

Philippines Programme

A working group made up of members of the KALIKASAN and KADAMA farmers' organisations together with a task-force from Central Luzon State University co-ordinated by the Centre for Central Luzon Studies (CCLS), and the Nueva Ecija branch of the Philippine Rural Reconstruction

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Movement (PRRM-NE) was responsible for the LEISA research programme in the Philippines (Box 1). Staff from the Bureau of Soils and Water Management (BSWM), the International Soil Reference and Information Centre (ISRIC), the Philippine Rice Research Institute (PhilRice), the

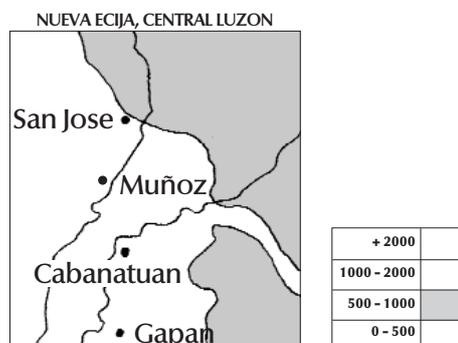
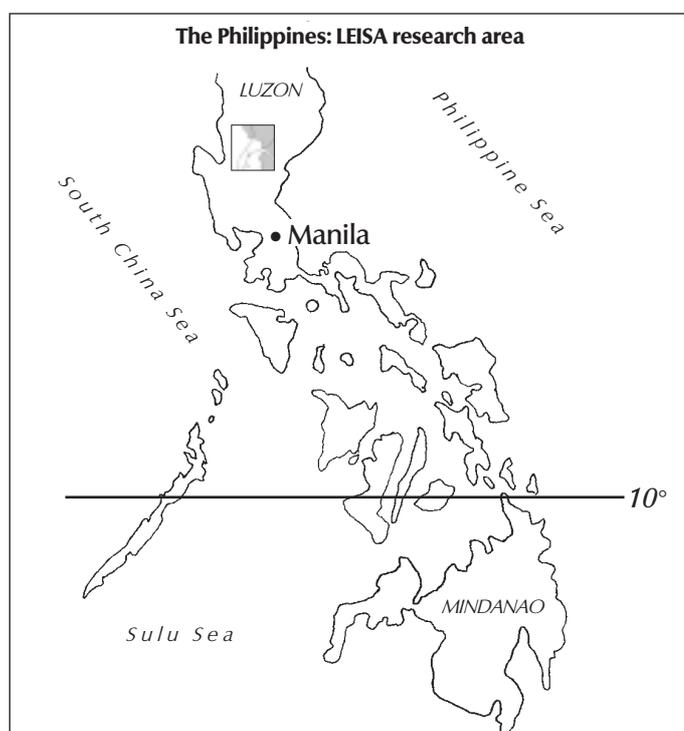
documentation and training were an essential part of the programme.

Sustainability at stake

One of the main reasons why farmers, NGO staff and academics became interested in the Research Programme was that they felt conventional lowland rice production was not economically and ecologically sustainable and they wanted to investigate the viability of the alternative technologies being practised by some farmers. Two context studies were carried out: an examination of intensive lowland rice production in general (Kabir, p 14) and a more specific investigation of lowland rice production in Nueva Ecija (Vargas et al, p 16). These studies provided a framework for the PTD experiments and the case and technical studies.

soil and land use classifications were also compared (Kauffman, p 9).

Comparative PTD experiments on soil fertility management (pure chicken manure versus pure chemical fertiliser and a fifty-fifty mixture of both) and rice varieties (improved traditional varieties versus conventional high yielding varieties) were undertaken by some 120 farmers all of whom belonged to the KADAMA and KALIKASAN federations. Experiments extended over three cropping seasons: wet season 1997 and dry and wet seasons 1998. At the end of each cropping season assessment workshops were held and results were compared to farmer objectives. Where necessary, indicators and monitoring and assessment procedures were reviewed and modified. Scientists from CLSU subjected the results of these experi-



Nueva Ecija, one of the largest provinces in Central Luzon, provides 20% of the nation's rice and is known as the 'Rice Bowl'. It has an aggregated area of 528,430 ha. Half the province is alluvial plain. The Caraballo Mountains rise in the north and the Sierra Madre ranges, running north to south, dominate the east. About 230,000 ha or 95% of the province's agricultural land is under rice - 54% irrigated and 46% rain fed. The soil in Nueva Ecija is generally fertile and well drained with moisture-retentive clay and silt loams. Between 1951 and 1985 annual rainfall was 1874mm with 121 rainy days per year. The wet season extends from July to October and the rest of the year is dry. August has the most rainy days and February the least. Rain often coincides with typhoons which can cause heavy yield losses. El Niño and El Niña bring serious droughts and floods once a decade.

