participated.

Photo: Constant Dangbenon.

After the creation of the Benin network, a meeting is held in Kpakpada-Agbakossare (Dassa).

Starting a network in Benin

More often than not, because of lack of communication, people tend to look far away for something that is in fact close by, without their being aware of it. For instance, we knew about the existence of agroforestry from books and magazines but we were overjoyed, when making our initial contacts to form a network, to learn about the RAMR project (Recherche Appliquee en Milieu Reel'= Applied Research in the Real Environment), which practises agroforestry in MONO Province, 150 kilometers from our community! The establishment on a network on sustainable agriculture in Benin is described in this article.

When ILEIA published a register of its subscribers in December 1990, it became evident that a large number of people were taking an interest in the possibility of establishing a network in Benin.

We decided to pay visits to all potential partners who had been named in that register, in order to discuss the advantages of establishing a network. Meetings were organized. During these meetings people discussed the following points: What is a network? Who are its potential members (individuals, NGOs, institutions, (groups of) farmers)? Was it to be a national or an international network? To what extent would the network be able to guarantee the autonomy of each member organization?

In order to answer the first question and arrive at a definition for "network", each participant in turn expressed his or her point of view. In order to help the overall process, photocopies of ILEIA documents and those translated by AGRECOL were distributed among the participants. By the end of the discussion, they defined their network as a group of individuals, NGOs and institutions, ready to exchange information or to jointly undertake activities they would otherwise, be unable to carry out alone. Participants were also asked to introduce themselves, to explain what they expect from the network and, above all, to say in what way they could to be of service to the group as a whole. The responses were interesting and varied.

The network would draw its inspiration from other networks, such as 'Innovations et Reseaux pour le Developpement (IRED)', the 'African NGOs Environment Network (ANEN)', and the Canadian 'Reseau de Radio Rurale des Pays en Developpement (RRRPD or in English DFCRN)', in which certain members participated. According to the participants in the preparatory meetings, the network would function at a national level, while working, at the same time, on the establishment of a regional or a Pan-African network. The network would be open to any person interested in endogenous development and would acknowledge the autonomy of every NGO among its members.

The network's regulations contain provisions for a General Assembly and an Executive Committee composed of president, secretary general, deputy secretary general, treasurer and three counselors. These regulations also provide that any individual or legal person may become a member of the network. Each member of the network is eligible for any position of responsibility.

The principal task of this network is to develop self-confidence in each partner, to reinforce its members' mutual confidence in the collaboration towards solving their common problems. This is the task we are undertaking, in the hope of being able to benefit from the wealth of experience already gained by national and international institutions in the field of lasting and sustainable development.

Pascal Badjagou, Association Orukutuku, B.P. 80, Dassa Zoume, Benin.

Organisation of the network

Keeping in mind that the personnel from Kudumbam, SFIP and AME have various tasks, a careful structure was designed for the network to function. The various responsibilities were divided among the organisers according to time availability, expertise and aptitude. The secretariat is attached to Kudumbam, which is the legal holder of the project. The administrative responsibility rests with Kudumbam. SFIP & AME, apart from being members of the organising committee and members of the editorial board, had to share the responsibility of organising zonal meetings and training the staff.

The region is divided into three zones for practical reasons of reducing the members' travelling distance. Three zonal organisers were appointed, whose task it is to organise the different activities in each zone. They assist in organising zonal meetings, study tours, collecting data for the village agro-ecological study and in documenting experiences, traditional knowledge and experiments of the farmers and organisations.

An editor/documentalist has been appointed. The newsletter has an editorial board that meets six times a year to discuss nature, content and policy matters concerning the newsletter. In the beginning, there is much to do in building up infrastructure and initiating activities.

External organisations

The network is establishing relations with other regional, national and global agencies working in or promoting LEISA activities and related issues. These relations are of importance to exchange experiences, strengthen our conviction and widen our knowledge base. One example is the relation with ILEIA. ILEIA facilitated the founding of the network by providing some seed money to organise the first workshop and first issue of the newsletter. They also assisted in establishing contact with the funding agency. Information and documentation support and participation in the ILEIA/IIRR/WN 'Networking for LEISA' workshop is of importance to widen our contacts with like-minded networks and organisations and to deepen our insight in LEISA development.

With regional organisations both at the grassroot level and at academic research level cooperation is sought.

Problems confronted with

As yet, only few individuals and few organisations are directly working towards LEISA. There are many others who are interested in it. But they have no idea about its scope, implications, etc.

Most of the NGOs interested in working with farmers in promoting LEISA lack technical knowledge on agriculture. Apart from motivation, trainings are needed to support them at least initially. There is also a need to help to understand and analyse the situation and to help them relate their existing work to LEISA-type work.

Existing experience in LEISA is insufficient to convince the farmers. The experiences of the ecological farmers who are founding members of the network are only partly of relevance to resource poor farmers, as they are above average farmers. There is a need to create models which fit the conditions resource poor farmers have to cope with. The poverty of most farmers which forces them in migration labour, makes it extra difficult to find feasible options which do not need heavy investments in labour or capital. Varied experiments are needed for further adaptation and convincing results.

Many of these tasks put heavy claims on the core members and secretariat of the network, who are also involved in the activities of their own organisations. Increasing the participation by the members in the organisation and activities of the network therefore is of great importance. Finding qualified staff with the right attitude and willingness to live and work in the villages is a difficult task. Some enthousiastic, dedicated persons could be found but they are still young and not much experienced in ecologically sound agriculture.

Relations with official research and extension agencies are still difficult. Although interest in sustainable agriculture is growing, there are too many differences in attitude, objectives and language, which are difficult to bridge. The actual systematic work started only in April 1991. At this moment, only a few activities are initiated. Though these activities were based on experience, detailed discussions and strong motivation, it is too soon to draw conclusions as to their success or failure.

Development of sustainable agriculture in South India will need long-time dedication.

Oswald Quintal, 7 Ezhil Nagar, Keeranur, Pudukottai, Tamil Nadu India.

Building the foundations for a network

When the agricultural coordinator of the Ghana National Catholic Secretariat attended a workshop of the northern Ghanaian Association of Church Development Projects, he was inspired to start a network for the southern part of the country. But the major problem was the starting point. Since NGOs in Ghana have been operating more or less in isolation, they have a lot of suspicion of each other. The problem was solved by introducing the idea to an already existing Ecumenical Committee engaged in promoting agroforestry. This Committee then formed the nucleus from which the network was developed.

The idea of an ecumenical network of all church agencies as well as other interested Private Voluntary Organisations (PVOs) engaged in agricultural and rural development was unanimously accepted. The group immediately appointed an ad-hoc committee. It was charged with the responsibility of preparing the ground for establishing the network.

After this committee was formed, the first constraint met was financing the necessary travelling and logistical support. This problem was solved with an initial loan or "seed money" from ILEIA. With this money, the initial activities of the committee could be financed, such as formulating a provisional statement of intent and visiting potential members to discuss the need for networking and the modalities for establishing a network. This seed money also enabled the committee to seek funds from donor organisations for organising a workshop at which the structure, objectives, activities and membership of the network would be determined. At this workshop, guidelines were agreed upon, referring to the name of the network (Ecumenical Association for Sustainable Agriculture and Rural Development, ECASARD), as well as the membership, its goals and objectives, its structure, management and financing.

After the workshop, the ad-hoc committee handed over its responsibilities to a democratically elected executive committee and the network was officially launched. For effective administration, a secretariat shall be established to take care of the daily affairs of the network. The secretariat shall rotate between the Christian Council of Ghana representing all Protestant members and the National Catholic Secretariat representing all Catholic members. The non-denominational PVOs shall identify one representative body to enable them to become the third partner in the rotation. The long-term vision of ECASARD is to establish a permanent independent secretariat when feasible. Special tasks shall be assigned to specific member organisations that have the relevant expertise in those fields or to committees identified for such functions.

Although in an early stage, this experience shows that clarity in objectives, intentions and relations can provide a fruitful basis for networking.

Bernard Y. Guri, ECASARD, PO Box 9712, Airport Accra, Ghana.

Photo: Enrique Kolmans.

Farmers traditionally work together. Here they are working on river defenses in Ambo, Central Peru.

Andeans unite

From the birth and growth of the Andean Council of Ecological Management (CAME), many lessons can be learnt. An adolescent crisis eventually strengthened the grown-up network.

Jorge Manrique, Juan A. Palao
Mourik Bueno de Mesquita

CAME is a network of seven non-governmental rural development organisations (NGOs). CAME maintains working relations with university researchers and with policy makers of regional development programmes and the regional government. The relation with farmers and their communities is indirect and passes through the NGOs.

Objectives and functions

The main objective of CAME is to improve the individual work of the NGO members who are engaged in environmental management and sustainable agriculture and animal husbandry in Andes conditions.
The functions of CAME are:

- to generate and apply know-how to solve problems in andean farming by the application of LEISA and PTD.
- to develop practical knowledge and skills for improving farmers' organisations
- to evaluate implications of technologies on the family and communal economy
- human resource development and training of NGO staff and fieldworkers through workshops using exchange of experiences and information
- in-service training during fieldwork in peasant communities
- methodological support and assistance of NGO staff and fieldworkers
- coordinating members' programmes
- elaborating working concepts, guidelines, instruments, methods, monitoring systems, etc
- advisory and consultancy services for members; direct fieldwork assistance
- liaison with outside resources, donors and exchange with other institutions programmes or networks
- formulating proposals for alternative policies and influencing policy makers, programmes, international development cooperation and national government
- promoting role of farmers' organisations in planning and implementation of alternatives for environmental management and sustainable agriculture
- influencing public opinion

Structure

CAME is a formal network. It has a legal status and a formalised internal organisation, with a board of directors, executive committee and a technical team and formal membership who meet during a general assembly. For its operation and functioning CAME depends of external financing. The network members do not contribute significant funds in these aspects. Their contribution is valued in terms of their activities and project investments carried out in their work. Each member finances its own activities and they do not receive direct financial support of the network.

Origin

The CAME network was set up after an analysis of 20 years of development activities. This analysis showed the real limitations of traditional project interventions: inadequate technologies and working methodologies, lack of NGO experience in LEISA/PTD and little professional support. Also the limitations of the lack of institutional coordination became more and more clear. Some small-scale experiences with LEISA and PTD showed promising alternatives but were limited by lack of proposals and did not reach a wider range of institutions. Some NGOs considered the network initiative to be an instrument for their own politics and interests in enhancing their influence on local or regional level.

The development of the network

In the course of its history CAME went through four stages: the preparation, the first activities, a crisis and finally consolidation and development.
Preparation. The first initiative was taken individually but soon the idea was maturing through a 'motivator group'. This group applied the following criteria for the inventory of potential members: experience in the LEISA/PTD, stability in the regular programmes and established capacity in the management of physical resources and personnel. The motivator group conceived the proposal for the network and managed the search for funding. The role of the donor (in this case the Dutch based ICCO) was not only to provide the financial means, but also to provide backstopping to CAME and they had a important function in clarifying and overcoming the first crisis.

The first activities

In this first phase, CAME started the technical and methodological support services to NGOs and organised the first exchange programmes. These supporting activities were based on the expressed needs of the NGO members for their daily fieldwork related to LEISA/PTD and there was not a common plan. This procedure allowed to learn about the the practices of the NGOs relating to LEISA and their weak and strong points. It served also to establish initial connections amongst the NGOs and to test the necessity of a permanent advisory capacity. It was an important period for creating awareness of the necessity of participatory planning.

Institutional crisis

During the second year an institutional crisis was due to vertical attitudes and styles in the management and communication of the network, despite the need for horizontal relationships and cooperation. The initial organisational design and management structure were not the most appropriate and the members did not understand their role. The limited capacity to manage

conflicts in general, within a context of political interests, profits and personal biases deepened the crisis. It was necessary to face the confrontations and to clarify the network objectives. It was necessary to temporarily stop the network activities and also the donor agency requested to first clear up the differences. They supported the network with external consultancy and advice, expressing their own views and priorities. Finally the network reaffirmed its original idea and set-up and some NGOs and their leading persons left the network. In these circumstances the network executed a one-year bridge programme to reorganise networking aspects and tobe more specific in the fieldwork activities.

In this period the strategy combined the improvement of the fieldwork and the intervention methodologies on LEISA/PTD with the development of a process of participatory planning. This resulted in the NGOs' plans being integrated in the CAME network proposal for the next three years.

Positive experiences

- Participatory planning allowed the elaboration of the three year plan, change and improvement of attitudes towards networking and joint actions.
- Coordination with other institutions or networks about LEISA topics improved the CAME views and generated appreciation of the CAME experience and proposals.
- Financial management secured funding of the network for 10 years.
- The technical support team improved the intervention quality of NGO members and their field staff.
- Internal and external training allowed theorising about the field work practices and exchange of experiences.
- The evaluation made it possible to overcome the crisis, manage the conflicts and consolidate the network.

Difficult experiences

- It was difficult to articulate and compare the NGO concepts because of the lack of methodological instruments, and diversity in attitudes and working styles of the NGO members.
- The network direction could in the beginning not clearly distinguish between direction and execution and there were no specific activities for network development and organisational improvements.
- Diffusion of results and experiences was not systematically programmed.
- Planning and monitoring proved to be a slow and difficult process.
- Training based on existing experience can not always satisfy the needs.
- Activities to enhance farmers' participation in LEISA and PTD are difficult because NGO performance was not systematic

Are the costs justified?

Various costs are involved in permanent consultant services, like the costs for practical training, carrying out technical or socio-economic studies of NGO members, analysing and discussing different cultural values and personal behaviour in relation to the population and between network members. There are costs involved in developing working tools (checklists, guidelines, frameworks, methods, monitoring systems etc), reference documents and studies and in the preparation of training workshops and informative bulletins.

It is very dificult to specify and value each benefit or result obtained by network intervention or support. However, the network should try to find a system for this. In the case of CAME, a consultancy fee of 7% of the total NGO project investments in farmer communities is received. CAME considers these costs to be fully justified to improve NGO quality and training when compared to regular international consultancy fees.

Lessons learnt

- The CAME network could not be developed by dialogues, debates and reflections alone. It was formed on concrete fieldwork activities, such as technical and methodological assistance, staff training and exchange of experiences. The direct needs of each institution formed the network's base and reason of existence.
- The agreement that the network should not seek , channel or manage funds for projects or members avoided the network becoming a 'battlefield' for managing or obtaining money.
- Management strategies should be developed to confront and overcome network crisis. Opposing interests are generally present in the first phase of the network process. An early treatment of a crisis contributes to growth and avoids more destructive crises later. The role of internal evaluations and external agents is very important in this process.
- There is a clear need to differentiate between the management level and the execution of the activities. If both levels are mixed up, there will be serious confusions about the role and functions in the network structure.
- NGOs usually developed a strategy of competition and 'dispute' with other NGOs and institutions. When they are grouped in a network they should develop a style and strategy for mutual cooperation, sharing their experiences and results with others. This change or evolution of NGOs is rather difficult and seems to be a revolutionary step.
- For a network it is of great importance to develop a process of participatory planning, which combines global planning of LEISA issues and the development problems in the regional context with specific planning of NGOs and their target groups. This confrontation of the 'top-down' with the 'bottom-up' approach requires specific methodologies and instruments.
- A balance must be sought between attention paid to external relations (other institutions and networks) and internal relations (the members of the network itself).

CAME, Jr. Arequipa 128, Puno, Peru.

■

Photo: Enrique Kolmans.

Another Peruvian network, Red de Agricultura Ecologica, organises for instance basic training courses in ecological agriculture. In Abancay, southern Peru, participants take notes during a field visit.

Supporting LEISA-in

Wim Hiemstra

"Dear ILEIA, I am working as part of an NGO (AMORT) in a rural agro-forestry project in a semi-arid area near San Raphael del Sur, Nicaragua. Besides a water problem, we are facing a big plague. So-called chapulins or grasshoppers are eating new saplings and destroy whole harvests. I read about your organisation and I am very interested in information regarding any biological way to control these insects, but also organic fertilisers, water conservation, irrigation, small-scale industries, agroforestry, agricultural research and education. Dada Vidyananda."

