PTD CIRCULAR
Six-monthly update on Participatory Technology Development

In this second issue of the PTD Circular, we draw attention to recent books and papers related to Participatory Technology Development, as well as to some not-so-recent ones which we have only now received. Responses to the first issue stressed the need to widen the spread of experiences in PTD approaches. Knowing that there is not one single way to do PTD, we need to learn from successes and mistakes in the field so that the methods can be further developed and diversified. It is extremely important that PTD is recognised as a valid and appropriate path to development. The international fair on Participatory Learning Approaches, held recently in Germany and reported briefly elsewhere in this Circular, was an innovative attempt to achieve just that.

Two hundred organisations and individuals have expressed their interest in receiving the Circular regularly. At the Fair we discovered that many people who are open to or practising PTD-like approaches had not yet become aware of the Circular or had missed the request to fill in the order form. We therefore encourage you to share the Circular with others and inform them of the possibility to become a regular subscriber (as yet, free of charge). Reactions from readers thus far confirm that we should focus the PTD Circular on actual experimentation by farmers and outsiders and on farmer-to-farmer extension, while maintaining an overall perspective of participatory development. Other organisations already specialise in providing information about, eg. indigenous knowledge, participatory appraisal, or participatory monitoring and evaluation. If you have more suggestions about particular aspects of PTD that you would like to see covered by this Circular, please let us know.

We do not want to limit our coverage to formally published materials but would also like to include reference to internal reports, notes on field visits or meetings, and accounts of work in progress, as well as audiovisual and training materials. The Circular can also be a vehicle to share information about forthcoming training courses, workshops, meetings and other events. Please make sure that you include addresses to which people can write to obtain the publications or further information.

The Editors

Farmer-led approaches to agricultural extension
INTERNATIONAL WORKSHOP

A one-week workshop will be held at IIRR (Philippines) from 30 January to 3 February 1995 to assemble, synthesise and disseminate newly-emerging information on farmer-led extension. The workshop will also examine how government extension services might be modified to relate better to such an extension approach. Workshop outputs will include sectorial case studies, a book synthesising workshop proceedings and main lessons, and a video on farmer-led approaches.


ANOTATED PUBLICATIONS


This workshop brought together practitioners in the field of Appropriate Technology from all parts of the world. The report summarises experiences in implementing PTD approaches in developing tools and equipment, presents a conceptual framework and identifies important challenges for future work.


To create a client-driven research agenda, more needs to be done than creating some form of "representation" of client priorities in the formal system. It would be more effective to place a significant portion of research resources directly under client control. Implications of such community-based adaptive research are studied in terms of working with groups rather than individuals, experimental methods, statistical validity and costs. Several issues are identified that need to be resolved for the proposed approach to become effective, while safeguarding equity and environmental concerns (from author’s abstract).


To improve communication between farmers and scientists in the sylvopastoral zone of Mali, PRA and GRAAP tools were applied in a study of how farmers classify natural vegetation, use natural pasture and assess the value of different pasture types. This led to joint discussion of the need to improve pasture use. Farmers and scientists are now reflecting on possibilities to test and how to reach agreement on natural resource management with neighbouring villages.

 Bastian C. 1993. Reports on farmers’ own on-farm trials. 6 and 7pp. Internal report of Office of the Provincial Agriculturist, San Jose Antique, Philippines. Contact: Ms Cepe at above office or ANIAD, 2F St Nicholas Bldg, Fornier St, Antique 5700, Philippines.

Institutionalising participatory, client-driven research and technology development in agriculture.

Agricultural Administration (Research and Extension) Network Paper 49. 21pp.

Overseas Development Institute, Regents’ College, Regent’s Park, London NW1 4NS, UK.

agricultural research, institutionalisation, technology development.

To improve communication between farmers and scientists in the sylvopastoral zone of Mali, PRA and GRAAP tools were applied in a study of how farmers classify natural vegetation, use natural pasture and assess the value of different pasture types. This led to joint discussion of the need to improve pasture use. Farmers and scientists are now reflecting on possibilities to test and how to reach agreement on natural resource management with neighbouring villages.

agricultural research and extension: functions, impacts and questions. Agricultural Administration (Research and Extension) Network Paper 47. 33pp. ODI, Regent's College, Regent's Park, London NW1 4NS, UK.