International Institute for Rural Reconstruction (IIRR) and the Philippine Development Institute (PDI) were involved in specific research activities.

The research programme set out to validate the capacity of LEISA technologies to sustain intensive lowland rice production in the specific development context and conditions of Nueva Ecija. The programme was guided by Stakeholder Concerted Action (SCA). SCA involved planning, monitoring, evaluation, capacity building, networking, process documentation and information sharing among partners. Farmer-led Participatory Technology Development was supported by farmer-led case studies and researcher-led context and technical studies. Process

Participatory Technology Development

Farmers used Agro Ecological Mapping to analyse the evolution of their resource base. Research priorities were set drawing on the results of this problem analysis. Farmers considered soil fertility to be the bases of ecological and economic sustainability and soil fertility management became the focus of the research programme. To monitor the performance of their PTD experiments, farmers selected indicators appropriate to their production systems, objectives and social and ecological environment (Box 1, p 28).

BSWM and ISRIC made soil classifications at two representative sites and established information about the natural resource base. Scientific and indigenous

ments to statistical and economic analysis. Farmers made a final assessment at the end of the third season (Basilio, p 32).

In 1997, during the first season of experiments, climate conditions were favourable. However, in the dry and wet seasons of 1998, drought (El Niño) and typhoons (La Niña) caused serious crop damage and only a few farmers could take part in dry season experiments because irrigation water was scarce. The 1998 results are, therefore, unreliable. Conclusions presented here are based mainly on the results of the 1997 wet season. The PTD process used in this research and the results of the PTD experiments are described by Abon (pp 27 & 29).

Case and technical studies

Case studies were carried out to support the PTD process and to help identify possible experiments. The development of organic farming amongst KALIKASAN-NE farmer cooperators (p 20) and the experience of KADAMA with LEISA rice production were studied and documented (p 19). A field trip was also made to five, NGO-supported, LEISA organic and integrated rice production programmes in Mindanao and Central Luzon and the viability of organic farming in these programmes was evaluated in farmer to farmer discussion (Corales et al. p 21).

Technical studies were based on the analysis of secondary data and focused discussion groups, a process directed by scientists. Experiences with marketing alternative and organic rice in Central Luzon (Teves & Liangco, p 22) were studied and an attempt was made to come to a better understanding of the soil fertility related problems identified by farmers as 'soil acidification' (Hipolito p 24). The soil fertility study was complemented by a literature survey that analysed options for LEISA soil fertility management (Peñaloza et al. p 25).

Sharing the results

Research programme results were discussed at a national workshop organised by the International Institute of Rural Reconstruction (IIRR) in the Philippines attended by representatives of farmer organisations, NGOs and national and international research institutions. Participants shared experiences of developing sustainable lowland rice production. A detailed account of the workshop will be published in a special IIRR ILEIA publication.

The LEISA research programme was reported several times on Philippine national television. Two videos have been made: a general video on the PTD process (in English) and a training video (in Tagalog). The Country Research Report together with reports of most of the studies (Box 2) and the videos can be ordered against costs from Dr. M.G. Abon, CCLS, CLSU, Muñoz, Nueva Ecija.

References are not included in the articles. A full list of references can be obtained on request.

Box 1 Organisations in the Philippine LEISA Working Group

KALIKASAN-NE Peasant Federation for Sustainable Farming in Nueva Ecija has members who come from people's organisations and farmer groups as well as individual farmers from Carranglan, Lupao, San Jose City, Muñoz, Talavera, Sto. Domingo, and Guimba. The federation aims to develop organic, integrated, sustainable farming to improve the livelihood of its members.

KALIKASAN has grown from seven demonstration farms totalling 1.75 ha in 1992 to 274 farms and 171 ha in 1998. KALIKASAN receives support from the Philippine Rural Reconstruction Movement - Nueva Ecija Branch. For more information see p 20.