Every now and then hand-written letters like this, sent from 'the grassroots' somewhere in the South, reach Europe, the Netherlands and finally the ILEIA office. Dada Vidyananda exemplifies the main target group for ILEIA: people working directly with farmers on ecologically sound agriculture and trying to get information, insight in experiences from elsewhere, new ideas and contacts. Somehow, they have read or heard about ILEIA. Obviously, since Dada writes in English, ILEIA will reply by sending the Newsletter and information on the topic(s) and contact addresses in the region (if available and/or traceable). If a more continuous contact would be resulting over time, ILEIA would try to support the building of an information network in Nicaragua with support of other organisations.

But also other letters reach the office in Leusden, mostly not hand-written.

"Dear ILEIA, thank you very much for the ILEIA publications. It is a rich package on methodology for participatory research involving the resource poor farm community. My wife, who is currently contributing to the drafting of guidelines for World Bank staff on technology development and extension for women farmers, has just "stolen" the whole batch of Newsletters, but after I get them back, I will circulate the material amongst my agricultural colleagues in the Africa region. Andrew Spurling, Principal Agriculturalist, Technical Department Africa, World Bank, USA."

These two letters show two extreme forms of support ILEIA is asked for. Apart from supporting field workers and NGOs, the second major aim of ILEIA is: to contribute to a situation in which LEISA is taken serious as an alternative in mainstream agricultural development. Often this happens through networking with key individuals within various institutions, like for example the World Bank.

What are the activities, experiences and dilemmas of ILEIA as an organisation intending to support organisations working towards LEISA? Given the emerging local, national and regional LEISA networks, what does this imply for the role and functioning of ILEIA?

LEISA information networks

The ILEIA Newsletter contributes to building a global LEISA network of people and organisations searching for sustainable agriculture. At present there are around 6000 readers. Two thirds of them are working in the South. ILEIA supports the network with information, ideas, concepts and analyses. In 1989, the idea of regionalisation was presented. It was thought that information networks (organised e.g. per region, local language or ecosystem) would be better able to mobilise and distribute local LEISA experiences. ILEIA therefore started a programme of support to regional information networks. These networks develop activities in the field of documentation, library, publication, dissemination, workshops, advocacy or coordination of technology development.

One of the aims is to be more involved with the development, opportunities and bottlenecks of LEISA at field level. For the further development of LEISA, it is hoped to improve information needs on LEISA at the grassroots and to facilitate the flow of information from the grassroots (e.g. Nicaragua) to levels further away from the grassroots (possibly up to policy levels like in the World Bank). This can make NGOs, but also research and policy institutes aware of the needs and opportunities of LEISA at the grassroots. Furthermore, it aims at contributing to the transfer of the leadership role in agricultural development from the North to the South. ILEIA's regionalisation programme has two major activities in supporting emerging LEISA information networks: networking (people-oriented) and documentation (document-oriented).

Networking

This refers to improved cooperation and communication among members. Major emphasis is on sharing information and experiences (a.o. through publications), on improvement of approaches and methodologies and on internal training (e.g. through workshops). Upon requests of organisations in India, the Philippines, Benin and Ghana, ILEIA staff members visited these countries in 1989-1991. Contacts for establishing networks were made with organisations in Mali, Gambia, Southern India, Northern Nigeria, Mexico, Bangladesh and Senegal. Contributing factors and constraints for ILEIA to successfully support regional networks were assessed early 1991 as follows:

- Supporting emerging networks, especially in the beginning phase, requires good understanding of the local situation, the institutions and the people. A face-to-face contact with key individuals is therefore desirable.

Photo: Wim Hiemstra

Lolita A. Ignaco in Cavite Province, Philippines, explains how she profitably integrates fish and animals in the farm and reduced the use of fertilisers drastically. The landlord, however, is not interested in tree planting on the farm. Nearby farmers say they don't have time for integrated farming and apply fertilisers, 'because it's easy'. Searching for LEISA is a complicated issue, involving socio-cultural and political-economy aspects. We have to learn from farmers, like Lolita Ignaco, how they make their farm ecologically sound.

formation networks

- The area 'covered' by a network should be such that informal and/or formal meetings are possible more or less frequently. This leads to more emphasis on smaller-scale subnational rather than national and international networks (depending, of course, on the size of the country and the communication infrastructure).
- It is also necessary that members are actively supporting LEISA development by farmers.
- It seems important that in a very early stage the initiative to come to a network is carried by several rather than 1 person or organisation.
- Small funds are needed and can play an important role as seed money in emerging networks.
- It is clear that the process to establish a network from the first initiatives takes much more time than 1 year. Bottlenecks are communication up-and-down, workload of people involved locally in the initiative and time needed for processing of proposals by donor organizations.
- It is important to inform partners within the EULEISA-Network, a European network of 6 organisations working towards sustainable agriculture in the South, in an early stage of plans to support an emerging network to prevent overlap and unnecessary doubling of efforts.

Documentation

This refers to distributing and generating written information on experiences with LEISA. The activity focusses on dissemination of publications, (small) libraries and writing down field experiences. To supply networks with documents, a Small Libaries Programme started as a result of the AGRECOL/ILEIA bibliography "Towards Sustainable Agriculture" in May 1988. Interested readers of the ILEIA Newsletter could order their selection of books. In total some 140 requests were received. By the end of 1991, virtually all books had been sent. At present, the whole exercise is being reviewed within EULEISA. Apart from distributing printed material (from North and South), also translation of LEISA information to the local situation is very important. This means both translation into local languages as well as making LEISA information accessible for local people to use. At present articles channelled through ILEIA are translated in French, Hindi, Telugu (India), Oriya (Orissa-India), Thai and Portuguese.

Local 'reporting' of field experiences with LEISA is an important part of documentation. Improving the skills and facilities of networks to document these local experiences is crucial in the further development of LEISA. Also important seems to be to assist organisations in practical library management: how to set up a library, how to handle libraries, how to find sources of relevant materials, how to classify documents.

Networking dilemmas

Networking is a time-consuming, complicated activity. Because of that ILEIA is facing several dilemmas.

- Pushing LEISA development forward or 'playing' behind the scene? Should ILEIA play a more pushing role, taking actively initiatives to support and/or establish LEISA networks? Or should it wait for initiatives and requests from the field. Is there a middle-way here: to push behind the scene?
- Which focus of networking and what are the implications? Should ILEIA try to link different levels of networks, or should it more explicitly chose for farmers/NGOs networks? How to balance attention to these options?
- How to complement global and local LEISA Newsletters? Some readers find the ILEIA Newsletter too abstract, too much LEISA jargon and not enough technical aspects. Others say that time has past for the ILEIA Newsletter to put a lot of emphasis on practical experiences of e.g. composting. Local newsletters should take over the exchange of location-specific practical experiences. The challenge in supporting local Newsletters is to find a way in which they are complementary to the global ILEIA Newsletter.
- Is an emphasis on agricultural policies desirable for ILEIA? At present, at many forums policy options for sustainable development are being discussed: UNCED, FAO and many national conferences. To what extent should ILEIA be active in such forums? Do we have the mandate from our partners to act on their behalf? Until now, ILEIA concentrated on mobilising, evaluating and exchanging experiences with LEISA. Lobbying was left to other organisations with more experience in this matter. But being in a central position in the network for sustainable agricultural development makes it nearly unavoidable to be involved in a policy dialogue.

Observations

It seems that there are no shortcuts to sustainability. We deal with a great diversity of approaches and see this as a strength rather than a weakness. We can learn from organic farmers as well as from traditional subsistence farmers. We include permaculture farmers as well as commercial farmers producing for an urban population. We can learn from them all if they are aiming to make their farming system more ecologically-sound.

Searching for LEISA is very complicated, involving bio-physical, socio-cultural and political economy aspects. Clearly there are different interests, opportunities and constraints when working at the grassroots in San Raphael in Nicaragua or in the World Bank office in Washington. There are different actors and networks at various levels involved in the search for LEISA. What are their specific functions, their information needs and what are their comparative strengths? What should be the role of ILEIA in this spectrum?

A concern for ILEIA is to assess in how far it is really delivering services to the needs of the different target groups and how to balance attention to them. Reviewing the first experiences with networking, we can see that it has generated many positive responses. There is great scope and need for support to regional networks by way of information and coordination activities. A large number of experiences have been documented, but much more has to be done. ILEIA is only one of the partners in this process.

South-South cooperation

ILEIA sees itself as part of a global LEISA network. In this network, ILEIA plays a role in the exchange of information and experiences with development of LEISA, in assessing the effectiveness of the different experiences and approaches, in promoting LEISA and in giving support to regional LEISA information networks. In supporting regional information networks the strategy of ILEIA can not be to give first line support to emerging networks all over the world. We are convinced that such support should rather be given by south-based organisations on the basis of their own experiences. ILEIA will support this South-South cooperation by supplying names of resource organisations, by discussing, documenting and assessing their experiences. Thereby ILEIA contributes to developing a methodology for LEISA development.

For ILEIA to perform its role, contacts with grassroots networks as well as with policy networks are needed, with Dada Vidyananda as well as with Andrew Spurling.

Wim Hiemstra, ILEIA, PO Box 64, 3830 AB Leusden, Netherlands.

■

Creative ideas for networking

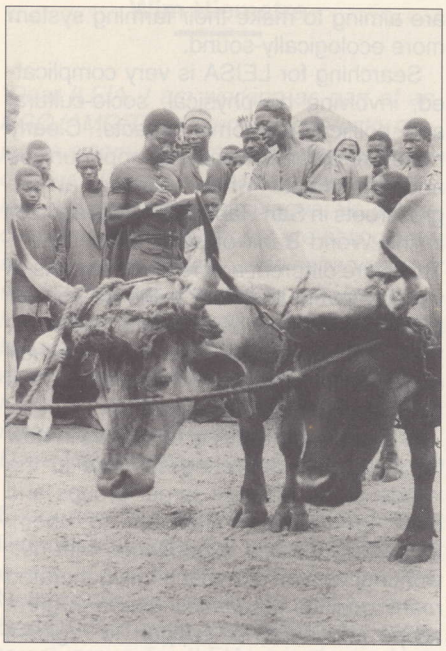


Photo: Paul Starkey.

The WAATN encourages members to adopt a farmer-centred approach to research and development (on-farm discussions in Sierra Leone).

Fotonovela

The Campesino a Campesino Movement in Nicaragua uses so called fotonovelas to support farmer-to-farmer exchange. During interviews with farmers, pictures are taken and these are published together to form a kind of pictorial technical bulletin. This bulletin is distributed through a weekly supplement in a national newspaper.

Source: Campesino a Campesino, Eric Holt-Gimenez, Fundacion Entre Volcanes, Aptdo 3893, Telcor Central, Managua, Nicaragua.

Forum and Fair

A probably very important instrument to create public awareness and influence policy makers is the Forum and Fair idea. It could take many different forms. Following the example of the Phillipines Sustainable Agriculture Forum, the Alternative Agriculture Network of Thailand is planning such an event to last a week. It will include a great variety of activities such as seminars for policy makers, exhibitions, contests, field visits, films and cultural programmes.

Source: RRAFA, Ravadee Prasertcharoensuk, 67 Sukhumvit Soi 55, Soi Thonglore, Bangkok 10110, Thailand.

Best paper award

To enhance interest of often young scientists in farmers' participation in research, UPWARD, a network for researchers in sweet potatos in Asia, has launched a Best Paper Award. At the annual conference this price of US 2500.- is given to those researchers whose work has been innovative in the field of farmers' participation and sustainability.

Source: UPWARD, Virginia Sandoval, PO Box 93, Manila, Philippines.

Planting in the dust

This is a one-actor play developed and extensively used by the Land Stewardship Programme in the USA. It is played to create general awareness among the public on environmental problems in modern agriculture and it is particularly effective in stimulating discussion in farmer communities as a basis for joint follow-up activities.

Source: LSP, Ron Kroese and Cornelia Butler Flora, 14758 Ostlund Trail N., Marine on St Croix, Minnesota 55047, USA.

Adoption of public busstops

The Kenyan Institute for Organic Farming has adopted several busstops of the public transport system. This implies that the institute is responsible for keeping them in good condition. In return the busstops may be used for propaganda purposes. Located on strategic points, these busstops daily inform large numbers of people on the advantages of organic agriculture.

Source: KIOF, John Njoroge, PO Box 34972, Nairobi, Kenya.

Farmers crossing the borders

The importance of direct contact between farmers pioneering in sustainable agriculture cannot be overstressed. The Natural Farming Network in Zimbabwe is one of the organisations that stimulate these contacts even crossing international borders. In 1990 an exchange programme was organised between 11 Kenyan and 11 Zimbabwean farmers and extensionists. These visits gave rise to such enthusiasm that the Natural Farming Network was established to ensure follow-up and new initiatives.

Source: Natural Farming Network, Simba Muzuva, PO Box 8515, Causeway, Harare, Zimbabwe.

■

Workshops as key network activity

The West Africa Animal Traction Network is an open network of people from various backgrounds interested in animal traction. An informal to semi-formal structure has been found to be most effective, without a permanent secretariat or even a newsletter. Although networking takes place in various forms, workshops are a key activity.

The workshops of the West Africa Network are organized every two years. The number of participants increased from 73 in 1986 to 93 in 1990. To date, network workshops have been attended by over 200 people. Furthermore, the workshops have directly stimulated the preparation and publication of over 140 papers covering a wide variety of issues and experiences concerning animal traction in different farming systems and related research, development, extension, training, implement production and policy implications.

The workshops have proved extremely popular, and participants have considered them interesting, helpful and professionally valuable. Participation is always open to all those working in the field of animal traction, in West Africa and elsewhere. This open approach has encouraged a broad range of people to attend. The workshops have been thoroughly multidisciplinary with agricultural engineers, economists, animal scientists, agronomists, sociologists and other professions all coming together. Diversity has also been achieved in terms of participants' professional fields, with researchers, extensionists, administrators, producers and donor representatives all closely interacting.

Without doubt, the most popular elements of each workshop have been the field visits. People who have been to conferences where the field visits have involved large groups slowly straggling around research sites may be surprised at this. But these popular network field visits were in small groups of 5-8 people from different countries, who went to villages to watch work animals in use and to discuss directly with farmers. Such in-depth talking with farmers has often been a new experience for participants. They have often felt free to ask farmers questions they would never dare to ask in their own countries, for fear that their juniors would laugh at them.

In the day following the field visits, the small groups sat down to discuss in detail their observations and findings, and to discuss also specific workshop themes highlighted in the lead papers. The groups then reported back to all the other participants, in preparation for open discussion on the key issues raised. These small group discussions have proved almost as popular as the field visits.

The workshops also provided an opportunity for a network business meeting, to discuss plans for the network, and elect a new steering committee to supervise the forthcoming programme. The proceedings of each workshop have subsequently been attractively published to act as regional resource documents on animal traction.

Paul Starkey, Oxgate, 64 Northcourt Avenue, Reading RG2 7HQ, United Kingdom.

Photo: Ann Waters-Bayer

AFNETA is not the only research organisation that is reorienting its programmes towards farmers' participation. In Machakos, Kenya, a woman farmer explains to researchers why she prefers certain varieties.

AFNETA changes its research focus

AFNETA, the Alley Farming Network for Tropical Africa is a network of organisations and individuals in Africa, interested in research and development activities on alley farming and other sustainable agricultural systems. The network hopes to strengthen and expand research efforts in this field and to raise general awareness on the potentials of the alley farming concept within national institutes in Africa.

Since its start in 1989 the network has activities in the area of information exchange, training and collaborative research. AFNETAN, the networks' newsletter, plays an important role, but equally important are the various conferences and workshops, as well as follow-up exchange visits. Training is designed mainly to support the research programme. This can either be individual, degree-related, training or group training through short focussed courses.

The collaborative research programme of the network is undergoing a gradual, yet very significant change. In phase I, which is about to end, the research programme succeeded in establishing various on-station trials by member institutes. This phase has a strong biological and agronomic bias. The major objective is to assess the bio-physical feasibility of the alley-farming system. It can be seen as an "experience building" phase for researchers to familiarise themselves with main principles and practices of the relatively new alley farming concept.

