

PTD CIRCULAR

Six-monthly update on Participatory Technology Development

With this third issue, the PTD Circular is expanding beyond a thematic bibliography. An informal group of PTD trainers within various organisations have suggested that we start including samples of PTD training modules which have been applied in practice. These will be one-page inserts which you can keep together, perhaps in a loose-leaf file, and substitute when revised versions are printed. We hope that these modules will stimulate ideas among other PTD trainers. We challenge them to inform readers of the Circular about their own experiences with and variations and improvements on these modules. This first module follows a format proposed by LBL in Switzerland. Please give your comments, or better, send us your own training experiences to be shared through the Circular.

Many of you will have already received a separate mailing about the next book in the series "ILEIA Readings in Sustainable Agriculture", published by Intermediate Technology. It will focus on farmer-led experimentation. If you would like to contribute to this reader, please inform us as soon as possible what experiences you would like to share. If you have not yet received the "call for experiences" and would be interested, drop us a line and we will send it to you.

The number of publications on PTD seems to be growing quickly - or, at least, our attention is being drawn increasingly to them. Thank you for all the papers, reports, articles etc. which you have sent to us - and keep them coming!

We are particularly interested in receiving reports on experiences in PTD with livestock keepers, especially nomadic and transhumant pastoralists. Much of the documentation thus far refers to work with settled farmers developing technologies associated with cropping. As animals are mobile and are often fed from land which is regarded as common property and which may be used for multiple purposes, PTD with livestock keepers is more likely to require working with commu-

nities rather than individuals (see Omolo et al 1995 and Marty 1985, both mentioned in this Circular). In pastoral development, it is often necessary to work with several different user groups at the same time. Many of the appropriate "technologies" will be institutional innovations in organising access to natural resources. We invite readers to send or at least draw our attention to reports on PTD in this wider sense of "soft technology" in natural resource management involving pastoralists.

With the inclusion of the training modules the character of the Circular is changing slowly. Some of you have suggested to move the Circular further in the direction of a fullfledged newsletter. For instance, by providing more detailed information on programmes and activities in the field, and including lessons learned. Do you agree with this suggestion? What about your existing channels, journals, to obtain such information? For ILEIA, a further expanded Circular may go beyond its present mandate and capacity and additional sources would have to be found to make such Circular a reality.

The editors

● ANNOTED PUBLICATIONS

Biggs SD. 1995. Participatory technology development: reflections on current advocacy and past technology development. Paper for workshop "The Limits of Participation", 23 March 1995, ITDG, London. 9 pp. School of Development Studies, University of East Anglia, Norwich NR4 7TJ, UK.

participatory technology development, social change, power issues

A critical look at the "new orthodoxy" of participatory approaches, indicating the need to address issues of control over information and other resources in technology development. Points out that both RRA and the green revolution in wheat growing grew out of coalitions of practitioners, beneficiaries, scientists and activists who contended for influence in specific historical and cultural contexts. Calls for reflection by PTD practitioners on other determinants of technical and social change than merely participatory tools.

Canto Sanabria ME & Sanabria Guerra M. 1993. **Women producing Andean products.** *Appropriate Technology* 20 (2): 27. Also in *Ceres* 149 (Vol. 25, No. 5): 5.

Peru, experimentation, food processing, indigenous knowledge, women

With the support of their group leader, who took a course in food processing, women in the central

highlands of Peru applied their knowledge of traditional foods and processing techniques in experiments to make new products from Andean cereals. They used nutritional information to help sell their goods. More information available from the authors, AP 247, Huancayo, Peru.

Collion MH. 1995. **On building a partnership in Mali between farmers and researchers.** Agricultural Administration (Research and Extension) Network Paper 54. 22 pp. Overseas Development Institute (ODI), Regent's College, Inner Circle, Regent's Park, London NW1 4NS, UK.

Mali, farmer organisation, participatory research, research planning

Describes the process of improving links between researchers and farmers, highlighting the role of service NGOs and the difficult issue of choosing farmer representatives to serve on research user commissions at national and regional levels. To promote farmers' own ideas and innovations a fund is available for users to contract research on topics of direct interest to them. First experiences with this partnership revealed the need to train researchers in communication techniques and to train both researchers and farmers in on-farm participatory research methods.

Connelly S & Wilson N. 1995. **Flexible experiments ILEIA**

STUDY ON "RESEARCH AND FARMERS' ORGANISATIONS"

ODI and ISNAR have initiated a study on the current and potential role of farmers' organisations in developing, testing and disseminating agricultural technologies. Focus is not only on the role of such organisations in actual technology development activities but also in lobbying with governments to change research agendas, and improve wider services in support of technical change. Case studies will be undertaken in e.g. Bolivia, Mali, Zimbabwe and the Netherlands. For further information, contact: John Farrington, ODI, Regent's College, Regent's Park, London NW1 4NS, UK.

