

PTD CIRCULAR

Six-monthly update on Participatory Technology Development



Photo: Ann Waters-Bayer

In the debate on PTD and on participatory approaches to agricultural development, in general, it is often said that the pioneering programmes and activities have limited impact. In many cases, the success stories are based on experiences in only one village or, at most, a few villages.

The challenge to encourage application of these pilot approaches on a much larger scale, supported also at higher levels in development - particularly governmental - agencies, is often referred to as 'scaling-up'. As development programmes are gradually gaining more insights into practical strategies and methods of PTD, many are now paying increased attention to this challenge.

For the 1997 annual meeting of the St Ulrich Group, the network of European PTD advocates which initiated the *PTD Circular*, 'scaling-up' was the theme chosen for discussion and in-depth analysis. Some recent experiences were studied.

Two of these focused on scaling-up with the key actor being a large governmental extension agency. Both the Zimbabwean and the Sri

Lankan case showed that activities are needed at several levels within the organisation if PTD is to be effective, and that solid field evidence of PTD practice is a precondition for success, leading to a 'demand' from both farmers and fieldstaff for a PTD type of approach.

A third case study highlighted the process of horizontal 'scaling-out' in Yucatan, Mexico. This described systematic efforts to widen the application of PTD by involving a great number of other, existing organisations involved in promoting grassroots agricultural development, rather than only hoping for governmental agencies to take up PTD. Joint training activities, networking, preparation of selected 'field guides' and collaborative field programmes are among the approaches used in Yucatan.

What is clear is that many of

Two-way transfer of knowledge between practitioners and scientists can improve formal research and extension. Discussing problems of sheep husbandry in central Nigeria.

the important issues involved in scaling-up are only now emerging and are scarcely understood, yet there is a rapidly increasing pressure to address the challenge of scaling-up. At the same time, several governmental extension organisations in Africa and elsewhere are struggling to adjust their T&V-based structures to make them more responsible to farmers' interests and needs. These are more than enough reasons to start paying greater attention to 'scaling-up' and 'scaling-out' in this *PTD Circular*. We will also try to include relevant experiences, documents and training materials in the issues to come. So please do include these when you send us PTD-related materials.

ANNOTATED PUBLICATIONS

Akora SK (ed). 1997. ***Farmers' participation in agricultural research and extension systems***. 271 pp. National Institute of Agricultural Extension Management, Rajendranagar, Hyderabad 500 030 (manage@hub.nic.in)/Concept Publishing Company, A/15-16 Commercial Block, Mohan Garden, New Delhi 110059, India.

India, agricultural extension, agricultural knowledge systems, agricultural research, farmers' participation, irrigated farming, rainfed farming

Review of existing structure of agricultural extension and research, covering T&V systems but also examples of PTD and dissemination. Explores issues of institutionalisation of participatory approaches and methods that encourage functional participation of farmers versus empowerment of farmer organisations.

Bentley J & Andrews K. 1996. ***Through the roadblocks: IPM and Central American smallholders***. *Gatekeeper Series* 56. 18 pp. International Institute for Environment and Development (IIED) Sustainable Agriculture Programme, 3 Endsleigh St, London WC1H 0DD, UK (sustag@iied.org).

Central America, farmer innovation, farmer-scientist interaction, integrated pest management

Reflections on why IPM has largely failed to take hold in Latin American farming. Practical and policy recommendations are made, based on experience of supporting farmer innovation in Central America. Instead of the conventional approach of identifying a pest problem, developing a technology and extending it to farmers, much more positive experience in low-cost pest-management interventions was gained through an alternative approach: 1) learn the gaps in farmers' knowledge; 2) extend the missing information to farmers; 3) let farmers themselves develop technology appropriate for their farming systems.

Biggelaar C den. 1997. **A synthesis of results of the FTTP farmer-initiated research and extension practices initiative in East Africa.**

Rural Development Forestry Network Paper 21f, pp 9-18. Overseas Development Institute (ODI), Portland House, Stag Place, London SW1E 5DP, UK (forestry@odi.org.uk).

East Africa, agroforestry, farmer experimentation, intellectual property rights

Case studies in Kenya, Uganda and Rwanda documented how farmers organise experiments and disseminate improved tree management practices. It was found that farmers did not regard their activities as 'research' and farmer-to-farmer dissemination was poorly developed. There is no legal framework to protect local innovations against exploitation by competitors, and farmers are not receiving compensation for the resources and time invested in developing innovations. The Forests, Trees and People Programme (FTTP) now plans to promote recognition of farmers' knowledge and prepare educational materials about intellectual property rights relating to farmers' innovations.