In phase II, the network will reorient its research programme quite strongly towards developmental on-farm research activities, based not only on alley farming, but also including other identified promising agricultural systems. Key-elements in this research will include

- interdisciplinary team work
- farmer participatory research approach
- gender consideration and analysis
- balance and linkage between on-station and on-farm research
- linkages with non-governmental organisations (NGOs)
- activity-focussed training.

This shift in orientation confronts AFNETA with a major challenge. For example, good training activities have to be designed to support this shift and enable researchers to play their new role. AFNETA is looking for partners within the NGO community and other development institutions interested to collaborate in research activities. AFNETA believes that the task of improving or changing traditional farming practices to enhance productivity and sustainability can not be realised through isolated and independent research and development efforts.

Kwesi Atta-Krah, c/o IITA, Oyo Road, PMB 5320, Ibadan Nigeria.

■

Serving universities with traditional knowledge

AGRUCO is the Agroecology programme of the University of Cochabamba in Bolivia. It was established in 1985 and has as its general objective to reach the diffusion and acceptance of the management of biological agricultural systems in institutions related with rural extension work (NGOs and GOs). The university chose for a holistic approach and the research methodology was basically Participatory Technology Development. After two years of research it was observed that practically all the basic technical elements for ecologically sustainable food production were present, known and used in nearly all of the traditional technologies embedded in Andean cosmovision. The actual ecological problems were attributed to the erosion of this traditional knowledge.

AGRUCO established a data base on local knowledge and local technologies, it organised regional and national meetings and modified the academic curriculum by including LEISA. As many NGOs are not familiar with the LEISA concept and development approach, AGRUCO is supporting a network of 18 NGOs.

In the Andean countries Bolivia, Ecuador and Peru, a network exists of institutions which are centralising their documents on local technologies. One project is responsible to periodically edit and upgrade a compendium of indigenous knowledge and technology, containing already more than 500 descriptions of local technologies.

A centre of documentation in agroecology and indigenous knowledge now exists, which is accessible to professionals of universities, NGOs and GOs, offering over 2500 books and magazines referring to this subject and more than 500 documents on local technologies. AGRUCO also yearly organises two to three regional and national meetings with other institutions to inform and discuss problems relating to LEISA. Every year AGRUCO organises a training course in LEISA directed to 2 or 3 university teachers of each of the 9 universities in Bolivia, with the very positive effect that in 5 universities already a little group of teachers exists, initiating their own LEISA activities.

Stefan Rist, AGRUCO, Casilla 1280, Cochabamba, Bolivia.

Photo: IIRR.

The workshop started with exchanging networking experiences between researchers, farmers, NGO staff and staff of supporting organisations.

Networking for LEISA

In March 1992, the International Institute of Rural Reconstruction (IIRR), World Neighbors and ILEIA jointly organised a workshop on networking for Low-External-Input and Sustainable Agriculture (LEISA). Some 40 participants of 23 countries from all continents travelled to the Philippines to take part. The objective of the workshop was to make an inventory of existing experiences in networking and to indicate ways as to how networking could further enhance LEISA

Bertus Haverkort,
Laurens van Veldhuizen
Carine Alders

The outcome of five days of intensive team-work is reported here. As there are different types of networks with their own dynamics and problems, a typology of networks is given. Different ways in which networks can evolve are described as well as the difficulties and general dilemmas encountered in this respect. A number networking problems and options to overcome them will be discussed. Finally a number of recommended initiatives for future action will be presented. The workshop decided to establish a number of task forces to further elaborate and operationalise these recommendations.

This report starts with the rationale behind networking for LEISA: why is it important and how can it help to solve the bottlenecks in the development of LEISA?

Change needs networking

Numerous failing attempts in development have shown that the conventional model of generating and transferring universal agricultural technologies for specialised farm systems no longer holds. New approaches put great emphasis on the optimal use of locally available resources such as soil, plants, animals and climate. Complementary use of external inputs and the use of natural processes are important and generally lead to integrated and diversified farm systems. In this approach the knowledge of rural people is seen as the key to development. The term that we use for this approach is Low-External-Input and Sustainable Agriculture or briefly LEISA. Participatory Technology Development (PTD) is a strategy for development intervention that combines the best of rural peoples' knowledge and outsiders' knowledge. In the course of the past years, a great number of PTD field methodologies have emerged. They have in common that they enhance a process of community-based mobilisation of information and initiatives and link this with external sources of information, as opposed to the conventional system where information flows from the top to the base. Not only recognition is given to rural peoples' knowledge as such, but also to the existence of indigenous rural institutions for information exchange and development initiatives. Existing farmers' networks are considered an important means for information exchange and development initiatives. Furthermore, to enhance PTD, communication between development support staff such as researchers, extensionists and NGO field staff would need to be restructured in a horizontal way. This is the reason why networking between like-minded persons and organisations has recently become the focus of attention. ◆

Bottlenecks to overcome

A growing number of farmers' groups, NGOs, research and development agencies and donor agencies are getting interested in the development of LEISA. Yet, most pioneers in this field realise that its application is not spreading at the speed it could and should. This is because we are faced with two crucial bottlenecks. In the first place the socio-economic and policy environment in which both farmers and organisations operate is very often not conducive to sustainable development. Secondly, many organisations dedicated to agricultural development are relatively small, work in certain isolation and have difficulties in finding sufficient qualified staff. As removing these bottlenecks is essential for the further development of LEISA, we will look more carefully at each of them.

Agricultural policies

Conventional agricultural development policies with their concepts, criteria, procedures, and institutional structures have mainly been designed under the assumption that agricultural intensification needs specialisation for which high levels of external input would be required. They are frequently focussed on marketable and export commodities rather than on food crops for local consumption. The focus is on single crops or animals and the study of interrelations between farm components is neglected and therefore integrated farm systems are not promoted. Subsidies mostly aim at the support of chemical farm inputs rather than at enhancing local biological and physical resources. They tend to externalise detrimental environmental effects and to neglect or undervalue local knowledge and generally have a male bias. They stress on-station research and top-down extension programmes. These policies are generally applied for nationwide programmes without taking into account cultural, economic and biophysical diversity. Further, actual producer and consumer prices of agricultural products are greatly influenced by international market relationships. Consumer prices are lowered by export subsidies of western countries and export possibilities for nationally grown crops are reduced by import levies of western countries and sometimes even by export taxes.

It is clear that shifts in agricultural policies will not come automatically. The

present situation in the North as well as in the South gives certain advantages to the existing elites. It provides jobs, security, income, status and prestige. For these elites, any pressure for change towards people centered and ecological approaches, with which they are unfamiliar, may be seen as a threat. A major innovative role therefore has to be played by farmers' groups, NGOs and research organisations active in LEISA. In this respect networking can play a major role.

Development organisations

The second bottleneck refers to the limited resources of development support organisations. The tasks they face are many and complex. They need to understand their own place in the political game, take stands and voice these in the most appropriate way. In the field of agricultural technologies they need to be aware of newly emerging technical and methodological possibilities to fit various local situations. They need skills in participatory methods of working with farmers. Further, they must develop links with government agencies to obtain support for their field programmes and they have to follow national and international developments. But as many are heavily engaged in running their own programme, little time is left to stay informed of new ideas and options. Recent experiences from a nearby organisation may go unnoticed, let alone those of organisations in other parts of the world.

Great efforts are needed to improve the effectivity of these organisations. Development strategies need to be designed, human resources need to be developed, documentation and monitoring and evaluation need improvement and linkages with sources of new information need to be established. These activities are very difficult to carry out by single organisations. Rather, cooperation between individuals and organisations should be sought. Maximum critical mass for mobilising ideas and polical influence can then be created and the necessary support systems can strengthen their own operations. Thus, also in removing the second bottleneck, networking can play an important role.

◆

A closer look at networking

There are several definitions of networking, each depending on a particular perspective. We use the following definition:

A network is any group of individuals and/or organisations who on a voluntary basis, exchange information or goods or implement joint activities and who organized themselves for that purpose in such a way that the individual autonomy remains intact.

Important aspects of a network:

- Members take part on a voluntary basis
- Members carry out joint activities that can not easily be done alone
- Members' individual autonomy remains intact
- Networks can have many different forms and use different procedures depending on the specific situation. Therefore there is a great diversity in networking experiences.
- The network's structure is often 'light' and not very formal.

The rationale for a workshop in this stage of the development of LEISA was to share experiences on strategic questions and to formulate a series of strategies for networking at local, national and international level. Networking is presently recognised by research institutes and funding agencies as an important way of improving the effectiveness of research (Plucknett). It has been observed that farmers generally take part in several networks and can derive great benefit from them (De La Rive Box; see also box Lin Compton). NGOs have the tendency to value their independence very high but are presently linking up more and more with their peer groups. Several articles in this newsletter illustrate this. However, a systematic assessment of the different experiences with networking for LEISA has not been made sofar.

◆

Multiple functions of a farmers' network in risk-prone areas

Farmers who work in risk prone areas have developed an ethic of reciprocity in looking for each other in difficult times. In these areas we often observe a multitude of self-initiated and self-directed networks. A farmers' network offers the opportunity to younger farmers to learn from their experienced colleagues. It is a means to interpret and assess information about market conditions and new technologies and can thus reduce risks by filtering and assembling relevant information for members. It can help in fine-tuning practices in response to local conditions and reduce duplication in local experimentation. A farmer who is successfully coping with a certain risk can become a valuable source of information. Farmers' networks can also be a start for cooperative input purchasing or produce marketing. Networks play a major role in the assessment and exchange of seed and genetic livestock materials.

Networks have often emerged in response to the absence of an extension agent. Yet, the existence of such farmers' networks can serve to facilitiate the work of extension agents and researchers if they are accepted for what they represent, namely a forum for the articulation of collective farmers' sentiment and support. They can therefore play a major role in farmers' experimentation and demonstration of results. They can serve as a channel for funding support and help in articulating relevant research questions. Local farmers' networks, once they function well, can be interlocked with farmers' networks accross the larger geographical area.

Networks can serve as a catalyst for the indigenous or outside supported development of LEISA practices. Networks may help in a gradual development towards reducing chemical inputs or replacement for natural methods.

From: J. Lin Compton: **The role of farmer networks in minimizing risks in rainfed agriculture**. Department of Continuing and Vocational Education, University of Wisconsin, 276 Teacher Education Bldng, 225 North Mills Street, Madison, Wisconsin 53706, USA.

The role of government extension in networking

The workshop participants noticed the general absence of government extension agencies in LEISA networks. This gave rise to a lively debate. Some participants advocated the cooperation of NGOs and GO extension agencies in networking, whereas others claimed that NGOs and GO extension agencies have different objectives which can not be reconciliated. Proponents of the latter are of the opinion the GO extension agencies have the tendency to sell the government agricultural policy and therefore have to use a top-down way of communication. NGOs on the other hand, have the tendency to take side with the farmers and want to contribute to their empowerment. Networking between the two would then only cause confusion as NGOs do not want to be used by GOs as a tool to promote government policies, whereas GOs cannot act against government policies.

Those in favour of GO-NGO cooperation in networking stated that both types of organisations work for the benefit of the farming population and networking could make good use of the comparative advantages of both. Some articles in this newsletter show that are good experiences with cooperation of NGOs and national or international research organisations. A logical step would be to strengthen the ties between NGOs and GO extension staff. A statement of intent would be needed of both the extension service and the NGO to adopt a common methodology. This would enhance the effectivity of both parties.

Typology of networks

There are several types of networks and there are different criteria on which a typology can be based. The following diagramme designed during the workshop gives a typology on the basis of a distinction in the professional background of the network members and of the activities involved in networking.

A different typology, based on the organisational design, has been made by Vincent (IRED). He distinguishes between formal or centralised networks and informal or decentalised networks. The formal/centralised networks tend to have a strong secretariat, most communication is initiated by or passes through the secretariat. In the more informal/decentralised network there is direct and systematic communication between the different members of the network. The centre is a support service for any action carried out by its partners.

Other typologies differentiate between scope of geographic coverage (local, national, regional, international), or by distinguishing the subject matter attention of the networks (e.g. networks on Integrated Pest Management, on soil fertility, on PTD, on organic agriculture or on a whole range of aspects).

The participants of the Philippine workshop represented a wide variety of network types. All of the four membership categories as described in figure 1 were present. Most of the represented networks focussed on information exchange and training. Some were concerned with marketing and seed exchange whereas awareness raising and policy dialogues activities were hardly undertaken by the participants' networks.

Participants represented both formal and more informal networks, ranging from local to global orientation and focussing on specialised as well as generalised subjects. This allowed the workshop to explore the comparative advantages of and complementarity between these types of networks.

◆

Membership ↑ / Activities →	information exchange	material exchange	training	marketing	awareness raising	policy dialogues
Farmers/PO						
NGOs						
Researchers and extensionists						
Different categories together						

The emergence and evolution of networks

The inventory carried out in the context of the workshop showed that a great number of networks have been established in recent years to enhance LEISA. Continental networks were for example formed in Europe (EULEISA), Latin America (CLADES) and South East Asia (SEASAN). A regional network in Africa is not known to us, but during the workshop in the Philippines, the African participants made a move towards such a network. National and subnational networks are manifold and many more are in the process of being formed.

Preconditions for networking

Not all experiences with networking have been positive. Quite a number of initiatives have failed. The experiences of the Philippine network on appropriate technology and sustainable agriculture (SIBAT) and other workshop participants led to the following questions to be considered before starting a network for NGOs in order to minimise the risk of failure.

- Is there a common vision and set of common goals among potential members (such as empowerment of marginal farmers, sustainability)?
- Are there concrete common problems and constraints faced by potential members?
- Are potential members aware of these problems and constraints and of the importance of their influence on their work?
- Do potential members, especially NGOs, have a minimum degree of maturity in management and sufficient organisational skills?
- Are there relevant results/experiences on sustainable agriculture that could be shared?
- Do potential members have a good idea of what a network is and what it would mean to them?
- Are they prepared to spend the necessary time and energy in sharing and networking at the expense of their own programmes?
- Is there an atmosphere of openness among potential members which allows them to admit mistakes and learn from them?
- Can the coordination of a network be ensured, especially during the first phase of the network's emergence?
- Can it be expected that the necessary financial resources for network activities can be mobilised from network members? If not, is there a chance of continuous donor funding?
- Is there enough commitment of initiators and/or supporting agents to overcome the organisational and establisment phase? These phases are particularly difficult from the point of view of resource availablity. The roles of host agencies and intitators need to be clear.

Development stages of a network

Given the great diversity of networks, it is obvious that there is not a blueprint for the development of a network. Yet, from the analyses of the different experiences, some stages could be identified which are relevant for most networks. In reality, networks gradually evolve and always follow their own logical development path. The more formalised and centralised networks may be more inclined to go through formal stages whereas the more informal networks, such as most of the farmers' networks, evolve as the result of a spontaneous social process.

Preparation stage. In this stage some initiators identify a topic of common interest, formulate the idea for a network, and assess the interest of potential members to form a network. The initiator plays a catalytic role which requires time, thought and financial resources. In research networks generally certain host organisations provide these resources. In return they will be able to influence the network in a direction they deem important. In some cases (see the box on page 6) a supporting agency could provide some seed money to finance the establisment costs. The role of support organisations in this phase has been elaborated in a box on page 24.

Establishment stage. In this stage the members of a potential network decide to form a network and determine the mechanisms and structure for exchange or collaboration. In some cases networks formulate formal rules and regulations, with a central comittee and well defined membership and then organise a funding base. In other cases establishment takes place through informal processes where informal leadership and opportunities and or locations for regular meeting determine the mechanisms and structure. In this stage the relationship of the network with the initiators, the host institution and the

possible donor have to be defined. The experiences of IIRR indicate that if the establishment of a formal network is initiated, it is important to keep overhead costs low and network structures simple. Maintenance of secretariat and office equipment can be costly as well as cost-ineffective. Formal networks can easily become a bureaucratic endeavour which inhibits rather than promotes exchange of information and cooperation. Or as Grimaldo Rengifo of PRATEC said "Structuring life can freeze life".