Newsletter v.11 no.1: pp 15.
ILEIA, POB 64, 3830 AB
Leusden. Authors: 4 Grena
Gardens, Richmond, Surrey TW9
1XP, UK

Sri Lanka, teak, farmer experimentation,
settlement schemes, tree nurseries, on-farm
experimentation

Discusses ways in which Sri
Lankan farmers experimented
with methods for germination of
teak seeds. Experimental designs
and treatment were left to the
farmers to decide. Evaluating
results was no easy matter
because of heterogeneity of meth-
ods, but these problems can act
as a start to increased interaction
with farmers about issues like
standardisation and monitoring.

Consortium of European
Appropriate Technology
Organizations. 1994.

**Participatory Technology
Development Symposium
Report, 10 December 1993,
Amsterdam, The Netherlands.**
52 pp. Available from: Helen
Appleton, ITDG, Myson House,
Railway Terrace, Rugby, Warks.
CV21 3HT, UK.

appropriate technology, workshop report
Report on a workshop organised
by European appropriate technol-
ogy organisations with practi-
tioners and academics from the
South, to share ideas on PTD in
developing appropriate technol-
ogy together with users and small-
scale entrepreneurs. A follow-up
to the report "Developing Tools
Together" mentioned in the first
PTD Circular.

Decouré H, Defoer T, Kamara A &
Brons J. 1994. **Complémentarité
entre la Méthode Accélérée de
Recherche Participative
thématique et le diagnostic for-
mel: cadre conceptuel et
expériences en zone Mali-Sud:
cas de l'étude 'Diagnostic du
maïs dans les systèmes de
production'**. Document 94/28.
21 pp. Equipe Systèmes de
Production et Gestion des
Ressources Naturelles, Centre
Régional de Recherche Agricole,
BP 186, Sikasso, Mali.

Mali, farmer participation, maize, monitor-
ing and evaluation, research methodology
By combining rapid PRA with
conventional quantitative moni-
toring of smallholder farms,
scientists were able to deepen
their knowledge about produc-
tion systems and formulate a
long-term research programme
and development which takes
peasants' concerns into account.

Farrington J. 1994. **Public sector
agricultural extension: Is there
life after structural adjustment?**
*ODI Natural Resource
Perspectives* no 2, November
1994. 4 pp. ODI, Regent's
College, Regent's Park, London
NW1 4NS, UK

agricultural extension, participatory tech-
nology development, farmer-to-farmer dis-
semination

Re-assessing the role of public
sector agricultural extension, this
paper gives a brief overview of
recent innovative approaches.
Farmer participation in diagnosis
and technology development is a
common feature of many of
these. Aiming mostly at policy
makers, the paper indicates a
role for PTD approaches in the
overall context of re-orienting
agricultural extension.

Hagmann J, Chuma E, Murwira K
& Moyo E. 1995. **Transformation
of agricultural extension and
research towards farmer partici-
pation: approach and experienc-
es in Masvingo Province,
Zimbabwe.** Paper for workshop
on "Extension Intervention and
Local Strategies in Resource
Management: New Perspectives
on Agricultural Innovation in
Zimbabwe", 10-12 Jan 1995,
Dept of Agricultural Economics
and Extension, University of
Zimbabwe, Harare, Zimbabwe.
15 pp. AGRITEX/GTZ

Conservation Tillage Project, PO
Box 790, Masvingo, Zimbabwe.

Zimbabwe, extension, participatory
research, soil and water conservation
Describes three participatory
approaches aimed at rural devel-
opment, technology development
and agricultural extension that
have been developed and tested
as pilot activities: Community-
level Planning and Development,
Kuturaya (trying out innovations)
and Participatory Extension.
Roles are redefined for extension
workers, supervisors, district
officers, trainers and researchers.
The training and backstopping
needed to integrate participatory
approaches into the agricultural
extension services are proposed.

Hagmann J & Murwira K. 1994. **Indigenous soil and water con-
servation in southern
Zimbabwe: a study of tech-
niques, historical changes and
recent developments under par-
ticipatory research and exten-
sion.** Conservation Tillage for
Sustainable Crop Production
Systems Project Research

Report 13. 28 pp. AGRITEX/GTZ
Conservation Tillage Project, PO
Box 790, Masvingo, Zimbabwe.
Zimbabwe, farmer organisation, history,
indigenous knowledge, participatory
research, soil and water conservation
Analyses how and why traditional
soil and water conservation
(SWC) techniques changed in
this century after introduction of
the mouldboard plough and
externally-developed mechanical
conservation measures. The
ConTill Project and the Chivi
Food Security Project contributed
to reviving local knowledge and
research capacities and combin-
ing them with those of research
and development institutions to
develop options for site-specific
application of SWC techniques.
Strengthening of social organisa-
tion proved to be vital for this
work.