Cheng Y & Horne P. 1997. **Field experiments with forages and crops: practical tips for getting it right the first time.** 48 pp. Forages for Smallholders Project (FSP), POB 6766, Vientiane, Lao PDR (p.horne@cgnet.com). Free to developing countries; US\$10 plus postage for others; Lao version also available.

experimental design, farmer experimentation, farmer-scientist interaction, fodder production

Booklet aimed at researchers and development workers developing agricultural technologies in partnership with farmers, particularly for people with little practical experience in doing formal on-farm experiments. Contains simple recommendations about procedures so that common errors in field trials can be avoided. Although designed for researcher-initiated rather than farmer-led experimentation, the principles could nevertheless be applied also here. Focuses on conducting the trials, not on analysing the results with farmers.

Critchley W & Mosenene L. 1996. **Individuals with initiative: network farmers in Lesotho.** In: Centre for Development Cooperation Services (ed.), *Successful natural resource management in southern Africa*,

pp 71-81. CDCS, Free University of Amsterdam / Gamsberg Macmillan Publishers, Windhoek.

Lesotho, farmer experimentation, innovation, networking, soil conservation, water conservation

Case studies of six men in a network of Lesotho farmers who have been particularly inventive and successful in land husbandry. All are primarily concerned with conserving moisture, including capturing runoff and sediment to reclaim gullies for cultivation. They combine their soil and water conservation techniques directly with production. All of them engage in informal experimentation and are constantly refining their farming systems. Through their network, they are learning from each other. An example of an approach to encouraging innovative farmers by giving them recognition and facilitating their interaction.

Croxton S & Murwira K. 1997. **Building linkages for livelihood security in Chivi, Zimbabwe.** *Gatekeeper Series 70*, 18 pp. ILED Sustainable Agriculture Programme, 3 Endsleigh St, London WC1H 0DD, UK (sustag@iied.org).

Zimbabwe, extension, food security, institutionalisation, non-governmental organisations, scientist-farmer linkages, soil conservation, water conservation

Shorter version of paper presented at the African Forum on Participatory Technology Development in Nyeri, Kenya, in April 1997. Shows how an

NGO can enhance local people's capacity to manage technical change. As farmers' informal trials consistently out-performed researchers' on-farm trials, the Intermediate Technology Development Group (ITDG)-supported Chivi project gave increasing attention to trials managed by farmers to evaluate and refine technologies in soil and water conservation, such as high-wing ridgers and infiltration pits. The project helped the farmers link up with sources of information: research stations, other NGOs and training institutions, and farmers in other districts. The government extension service also became involved in the process. Farmers have now gained confidence to seek new information themselves and to negotiate with input suppliers and grain buyers. The paper includes a discussion of participatory monitoring of project impact.

Feil P, Hummler K & Kachelriess S. 1997. **Development of visual extension material for a striga control programme in northern Ghana through action research.** *European Journal of Agricultural Education and Extension* (1): 1-15.

Ghana, action research, extension, visual materials, weed control

To control the parasitic weed striga, an integrated approach involving farmers, extensionists and researchers was followed. A better understanding of the parasite's biology by farmers was meant to encourage them to appreciate the

complex striga control measures. Through action research, a group extension programme supported by pictures made of felt was developed. The process of participatory material development was a learning experience for all actors involved. It is emphasised that this process, and not the visual material, needs to be replicated.

Ford R. 1996. **Measuring change: use of community-based indicators in agricultural production and natural resource management**

Paper presented at Annual Meeting of the African Studies Association, 22-25.11.96, San Francisco. 26 pp. Clarke University, Worcester, MA 01610, USA.

Kenya, Madagascar, community development, participatory monitoring and evaluation, resource conservation

Report on fieldwork underway by Egerton University in Kenya and SAF (a local NGO) in Madagascar, together with Clarke University. Community groups are developing production systems integrating old and new practices, and are monitoring their own indicators to measure their improvement. The indicators are being scaled up to regional and national levels through a Geographic Information System to inform planners and policy-makers.

Gardner JS, Duffield C, Berkes F & Singh RB. 1997. **Local knowledge in the assessment of resource sustainability: case studies in**



Photo: Clive Lightfoot

Bio-resource-flow modelling, Philippines.

WHAT'S WRONG WITH GOOD OLD 'TOT'? (TRANSFER OF TECHNOLOGY)



Photo: Chris Pennarts

THE USE OF A SIMPLE SLIDE SERIES TO PROVOKE CRITICAL REFLECTION ON EXISTING EXTENSION PRACTICE

INTENDED LEARNING EFFECT

Extension staff can develop a strong commitment towards a PTD approach if they have been given room to reflect critically on the limitations of earlier extension practice and to analyse the underlying causes of the frustration they may have felt in working with farmers. This module can contribute to this, as it aims at:

- *increasing critical awareness of one's own (or one's organisation's) strategy in agricultural extension, and its strengths and weaknesses;*
- *enhancing participants' ability to distinguish between different approaches in extension and to assess their major potentials and limitations.*

CONTEXT OF THE MODULE

Variations of this module have been used in numerous training sessions for extension fieldstaff, in both governmental and nongovernmental organisations. The slide series was developed on the basis of the experiences in Mali of an NGO affiliated with World Neighbors. The text accompanying the slides (see Box 1) has been translated into many languages, including French, Spanish, Arabic, and Sinhales. Although the series is set in a typical African environment, extension staff from other parts of the world have no difficulty at all in relating to the experiences shown and in comparing these with their own.