Operational stage. In this stage the network grows into full operation and will go through adaptations caused by environmental change and internal dynamics. The latter will be greatly influenced by personalities but a clear identification of the networks' goals and formulation of the network structure and procedures and some training in network management will be helpful. This stage is of course the most important one, but there are many bottlenecks to overcome to make networks operational. The most important difficulties are generally not related to questions of how to make a newsletter, how to organise a workshop or how to document and exchange. Experience points out that most problems occur with internal cooperation and management of resources. Later, these issues will be discussed more elaborately.

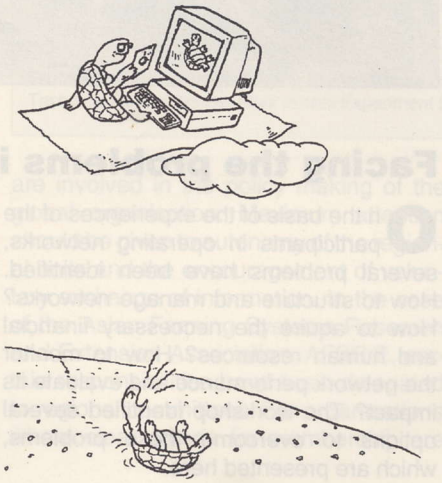
Institutional crisis and learning about network development. This critical learning phase may be necessary to adopt the necessary attitudes and styles of management, to adjust the organisational design and management structure and to allow the participants to assume their role of active network members. During this phase the objectives may be redefined, the structure redesigned and staff members of the committee re-elected so as to make sure that personal and political interferences would be abandoned.

Dissolution. According to Plucknett et al (1990) most networks will eventually disband so that people are free to regroup and confront emerging problems. Networks set up to tackle specific problems should dissolve once the task has been accomplished or the problem proves intractable. Therefore, networks should consider themselves temporary organisations. In practice however, only few of the international research networks have ceased to operate. Instead of dissolving a network, it may make more sense to transform it to address new issues. The following questions have to be asked before a network is folded or transformed: Has the task been completed? What parts of the task remain to be done? Do opportunities for fruitful collaboration still exist in some areas? What changes are necessary to meet the current situation? If the network is phased out, what concerns need to be addressed in the transition? ◆

Dilemmas and contradictions

As there is a great diversity of the networks, there is a great diversity in ways to look upon issues. It all depends on the degree of formalisation of a network, the background of the members, activities and the scale on which it operates.

In his workshop paper Korah Mathen stresses the socio-economic context in which networking takes place and indicates the limits of networking. Sustainability can never be reached if one segment of society grows and develops whereas the living conditions in other segments deteriorate. This is the case in the North-South relation and in some cases in the relation between industry and agriculture. According to Mathen, exchange of information and of genetic material can only take place at a very limited scale, as both are bound to a specific location or micro-environment. The most important need for networking lies in the field of lobbying, training and confidence building to arrive at sustainable development and growth.



In networks where diverse agencies participate, there are bound to be basic differences in ideology and orientation.
Drawing: Studio Driya Media.

Killough and Gonsalves state in their paper that there are special niches or opportunities for networks at different levels. For example, regional networks can provide an excellent forum for exchange of ideas and information for research agencies and NGDOs, while a national network can serve as a platform for policy dialogues at national level. Whether national networks can serve as a conduit for funds to member agencies is disputed given the experiences of CAME (page 8). Local networks are best apt for exchange of site-specific information at farm level. In line with this, there may be a need for both horizontal and vertical networking. Both types of networks will have their own advantages and disadvantages. Networks could be composed of different members like for example GOs, NGOs, farmers, researchers, extension specialists. In this way different perspectives are expressed and the sharing process can be enriched. As a result, interagency cooperation could be improved.

Other authors, such as Weerackody, point at the risk of such multi-tier organisations favouring the interests of the more powerful member category. In the case of IRED, an effort to establish a network of NGOs and Peoples Organizations (PO) did not succeed. 'The NGOs used the NGO-PO linkages to manipulate the POs for their own purposes and sometimes to justify their own existence.' As a result, IRED is now bringing exclusively POs together and strengthens their institutional and bargaining capacities. Apparently there is a justification for horizontal networks when a political factor is involved which requires strengthening solidarity amongst members of a particular category while reducing the dependency on outside agencies.

Ilya Moeliono and Larry Fisher mention several constraints in networking in their workshop paper. Some networks have never taken the time to formulate basic goals or objectives. In other cases, the network organisers have a clear vision of their objectives, but have not formally articulated or communicated these objectives to other participants in the network. The result is that the network has a difficult time in determining its direction or activities, lacks a unifying theme, and cannot sustain the interest of its participants. In networks where diverse agencies partici-

Clear objectives are vital.
Drawing: Studio Driya Media.

pate, there are bound to be basic differences in ideology and orientation. To a certain degree this can be a positive strength of the network, if it can harness this 'creative tension' by providing a forum for discussion where participants can find common (neutral) ground, settle their differences, or at least agree to disagree. Unfortunately, these differences are occasionally so serious that participants form competitive cliques and ultimately immobilise the network's efforts at collegial exchange. Confrontations over ideology often alienate participants and force their withdrawal from the network. In many cases a network is initiated by a few individuals or agencies who may choose to invite participation of others on their own narrowly defined terms. They may already have fixed objectives and assume that others must share these commitments to participate. This sense of ownership by a small group leads to their domination of the decision-making and activities. The dominant group will generally establish rigid criteria which confine the network to limited participation. The domination of a network by a small group results in centralised control of decision making and a reluctance to incorporate new perspectives which are not in line with established objectives or procedures. Thus, a central bureaucracy is created to consolidate this control, and all initiatives within the network must pass through the often debilitating structure of the 'centre' (also known as the 'secretariat,' 'steering committee,' or 'organising board'). The centre becomes a tool for control rather than coordination, and results in a feeling of suspicion by participants on the margins that they are merely being manipulated to serve the ends of the dominant group. Networks necessarily experience, and at times suffer from differentiation in the level of participation of its members. Some participants may strongly agree with the purpose formulated for the network, recognise its importance and give it high priority; others place the network's activities in the "nice but not necessary" category, and are willing to make a contribution only after their own priorities are fulfilled.

Moeliono and Fisher conclude that while it may sound contradictory to recommend core group initiative as well as decentralised participation, concrete objectives and flexible responsiveness, low overhead but adequate resources to sponsor frequent opportunity for sharing, the real challenge for successful networking is encouraging this delicate balance of complementarity.

◆

Photo: Peter Gubbels.

Facing the problems in networking

On the basis of the experiences of the participants in operating networks, several problems have been identified. How to structure and manage networks? How to aquire the neccessary financial and human resources? How to monitor the network performance and evaluate its impact? The workshop identified several options to overcome these problems, which are presented here.

How to structure

This is an important question for each type of network. Structural questions relate to the admission and selection of members, degree of (de)centralisation and formalisation, the role of the secretariat and donor interference.

Farmer based networks stressed the importance of informal structures with flexible activities. The first concern of this type of network is to build the network internally by a focus on actions that are perceived as important by the members. Only when that has been achieved and has led to a consolidated structure there is room for growing or establishing linkages with other networks. The structure should recognise the autonomy of the network members and thus have representatives of the members in the organising committee. Leaders should be careful in pushing their own interests. The autonomy and own character of other farmer networks or NGOs that are on the same line should be respected and cooperation rather than competition should be sought.

NGO networks stressed the importance of clear criteria for membership. It is important to include members who have experience and expertise in LEISA and who are prepared to share this with like-minded NGOs. NGOs who lack expertise and experience would be encouraged to join the network as long as they are really interested in learning from the experiences of others and are intending to build up their own experience in the domain. Apart from institutional members, individuals with certain expertise would be very valuable and thus, two types of membership are recommended: personal and institutional with voting rights mainly given to the second type of members. All network members should have the possibility of influencing the network structure. In case the network activities merit the appointment of a full time secretariat, care should be taken that contacts with members will be maintained. As it is important to avoid domination by certain members, a rotation of the management functions is advised. In order to ensure a field orientation and avoid bureaucracy, it is recommended to have farmer representatives in the network. Where relevant, the network could be decentralised by appointing regional committees or having regional meetings, supported by the central secretariat. It was stressed to allow a natural evolution of the network structure. A fixed structure should not be created and especially in the beginning modifications should be allowed. The network should not be afraid to face crises, but rather welcome them as an opportunity to learn, adapt and improve. Donor interference often affects the structure of the network. Care should be taken that this influence is in the interest of the NGOs work and does not emphasise the north-south patron-client system of donor-recipient which sometimes occurs. Such can be the case where donors emphasise a certain religion or ideology and attach more value to exclusive networking within this sphere than to networking between

Farmer networks most often have an informal structure.

organisations working in the same eco-zone. Although networking between south based NGOs associated with a similar donor can be of great value, the exclusiveness of these networks can be disadvantageous when cooperation with NGOs in the same ecological zone would be hampered.

The research networks stressed the need for institutionalisation as this not only enhances recognition and acceptance of a network but it can also function as a channel for funds for donor agencies. In practice, research networks tend to be rather formal networks, with international donor involvement and a host organisation. Most of them have a secretariat, with full-time staff. Linkages with a host institution are favourable as this can provide administrative back-stopping and managerial support. The linkages with a host organisation can however become a problem when the autonomy of the network is being threatened or when there is a competition for influence or donor funds.

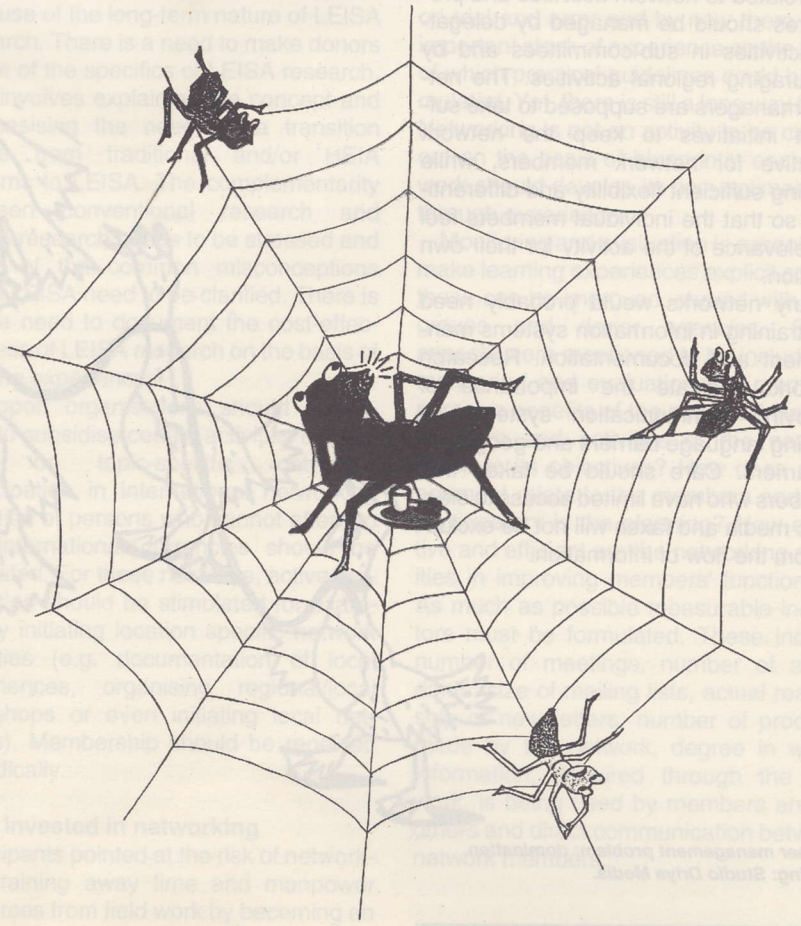
The international multi-tier networks such as AGRECOL, IFOAM, RODALE and ILEIA, but also international topic-specific research networks such as APNAN, AFNETA and RISTROP and are faced with the problem of how to be eco-specific. In fact these organisations have generally started at a global or continental level and most of them are presently engaged in a process of decentralisation. As LEISA requires an eco-specific approach, the basic units of a global information network should in fact be specialised in the ecosystem where they are located (such as is the case with the Tamil Nadu LEISA network (pp 5-7), the Regenerative Agricultural Resource Centre in Senegal (box p 27). The specific relationships between these location/topic specific units and the global organisation needs to be shaped in the course of the process which will take place in the coming years. Most likely a rather loose relationship will be the most appropriate. Two risks involved are domination or paternalism by the global organisation on the one hand and underutilisation of the experiences and information available at the different units on the other. The global organisations should therefore seek to develop a service function for a wide diversity of region-specific or topic-specific member organisations. This will imply that representatives of regional organisations are involved in the policy making of the global organisation. Maximum attention should be given to autonomy of the regional units and the encouragement of voluntary exchange of information. In the case of the Asian Farming Systems Research and Extension Association, AFSR/E, certain responsibilities have been delegated to regional committees. For organisations where clear criteria for membership are being used, the selection of members presents the risk of centralisation. The positions of the central organisation and the regional units need flexible management within the standards set. Multi-tier networks could establish links with other networks to identify what can be done more cost-effectively together than seperately. The production of Thesauri for LEISA (as done by the Europe based net-

Critical factors for managing research networks

According to MacDicken, the following management factors are critical for the more formal research networks:

- An active core of participants. Although not all members of a network may be expected to be very active in a network, a core group should be available to provide critical leadership and technical expertise so as to provide the critical mass for the network.
- Managing conflicts of interest between network members. As the network members tend to have a similar background, there may be competition for resources such as access to funds, training and for influence within the network. To avoid conflicts, networks should follow procedures which are fair, practical and generally agreed upon and understood by the network participants.
- Flexibility. While networks are generally based on topics of common interest, they should have sufficient flexibility to allow redirection in focus and allocation of resources as unexpected developments may require.
- Neutral host institution. In most cases networks need a host institution to provide a neutral, impartial venue which is beneficial to both the host and other network participants.
- Sustained long-term support. According to MacDicken, a ten year commitment of initiators and/or funding agencies is probably a reasonable minimum period for a network to grow from the organisational to the sustainable operations stage.
- Effective coordinating staff. Network coordinators should be knowledgeable in the subject area of the network and skilled in managing networks. They should be able to deal with a diversity of people.

From: KG MacDicken: **Managing multipurpose tree species research networks in Asia .** In: General Technical Report Northeastern Forest Experiment Station (1989;pp 201-214).