Hoek K van der. 1994.

**Participatory Technology
Development.** *Organic Matters*
(Quarterly Journal on Philippine
Low-External-Input and
Sustainable Agriculture) 17:9-15.
SNV, 35 Wilson St, 1500 W
Greenhills, San Juan, Metro
Manila, Philippines.

Philippines, participatory technology devel-
opment, farmer experimentation, organic
agriculture

Explains in simple words the
rationale for a PTD approach as
well as important considerations
in implementation. Experiences
with PTD by an NGO network
member complete this article.

IDS, 1994. **PRA Overviews.** 12
Volumes. Institute for
Development Studies, Brighton,
East Sussex BN1 9RE, United
Kingdom.

participatory rural appraisal
An annotated bibliography in 12
volumes. These give an overview
of most relevant documents on
"PRA and": i.e. agriculture,
food security, forestry, gender,
health, irrigation, livestock, moni-
toring and evaluation, soil and
water conservation, education
and training, the North (devel-
oped countries), and a methodol-
ogy overview.

Kante S & Defoer T. 1994. **La
connaissance de la classifica-
tion et gestion paysanne
d'esterres: rôle dans
l'orientation des actions de
recherche et développement.**
Document 94/24. 26 pp + annex.
Equipe Systèmes de Production
et Gestion des Ressources

Naturelles, Centre Régional de
Recherche Agricole, BP 186,
Sikasso, Mali.

Mali, indigenous knowledge, soil classifi-
cation, soil fertility management
Report on rapid study of how
farmers in Southern Mali classify
and manage their soils. Based on
semistructured interviews with
23 farmers according to a ques-
tion guideline (in annex) and vis-
its with groups of peasants to
different toposequences to dis-
cuss them on the spot. The find-
ings were combined with quanti-
tative data collected since 1990
from 30 farms. Similarities and
differences between indigenous
and conventional soil classifica-
tion are identified, and implica-
tions for research and extension
derived. Several other reports on
soil fertility management and
methodological questions of par-
ticipatory research can also be
obtained from the ESPGRN team.

Kievclitz U. 1995 **Dare-to-share
fair: a conference of coffee
breaks** *ILEIA Newsletter* v.11
no.1: pp.11-12. ILEIA, POB 64,
3830 AB Leusden. Author:
German Agency for Technical
Cooperation (GTZ), PO Box 5180,
D-65726 Eschborn 1, Germany.

participatory learning, communication,
information exchange, participatory tech-
nology development
Describes an international and
informal, decentralised seminar
on participatory learning organ-
ised by GTZ. The fair was a suc-
cess: a multitude of information
exchange and discussion events
took place. The article discusses
organisational aspects and fora
for communication: the market
itself, workshops, "open spaces"
and audiovisual shows.
Hopefully, the public acclaim of
the fair will lead to similar events,
preferably in the South.

Mapatano M. 1994. **Savoir par-
tager: compte rendu du Forum
sur la Pomme de Terre tenu à
Bugobe, 24-29 juillet 1994.** 47
pp. ADI-Kivu Service de
Renforcement Agricole, BP 1554,
Bukavu, Zaire.

Zaire, farmer experimentation, extension,
potato
Report on a workshop initiated
by the farmers' brigade "Pomme
de Terre de Bugobe", together
with the NGO ADI-Kivu and a
potato research programme
(INERA-Mulungu). The farmers
sought this opportunity to
exchange ideas with other farm-
er-researchers and scientists,



TALKING POSITIVELY WITH VILLAGERS ABOUT PTD

INTENDED LEARNING EFFECT

Trainees sense the importance of having an exploratory rather than an analytical/diagnostic mind-set and of using positive, creative language when talking about PTD. They discover the most appropriate phrases in the villagers' language.

CONTEXT OF THIS APPLICATION OF THE MODULE

An Indian government project supported by the Swiss government is introducing "participatory extension" within the Animal Husbandry Department and the parastatal Dairy Federation of Andhra Pradesh State. In previous meetings, PTD was recognised as a key element of participatory extension aimed at "developing new things that work". A series of workshops was designed to develop the PTD procedures to be applied and to start them up in a selected area.

In an initial 3-day workshop, participants explored the skills needed for PTD. This module was used at the beginning of the third day. The next week, a second workshop was held in

three villages where the participants applied their new skills and worked out some clear-cut trials which villagers wanted to do. The theme for interacting with villagers was restricted to animal husbandry, ranging from animal feeding to processing and selling animal products.

The 15 participants were fieldstaff of the Animal Husbandry Department working in the selected area, subject matter specialists, Dairy Federation staff, project extension staff and researchers from the extension department of the National Institute for Rural Development (NIRD). The workshop was facilitated by the director of NIRD extension and a Swiss consultant.