Identifies different types of farmer organisations and the roles they play in research priority setting and planning, technology development and input supply in agriculture. Provides analytical and methodological framework for examining the strengths of farmer organisations and the potentials for effective links between them and research institutions. Examines how farmer organisations can be supported to be more effective in pressurising agricultural research and extension programmes to respond to the needs of smallholders.


Andes, experimental design, farmer experimentation

A clear-cut manual presenting in a simple language the main concepts and methods of a scientific approach to experimentation for discussion in training sessions with farmers. Developed on experiences in working with farmer-leaders in the Andes.


community participation, extension, Kenya, Maasai, nature conservation, wildlife

This book documents a community-based conservation and wildlife management programme. It describes the "wildlife extension" process: a planned series of participatory research and education activities which empowered people to build local institutions and enterprises for wildlife and natural resource use (from author's abstract).


extension, India, livestock, technology development, training

Based on discussions in two workshops in India, the authors describe an approach to do both farmer interactive extension (FARNEX) and PTD within the context of a large government extension organisation.


farmer experimentation, genetic diversity, indigenous knowledge

Reflects findings from an ongoing programme of community-level crop development and biodiversity conservation. Case studies examine the importance of local knowledge, documenting new approaches and methodologies which have been developed for building linkages between farmers and researchers. Also deals with policy issues related to the expansion of agribusiness and its effect on smallholders.


change agents, community participation, rural development, training

Very comprehensive book on enhancement of bottom-up rural development, based on years of field experience in Change Agent programmes. Attention to theories of development, the role of change agents and their training as well as political and socioeconmic factors. By including a section on PTD (4 pp) the book provides a much needed link between the experiences of social activist movement and PTD practitioners.


communication, Egypt, farmer experimentation, innovation

In the Nile Valley the NGO FarmLink is improving the links of small-scale vegetable growers to sources of information on horticulture. Fieldstaff work with farmers interested in experimenting with new options and help link these innovative farmers with other farmers, traders and researchers through visits and field days. The experiments are on very small plots (reducing risk to a minimum). The farmers choose the treatments and analyse the results together with fieldstaff. The innovations feed into existing farmer-to-farmer channels of information flow. In the last five years, 4000 farming families have reportedly been reached in this way.


bibliography, on-farm research

Contains 300 references to publications on both researcher-managed and farmer-managed on-farm research. Includes author and keyword indices. In preparing the book, a great confusion and overlap in terminology and research stages was noted. The compiler recommends that this be clarified and/or standardised as a first step to prepare an on-farm research handbook.


extension, farmer experimentation, Thailand

Describes an extension approach being applied within the national program introducing wheat production to Thailand. Extensionists present the farmers with alternative technologies to evaluate for themselves. The result is a dynamic process of farmers' adaptation and innovation of more appropriate technologies. Connelly S & Wilson N. 1994.


agroforestry, farmer experimentation, Sri Lanka

Internal project report describing results of and lessons learnt during the first year of a participatory research programme. The approach taken led to spontaneous farmer interest in experimentation. Experimental designs and treatments were left to the farmers to decide, leading to a rich variety of experiments. Suggestions are given to overcome the complications encountered in assessing the results.


extension, farmer experimentation, farmer organisation, institution strengthening, West Africa

A truly Farmer-First approach must seek to develop not only peasant capacity to create technology but also their sociopolitical awareness, their competency in organisational management and their ability to negotiate their interests with outside agencies. Following this argument the role of member-driven peasant organisations in farmer-based research and extension is discussed. Well-founded recommendations are made to agencies promoting such an approach, showing ways to go beyond day-to-day agricultural work and to learn systematically with peasants to build up local institutional strength.


Botswana, experimental design, scaling-up, technology assessment

Describes how, through a concerted group approach, large numbers of farmers are involved in assessing agricultural technologies. For researchers and farmers to collaborate effectively, it is crucially important that activities meet objectives and conditions of both parties. In dialogue, appropriate trial designs and procedures were developed. Limitations of the approach are also clearly indicated.