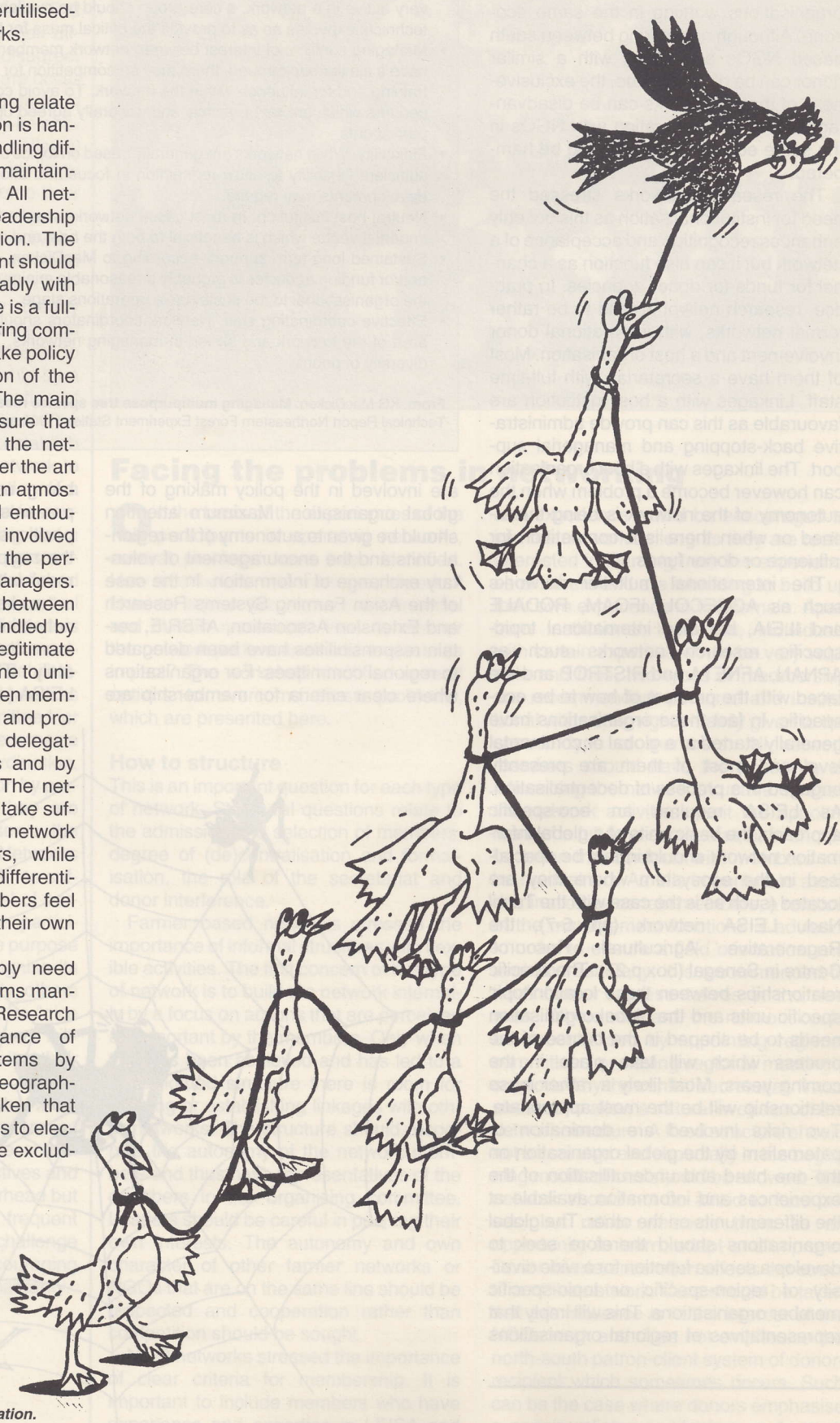
A nightmare of every network: the central secretariate has become too powerful. Drawing: Studio Driya Media.

work EULEISA) and the coordination of library data-bases are good examples of such activities. Also the development of training materials, political lobbying and influencing market opportunities for LEISA products are important -underutilised- opportunities for multi-tier networks.

How to manage

Management issues in networking relate for example to the way information is handled, the issue of leadership, handling differences between members and maintaining membership commitment. All networks consider rotation of leadership important to avoid monopolisation. The internal processes of management should be evaluated periodically, preferably with the help of outsiders. When there is a full-time secretariat, a separate steering committee should be appointed to make policy decisions and to avoid alienation of the secretariat and the members. The main role of the coordinators is to ensure that members remain committed to the network. Coordinators need to master the art of encouraging others, creating an atmosphere of mutual confidence and enthousiasm. Advocacy of the issues involved should be more important than the personal prestige of the managers. Differences in technical options between network members should be handled by accepting them as basically legitimate rather than by forcing them to come to uniform opinions. Differences between members related to network activities and procedures should be managed by delegating activities in sub-committees and by encouraging regional activities. The network managers are supposed to take sufficient initiatives to keep the network attractive for network members, while allowing sufficient flexibility and differentiation so that the individual members feel the relevance of the activity for their own situation.

Many networks would probably need staff training in information systems management and documentation. Research networks indicate the importance of improving communication systems by bridging language barriers and geographic barriers. Care should be taken that members who have limited access to electronic media and faxes will not be excluded from the flow of information.



Another management problem: domination. Drawing: Studio Driya Media.

International information networks should monitor the different flows of information and suggest initiatives for site-specific or topic-specific workshops, newsletters, documentation systems, review meetings, lobby activities etcetera. They have to monitor the quality of the information and take initiatives for new types of information, based on an assessment of the present and future developments. This may imply that they have to disappoint members by not publishing a contribution in a global newsletter but by referring it back to the regional network or by asking probing questions through which the members will develop the contribution further.

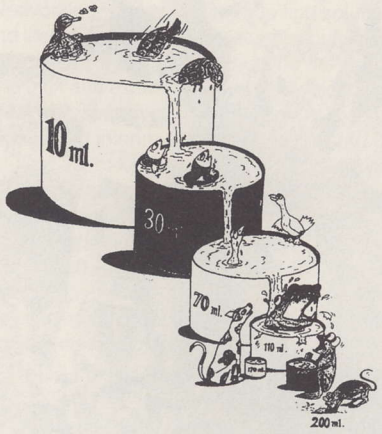
How to obtain resources

For any network to be operational, resources would be required like funds and time committed to networking by members and coordinators. In certain networks qualified staff and training are seen as essential resources in networking.

Funding

The workshop participants stressed the need to make networks as much as possible independent from the influence of donor agencies. This implies that funds, if these are required, would first be mobilised from the members. Informal networking generally requires no or hardly any external funding as long as the individual members have the possibilities to meet and exchange experiences.

Farmers' networks and NGO networks at (sub)national level may carry out their main networking activities on the basis of their own funding situation whereas specific activities carried out by the network such as training or excursions might be funded seperately. In case an informal network wants to formalise its operations, some 'seed money' would be required during the preparatory and establishment stage. Donors are therefore urged to make small funds available in order to facilitate the start-up of more or less formal networks. In order to make use of existing south-based experiences and to reduce costs for technical assistance, south-south cooperation needs to be encouraged and be given priority in funding proposals. Concern was expressed that if substantial and longer-term donor funds are to be sought, donors might interfere in the work of a network. It was considered important to negotiate the necessary flexibility for a network's activities and to avoid donor interference as much as possible. Donors should realise that networking is an effort to support field-based activities, which cannot be implemented by means of a blueprint planning model and may require considerable time. In this respect some donor education would be important to stress flexibility in the use of funding and time management.



Getting funds: a network may be capable of soliciting and channeling funds more easily, but they should not become little funding agencies.
Drawing: Studio Driya Media

The research networks stressed the need for funding not only of the network activities, but also for the coordination of the network. The funding of LEISA research networks is found to be difficult as LEISA is a relatively new concept and because of the long-term nature of LEISA research. There is a need to make donors aware of the specifics of LEISA research. This involves explaining the concept and emphasising the need for a transition phase from traditional and/or HEIA systems to LEISA. The complementarity between conventional research and LEISA research needs to be stressed and some of the common misconceptions about LEISA need to be clarified. There is also a need to document the cost-effectiveness of LEISA research on the basis of existing experiences.

Support organisations should endeavour to subsidise certain activities of location- or topic-specific networks. Participation in international networking activities of persons who cannot afford to pay international currencies should be facilitated. For these networks, active participation should be stimulated for example by initiating location specific network activities (e.g. documentation of local experiences, organising regional/local workshops or even initiating local networks). Membership should be renewed periodically.

Time invested in networking

Participants pointed at the risk of networking draining away time and manpower resources from field work by becoming an objective of its own. This can only be avoided if networks are managed to serve the needs of the members. For this reason, periodic reflection and evaluation sessions within networks are essential. These sessions would then lead to participatory planning where yearly plans are being made, flexible task forces are appointed and the tasks of the secretariat formulated.

Training for network management

The skill required for networking amongst professionals may require additional training. In many cases, formal training opportunities may not be available. Many aspects of network management can be learned on the job, or can be aquired by making use of the experiences of others in similar networks. For this purpose, internships and field visits between networks could be organised. Formal training in network management is scarce and is considered an important priority for the future. Initiatives in this respect could be taken by multi-tier networks on the basis of the expressed needs of the different types of networks.

Monitoring and evaluation

The effects of networking need to be monitored and evaluated continuously. Networking is a relatively new activity for most professionals in this field. The art of networking can best be learned by accumulating learning experiences. So far, most of the experiences have been based on trial and error and by now there is an important stock of experience on the basis of which practical guidelines could be formulated. Yet, there is still a long way to go. Networking is not an activity to be carried out on the basis of blueprints; each network should develop its own optimal form through experience.

Monitoring and evaluation is essential to make learning experiences explicit so that these can be improved, shared with peer groups and donor agencies. Some aspects were mentioned to be included in monitoring and evaluation. Do members perceive benefits of the network? How do structure and activities of the network relate to its objectives? How does management relate to the members and how participatory is the planning? How effective and efficient are the networking activities in improving members' functioning? As much as possible measurable indicators must be formulated. These include number of meetings, number of attendants, size of mailing lists, actual readership of newsletters, number of products made by the network, degree in which information, acquired through the network, is being used by members and by others and direct communication between network members. ◆

Photo: Erik vd Werf

One of the workshop's recommended initiatives is to develop more training materials and facilities. Trainees learn from the experiences of Mrs. Saroja Reddy of Tamil Nadu, India.

Recommended initiatives

The workshop has formulated eight clusters of recommendations for future action. These actions are considered to be essential for the further development of LEISA. It is suggested that these activities would be implemented by different networks rather than by individual organisations. The workshop also decided to establish a task force for each of the eight clusters of recommendations. These task forces will elaborate the recommendations and formulate proposals that are either directly implementable or fundable.

Promoting the evolution of farmer-based networks

The workshop participants concluded that the most essential element of networking for LEISA is well-functioning farmer based networks. Only if farmer based networks at local level are active in enhancing LEISA, this development would be sustainable. All other types of network should therefore have as the ultimate perspective: to promote the establishment and/or to support the needs of the autonomous farmer based networks.

In order to reach a situation where a number of farmer based networks play a leading role in agricultural development, a systematic effort has to be made to promote farmer based networks. This is a task that could be undertaken by NGOs and possibly by government agencies such as extension services. A four step strategy has been designed by the participants.

A first step could imply an exploration of the existing farmers' networks and an assessment of the attitude of farmers towards LEISA and identification of farmers' initiatives to develop sustainable agricultural practices. A next step could be the documentation of farmers' experiences with LEISA practices and the enhancement of farmer-to-farmer exchange of these experiences through activities like excursions and study tours. The existing farmers' networks could be used for this and possibly new networks could emerge from them. A third step may involve the further consolidation of farmers' networks. Development support organisations could provide technical backstopping in suggesting joint farmers' experimentation and providing information about LEISA practices from other areas. They could also support farmers' networks by providing training in planning methods and internal organisation. In a fourth stage, once a number of farmers' networks exist, support services could be given, for example by linking different networks, by a farmers' newsletter, a regional or national farmers' conference on LEISA etcetera.

There is a need for practical guidelines on how to promote the evolution of farmer based networks. These guidelines could be based on documented practical experiences of NGOs or other development support organisations. It is the task of one of the international task forces to formulate these guidelines.

Linking different types of existing networks

The workshop emphasised the importance of horizontal networks of farmer groups only, NGOs only and researchers only. Once these horizontal networks have been formed and are functioning well, crucial vertical linkages with other types of networks and service organisations for research, extension and credit can be established. Experiences in professional fields other than agriculture can also provide good lessons. In this respect, linkages should also be sought. David Millar shows that this is not always as easy as it sounds (see box). NGO networks in particular are encouraged to link with international, regional and (sub)national technical institutions for support of field activities. NGO networks are in a good position to assess farmers' needs for research and field services and the relevance of technologies. Many research institutions presently recognise the benefits of relationships with NGOs and NGO networks.

The following recommendations have been formulated to facilitate the formation and management of vertical linkages. A

Farmers' networks are the key

AGTALON has been promoting a concoction of botanical plants to farmers as an alternative to commercial insecticides to no avail. The botanical pesticide is composed of Gliricidia, tobacco, chili, kerosene and soap. But lately, during one of the farmers' trainings, I got a sample of the concoction which I used to control pests on my mango trees. My farm helper asked the participants to gather insect pests from the nearby gardens. Then they sprayed the insects (in a clean container with some greens as insect food) with the said botanical pesticide. After an hour, they observed the rate of insect mortality. It was only then that the farmers' interests were captured and they started to use the botanical pesticide, which the very same farmers ignored before.

Observations like this led us to the conclusion that the key to LEISA promotion lies in the building of 'living examples'. Farmers themselves are the best informants for co-farmers. But there is a dearth of 'living examples' which other farmers could emulate. This may not be conclusive, but we are fairly convinced that the key to enhancing LEISA promotion lies in building networks among LEISA farmers. Channels must be built for resource sharing among them. Our extension experience points out that, in the fields of information exchange, finding sources for organic farm inputs (particularly seeds, organic fertilisers and botanical pesticides) and marketing, networking support is needed. Furthermore, a network could also serve as advertisement for LEISA farmers to become more visible.

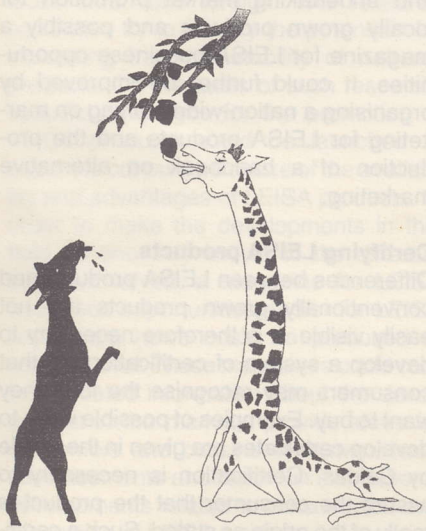
Although networking is needed at different levels, we believe that the main thrusts should still be geared towards the farmers, whose transformation (to more sustainable farming approaches) serves as the ultimate parameter of success in any agricultural extension activity or agricultural development programme.

Hil Padilla, AGTALON, Nalsian, Manaoag, Pangasinan, Philippines.

register with existing networks and service organisations in the domain of LEISA would be very useful so that individual networks could take the initiative to build up vertical linkages. Such a register could be made on a geographic basis (country, region, continent) as well as on the basis of ecozones (such as those related to arid lands or mountain agriculture) and subject matter (such as pest management or soil management). In order to improve the field orientation of networks, representatives of farmers could be taken as members in NGO networks, and NGO representatives in research networks. Field oriented networks could play their role of advocate of the farmers' interests by studying the yearly reports and research publications of the research centres in the area, assessing the relevance for small farmes, periodically visiting the centres and expressing their needs and indicating their willingness to cooperate. They could make proposals for cooperation in on-farm research, research and PTD; they could make suggestions for research locations and topics and communities in which PTD could take place. They could guide the farmers and introduce them into the research communities. A task force will be established to elaborate these options and to formulate concrete proposals to materialise them.

Strengthening management capacities for networking

The further development of LEISA networks requires a considerable effort in human resource development in the art and skills of networking. Two initiatives have been identified essential in this respect, namely the production of a resource book on network management and the development of network management courses within existing training institutes.



Hierarchical differences may hinder good network management.
Drawing: Studio Driya Media.

Farmers take time to support each other

In 1987, the Ghana Rural Reconstruction Movement introduced agroforestry technologies in Mampong Valley. The technologies were spread by training farmers, who in turn would train their colleagues. Soon the farmers realised the need to network among themselves and with other farmers outside the operational area to enable them to share ideas and experiences. A meeting was organised to discuss the idea of forming a network.

Networking would help them to find solutions together and to organise study groups, seminars and literacy courses. The network could also organise trainings in regenerative agriculture technologies for other farmers outside the network. Together, the farmers felt they could organise field trips and excursions. Another objective of the network was to help members in times of sickness, bereavement, child outdooring ceremonies and wedding ceremonies.

An elected interim committee formulated guidelines for the network, rather than a formal constitution, to make the network less formal and much simpler to manage. This was also a way to overcome the problem that peasant farmers usually lack higher levels of literacy required by formal associations.

The network initially met every month, to discuss problems and share ideas and plan for the next month. When the membership grew larger (over 100 farmers by early 1990) distances became longer and it became very difficult for the people to walk to the meeting places. It therefore became necessary to constitute smaller units at subcentres. The general assembly meetings are now held once every three months. This has reduced the frequency of walking long distances to meetings, which was actually bothering the farmers.

The experiences of the Mampong Valley farmers showed that farmers' associations start enthusiastically to come to results. However, they should however not have too many activities in their programmes for the first years. Too many meetings and activities within a short period disrupts the farming activities of the members, and can lead to a drop in attendance at meetings. Participation in other activities will also start to decrease if they are too many and too frequent. This calls for more realistic planning on the part of the executive body. The farmers themselves have learned that quarterly meetings are much better patronised than monthly meetings.