LEARNING ARRANGEMENTS

During a role play the previous day, the participants tried to deal with the type of farmer who always asks for subsidies and support from the project or government. They more or less failed to make the farmer understand what PTD is all about. They were thus sensitised to the importance of expressing PTD in an appropriate way.

The facilitators started the session by presenting handwritten overheads suggesting the following formulations in English: →

After discussion, the participants were asked to translate the key expressions "situation", "changes" and "improve the situation" into Telugu and to write them in Telugu script on the overheads.

HOW DID IT GO?

It is difficult for scientifically-trained staff, particularly those with veterinary training, to switch from the problem analysis reflex ("what is your problem and what are your needs") to an exploratory one ("how could this situation be improved"). Expressions with positive or neutral connotations helped them do this. Even more so than other fieldstaff, vets want to diagnose problems and prescribe therapies. It was important that we, as facilitators, explained clearly that the professional mode of operation as vets must be diagnostic but that, when engaged in PTD, they needed to shift their mode of operation to a more exploratory one. Our explicit acceptance of their professional role as vets gave them the freedom to think creatively for development purposes other than immediate health problems.

The biggest insight came during translation into Telugu. This triggered the question "what do we *really* mean by PTD?" and led to heated discussion. The whole issue and attitude of PTD was finally brought home - literally. Everybody knew English. It is an abstract language learnt in school. It is not what is spoken at home. English is for concepts and discussions and workshops, but Telugu is for everyday life. And the participants realised that they would soon have to explain these nice concepts to villagers. This realisation greatly increased their alertness to detail of meaning and to clarity.

Neither facilitator knew Telugu well, but this did not matter. As soon as consensus was reached on the appropriate Telugu wording, we asked whether a poor low-caste women would use these words. Consternation! No, that was "high language". She might understand the words, but she wouldn't use them at home. Here, the field-based participants came into their own and started being very vocal about the right words to get across the idea of PTD.

SUGGESTED IMPROVEMENTS TO THE MODULE

Although we did ask for the meaning of the Telugu words in English, without a doubt this can be improved and made more explicit. Once it is decided how to express, eg, "improving the situation" in the local language, ask for the literal translation of these words back into

SAY

we want to discover the opportunities for improving the situation

we must understand the situation here, and nobody knows it better than you

what could be done? how can we join forces to discover what can be done?

repeatedly explain "we want to combine our skills and knowledge with your skills and knowledge. Hopefully we can then jointly find new useful things that work. We want to do this, because we want our work to be useful to you, or else there is no reason for our work"

AVOID SAYING

we have come to find solutions to your problems

you must tell us the problems you have

how can we help you?

avoid talking of material inputs and money. When asked, explain that such things might be needed, but we are interested more in working together. If they are only interested in getting materials and money from us, then we are not interested to do PTD with them.

English. This may bring hidden and undesirable connotations to light, eg, when it would mean something like "modernise your backwardness".

Fieldstaff are being increasingly pressed to think in terms of villagers' "needs", with the result that staff often directly ask "what do you need?". This is another way of saying "what is your problem?", which also has negative connotations. The natural reaction of the villagers is to fall back into the demanding mode, which is counterproductive for PTD. It might therefore be useful to add the following on the overhead with the suggested English expressions:

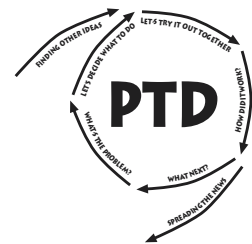
SAY

What is the situation here, what can be done about it, how can we join forces to do something about it?

AVOID SAYING

tell us your needs, what do you require

Check which words of the local language are used by staff to describe "needs" and problems", and explicitly write them down as words to be *avoided* in discussing PTD.



This module was developed and applied by: Ueli Scheuermeier, Landwirtschaftliche Beratungszentrale Lindau, CH-8315 Lindau, Switzerland and Dr D Sen, NIRD Dept of Extension and Transfer of Technology, Rajendranagar, Hyderabad 500 030, India, within the Indo-Swiss Project Andhra Pradesh, VBRI Premises, Shanti Nagar, Hyderabad 500 0238, India.

looking not only at potato cultivation but also sociocultural and marketing issues. Detailed report on five intensive days of farmer-scientist interaction, reflecting an approach to extension based on farmer experimentation.

Muchaganta MG, Reynal V de, and IP Veiga Jr. 1994. **Building a dialogue between researchers and small farmers: the Tocantins Agro-ecology Centre (CAT) in Brazil.** *Agricultural Administration (Research and Extension) Network Paper No 50*: 41-50. Overseas Development Institute (ODI), Regent's College, Inner Circle, Regent's Park, London NW1 4NS, UK.