PTD FAIR

On 20-21 September 1994, in a lively market atmosphere, the first “Dare-to-Share” Fair was held in Europe. Organised by a team from GTZ (German Agency for Technical Cooperation) and held both in and outside the Headquarters buildings, the Fair provided a marvellous opportunity for NGOs, international research and development agencies, teaching institutions, private individuals and GTZ staff to experience and discuss participatory learning approaches and methods. In more than 30 stands, a wide variety of organisations and projects presented the participatory methods they are working with. Films, slides, posters, books, role games, theatre improvisations, actual application of assessment and planning methods, spontaneous discussion groups - these and many more were the forms in which information was exchanged. Congratulations to the GTZ team for organising such an innovative and inter-active event. It is hoped that similar Dare-to-Share Fairs can be held in coming years in other countries in both the North and the South. The offerings and happenings at the Fair are being documented in a book to be brought out soon by GTZ. Hints for organising such an event, based on this recent experience, will also be made available.

Contact: Uwe Kiewelitz, GTZ Unit 425, PO Box 5180, D-65725 Eschborn, Germany.

were studied in southwestern Mali. Farmers were five times as likely to get information on agricultural innovations through informal channels (eg. markets, communal fields, workgroups, travels) as from official research and extension systems. Women farmers were more than twice as likely as men to gain their information from informal sources. Farmers who participated in organised events to promote farmer-to-farmer exchange had greater curiosity and self-confidence in seeking new information. Demonstrations were much less effective in this regard.


farmer experimentation, Indonesia, non-governmental organisations

Summarises main lessons learnt from implementing a farmer-based experimentation approach by small NGOs in Eastern Indonesia, illustrated by hands-on experience in three villages.


game method, planning, pastoral development

Derived from a report “Participatory Pastoral Development in Isiolo District: socioeconomic research in the Isiolo Livestock Development Project” (1991, 241 pp) about the start of a process approach to pastoral development. A participatory planning tool based on an African board game was used in small groups, homogenous in wealth status, to identify their perceptions of problems and solutions. Further steps in the process were to be: discussion of group plans with technical services, starting joint activities, periodic evaluation by neighbourhood committees and external people, and planning of new activities. However, after this participatory planning created enthusiasm among the pastoralists, the donor decided not to continue. Further information: Jeremy Swift, Institute of Development Studies, University of Sussex, Brighton BN1 9RE, UK.


communication, community participation, extension, manual, participatory rural appraisal

Guide for Participatory Rural Appraisal in Spanish, designed to help set up peasant-managed extension systems. The methods are chosen for their strengths in empowering local people to plan, implement and evaluate their own actions. Strong on diagnostic but somewhat vague when it comes to planning based on the results. As more experience is gained in the project, it will be interesting to see publications about the continuation of the process stimulated by this approach.


Benin, farmer groups, on-farm research, soil fertility improvement, technology testing

Describes valuable practical experiences in Benin with joint research of farmers and scientists on soil fertility improvement. The important role of informal farmer groups is stressed. Various suggestions are given to combine farmer management of the experimentation to ensure relevance of tests and adaptations developed with scientific rigour to enable extrapolation of results.


130pp. Working Document. GTZ Unit 422, PCB 5180, D-65725 Eschborn, Germany.

Africa, farmer participation, methods, natural resource management, pastoral planning

Overview of participatory approaches to pastoral development, with critical analysis of methods applied thus far. Identifies how pastoralists have been and can be actively involved in the planning process for natural resource management and rural development, particularly in the West African Sahel.


251pp. GTZ, PCB 5180, D-65725 Eschborn, Germany & Swiss Development Cooperation, Bern.

innovation, communication, data analysis, innovation, farmer participation, methods, on-farm research

Revised version of Steiner’s On-farm experimentation handbook (1987). Deals mainly with farmer participation in researchers’ activities but also refers to PTD to
Malawi, mapping, natural resource management, research methods
In Malawi, farmers mapped and modelled bioresources flow between different enterprises. After exposure to another resource-use option (integrated fishponds), they spontaneously started experimenting with this innovation and transformed their farm systems. The result was more nutrient cycling and higher net incomes.

Farmer experimentation, small ruminants, Zaïre
Report on activities to improve goat- and sheep-keeping in eastern Zaïre, involving collaboration between NGOs, research organisations and farmer groups. Building on both local and external knowledge, farmer "brigades" are experimenting with innovations in animal husbandry. Information is exchanged during action-learning workshops, study trips by farmers and agricultural fairs at which the brigades present the results of their research. See also the English article by Mapatano in ILEA Newsletter 10/1 (1994).

extension, farmer participation, Zambia
Guidelines for conducting participatory situation analysis and planning of agricultural extension are given, derived from the experience of an interdisciplinary research team working for three months in Zambia's Southern Province. On this basis, a participatory extension approach is proposed, including a system of self-monitoring by village extension groups.