The learning arrangements described below are based on the use of a slide series as a problem-posing visual, sometimes known as a 'code'. The essence of this approach is that participants are confronted with 'problematic' experiences of others, and are encouraged to reflect on and analyse these; they are then challenged to look critically at their own situation with regard to the issues concerned. This process helps participants to 'open up', to become aware of certain problems in their work and the underlying causes,

and to be prepared to share these with others in order to find possible ways to address the problems. Six steps are usually distinguished in such a reflection process (Box 2).

LEARNING ARRANGEMENTS

The slide series is shown in a plenary session. To make it more lively, the script can be read by two participants taking the roles of the two extension workers. The two 'actors' need to prepare themselves well to be able to read their parts clearly and convincingly.

Initially, only the first nine slides are shown. These present the experiences of a male extension worker who is frustrated in his work. The participants then reflect on the following questions, either in pairs or in small groups:

- *What is happening with the extension worker? What is happening in his work?*
- *Why do you think this happens? Why are the farmers behaving like this?*
- *Do you have similar experiences? Can you give examples?*

After the results of this reflection in small groups has been shared, two sets of questions are posed in the plenary:

- *Why do we have such experiences? What causes them?*
- *What are alternative ways of working? What needs to change in future? What can be done?*

In most cases, the need for more participatory extension approaches and methods will emerge out of the discussion, as well as the need for supportive organisations to be able to implement these.

Subsequently, the rest of the slide series is presented as an example of a participatory extension approach or 'PTD'. In small groups of 3-4 persons, the participants then reflect on the following questions:

- *What are the main differences between the approaches of the first and the second extension worker?*
- *What are key elements for success in the second approach? What are potential weaknesses?*
- *How applicable is this approach in your own work situation?*

In a final plenary session, the answers to these questions are presented, compared and discussed. At the end of the discussion, it is useful to summarise the differences that the participants have identified between a participatory approach and a conventional transfer-of-technology approach to extension.

Box 1

6 Les agriculteurs de ma région sont généralement très pauvres et sont confrontés à beaucoup de problèmes tels qu'une pluviométrie peu fiable et des sols pauvres. Ainsi, beaucoup d'entre eux ne produisent pas suffisamment de nourriture pour passer l'ensemble de l'année.



Farmers in my area are generally very poor and face many problems like unreliable rainfall and poor soils. Many farmers do not produce enough food to last them the whole year.

7 Durant ces six dernières années, j'ai essayé de les aider mais les résultats sont très décevants. Par exemple, j'ai tenté de les faire cultiver en lignes.



For the last six years, I have been working here trying to help them, but the results have been very poor. For example, I have been trying to get them to plant in rows.

8 Mais regardez ce champ! Cet agriculteur m'avait promis de semer en lignes, mais quand je lui ai rendu visite, j'ai découvert qu'il ne l'avait pas fait. J'ai été très déçu.



But look at this field! This farmer promised me that he would plant in rows, but when I came to visit him I found he had not done it. I was very discouraged.

9 J'ai également essayé de leur faire adopter des engrais chimiques pour améliorer la fertilité du sol. En réponse, ils m'ont demandé si le programme de développement allait leur fournir ce type d'engrais.



I also tried to get them to use chemical fertilizer to improve the soil fertility. They wanted to know if the program was going to provide the fertilizer.

A combined English-French text accompanies the slide series.

Box 2

Six steps in reflecting on and analysing problem-posing visuals

DESCRIPTION: *What did I see, hear, feel happening? What happened?*

FIRST ANALYSIS: *Why did this happen?*

REAL, OWN LIFE: *Does this happen with us? Do we have similar experiences?*

RELATED PROBLEMS: *What problems does this lead to?*

ROOT CAUSES: *What really causes this to happen in our life/ work?*

ACTIONS/SOLUTIONS: *What can be done about this? What are alternatives?*

VARIATION

The Mali case study is described in the *ILEIA Newsletter* 4 (3): 11-14. Prior to showing the slides, you can ask the participants to read the article as background information.