Brazil, participatory research, farmer-scientist interaction, farmers' organisations
Summarizes the experiences over the past 5 years of a collaborative programme between farmer unions and universities working in a Brazilian Amazonia frontier region. These show that time is needed for the shift, both on the side of scientists and farmers, from scientists initiated agendas and farming systems research to truly farmer-led research. A systematic process of dialogue between different partners is proposed to enable such process.

Neugebauer B (ed). 1993. **Agri-culture ecológicamente apropiada: manual de metodología para la promoción de una agricultura ecológica.** Doc. No. 1632 A/c. 159 pp. Zentralstelle für Ernährung und Landwirtschaft, D-82336 Feldafing, Germany.

Latin America, ecological agriculture, evaluation, farmer research, soil conservation, training

A compilation of materials used in training courses on ecological agriculture in Central and South America, this draws substantially from Bunch's *Two Ears of Corn* about stimulating farmer experimentation, from Hecht, Altieri and Yurjevic about ecological agriculture, and from Primavesi about appropriate techniques for agrosilvopastoralism and working with tropical soils. The training is aimed at farmer-managed sustainable development.

Omolo EO, Ssenyonga JW, Ngugi A, Kiros F & Okali C. 1995. **Community mapping exercises: an evaluation.** *Agricultural Administration (Research and Extension) Network Paper 52*. 24 pp. Overseas Development

Institute, Regent's College, Inner Circle, Regent's Park, London NW1 4NS, UK.

Kenya, animal health, community participation, impact assessment, land use, livestock, participatory mapping
Among cattle-keeping farmers in Lambwe Valley, Western Kenya, participatory mapping served as a tool for deciding where to place tsetse traps and to discuss local views of the potential impact of tsetse control on land use. Example of a participatory approach in livestock systems, where the large area involved demands the participation of communities, not just individuals or small groups. Good description of the procedures followed, the content of the farmer-researcher dialogue and the lessons learned by researchers. Farmers put more emphasis on human than animal health, and they tended to minimum tsetse control, out of concern that grazing areas could be lost if tsetse-controlled land were farmed.

PMHE. 1994. **Experimenting with Participatory Rural Appraisal and Participatory Technology Development.** 6pp. Paper prepared for the Regional Workshop on PRA, Intercooperation, Sri Lanka. Authors: PMHE, POB 64 Kandy, Sri Lanka.

Sri Lanka, participatory technology development, participatory rural appraisal, settlement scheme, farmer experimentation, on-farm research, cashew

This paper reviews the experiences of the bilateral PMHE programme working in System C of the large Mahaweli Settlement Scheme. After PRA methods were used for situation analysis and problem discussions, a joint search with the settlers was initiated to find alternative farming systems following a PTD approach. Without going into great detail the paper identifies several important "limitations" of both PRA and PTD. It warns that both approaches should not become a fixed, pre-set, collection of methods ("today we are going to do PTD"), but rather a set of skills and attitudes integrated into all parts of the collaborative work with farmers.

Rogers A. 1993. **Third generation extension: towards an alternative model.** *The Rural Extension Bulletin* 3: 14-16.

India, local organisations, participatory extension, knowledge generation
Call for a new approach to extension designed to increase local

people's capacity to create knowledge: to question, analyse and test possible solutions for themselves. This is called "third generation" extension, in contrast with "first generation" (directive) and "second generation" (responsive, farmer-first). The new approach seeks to strengthen customary patterns and networks for learning. It requires fieldworkers to interact on a longer term with farmers and to become "insiders" of the farming community.

Ruddell ED & Beingolea J. 1995. **Towards farmer scientists** *ILEIA Newsletter* v.11 no.1: 16-17. ILEIA, POB 64, 3830 AB Leusden. Authors: World Neighbors, Andean Office, Casilla 20005, Santiago 20, Chile.
Bolivia, experimental design, potatoes, farmer experimentation, on-farm research, farmer-scientist interaction
Summarises experiences reported elsewhere of a semi-scientific approach towards farmer-led experimentation in the Andes.

Samaranayake MR. 1994. **Institutionalizing participatory approaches.** Paper for "Dare to Share" Fair, 20-21 September 1994, GTZ, Eschborn, Germany. 18 pp. Source: Uwe Kievelitz, GTZ OE 425, PO Box 5180, Eschborn, Germany.

Sri Lanka appraisal, institutional change, participatory methodology, planning, self-evaluation

Report on changes in the development strategy of the Sri Lankan National Development Foundation in collaboration with the Self-Help Support Programme of Swiss Intercooperation. The process of introducing participatory appraisal, participatory monitoring and evaluation, and self-evaluation techniques is described. Special attention is given to the changes in institutional arrangements which this new approach required. Concise information based on several years of experience in participatory methodology.