farmer organisation, Thailand, system analysis, technology development
Describes history of establishing farm groups for participatory small-farmer development in northeast Thailand, going through phases of building partnership between farmers and fieldworkers, participatory system analysis, group development and evolving methods for participatory technology development. The factors which contributed to the success of the groups are analysed.

manual, planning, systems assessment

agricultural research, farmer experimentation
In a very good overview, a critical analysis is made of how farmer participatory research is presently being carried out within a broad range of research and development programmes. Shows that processes of local experimentation are still inadequately understood; only in rare cases do activities appear to be based on analysis of existing farmer experimentation. This prevents the establishment of a collegiate interface between farmers and researchers. A conceptual and methodological framework for analysis is given.

communication, extension, Indigenous knowledge, India
Based on anthropological research in India, the argument is put forward that farmer participation and extension must not be separated from the cultural and sociopolitical context within which it takes place. Knowledge ownership is often a socially sensitive issue, and knowledge sharing restricted to confined "circles". In Rwanda, agricultural cooperatives could form a platform not just to increase dialogue about "family secrets" but also to diminish the threat of knowledge extraction by outside experts.

erosion control, range management, non-governmental organisations, pastoral development, planning, Somaliland
Report on a range management and erosion control project in Somaliland. Analyses participatory action rather than describing specific methods. Deals with problems of differing agendas between NGOs and various pastoral groups. Indicates the importance of increasing the security of pastoralists' access to forage and water and developing adaptive social and political strategies rather than narrow technological changes.

Bolivia, experimental design, farmer experimentation
Detailed description of the process of supporting farmers to conduct scientific experiments.
strengthen farmers' ability to analyse problems and test solutions themselves. Focuses on experimenting with crops rather than animals and on plots rather than farming systems. Gives useful guidelines for designing and implementing on-farm trials and communicating with farmers. Attention is given to ways of gaining "soft" data and farmers' views, including rapid/participatory rural appraisal (R/PRA), but a large part is still devoted to working with quantitative data. Most suitable for researchers within rural development programmes.

* FURTHER PUBLICATIONS

- Fujisaka S. 1994. Will farmer participatory research survive in the International Agricultural Research Centres? Gatekeeper Series 44. 16pp. IIED, 3 Endsleigh St, London WC1H 0DD, UK.
- IIED/IDS. 1994. Draft statement of principles drawn up by participants in the PRA Workshop at IDS, May 1994. 8pp. IIED, 3 Endsleigh St, London WC1H 0DD, UK.

* JOURNALS

- *Ag-Sieve* VI (5). 1994. Focuses on participatory extension approaches. It features an article on farmer trials in Bolivia by Ed Fuddell, where farmers opt for a scientific approach to experimentation. Other articles are on women’s participation, participatory extension and natural resource management, and so-called Third Generation Extension: a process to help villagers in their learning. Rodale Institute, 611 Siegfriedale Road, Kutztown PA 19530, USA.
- *Appropriate Technology* 21 (1). 1994. Theme issue on approaches to PTD with special emphasis on the development of tools, equipment and techniques. The issue includes case studies from India (boat construction by fishermen), Thailand (weaving) and Tanzania (oxenisation). Several conceptually-oriented contributions complete the PTD articles. IT Publications, 103-105 Southampton Road, London WC1B 4HH, UK.
- *Forests, Trees and People* Newsletter 24. 1994. Theme issue on participatory extension. Much attention is paid to innovation processes and learning, and the link or overlap between participatory extension and participatory research. To obtain the closest contact address in your region, write to The Editor, FTP Newsletter c/o IRDC, SUAS, Box 7005, S-75007 Uppsala, Sweden.

* AUDIOVISUALS

- ENDA. 1993. Et si on écoutait la terre? Paysans, techniciens et cadres du Sénégal et d’ailleurs. ENDA-Pronat, BP 3370, Dakar, Senegal; ENDA-GRAF, BP 13069, Dakar, Senegal; Terres et Vie, 13...
rue Laurent Delvaux, B-1400 Nivelles, Belgium. 27 min. Video (VHS).
Burkina Faso, communication, farmer-scientist interaction, indigenous knowledge, modelling, participatory methods, Senegal, training, Zaire

**TRAINING REPORTS AND EVENTS**


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PTD Circular
Six-monthly update on Participatory Technology Development
Number 2, November 1994

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 has 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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