Source: Veldhuizen L van, Waters-Bayer A & Zeeuw H de. 1997. *Developing technology with farmers: a trainer's guide for participatory learning*. Zed Books, 7 Cynthia St, London N1 9JF, UK, and Room 400, 175 Fifth Ave, New York, NY 10010, USA.

The slide series plus text can be ordered from: World Neighbors, 4127 NW 122 Street, Oklahoma, OK 73120-8869, USA.



Cartoon by Karl Herweg, GIEU 1996

Himachal Pradesh and British Columbia. 25 pp. Natural Resources Institute, University of Manitoba, Winnipeg R3T 3E1, Canada

Canada, India, indicators, indigenous knowledge, mountain watershed ecosystems, resource sustainability

Cross-cultural comparison of local perceptions and knowledge as applied to indicators of environmental sustainability in the Himalayas of northern India and the Columbian Mountains of western Canada, based on historical reviews, field observations and interviews, and participatory workshops. Inhabitants articulated forest-linked, agricultural and especially socio-economic indicators that differed from those of resource management 'professionals'.

Hanyani-Mlambo BT & Hebinck P. 1996. **Formal and informal knowledge networks in conservation forestry in Zimbabwe.** *Indigenous Knowledge Development Monitor* 4 (3): 3-6.

Zimbabwe, afforestation, farmer experimentation, knowledge systems, transfer-of-technology

On the basis of experiences in northern Zimbabwe, this paper demonstrates the complementarity between the formal information system related to afforestation (government research and extension, NGOs) and the informal one. In the latter system, cases of experimentation and information sharing by farmers are documented. An approach is recommended which

integrates the strong aspects of both systems, very much in line with a PTD approach.

Lawrence A. 1995. **The neglected uplands: innovation and environmental change in Matalom, Philippines.** Working Paper 95/11. Agricultural Extension and Rural Development Department (AERDD), University of Reading, Earley Gate, Reading RG6 2AL, UK.

Philippines, agricultural information systems, agroforestry, farmer experimentation, farming systems research, indicators, participatory extension, sustainable agriculture, upland cultivation

Compares the effectiveness of two development programmes in contributing to sustained agricultural development: one rather top-down, based on close supervision and material incentives, and one with a PTD approach. A number of innovations introduced through both programmes appeared to have been followed up and adapted by farmers. In the PTD case, the general motivation of farmers for agricultural change and the visible impact was found to be substantially higher. The study takes a system perspective and contains an interesting list of possible indicators to describe local information and innovation systems.

Leach G & Leeuwis C. 1997. **Facilitating second-order learning: ...speaking with farmers in Scotland.** *European Journal of Agricultural Education and Extension* 4 (2): 83-96.

Australia, Scotland, adult learning, extension, farm planning, innovation

In an intensive study with Scottish farmers, researchers found that stimulating the farmers to reflect on their learning processes in changing their farming technologies and systems was itself a stimulus for more intensive learning by the farmers. The impact of this study is placed in the context of refining an Australian extension programme for farm planning. If advisors take a learning approach to farm management, rather than a strategic planning approach, there is a better chance for collaboration in knowledge generation and management. Provides ideas for studying and stimulating innovation by farmers.

LISTRA. 1997. **Joint learning for change: development of innovations in livelihood systems around protected tropical forest areas.** *Concept Element* 7. 26 pp. GTZ, Sector Project 'Livelihood Systems and Tropical Forest Areas', POB 5180, D-65726 Eschborn, Germany (LISTRA@gtz.de).

bufferzone management, extension, forest, innovation, resource conservation

The concept of PTD has been developed beyond farm-level experimentation to the participatory development of social, organisational and technological innovations in natural resource management. In the approach recommended in this report, resource users, interest groups, researchers and extensionists are involved in analysing

visions, options, problems and potentials for improving, compensating or replacing specific ways of using resources which have been restricted for forest conservation reasons. Options are screened in workshops, and working groups of stakeholders experiment with new ways of ensuring a livelihood for people living around protected forests. Negotiation, monitoring resistance within and outside each group, identifying and addressing newly emerging constraints, and managing conflicts are all part of the process. The report is available in German, English, French and Spanish.

Mabilly Y. 1995. **Dare-to-Share Fair: participatory learning approaches in development cooperation - documentation and directory.** 120 pp. Multisectoral Urban and Rural Development Programmes, GTZ, POB 5180, D-65726 Eschborn, Germany.

directory, methods, rural development, urban development

Documentation of the first Dare-to-Share Fair, an idea which grew out of the first meeting of the St Ulrich Group of PTD advocates and was realised by Uwe Kievelitz and his colleagues at GTZ. Well-written longer descriptions of three methods (Planning for Real, SWAP, Theatre for Development), and discussion of participation from a gender perspective and of the challenges of institutionalising participatory development approaches. Includes directory of organisations involved in the Fair and brief descriptions of their participatory learning approaches.