Shah P. 1994. **Local institutions and para-professionals in watershed management.** *ILEIA Newsletter* v.10 no.2: p.17-19. ILEIA, POB 64, 3830 AB Leusden. Author: IDS, University of Sussex, Falmer, Brighton BN1 9RE, UK

India, local organisations, participatory technology development, farmer experimentation, farmer-extensionist, participatory rural appraisal, watershed management

Gives an overview of the approach of the Aga Khan Rural Support Programme, an NGO working in Gujarat, India. It shows a systematic integration of approaches such as PRA, PTD, support to local institutions and village extensionists.

Skinner H. **Participatory Technology Development in Dryland Kenya: the experience of DAREP tools and tillage research.** Paper presented at the workshop for rural mechanisation "Technology for Rural Livelihoods". 12 pp. Available from: NRI, Barry Pound, Central Ave, Chatham Maritime, Kent ME4 4TB, UK.

Kenya, participatory research, tools, technology evaluation
Reports 1.5 years of experiences of the bilateral DAREP project. It systematically describes the step-by-step development of the activities, critically evaluates the methods used, and identifies important challenges to be addressed by similar projects elsewhere. The project has succeeded in creating effective linkages between farmer research groups, manufacturers of selected technologies, and extension agencies.

Sperling L & Berkowitz P. 1994. **Partners in selection: bean breeders and women bean experts in Rwanda.** 24 pp. Consultative Group on International Agricultural Research, 1818 H St NW, Washington DC 20433, USA.

Rwanda, beans, farmer experts, participatory research, plant breeding, variety selection

In Rwanda, women farmer experts evaluated bean varieties in on-station comparative trials and tested the ones they selected in home trials according to their own principles for experimentation. This allowed farmers' knowledge of soils, seasons and planting practices to be incorporated at early stages of screening new cultivars.

Sperling L & Ntombvura B. 1994. **Integrating farmer experts into on-station research.** In: Feldstein HS & Jiggins J (eds), *Tools for the field: methodologies handbook for gender analysis in agriculture* (West Hartford: Kumarian Press), pp 128-35.

Rwanda, beans, farmer experts, participatory research, plant breeding, variety selection

Same story about working with women bean farmers, in a very useful collection of short articles about research and extension methodologies based on field experience.

Stroud A. 1993. **Conducting on-farm experiments**. 118 pp. CIAT, AA 6713, Cali, Colombia.

Africa, participatory research, on-farm research, experimental design
This manual gives practical guidelines for implementing on-farm research. Contrary to other publications it pays ample attention to farmers' own experimental efforts and systematically analyses complementarity between farmer-led and researcher-led experiments. Study questions at the end of each part provide readers an opportunity to assess their learning progress.

Tadingar T. 1994. **Pastoral development in sub-Saharan Africa: an integration of modern and indigenous technical knowledge**. The African Pastoral Forum Working Paper Series 2. 39pp. Pastoral Information Network Programme (PINEP), University of Nairobi, Dept of Range Management, PO Box 29053, Nairobi, Kenya.

sub-Saharan Africa, indigenous knowledge pastoral development, range management
Discusses ways in which scientists' and pastoralists' knowledge can be exchanged to mobilise creative forces on both sides. Emphasises the importance of local knowledge associated with pastoral institutions and arrangements for resource use. The analysis is based on a literature review of indigenous knowledge and pastoral development.

Umesh C. and Lanting M. 1995. **Om PTD! Om PTD!** 5 pp. AME, 368, 4th Cross, JP Nagar, 3rd Phase, Bangalore 560078, India.
India, participatory technology development, group approach
After some initial experiences with PTD the authors give an overview of problems in implementation. To overcome these, a more gradual, learning, approach is proposed and outlined. Relative small groups of farmers would play a key role in first seasons' PTD activities.

UNICEF, 1993. **VIPP, Visualisation in Participatory**

INVENTORY OF PTD TRAINING EXPERIENCES

In 1990 ETC coordinated the preparation of a draft "Training Guide on PTD". Since that time organisations in different parts of the world have been engaged in PTD trainings. The 6 volumes of the training guide have been an important resource for such trainings, but certainly not the only one. The guide is now about to be finalised for publication. For this ETC is looking for and collecting experiences in PTD training over the past 4 years. Direct feedback on the use of the draft guide, training formats and methods developed on the basis of it, would also be very welcome. If you have experiences to share, contact: ETC, Laurens van Veldhuizen and Ann Waters-Bayer, POB 64, 3830 AB, Netherlands

Programmes. A manual for facilitators and trainers involved in participatory group events. 158 pp. UNICEF Bangladesh, POB 58, Dhaka 1000, Bangladesh.

group approach, training

In most participatory development approaches visualisation of issues discussed and analysed form an important tool in ensuring active involvement and ownership of all involved. This manual gives detailed directions in creatively using visualisation in group discussions. Although most of the examples are from classroom-based training sessions, many of the principles presented are equally valid for group sessions with villagers in the field.