The Mampong Valley experience also showed that farmers realise the need to come together in the form of an association to network among themselves. The major hindrance seems to be how to get started. Hence there is a need to give initial guidance and some form of logistic support. Once they get started, this support should be curtailed to avoid dependency. A guiding agency should, however, only come in upon the request of the network. There is a need for the farmers to generate their own ideas and take their own initiatives. As much as possible, the association should be organised using existing traditional structures in the system where these are already available.

The Mampong Valley farmers have shown that, in a well-functioning farmers' network, members will assist one another in difficult tasks. Cordiality even if it existed before has been very much strengthened by the birth and growth of Akuapem Regenerative Farmers Association.

David Yaw Owusu, Yensi Centre, PO Box 14, Mampong Akwapim, Ghana

Network management resource book

The book should not be a blueprint on how to network, but should rather contain practical examples and practical information to be used by network managers to improve the way they manage their network. The book should be written by different persons on the basis of their own experience. The cases presented by the participants of the workshop could be the basic input for such a book. The content of the book could be

- Network typology
- Network objectives and activities: it should contain a checklist for a range of network objectives and indicators for achieving them
- Monitoring and evaluation of networks: options and suggestions for monitoring and evaluation.
- Network management: how to deal with centralisation and decentralisation; how to maintain an informal and flexible style of management; how to choose the appropriate level of organisation when activities are decentralised; responsibilities and rights of members.
- Specific management tools for activities as documentation, internal communication and organising workshops; fund raising and handling money; ensuring maximum participation of members; linking with other networks.

Presently, ODI is preparing a handbook on network management. ILEIA plans to produce a book on networking for LEISA, containing a selection of the papers written for the Philippine workshop.

Network management courses

The workshop participants urge the existing management training institutes to include management of networks in their curriculum. It was recommended to make an inventory of existing management training institutes, to find out to what extent these provide training in network management. Initiatives for specific additional activities could then be suggested. Regional networks could initiate such initiatives by requesting tailor-made courses for their member organisations.

Development of training facilities and materials

The workshop participants stressed the great need for training in LEISA and PTD. The upgrading of existing training facilities can very well be enhanced by the present networks.

The following proposals have been formulated.

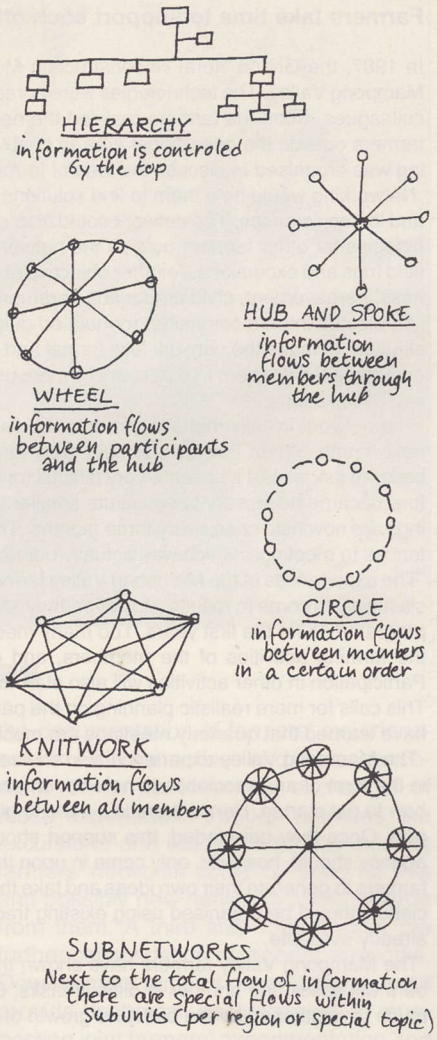
- Collate and assess existing training materials on principles and practices of LEISA and PTD. Making such an overview as is presently being done by SEASAN for South East Asia, would allow training programmes to make use of and build on existing materials.
- Identify gaps in existing materials and develop new ones. The development of new training materials on relevant topics is a major challenge for training institutes. International cooperation would be essential to avoid duplication and underutilisation of potentials.
- Produce a directory/data base on existing LEISA training opportunities that are open to the relevant categories of field workers and are conducted regularly. There are a number training programmes in LEISA and PTD, but a regularly updated overview of the different possibilities is not available.
- Initiate in-country training on LEISA and PTD for NGO/GO field staff following a participatory approach and linking up with existing LEISA training institutes. Such an initiative could be supported by an international programme for training development. Such a programme could be formulated and implemented by an organisation with experience in training in LEISA/PTD and would need international funding.
- Initiate regional training for trainers following a participatory approach and develop courses for LEISA trainers.
- Develop LEISA training modules for incorporation in existing agricultural training programmes.

It is expected that the task force on this subject will elaborate these proposals further and formulate concrete actions. The workshop participants already elaborated two proposals, namely the training for trainers in LEISA and in-country courses on LEISA/PTD for NGO/GO field staff.

Assessing LEISA experiences

The workshop concluded that there is a need for holistic assessment of the different LEISA experiences. Convincing data on the impact of systems and technologies, on productivity as well as on environment, labour, risk, equity, etc. is hardly available. This is a very serious problem as the national and international agricultural policies will only be modified to enhance LEISA when feasibility and comparative advantage of LEISA can be indicated. To a certain extent, to assess the impact of LEISA systems and technologies on sustainability, a different set of criteria and indicators is needed. When assessing agriculture in the perspective of sustainability one should adopt a long-term and holistic perspectives and come to grips with bio-physical and socio-cultural processes with their costs and benefits which need to be compared in quantitative and qualitative terms. This will require a supra-disciplinary approach in a situation where most professionals have been trained as specialists and are functioning in organisations with a limited mandate. With such holistic assessment exercises only limited experiences are gained and there is a need for development of methodology. Not only for planning and policy development sets of practical assessment tools are needed but also for technology development on research level as well as on farm level. Such assessment exercises are also needed to get a better understanding of the different transition and support strategies needed to make agriculture under different ecological, socio-economic, cultural and political conditions sustainable.

Networks can play an essential role in the development of such sets of LEISA assessment tools as well in assessment exercises and bringing together the available impact data of LEISA systems.



The workshop identified different actions which will be required and could be developed, coordinated and stimulated by a task force.

- In the first place, there is a need for sets of criteria and indicators for assessing LEISA by different user groups, namely farmers (subsistence, surplus, conventional and organic farmers), communities, NGOs, researchers, planners and policy makers.
- Secondly, a screening of tools for measuring selected indicators (quantitatively and qualitatively) for the different user groups will be needed.
- Thirdly, gaps should be identified and new tools to fill these gaps should be developed.
- Fourthly, the different sets of assessement tools should be used and tested and experiences should be exchanged to improve the assessment methodologies and discuss the data gained on the effectiveness of LEISA.

The task force should also elaborate in general on definitions, assumptions, issues and ways to look at assessment of LEISA to foster a common understanding and basis for LEISA assessment. Aspects like long-term nature of ecological processes, unquantifiable socio-cultural bennefits, etc. need special attention. In such discussions people from different levels and backgrounds should be involved.

Marketing of LEISA products

Participants are convinced that marketing of LEISA products is of great importance for the further development of agriculture in marginal areas. Marketing could be improved by building certifying bodies, carrying out marketing research and undertaking market promotion for locally grown products and possibly a magazine for LEISA bussiness opportunities. It could further be improved by organising a nation-wide training on marketing for LEISA products and the production of a handbook on alternative marketing.

Certifying LEISA products

Differences between LEISA products and conventionally grown products are not easily visible. It is therefore necessary to develop a system of certification, so that consumers may recognise the food they want to buy. Examples of possible ways to develop certificates are given in the article by Caldas. Certification is necessary to assure the consumer that the product is really of the origin as stated. Such a certification would therefore require an independent inspection body, either under supervision of the government and/or of consumers organisations. Examples of such certification systems exist in the European Community, where organisations as

Photo: Dirk Kistemaker

Differences between LEISA products and conventionally grown products are not easily visible. The market in Silang, Philippines.

IFOAM (organic products) and Max Havelaar Foundation (coffee for a socially just price) have played pioneer roles. Internationally accepted and controlled certification systems would allow import and export flows.

Marketing research and promotion

In order to enhance the marketing of LEISA products it is important to know what the possibilities are for the sales of these products within the country and abroad. Specific research would be necessary to find out what the consumer preferences are as to quality and origin of the produce, how the produce has to be packed and graded, which channels for marketing are available and what price margins are reasonable and acceptable for the different categories of consumers: local, urban and foreign. This research could also try to identify the potentials for increasing the marketability of national products. On the basis of such research, specific campaigns for the promotion of LEISA products could be launched to make the consumers aware of the availablity and advantages of LEISA products. In order to make the developments in this field continuously known to the different parties involved, a magazine for LEISA bussiness opportunities and/or for LEISA consumers news could be produced at national level. These magazines could contain updated information about the development in the markets, provide ideas for consumers and bussiness(wo)men, have advertisements and report on international developments related to consumption and production of LEISA products.

Training in marketing

To materialise a competitive marketing system, training is needed. For this purpose a manual on alternative marketing could be produced and training programmes be organised. The handbook could contain a system of certification and inspection, market opportunities, the role of NGOs in enhancing market opportunities, advertising, cooperatives, pollution and environmental degradation as result of HEIA, social aspects of marketing, storage, grading and cosmetics of products and lists of traders and market outlets.

Focussing the role of support organisations

Given the key role of farmers networks and NGO networks, development support organisations such as Rodale, AGRECOL and ILEIA should give priority to these networks. This effort requires a careful approach to avoid the creation of dependency or paternalism.

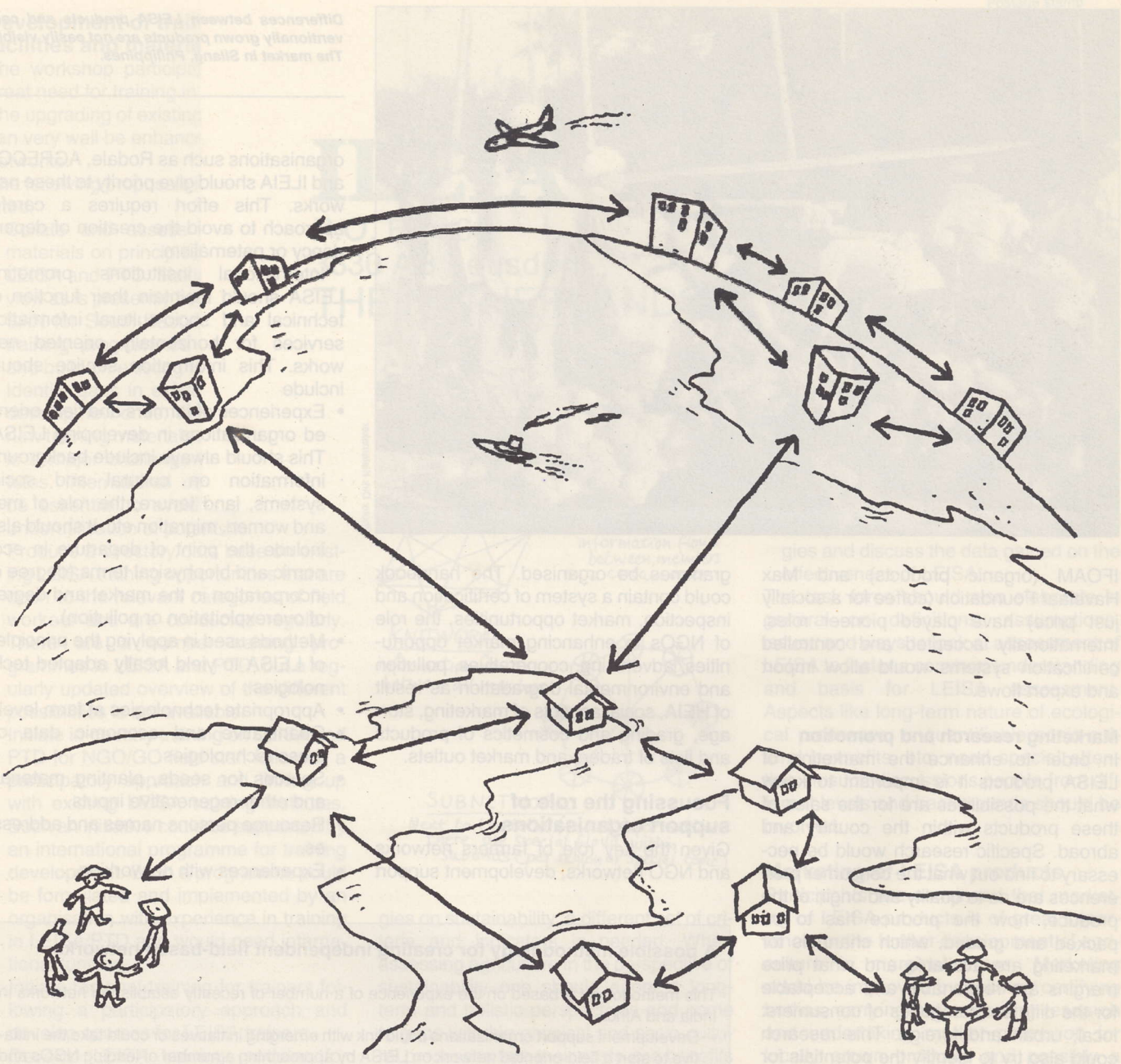
International institutions promoting LEISA should maintain their function of technical and socio-cultural information services for horizontally oriented networks. This information service should include

- Experiences of farmers and field-oriented organisations in developing LEISA. This should always include background information on cultural and social systems, land tenure, the role of men and women, migration etc. It should also include the point of departure in economic and biophysical terms (degree of incorporation in the market and degree of overexploitation or pollution).
- Methods used in applying the principles of LEISA to yield locally adapted technologies.
- Appropriate technologies at farm level.
- Quantitative and economic data on these technologies.
- Sources for seeds, planting materials and other regenerative inputs.
- Resource persons names and addresses.
- Experiences with networking.

A possible methodology for creating independent field-based networks

This methodology is based on the experience of a number of recently established networks in India and Africa.

- Development support organisations could link with emerging initiatives or could take the initiative to start a field-oriented network on LEISA by approaching a number of leading NGOs and inviting them to explore the possibilities of an NGO-based LEISA Network.
- To this end an ad-hoc committee for the preparation of a network could be formed, made up of representatives of different NGOs and of persons who are likely to be acceptable by other NGOs.
- In order to allow the committee to do their preparatory work, the support organisation should be able to make some seed money available to cover travel and communication costs, as well as costs for the constituting meeting of the network.
- This ad-hoc committee would start with an inventory of the felt needs for a network and of the available experience and expertise on LEISA of the existing NGOs in the different agroecological areas.
- On the basis of this inventory, a register of national NGOs could be made and the feasibility of a network be indicated.
- A statement of intent for a possible LEISA network would be formulated by this committee to be presented to potential members.
- Then a constituting meeting can be organised, to which the potential member would be invited. The meeting should agree on the intention, objectives, structure and activities of the network.
- Once the network has been formed, a financial basis should be created. Networks should always mobilise funds from their own resources, and in case this would not be sufficient, a funding proposal could be made to be sent to donor agencies.
- Technical support to emerging networks should preferably be provided by networks with a similar background. Such a South-South support system would benefit from a register of existing LEISA networks and should be made possible by donor funding policies.
- Donor agencies are advised to give priority to funding LEISA networks on a regional/subnational basis as a cost-effective way of promoting sustainable agriculture.



Networking may take place at different levels: local, regional and global. These various networks may again be interlinked. Drawing: Studio Driya Media.

Support organisations should further screen their services to agricultural development and focus on the production of support materials, training facilities, improving the market possibilities and influencing the national policies towards sustainable agriculture.

To enable the establishment of national or regional information centres on LEISA, support organisations are requested to provide technical support to these emerging centers on how to

- document field experiences
- set up a data bank and manage the information systems
- produce a newsletter
- conduct workshops.

Also financial support should be provided for the establisment of regional or national information centres on LEISA.