Miller J & Curtis A. 1997. **Moving farmer knowledge beyond the farm gate: an Australian study of farmer knowledge in group learning.** *European Journal of Agricultural Education and Extension* 4 (2): 133-142.

Australia, adult learning, farmer organisation, indigenous knowledge, pasture management, scientist-farmer linkages

Explores the role of farmer knowledge in group learning in Australia, using case studies of Landcare and Prograze groups focused on building land-users' skills for sustainable pasture management. Shows how local knowledge and capacity to innovate in industrialised agriculture can remain dormant unless critical factors are addressed, such as experiential hands-on learning, integration of information in a whole-farm approach, effective facilitation of group dynamics, autonomy

of the groups in self-directed learning using local resources, and maintaining ongoing relationships in continual learning experiences rather than one-off events such as field days.

Mitti G, Drinkwater M & Kalonge S. 1997. **Experimenting with agricultural extension in Zambia: CARE's Livingstone Food Security Project** *AgREN Network Paper 77*. 11 pp. ODI, Portland House, Stag Place, London SW1E 5DP, UK (agren@odi.org.uk).

Zambia, community organisation, farmer extensionists, participatory extension, seed distribution

The CARE-supported Livingstone Food Security Project (LFSP) in Southeast Zambia aims at developing alternative extension approaches and systems in view of the declining capacity of government extension and the need for farmers to change their farming systems now that earlier subsidised, high-input practices are no longer feasible. Key elements of LFSP's participatory approach are strengthening of local institutions (village committees) and promotion of farmer extensionists coordinated by the village committees. There is less attention to the actual innovation process, the development of alternative practices by farmers, and the impact.

Morton J, Matthewman R & Barton D. 1997. **Livestock production extension: issues, case studies and policy options**. *NRI Socio-economic Series 12*. 48 pp. Natural Resources Institute (NRI), Central Ave, Chatham Maritime, Kent ME4 4TB, UK.

Burkina Faso, India, Kenya, extension, livestock systems, participatory methods, policy

Provision of information and advice about livestock production is assessed with reference to case studies in Burkina Faso, Kenya and India. The importance is underscored of participatory needs assessment, improved linkages between extension and research, and regular evaluation of extension by the users (the livestock keepers). The Training-and-Visit (T&V) extension system is reviewed, and an alternative approach of PTD, as practised in an Indo-Swiss project in Andhra Pradesh, is regarded as promising.

Mutsaers HJW, Weber GK, Walker P & Fischer NM. 1997. **A field guide for on-farm experimentation**. Ibadan: IITA/CTA/ISNAR. 235 pp. LW

Lambour & Co, Carolyn House, 26 Dingwall Rd, Croydon CR9 3EE, UK

agricultural research, data analysis, food production, on-farm experimentation

Revised version of the handbook by Mutsaers *et al* that was written in the early Farming System Research era. Emphasises experimental aspects that help researchers arrive at solid conclusions, taking into account the variation in farmers' fields. Includes little about supporting farmers' own experimentation, but does encourage maximisation of farmer management of the on-farm trials. Includes sections on diagnostic survey and analysis, choice of innovations, experimental design, and statistical analysis.

Nielsen F. 1996. **Methods for integrating indigenous knowledge and formal research in agroforestry**. In: Kristensen NH & Høgh-Jensen H (eds), *New research in organic agriculture: proceedings of the conference 'Down to Earth - and Further Afield'*, Vol. 2, pp 117-121. International Federation of Organic Agricultural Movements (IFOAM), Ökozentrum Imsbach, D-66636 Tholey-Theley, Germany.

Uganda, agroforestry, farmer experimentation, indigenous knowledge

Assesses the usefulness of different methods to uncover indigenous knowledge (IK) in agroforestry: PRA, focused ethno-botanical studies, farmer evaluation of on-station trials, and studies of farmers' informal experimentation. Rapid methods were less suitable for uncovering IK about trees as compared with annual crops. In their experimentation with trees, farmers often made comparisons sequentially ('before-and-after' observations) and drew conclusions on the basis of trials by several farmers, not only their own. A role is seen for outsiders in facilitating communication between experimenting farmers and in improving the recording of results for sequential comparisons.

Scheuemeier U. 1995. **Precepts for extension in a rural concept** 92 pp. LBL Agricultural Advisory Centre, CH-8315 Lindau, Switzerland. Distributors: SKAT Bookshop, Vadianstr. 42, CH-9000 St Gallen, Switzerland.