Vétérinaires Sans Frontières. 1994. **Du plan de terroir villageois à la gestion des ressources naturelles: analyse des actions du volet "Environnement" du Projet Vétérinaires Sans Frontières en Haute Guinée Ouest**. 8 pp. VSF, 14 Av. Berthelot, F-69361 Lyon Cedex, France.

Guinea, fire, landuse planning, livestock, methods, natural resource management, rangeland, trees, water

Describes experimentation with using fire in natural resource management by livestock-keepers in a sparsely-populated sub-humid area of West Africa. Elders and development agents established a plan of village land as a communication tool for villagers to discuss management options. Risks of late bush fires were marked on the map, and villagers planned where to set early fires to reduce the risks. Later, sites of actual late fires were marked. The results of the experiment were assessed in terms of reduction of accidentally burned areas, and

lessons were drawn for improved fire management. Local people are learning to continue this process themselves.

FURTHER PUBLICATIONS

Papers from the International Symposium on Systems-Oriented Research in Agriculture and Development, 21-25 Nov 1994, Montpellier, France, show a gradual shift from scientist-led on-farm research towards farmer-led PTD. Most notably (available from CIRAD-SAR, Service des éditions, BP 5035, F-34032 Montpellier cedex 1, France):

- ▶ Chabosseau JM, Chevalier C, Darré JP, Napoléone M & Périchon C. **Facteurs d'évolution de problématique en recherche participative: mise en perspective de trois exemples**. pp 28-33.
- ▶ Chuma E. **Contribution of different evaluation methods to the understanding of farmers' decisions on adoption and adaptations of innovations: experiences from the development of a conservation tillage system in southern Zimbabwe**. pp 161-6.
- ▶ Versteeg M, Adnguidi J, Djenotin J & Nonfon R. **Effective participatory research involving farmers, nongovernment organizations, national agricultural research systems, and international agricultural research systems, to improve food security in northern Benin**. pp 274-5.
- ▶ Steiner KG & Scheidegger U. **Participatory technology**

development for soil fertility management in tropical highlands. pp 310-15.

- ▶ Campbell A. **Landcare in Australia: spawning new models of inquiry and learning for sustainability**. pp 366-70.
- ▶ Albaladejo C & Casablanca F. **Une recherche-action agissant sur les représentations que les organismes de recherche et de développement se font du savoir des agricultures: les conditions préalables à la participation**. pp 618-22.
- ▶ Seiter S, Ray W, Luna J, McGrath D & TenPas T. **Mutual learning in a participatory on-farm research project in Oregon, USA**. pp 863-4.
- ▶ Torreken P. **PDAAT: An action-research project in NRM**. pp 39-44 (unedited papers).
- ▶ Arnaiz M. 1995. **Farmers' organisations in the technology change process: An annotated bibliography**. *Agricultural Administration (Research and Extension) Network Paper No 53*. 50 pp. Overseas Development Institute (ODI), Regent's College, Inner Circle, Regent's Park, London NW1 4NS, UK
participatory research, farmers' organisations
- ▶ Boef W de. 1992. **Local knowledge and agricultural research**. Report on a seminar held in Zimbabwe from 28 September - 2 October 1992. 63 pp. CPRO-DLO, Centre for Genetic Resources, POB 16, 6700 AA Wageningen, the Netherlands.
indigenous knowledge, farmer experimentation, genetic resources
- ▶ FAO. 1992. **Participatory rapid appraisal of farmers' agricultural knowledge and communication systems** 81 pp. Final report of the PHI/92/T01 Technical Support Service Project Sectoral Review of Linkages in Agricultural Knowledge and Communication Systems of the National Agricultural and Resources Research and Development Network (NARDDN). FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy.
Philippines, agricultural knowledge systems, communication systems,

participatory rural appraisal, RAAKS, research and development

- ▶ Franzel S & Houten H van (eds). 1992 **Research with farmers: lessons from Ethiopia**. 303 pp. CAB International, Wallingford, Oxon OX10 8DE, UK. Ethiopia, agricultural policy, agricultural research, farming systems research, participatory research, semi-arid zone
- ▶ ISNAR. 1994. **Report of a workshop "Strengthening the role of farmers' organisations in technology development and transfer"**. Briefing Paper No 15, ISNAR, POB 93375, 2509 AJ The Hague, Netherlands.

participatory research, farmers' organisations

- ▶ Osborn T, Faye A. 1991 **Using farmer participatory research to improve seed and food grain production in Senegal** 25 pp. Winrock International, Petit Jean Mountain, Morrilton, Arkansas 72110-9537, USA.