Awareness raising and policy dialogues

The workshop concluded that a substantial change is necessary for the socio-economic and policy environment under which agriculture takes place. Conventional agricultural development approaches have mainly served the development of high-external-input agriculture. A major effort will be necessary to change that situation. Networks can play an essential role in this. As most agricultural policies are set at national level, such initiatives need to focus on country policies. However, international cooperation would be very important to mobilise international expertise and achieve maximum impact.

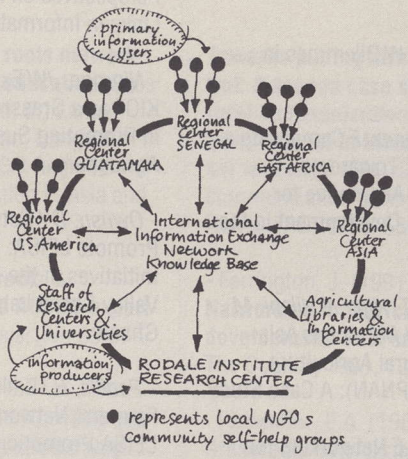
The following activities to enhance policy change have been recommended:

- Bring empirical data and important issues together to prove that LEISA is feasible and needed.
- Create public awareness of the danger of conventional agriculture so that pressure can be put on the policy makers to consider LEISA for national planning.
- Develop national pressure from the regional platforms by political lobbying in the parliament for favourable consideration of LEISA.
- Involve policy makers and planners in the discussion on LEISA, for example, organise exposure workshops, technical seminars for policy makers and invite them to different types of LEISA farms and communities.
- Bring together like-minded people from the planning and policy making sector as well as from the LEISA research and

development sector who are interested in developing national level LEISA decision making tools.

- Make an inventory and impact analysis of the most important national policy instruments for agricultural development that may influence the development of LEISA. This assessment would include price policies for agricultural inputs, farm prices and consumer prices, legislation related to environmental protection (such as admission of agrochemicals, measures to prevent erosion, deforestation and overexploitation of water resources), rules and regulations related to pollution of soil, water and air, the construction of infrastructure such as roads and waterworks and institutional support by research, extension, credit and marketing facilities.
- On the basis of a policy assessment as elaborated, suggestions for policy reforms could be made. In the first instance policy reforms could be suggested which would not require extra financial means. An example might be to replace subsidies on chemical nitrogen fertilisers by subsidies on planting of nitrogen fixing trees or the replacement of import subsidies by price support to nationally grown food.
- Establish HEIA-watch institutes. In order to monitor the environmentally and socio-culturally damaging effects of high-external-input agriculture for certain regions or countries intensive monitoring would be important. In cooperation with environmental protection groups and or consumers' unions such HEIA-watch institutes could play an important role in raising public awareness and exerting influence on policy making bodies.
- Restructure and redirect national agricultural research and extension programmes to enhance LEISA. Enhancing LEISA requires a decentralised research and extension system which focuses on the development of technologies that require a minimum of external inputs and builds on rural peoples' knowledge

Rodale supports local, national and international networks



The Regenerative Agricultural Resource Center (RARC) in Senegal is part of the efforts of the Rodale Institute (USA) to promote agricultural technologies that are productive and in balance with the available resources and with the objectives of rural communities. Networking was done at three levels: decentralised, local level farmer-to-farmer networking, national inter-agency information networking and international networking. The institute has established three regional farmer networks in the US and two RARCs, one in Senegal and one in Guatemala.

At village level, farmers are encouraged to actively participate in research and community action. To foster a more enthousiastic involvement in various activities, 'master farmers' are trained. Each village organisation has potential village trainers for the extension of regenerative farming methods. Rodale encourages village associations to take advantage of experiences of neighbouring village groups or farmers' associations. This has been successful in the erosion control programme at Tatene, based on farmers experience in Tissekaymor in Senegal.

National interagency networking takes place in Senegal through RESAD, the Reseau Senegalais pour l'Agriculture Durable.

Networks involving researchers, extension agents and farmers can be very effective for the development of appropriate technologies but this requires good communication systems.

International networking takes place through the international newsletter 'Entre Nous', electronic telecommunication networks (CARINET and CGNET) and workshops.

For more information contact: Rodale Senegal, Amadou Diop, B.P. A 237, Thies, Senegal.

International task forces

The workshop has led to the establishment of a number of international task forces. These task forces will

- identify the existing information within the topic area and assess the strengths and weaknesses of the existing situation.
- elaborate concrete project proposals to overcome the problems.

The task forces will be open to all members of the ILEIA network and other networks on sustainable agriculture. Each task force will select a coordinator. The coordinator will design a procedure for the task force. ILEIA's role in these task forces will be limited to membership and to facilitating the communication. Probably most of the work and communication of the task force will take place by mail and fax. A separate meeting may be considered depending on the case and need, and regional subcommittees could be established. If you are interested to join one or more of these task forces, please contact ILEIA. The task forces are:

- Promoting the evolution of farmer based networks
- Linking different types of existing networks and focussing the role of support organisations
- Strengthening management capacities for networking
- Development of training facilities and materials
- Assessing LEISA experiences
- Marketing of LEISA products
- Awareness raising and policy dialogues

◆

References

- Box, L (1989) **Knowledge, networks and cultivators: cassava in the Dominican Republic**. In: Long N, ed. Encounters at the interface. A perspective on social discontinuities in rural development. Wageningen, Netherlands.
- MacDicken, KG (1989) **Managing MPTS (Multipurpose Tree Species) research networks in Asia**. In: General Technical Report Northeastern Forest Experiment Station. 1989 no 130 p.201-214.
- Plucknett, DL; Smith, NJH; Orgediz, S (1990) **Networking in international agricultural research**. In: Food systems and agrarian change. Ithaca/London, Cornell University. ISBN 0 8014 2384 8.
- Padron, MC (1990) **Networking and Learning**. In: Reflexion, 1991. Vol.1 no.2 p.6-23.
- Vincent, F (1986) **Networking strategies: the IRED experience**. IRED, Geneva.

◆

• WORKSHOP PAPERS •

- *Atta-Krah, K* AFNETA: An Example of Multi-Institutional Collaboration and Coordination in Sustainable Agricultural Research and Development

- *Badjagou, PO* Efforts towards Establishing a Network of Endogenous Development in the Development in the Republic of Benin

- *Bationo, A, T Arokoyo and AU Mokwunye* About the West African Fertilizer Management and Evaluation Network (WAF-MEN)

- *Bertsch, F, Jot Smyth, T Cordero, A* RISTROP: Four Years of Networking in Latin America on Tropical Soil Management Research

- *Beuningen, C van* HIVOS: Donor Organisations and Networking

- *Caldas T* IFOAM: A Global Network Supporting the Development of Organic Agriculture

- *Diop, AM and Sands, MW* Networking for LEISA: Case Studies in Senegal

- *Farrington, J* Synergy Between Research and Networking at ODI. The Study on "NGOs, Sustainable Agricultural Technology and Links with the Public Sector" as an Example

- *Garcia-Padilla, V* The LEISA Directory: Post Inventory Observations

- *Graham, O* Arid Lands Information Network: An Experiment in Giving a Voice to the 'Real' Development Experts

- *Guri, BY* Networking to Promote Ecologically Sound and Sustainable Agriculture in Ghana: The Ecumenical Association for Sustainable Agriculture and Rural Development (ECASARD)

- *Haverkort, B and van Veldhuizen L* Enhancing LEISA: Challenges and opportunities.

- *Hiemstra, W* Dilemmas in Networking

- *Holt-Gimenez, E* Campesino a Campesino: Towards a Campesino Alternative for Agricultural Development in the Tropics

- *Hussain, T, Higa, G Jilani, M Yaseen and MA Abbas* Asia-Pacific Natural Agriculture Network (APNAN): A Case Study

- *Kolmans, E* Networking for Ecological Farming in Peruvian Rural Development with 'RAE-Red de Agricultura Ecologica'

- *Kroese, R and Butler Flora, C* Building A Grassroots Institutions to Implement LEISA: The Stewardship Farming Experience

- *Lizaso, J, Johnson, SE, Dadoun, F, Lightfoot, C* Networking and AFSRE

- *Lopez, VM* The SIBAT Networking Strategy: Tempering through Experience

- *Manrique, J, Bueno de Mequita, M, Palao, J* Development for LEISA in the South Andean Region: Case Network CAME

- *Mathen, K* Beyond Networking for Sustainable Agriculture

- *Killough S and Gonsalves, J* Networking for Sustainable Agriculture: The IIRR Experience

- *Millar, D* Enhancing LEISA/PTD Processes in Northern Ghana: Where we started and where we are now

- *Moeliono, I and Fisher, L* Networking for Development: Some Experiences and Observations

- *Montemayor, LQ* Networking for Low-External-Input and Sustainable Agriculture: the experience of Free Farmers

- *Muzuva, NS* The Natural Farming Network: A Zimbabwean Case Study

- *Nelson, J and Zadek, S* Perspectives on North-South Links in Information Exchange

- *Njoroge, JW* Experience of KIOF as a Grassroot Organization in Promoting Sustainable Agriculture

- *Owusu, DY* Networking to Promote LEISA: Farmers' Initiatives in the Mampong Valley Social Laboratory Ghana

- *Padilla, HJ* Building LEISA-Farmers' Networks: The Key to LEISA Promotion

- *Prasertcharoensuk, R* Alternative Agricultural Network in Thailand

- *Quintal, O and Gandhimathi* Networking for LEISA: Tamil Nadu and Pondicherry Region

- *Rist, S* The Experience of Agruco in the Creation of a Favorable Environment for LEISA Development

- *Roldan, A* LEISA Networking in Mexico: A Not So Easy Childbirth

- *Sandoval, VN and Rhoades, RE* Networking for LEISA: The Case of Upward

- *Starkey, P* Animal Traction Networks in Africa: Lessons and Implications

- *Talukder, S and Kenmore, P* Government-NGO Roles,

• SOURCES •

Lizaso J, Johnson SE, Dadoun F, Lightfoot C (1992). **Networking and AFSRE: a summary of discussions from the 11th annual AFSRE symposium 1991** , 4 p.
These notes are a summary of discussions from the 11th Annual AFSRE symposium held at Michigan State University. In view of the often isolated settings in which practitioners of Farming Systems Research and Extension (FSRE) work, networking is vital to them. Existing mechanisms and opportunities are inadequate for FSRE professionals to access and exchange their experiences. Therefore, establishing and improving communication and information flow between organizations or individuals is of prime importance. Networks, it was generally agreed, cannot substitute for local infrastructure, but they may enhance effective allocation of resources by minimizing duplication of efforts and learning the lessons of others. The different forms of networks, formal and informal, global, regional and local, each have different strengths and serve different purposes. A major problem to be solved is how to access the multitude of networks, and also how to link up the various networks. The problems are no longer of a purely technical nature: what is needed is institutional backing and financial resources. It was suggested AFSRE could provide a global directory of FSRE-related associations and networks across all geographic levels and disciplines. This task has been started, but needs additional funds in order to be completed. (WB)

Fernando S (1989). **How networks function: some structural and interactional aspects of the IRED network in Asia: Colombo**. (Occasional papers; 3), 28 p. Development Support Service of IRED, Colombo, Sri Lanka.
This paper gives a useful overview of the functioning of the IRED global network. IRED, the French acronym for Development Innovations and Networks, is a Swiss-founded NGO. The IRED network has at present, nearly 700 partners in developing countries in Asia, Africa and Latin America. The current paper was written by the director of the Colombo branch. After a review of some of the basic concepts of networking, the paper discusses the role played by the Development Support Services of the IRED partners in Asia, located in Bangalore and Colombo. (WB)

Linkages, and Networks in Implementing Expanded National IPM Programmes

- *Tauber, I, Heid, C and Hahn, A* AGRECOL: A Case Study on Networking

- *Torne de Valcarcel, F, Prager, M, Molineaux, P* Investigation and Diffusion in the Practice of Sustainable Agriculture, A Case Study: Fundaec, Colombia

- *Tung, L* Attempt to Incorporate an FSR/E Approach into the Research Function of a Philippine Agricultural University (ViSCA) and its Implications for LEISA/PTD

- *Weerackody, LPC* An Attempt at NGO-PO Networking: A Sri Lankan Experience

- *Yadav, SP* Networking of LEISA and its Developmental Prospects in Nepal

- *Yurjevic, A and Altieri, MA* CLADES: An Agroecological Working Plan to Promote Sustainable Rural Development among Resource-Poor Farmers in Latin America

- The Spanish translation of *Joining Farmers' Experiments* (see further reading) is available from CETAL Ediciones (Abtao #576, Cerro Concepcion, Casilla 197-V, Valparaiso, Chile). The book costs US $ 14 plus airmail costs (US $7 for America, US $12 for the rest of the world).

• FURTHER READING •

- (1985). **Grass roots networking for primary education**. Case studies: Thailand, Sri Lanka, Philippines, Japan, Bangkok, Thailand: UNESCO Regional Office for Education in Asia and the Pacific.

- (1985). **Grassroots & Networking: The ACFOD experience.** IFDA Dossier, No.55:67-71.

- Afonso, C.A. (1990). **NGO networking: The Telematic way**. Journal of the Society for International Development, 2:51-54p.

- Akhtar, S. (1990). **Regional information networks: some lessons from Latin America**. Information Development, 1990. 6(1):35-42.

- ANEN. (1987). **ANEN: The African NGOs Environmental Network**. IFDA Dossier, 1987. No. 59:31-41.

- Beaudoux, E.; De Crombrugghe, G.; Douxchamps, F.; Gueneau, M.; Nieuwerk, M. (1990). **Supporting development action at community level: A methodological guide.** Brussels, Belgium: COTA, 1990.

- Box, L (1990). **Agrarian knowledge networks: a conceptualisation**. Wageningen. 1990. No.28:1-7.

- Caldwell, J.S.; Lightfoot, C. (1987). **A network for methods of farmer-led systems experimentation**. FSSP Newsletter, 1987. 5(4):18-24.

- Campbell, P. (1987). **NGO Management network**. Typescript from NGO management network. Occasional paper no.2, 1987. 6p.

- Cox, E. (1989). **Networking among the rural women in the Pacific**. Agricultural Information Development Bulletin, 1989. 10(3):18-23.

- FAO Development Support Communication Branch, Information division (1990). **Towards putting farmers in control: A second case study of the rural communication system for development in Mexico's tropical wetlands**. (FAO development communication case study 9) Rome: FAO, 1990. 58p.

- Farrington, J. (1991). **Networking for agricultural development: Fact or fiction?** The Courier, 1991. 125:98-100.

- Fernandez, E.A. (1986/87). **Grassroots networking: a case from Thailand**. Rural Reconstruction Review, 1986/19877. 8:8-16.

- Fleming, S. (1991). **Between the household: Researching community organization and networks**. IDS Bulletin, 1991. 22(1):37-44.

- Gabriel, T. (1990). **Pest management, women and rural extension**. Tropical Pest Management, 1990. 36(2):173-176.

- Groot, A. de (1990). **Cocoa - knowledge networks: the emergence of formal and informal articulation**. Wageningse Sociologische Studies, Landbouw Universiteit Wageningen. 1990. No 28:46-62.

- Gubbels, P. (1988). **Peasant farmer agricultural self-development: The World Neighbors experience in West Africa**. ILEIA Newsletter 4(3):11-14.

- Haverkort, B.; Kamp, J. van der; Waters-Bayer, A. (1991). **Joining Farmers' Experiments**. IT Publications, London. ISBN 1 85339 101 8.

• SOURCES •

Plucknett DL, Smith NJH, Orgediz S (1990). **Networking in international agricultural research**. Ithaca; London: Cornell University, 224 p. ISBN 0 8014 2384 8. Cornell University Press, Ithaca, NY 14853-0999, USA.

Networking is a new name for an ancient practice. But the extent and the organizational modes of collaboration have changed markedly since the 1960s, particularly in science. Scientists are increasingly involved in networks to exchange information, discuss problems, and plan research. Research networks are proliferating, aided in part by new technologies that facilitate communication between scientists. Nowhere is networking better developed than in agricultural research. Networking has gained momentum because it promises increased efficiency in research, a valuable asset in an age of tightening resources. By dividing up the task and sharing information on results, networks can make research more efficient. An important characteristic of successful networks is that solutions to widespread problems are usually found earlier than if individual scientists or institutions work separately.