Nepal, extension, farmer innovators, farmer organisation, integrated rural development

Documents 15 years' experience of the Integrated Hill Development Programme

with the Tuki system of contact farmers. The original focus was on farmer innovators encouraging local information exchange and drawing new information into the community. Their role changed to conveying project ideas to villagers; the project became blind to spontaneous innovation. To ensure sustainability of activities, the Tukis eventually returned to farmer-to-farmer extension. The analysis identifies the core of extension as facilitating the creative improvement of existing situations, and places PTD clearly within an extension context. Unfortunately, the viewpoint is that of former project staff and Swiss analysts, and not that of the Tukis and villagers.

Scheuemeier U & Ayuk ET. 1997. **Visualisation as a platform for entry into dialogue with farmers**. *PLA Notes 30*: 16-18. IIED Sustainable

Agriculture Programme, 3 Endsleigh St, London WC1H 0DD, UK (sustag@iied.org).

Burkina Faso, experimental design, millet, on-farm research, problem diagnosis

Describes how food-path analysis using symbols on cards arranged on the ground helped farmers and scientists jointly explore constraints in millet production. Suggests this technique as a way of gaining agreement between farmers and scientists in formulating hypotheses for on-farm trials.

Schmidt P. 1997. **Try and share: development and institutionalisation of participatory extension - a case study from Zimbabwe**. 8 pp. Manuscript. LBL Agricultural Advisory Centre, CH-8315 Lindau, Switzerland.

NETWORKING

Farmer Innovators in Soil and Water Conservation is the new 4-monthly newsletter of the programme on Indigenous Soil and Water Conservation (ISWC) in Africa, Phase II. This programme supports participatory development of soil and water conservation practices, the documentation of relevant results, as well as advocacy and policy development. The newsletter will make available experiences on these themes across the six participating countries (Burkina Faso, Cameroon, Ethiopia, Tanzania, Tunisia, Zimbabwe) and share these with a wider audience.

For subscriptions, contact: Alle van der Wal, CDGS, De Boelelaan 1115, NL-1081 HV Amsterdam, Netherlands (A.van_der_wal@dienst.vu.nl)

ILEIA Farmer-Guided Assessment Research Programme. ILEIA is currently implementing a major sub-programme aimed at assessing the sustainability of LEISA (Low-External-Input and Sustainable Agriculture) practices and systems. A farmer-led approach is being followed, combining PTD field activities with context studies and selected in-depth case studies. The assessment is being done in three countries (Ghana, Peru, Philippines) by groups of farmers and local research and extension institutions. Reports are available on various PTD training activities, stakeholder analysis workshops, farmers' soil classification systems, and field experiments.

More information: Ghana: Northern Ghana Working Group, Malex Alebikiya, POB 1411, Tamale; Peru: Teobaldo Pinzas, ETC Andes, Av. Reducto 971, San Antonio (tpinzas@andes.com.pe); Philippines: Carlos Basileo, 10 Concio Apts, Mayondon, Los Banos, Laguna 4030 (cbs@laguna.net); Netherlands: Bert Lof, ILEIA, POB 64, NL-3830 AB Leusden, Netherlands (b.lof@ileia.nl)

Ensayando DPT, the newsletter of the PTD network in Bolivia and Peru, has brought out a second issue in this year, with news of the activities of member organisations, an article on agricultural extension and participatory research in Bolivia, and numerous references to materials in Castellano on PTD methods. *Available from: Centro Ideas, Apto Postal 11-0170, Lima 11, Peru (Postmaster@ideas.org.pe)*

Global Participation Network (GP-NET) uses internet to enable USAID staff and other development practitioners world-wide to discuss their experiences in applying participatory approaches. Themes include participatory monitoring and evaluation, organisational development, and the role of facilitators in participatory development. There has recently been a lively exchange of information about resources on participatory approaches and methods available in French, Spanish and Arabic.

For information about how to subscribe, contact Chanya Charles (ccharles@aed.org)

Zimbabwe, food security, institutional development, participatory extension, training

Short overview of the well-documented experiences with participatory extension in Chivi, Southern Zimbabwe (see also Croxton & Murwira, above). Of particular interest are the pages describing a number of steps planned for 1997 and 1998 in supporting the large governmental extension agency to adjust its internal mechanisms and structures to be able to implement participatory extension throughout the province.

Selener D, Purdy C & Zapta G. 1996. **Documenting, evaluating and learning from our development projects: a participatory systematization workbook.** 107 pp. IIRR, Pasaje Muirriaguí Donoso 4451 y Avenida America, Casilla 17-0808494, Quito, Ecuador (daniel@iirr.ecx.ec). Original Spanish version: *Documentando, evaluando y aprendiendo de nuestros proyectos de desarrollo: manual de sistematización participativa.*

empowerment, institutional aspects, participatory monitoring and evaluation, project design, project implementation

Guide to participatory and systematic documentation and analysis of ongoing development processes, to generate lessons for improving one's own project. Could be useful in monitoring PTD processes, although farmer experimentation is not specifically mentioned. Designed to strengthen learning and organisational capacities, particularly of NGOs and community-based organisations. Grew out of experiences of the International Institute for Rural Reconstruction (IIRR) in Latin America. Easy to read, with numerous drawings and examples.