KADAMA Confederation of Nationalist Peasants is a confederation of five farmers' federations in Nueva Ecija. Member federations are DIWA, KADAMA, UGNAYAN, LIKHA, and PMK from the towns of Sta. Rosa; Jaen, Zaragosa and Cabiao; Carranglan; and Cabanatuan City. The confederation began more than five years ago. Some of its member federations have more than a decade experience in organic agriculture, community organisation, cooperative development and advocating policy. For more information see p 19.

Central Luzon State University (CLSU) was established as an agricultural school in 1907 and subsequently developed into a regional university. It is located in Muñoz, Nueva Ecija. The university's academic programme involves the training of the researchers, farm managers, extension agents, farm technicians, entrepreneurs, home economists, fishery graduates and teachers who make up the country's agro-technical manpower. The university carries out its research, extension and training mission by supporting sustainable agro-industrialisation and encouraging balanced socio economic growth. Technology, information generation, commercialisation; integrated capacity building; communication, advocacy, market-driven innovation and partnerships with key sectors of development are important elements in this process.

Philippine Rural Reconstruction Movement (PRRM) is a non-governmental organisation made up of committed professionals, industrialists, and other volunteers who work together to liberate the peasants and the rural poor from structures of oppression. Dr. James Yen, a Chinese scholar and founder of the International Mass Education Movement, set up PRRM in 1952. PRRM has a fourfold programme that focuses on livelihood development, education, health and self-government. In addition, it conducts policy studies and is concerned with rural planning in the interests of comprehensive rural development.

The services provided by PRRM through its Nueva Ecija branch include supporting local community development and cooperation, business development, environmental resource management, and basic social support systems. PRRM- NE supported KALIKASAN-NE and later it became one of PRRM-NE main partners in implementing sustainable agriculture development projects in the area.

Box 2 Reports and video's produced for the ILEIA Research Programme

- Abon MG. and Divina CC, 1999. **The Filipino LEISA experience. Country Report.**
- Abon MG, 1999. **Statistical analysis of the PTD experiments.**
- Basilio C, San Buenaventura TB, Hibionada RS. and Bugayong FA, 1999. **Farmers forum on participatory technology development.**
- Conception RN. and Batjes NH, 1997. **A farmer-guided soil classification system for the Philippines: a case study for Barangays Triala and Santa Rosa, Nueva Ecija, Central Luzon.** ISRIC Report 97/03. Bureau of Soils and Water Management, Manila, and International Soil Reference and Information Centre, Wageningen. ISRIC, PO Box 353, 6700 AJ Wageningen, The Netherlands.
- Corales et al. 1999. **Participatory assessment of farmers' experiences on the use of organic farming technology.** Published in Filipino language in 'Balong ng Buhay, Tomo I, Bilang I, 1999. PRRM-NE, Bukang Liwayway, Bantug, Muñoz, Nueva Ecija, Central Luzon, The Philippines.
- Hipolito MC, Mescallado H. and Peñaloza DP Jr, 1998. **Alternative soil fertility options.**
- Hipolito MC, Sigua L, Hipolito RR, Leon R de and Lopez R, 1999. **Soil acidification: problem assessment and control.**
- Kabir H, 1999. **Sustainability issues in lowland rice production.** IIRR, Silang, Cavite, The Philippines.
- KADAMA, 1999. **The evolution of sustainable agriculture in the KADAMA organisation.**
- Lina et al, 1998. **KALIKASAN-NE: a documentation and evaluation of experiences in sustainable agriculture.** Published in Filipino language in 'Balong ng Buhay, Tomo I, Bilang I, 1999. PRRM-NE, Bukang Liwayway, Bantug, Muñoz, Nueva Ecija, Central Luzon, The Philippines.
- Miclat-Teves AG, Liangco GD and RG Teves, 1999. **The emerging alternative rice marketing system in Manila and Luzon provinces: A preliminary study.** PDI, 3-B Mayumi Street, UP Village, Diliman, Quezon City, The Philippines.
- Mondoza-Mescallado HC, 1999. **Economic analysis of PTD experiments in Nueva Ecija, Philippines.**
- Vargas DS, Abon MG, Divina CC. and Bibal LD. 1998. **Agricultural development in Nueva Ecija: the case of Rajal Centro and Triala.**
- CCLS, **Participatory Technology Development**, training video.
- CCLS, **A bridge to tomorrow.** Video documentary on the ILEIA Research Programme in the Philippines.

If not mentioned otherwise these publications and videos can be ordered from CCLS, CLSU, Muñoz, Nueva Ecija, The Philippines.