Apart from the development of a conceptual framework, the underlying book presents examples from the experience of international agricultural research centers and national institutions around the world. It does so in an objective manner and does not hide the pitfalls inherent to collaborative research: networking costs time, and the benefits must outweigh the costs if research momentum is to be maintained.

There is an interesting chapter on development stages of networks, where the origins of networks are explored and their trajectory from start-up to maturity (and decline?) are traced. A chapter has also been included on information exchange networks, necessary in order to divulge the generated results. Unfortunately, it is very short and general. One cannot help but think that the authors have stopped short of the final stage in networking: how to get the message across. (WB)

- Hobbelink, H. (1990). **Biorevolution and biotechnologies: the role of INGOs**. Transnational Associations. 1989. No 3:137-149.

- IFAP (1990). **Sustainable farming and the role of farmers' organizations**. Wageningen, Netherlands: CTA/International Federation of Agricultural Producers, 1990. 62p.

- ILEIA (1989). **Participatory technology development**. Leusden: ILEIA, 1989. 67p.

- Korten, D.C. (1990). **NGO Strategic Networks: From Community Projects to Global Transformation**. People-Centered Development Forum, MCC P.O. Box 740, Makati Metro Manila, Philippines.

- Kruiter, A. (1990). **Locked networks: one way knowledge transfer in banana production**. Wageningse Sociologische Studies, Landbouw Universiteit Wageningen. 1990. No 28:31-45.

- McCorkle, C.M.; Brandsletter, R.H.; McClure (1988). **A case study on farmer innovation and communication in Niger** . Washington: Communication for Technology Transfer in Africa, Academy of Educational Development, 1988. 125p.

- Millar, D.; Anamoh, B.; Haverkort, B.; Hiemstra, W. (1989). **Joining hands: Developing sustainable technologies with farmers in Northern Ghana**. Association of Church Development Projects, Tamale, 1989. 50p.

- Mills, B.; Gilbert, E. (1990). **Agricultural innovation and technology testing by Gambian farmers: Hope for institutionalizing on farm research in small country research systems**. Journal of Farming Systems Research-Extension. 1990. 1(2):47-66.

- NGO Management Network; Asian NGO Coalition for Agrarian Reform and Rural Development (1989). **Institutional development of NGOs: An annotated bibliography**. Geneva, Switzerland: NGO Management Network International Secretariat, International Council of Voluntary Agencies; Manila, Philippines: ANGOC Regional Secretariat, 1989. c250p.

- OECD; **Voluntary aid for development: The role of non-governmental organizations**. Paris: OECD, 1988. 154p.

- Ploeg, J.D. van der (1989). **Potatoes and knowledge**. Dept of Rural Sociology, University of Wageningen, Netherlands, 1989. 17p.

- Sison, J.C. (1990). **The implementation and management of networks**. Quarterly Bulletin of the International Association of Agricultural Librarians and Documentalists. 1990. 35(4):187-195.

- Wilson, L.J.; Al-Muhanna, I. (1986). **The political economy of information: The impact of transborder information flows**. Journal of Peace Research, 1986. 22(4):289-302.

- Lin Compton, J. **The role of farmer networks in minimizing risks in rainfed agriculture**. Department of Continuing and Vocational Education, University of Wisconsin, 276 Teacher Education Bldng, 225 North Mills Street, Madison Wisconsin 53706 USA.

- Starkey, P. (1992). **Networking for Animal Traction** Network Discussion Paper 1/92. Copies of this publication may be requested from GTZ Dept. 421, Postbox 5180, D-6236 Eschborn 1, Germany.

• SOURCES •

Padron M. et al (1991). **The fruit ripens: a Latin American perspective of networking**. Reflexion 1(2), 67 p. Fundación El Taller, Reus (Tarragona), Spain.
This paper gives the Latin American perspective of networking. It appeared in the series Reflexion, an initiative of the El Taller Foundation. From the contents we cite: an article on 'networking and learning' by the late Mario Padron, an article on networking within the Latin American women's movement and a contribution on telematics and NGOs, or how an electronic communications network can contribute to the free flow of information. (WB)

• JOURNALS •

AALAE (Journal of the African Association for Literacy and Adult Education). Already in 1989 this organisation published a special issue on 'Networks: theory, process and practice', with articles like 'Operational Models of the Network Strategy' and 'Programme Networks - A Strategy to Utilize and Create Free Space'. AALAE Journal, PO Box 50768, Nairobi, Kenya.

FTP Newsletter (Forests, Trees and People), have brought out a networking special in September 1992, containing not only articles analyzing the own network, but also a very nice article describing the 'Honeybee' newsletter of Anil Gupta, Professor at the Indian Institute of Management. Write to FTPP, Swedish University of Agricultural Sciences, Box 7005, S-750 07 Uppsala, Sweden.

GATE published a special issue of their newsletter (No. 4/92) on networking. It contains several interesting articles on networking and appropriate technology. GATE/GTZ, Postbox 5180, D-6236 Eschborn, Germany.

World Neighbors in Action also issued a special newsletter on networking form rural development. The newsletter is a how-to-do-it newsletter designed for development programme workers and appears four times a year in English, Spanish and French. World Neighbors, 4127 NW 122 Street, Oklahoma City, OK 73120-8869, USA.

Photo: IIRR

Participants' photo (from left to right)

top row: *Jorge Manrique, Oswald Quintal, Enrique Kolmans, Oscar Zamora, Francia Torne, Korah Mathen, Tahir Hussain, David Korten, Wim Hiemstra, Laurens van Veldhuizen.*

Second row: *Scott Killough, John Farrington, Chamindra Weerackody, Carine Alders, Bertus Haverkort, Shahid Talukder, Larry Fisher, Clive Lightfoot, Julian Gonsalves.*

Third row: *Lilian dela Vega, Ly Tung, Tadeu Caldas, Paul Starkey, Leonardo Montemayor, John Njoroge, Ron Kroese, Larry Zuidema, Kwesi Atta-Krah.*

Sitting: *Pascal Badjagou, Hil Padilla, Ravadee Prasertcharoensuk, Andres Yurjevic, Coen Reijntjes, Simba Muzuva, S.P. Yadav, Alvaro Cordero, Cherry Bagalanon.*

Photo: IIRR

Sharing experiences.

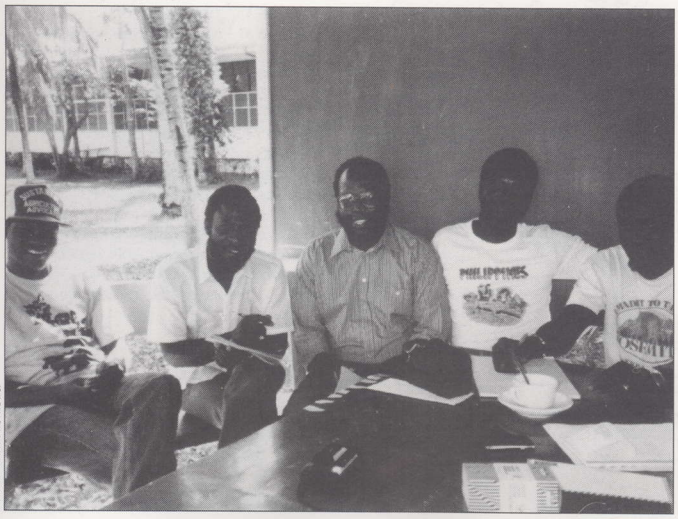


Photo: Wim Hiemstra

During the workshop, new networking links were established.

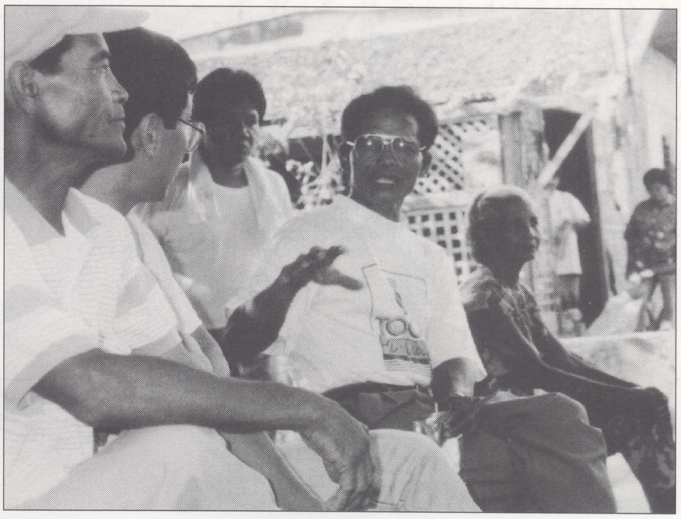


Photo: Wim Hiemstra

Visiting the Federation of Free Farmers.

World Neighbors *is a people-to-people, non-profit organization working at the forefront of worldwide efforts to eliminate hunger, disease and poverty in Asia, Africa and Latin America.*

World Neighbors affirms the determination, ingenuity and inherent dignity of all people.

By strengthening these primary resources, people are helped to analyze and solve their own problems. Success is achieved by developing, testing and extending simple technologies at the community level, and training local leaders to sustain and multiply results.

Program priorities are food production, community-based helath, family planning, water and sanitation, environmental conservation and small business.

WORLD NEIGHBORS

Founded in 1951 and rooted in the Judeo-Christian tradition of neighbor helping neighbor, World Neighbors is a non-sectarian, self-help movement supported by private donations. World Neighbors does not solicit or accept U.S. government funding.

World Neighbors produces a wide variety of training materials, like filmstrips, videos and printed materials. Most materials are available in more than one language (mainly English, French and Spanish). A wide range of subjects is covered, like community development, health and nutrition, understanding medicinal plants, family planning, small animal raising, and many titles on agriculture, trees and soil conservation. For a catalogue and order form, write to World Neighbors.

World Neighbors, 4127 NW 122 Street, Oklahoma City, OK 73120-8869, USA.

INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION
LIVELIHOOD EDUCATION HEALTH SELF GOV'T
IIRR

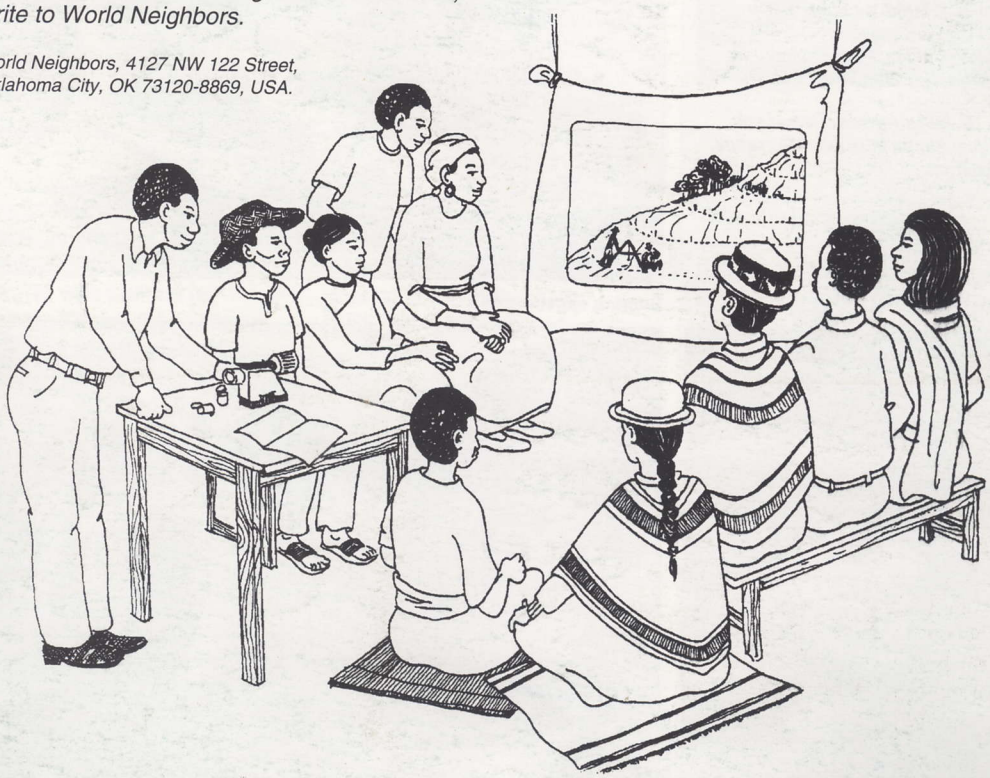
IIRR

The International Institute of Rural Reconstruction *(IIRR) is a private, nonprofit rural development agency founded in 1960 by Dr. Y.C. James Yen. Established basically as a research and training center, IIRR is an outgrowth of the Chinese Mass Education Movement in mainland China, also founded by Dr. Yen after World War I.*

The twin mission of IIRR is to generate and disseminate knowledge on how to enable rural people in developing countries to release and use their inherent potentials and capabilities in improving their lives. To fulfill its mission, IIRR pursues two major programs: field operational research and international training and outreach.

Among many other publications, IIRR produces 'tool kits' on subjects like bio-intensive gardening, Regenerative Agriculture Technologies, Low-Input Rice Production and Agroforestry. These kits consist of numerous practical, illustrated information sheets. IIRR further produced slides series on soil and water conservation, bio-intensive gardening and Regenerative Agriculture Technologies. For prices and more information write to IIRR.

IIRR, Silang, Cavite 2720 Philippines. Manila Office: Rm. 38 Elena Apts, 512 Romero Salas St, Ermita, Manila, Philippines.



ILEIA
NEWSLETTER

july 1992
volume 8 no.2

ILEIA (Information Centre for Low-External-Input and Sustainable Agriculture) was established in 1982 by the ETC Foundation and is funded mainly by the Netherlands Ministry of Development Cooperation. Project funds are assured till early 1994.

ILEIA's long-term objective is to contribute to a situation in which Low-External-Input and Sustainable Agriculture (LEISA) is:

- widely adopted as a valid approach to agricultural development, complementary to high-external-input agriculture,
- recognised as a means to balance locally available resources and local knowledge with modern technologies requiring inputs from elsewhere,
- valued as a useful perspective in planning and implementing agricultural research, education and extension,
- developing and consolidating its stock of knowledge and scientific basis.

LEISA is agriculture which makes optimal use of locally available natural and human resources (such as climate, landscape, soil, water, vegetation, local crops and animals, local skills and indigenous knowledge) and is economically feasible, ecologically sound, culturally adapted and socially just. The use of external inputs such as mineral fertilisers, pesticides and machinery is not excluded but is seen as complementary to the use of local resources and has to meet the above-mentioned criteria of sustainability.

ILEIA seeks to reach these objectives by operating a documentation centre; publishing a quarterly newsletter, bibliographies, resource guides etc; holding international workshops; and supporting regional networks in the Third World.

BACK COPIES of the ILEIA Newsletter are available: (US$ 5)

Vol.3/No.1:	Integrated nutrient supply
Vol.3/No.2:	Diversity
Vol.3/No.3:	Microclimate management
Vol.4/No.1:	Mountain agriculture
Vol.4/No.3:	Participatory technology devt
Vol.4/No.4:	Enhancing dryland agriculture
Vol.5/No.1:	Discussion on sustaining agriculture
Vol.5/No.2:	Intensifying agriculture in humid areas
Vol.5/No.3:	Farmers' alternatives to chemical pesticides
Vol.5/No.4:	Local varieties
Vol.6/No.4:	Networking towards LEISA (register of network members)
Vol.7/No.1/2:	Assessing farming techniques
Vol.7/No.3:	Learning for sustainable agriculture
Vol.7/No.4:	Searching for synergy
Vol.8/No.1:	Creating a healthy environment
Vol.8/No.3:	Livestock sustaining livelihoods

(issues not listed are out of print)

Also available: **Participatory Technology Development in sustainable agriculture: an introduction.** 1989. 40 pp. US$7.50. Third World readers may request a free copy.

ILEIA PO Box 64 NL-3830 AB Leusden Netherlands