Sherwood SG. 1997. **Little things means a lot: working with Central American farmers to address the mystery of plant disease.** *Agriculture and Human Values* 14: 181-9.

Honduras, Nicaragua, disease management, farmer-scientist interaction, plant disease

Along the lines of Bentley & Andrews (above), Cornell University and the Panamerican School of Agriculture facilitated experiential-learning workshops to help Honduran and Nicaraguan farmers understand the biology of plant diseases. The farmers were then able, with their new knowledge of pathogen-plant relationships, to identify 273 disease

management alternatives. Many were similar to recommendations of plant pathologists; some were new ideas, particularly regarding temperature and moisture management, that may merit further research. A good example of the value of complementing rural know-how with scientific knowledge.

Sombatpanit S, Zuebisch MA, Sanders DW & Cook MG. 1996. **Soil conservation extension: from concepts to adoption.** 488 pp. Soil and Water Conservation Society of Thailand, c/o Dept of Land Development, Chatuchak, Bangkok 10900, Thailand / Science Publishers, POB 699, Enfield, NH 03748, USA.

agricultural extension, indigenous knowledge, participatory approaches, soil conservation, water conservation

Edited papers from a conference in Thailand in 1995. Shows tendency in extension strategies to shift from introducing new technologies to helping farmers identify problems and develop measures to overcome them. Includes several cases of farmer participatory research, but the emphasis is on extension of conservation technologies.

Warren KM (1997). **Estudios de adopción y adaptación de tecnologías por parte de los agricultores en Ichilo y Sara.** 55 pp. Santa Cruz: Centro de Investigación Agrícola Tropical. Copies available from: Encargado, Programa de Sistemas de Producción, CIAT, Casilla 247, Santa Cruz de la Sierra, Bolivia.

Bolivia, agroforestry, farming systems research, green manure

This report presents results and observations of studies done of the adoption and adaptation of technologies and farming systems being validated and promoted by the CIAT-NRI project 'Sustainable Agriculture for Small Farmers' supported by UK funds. It shows how the ca. 200 farmers participating in the programme choose components rather than entire new 'systems' (combinations of annual food crops, perennials and cover crops) and substitute other components that are either more accessible or that they regard as superior. Non-participating farmers are largely unaware of the programme, and uptake of the new technologies and systems is low. The report gave useful feedback into the project's research agenda and methodology, and provided valuable information on dissemination pathways. [abstract by Barry Pound]

Wild RG & Mutebi J. 1996.

Conservation through community use of plant resources: establishing collaborative management at Bwindi Impenetrable and Mgahinga Gorilla National Parks, Uganda. *People and Plants Working Paper* 5. 45 pp. UNESCO, 7 place de Fontenoy, F-75352 Paris Cedex 07 SP, France.

Uganda, joint management, participatory monitoring and evaluation, resource conservation

Account of pilot process of participatory evaluation and planning of resource use which resulted in written agreements for low-level use and collaborative management of forest resources. Describes Rapid Vulnerability Assessment, a systematic method of integrating indigenous and scientific knowledge to assess the vulnerability of plant species to utilisation by people, and to determine whether harvesting is or can be carried out. In each parish, the inhabitants formed a Forest Society, based on an existing community structure, to manage the resources. These societies document resource-use

decisions and record quantities of resources harvested. A Ground Relationship Map was developed to monitor changes in the relationship between the park officials and the local people, and to find out reasons for these changes.

OTHER PUBLICATIONS

Blauert J & Quintenar E. 1997. **Seeking local indicators: participatory self-evaluation of farmer-to-farmer projects.** Manuscript 7 pp. Available from Jutta Blauert (jubilas@gn.apc.org).

Mexico, extension, highlands, indicators, self-evaluation, soil conservation

FAO. 1996. **Communication for rural development in Mexico: in good times and in bad.** *Development Communication Case Study* 15. 93 pp. FAO, Viale delle Terme di Caracalla, I-00100 Rome, Italy.



Photo: Parmesh Shah

Watershed management, India.

Mexico, agricultural information system, audiovisual materials, communication, participatory planning, social participation

Lee-Smith D. 1995. **Community based indicators: a guide for fieldworkers carrying out monitoring and assessment at community level.** Draft. 12 pp. The World Conservation Union (IUCN), rue Mauverney 28, CH-1196 Gland, Switzerland.

Zimbabwe, community survey, ecosystems, monitoring and evaluation, PRA, sustainability indicators

Lee-Smith D. 1995. **Monitoring and assessment of local strategies for sustainability: a guide for fieldworkers carrying out monitoring and assessment at community level.** Draft. 12 pp. The World Conservation Union (IUCN), rue Mauverney 28, CH-1196 Gland, Switzerland.

Zimbabwe, community survey, ecosystems, monitoring and evaluation, PRA, sustainability indicators

Ramirez R. 1997. **Understanding farmers' communication networks: combining PRA with Agricultural Knowledge Systems Analysis.** *Gatekeeper Series* 66. 20 pp. IIED, 3 Endsleigh St, London WC1H 0DD, UK (sustag@iied.org)

Ethiopia, Peru, Philippines, agricultural extension, agricultural knowledge systems, communication systems, information exchange, mapping, PRA, social participation

Scheuermeier U & Schmidt P. 1997. **Gentle obstinacy or How systems change.** *BeraterInnen News* 2/97.

7 pp. LBL Agricultural Advisory Centre, CH-8315 Lindau, Switzerland (lbl@agri.ch)

Zimbabwe, agricultural extension, institutional change, organisational development

Waters-Bayer A & Bayer W. 1997. **Participatory planning, monitoring and evaluation of grassland management in West Africa.** *Proceedings XVIII International Grassland Congress, 8-18 June 1997, Winnipeg & Saskatoon, Canada*, Vol. 2, pp 18.17-18.18.

Burkina Faso, land-use planning, participatory monitoring and evaluation, pastoralists, PRA, stakeholder platform

● TRAINING EVENTS AND REPORTS

Chirunga F & Veldhuizen LR van. 1997. **Daring to learn: regional training of trainers in PTD and PRA for soil and water conservation, August 1997, Masvingo, Zimbabwe.** 34 pp. Leusden: ETC-Netherlands. Available from: CDGS, De Boelelaan 1115, NL-1081 HV Amsterdam, Netherlands.

Over a period of 10 days, 20 professionals from Ethiopia, Tanzania and Zimbabwe studied PTD and PRA approaches and their experiences with them, developed their understanding and skills in planning and implementing PTD/PRA training, and applied these during a number of sessions. The report documents both the content as well as the flow of the training.

Diop JM & Gueye B. 1997. **Renforcer le dialogue et la collaboration entre chercheurs et paysans: rapport de l'atelier de formation sur le DPT appliqué à la conservation des eaux et des sols** (Strengthening the dialogue between researchers and farmers: report of a training of trainers in PTD for soil and water conservation), June 1997, Ouahigouya, Burkina Faso. 64 pp. Leusden/London: ETC-Netherlands & IIED-UK. Available (in French only) from: CDGS, De Boelelaan 1115, NL-1081 HV Amsterdam, Netherlands.

Report on a 10-day training of trainers in PTD and PRA for professionals from Cameroon and Burkina Faso. Includes details of the training approach and of planning, and treats selected PTD/PRA issues. Extensive fieldwork was carried out during the training; its outcome in terms of concrete ideas for further development by farmers are included in the report.

Hagmann J *et al* (eds). 1997. **Documentation of a learning workshop on participatory working methods for self help promotion, 2-19 December 1996, Moshi, Tanzania.** Co-operative College Moshi/German Foundation for International Development (DSE). 250 pp. Available from: Heidi Kückelhaus, DSE, Food and Agriculture Development Centre, Postfach, D-82336 Feldafing, Germany (zel@zelfe.dse.de)

Compilation of reports by voluntary 'documentation committees' composed of workshop participants. Goes beyond PRA training, as the start of an action learning process during which the College is developing an experience-based approach to participatory rural development.

Pound B, Thomas MEC & Njokwe BJ. 1997. **Report on a visit to South Africa to give training in the concepts of Farming Systems and Farmer Participatory Approaches and their implications.** 6 pp + 3 appendices.

Part of a UK-supported programme for strengthening research and development institutions oriented to disadvantaged communities in South Africa. The training workshop was held in April 1997. Copies of the materials used and produced during the workshop can be obtained from Barry Pound at NRI, Chatham Maritime, Kent ME4 4TB, UK (barry.pound@nri.org).



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PTD Circular
Six-monthly update on
Participatory Technology
Development
Number 8, December 1997

The aim of this circular is to make documented experiences on Participatory Technology Development (PTD) in Low-External-Input and Sustainable Agriculture (LEISA) known to a wider audience, especially people working in the field. This circular hopes to bridge the information gap by letting people know about recent publications, workshops, training activities and audiovisuals on PTD.

Documents mentioned have either been published recently, or have recently come to our attention. If you have new information in the field of PTD, please let us know, mentioning the source, and send us a copy.

Documents mentioned in this circular should be ordered directly from the source. If no source is given, photocopies are available from ILEIA at cost price.

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Ann Waters-Bayer.

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