Senegal, on-farm research, participatory research, seed production

- ▶ Pratt B & Loizos P. 1992. **Choosing research methods: data collection for development workers**. Oxfam, 274 Banbury Road, Oxford OX2 7DZ, UK
- data collecting, interviews, participatory rural appraisal, research methods

more specific in defining who decides about what in such activities. The role of farmer-managed research in handling the diversity of farmers' conditions, in achieving sustainable resource management and in reaching resource-poor farmers is critically reviewed.

Marty A. 1985. **La gestion des pâturages en zone pastorale (Région de Gao, Mali)**. *Les Cahiers de la Recherche-Développement* 6: 22-24. André Marty, 14 rue Paul Cézanne, F-34830 Clapiers, France.

Mali, Tuareg, experimentation, natural resource management, pasture improvement, farmer organisation, process approach

A brief but stimulating (and rare!) article about participatory research with herders, which started in north Mali in 1975. Pastoral organisations and government services jointly observed pasture conditions, analysed constraints, planned activities, implemented and evaluated them, and made appropriate re-adjustments. Older herders remembered how pastures not grazed in the wet season could be used in the dry. The Tuareg then experimented with a pasture-management system based on twice-yearly meetings: one at the start of the rains to identify reserve areas of pasture, and one at the end of the

rains to assess vegetation and to decide whether and when to open up protected areas.

JOURNALS

Agriculture and Human Values vol. 11, no 2 and 3, 1994.

Theme issue on "Participation and Empowerment". Of special interest:

- ▶ Bentley JW. *Facts, fantasies and failures of farmer participatory research*. 11 pp. Critical review of recent FPR literature. Shows limited basis and impact of many cases. Pleas for romance-free alternative styles of technology generation.
- ▶ Dlott JW, Altieri A, and Masumoto M. *Exploring the theory and practice of participatory research in US sustainable agriculture: A case study in insect pest management*. 14 pp. Reports 3 year experiences with FPR in the intensive production system of California's Central Valley. Farmers choose scientist-designed experiments on their farms as central element of the approach.
- ▶ Merrill-Sands D, Collion MH. *Farmers and researchers: The road to partnership*. 12pp. Studies the institutional impli-

cations of PTD within government research organisations. Focuses specifically on mechanisms for farmers to directly influence research agendas.

- ▶ Nelson KC. *Participation, empowerment, and farmer evaluations: A comparative analysis of IPM technology generation in Nicaragua*. 17 pp. Systematically studies and compares a scientist-led and a farmer-led experience in IPM technology development.
- ▶ Rocheleau DE. *Participatory research and the race to save the planet: Questions, critique, and lessons from the field*. 22 pp. Gives an extensive overview of participatory research approaches and their history, as well as some key methodological lessons from the last decade.

Available from: Agriculture and Human Values Inc., POB 14938, Gainesville, FL 32604, USA.

NETWORKING

ARUNET, the African Research Utilization Network, is a regional network for participatory research and communication in Eastern and Southern Africa. It tries to bridge the gap between development research and implementation of research results to

STILL WORTH READING!

In this section you can draw attention to older publications that you feel should not be forgotten, as they continue to (or should!) play an important role in our thinking and acting. Christoph Backhaus, now working in Sri Lanka, has suggested the following. What are your suggestions?

Tripp R. 1989. **Farmer participation in agricultural research: new directions or old problems**. 35pp. IDS, University of Sussex, Brighton BN1 9RE, UK.

participatory research, sustainable resource management

This paper still gives a very relevant overview of the opportunities but also the dilemmas and challenges of giving the lead to farmers in on-farm experimentation. There is a great need to be



Photo: Laurens van Veldhuizen

benefit farm families, health workers and community groups. For its members, ARUNET offers training in participatory strategies and small grants for experimentation in participatory methodologies. It publishes a quarterly newsletter and plans a monograph series on the methodologies used in ARUNET-funded activities. For more information, contact: The Coordinator, ARUNET, PO Box 43864, Nairobi, Kenya, Fax +254-2-728493.

Dryland Husbandry Project (DHP) brings together various stakeholders in pastoral development to develop strategies to address the crisis of African drylands. It involves OSSRA (Organisation for Social Science Research in Eastern and Southern Africa, Ethiopia), PINEP (Pastoral Information Network, Kenya), EPOS (Environmental Policy and Society, Sweden) and IGADD (Inter-Governmental Authority on Drought and Development, Djibouti). Methodology for participatory research is being developed, with focus on water-management techniques and low-cost veterinary care. Together with pastoralists, trials are carried out to test and adapt both indigenous and "scientific" technologies. For more information, contact: Abdel Ghaffar Ahmed, OSSREA, PO Box 31971, Addis Ababa, Ethiopia (Fax +251-1-551399).

The FARM Programme: Farmer-centred agricultural resource management. FARM is a UNDP/FAO/UNIDO programme operating in China, India, Indonesia, Nepal, Philippines, Sri Lanka, Thailand and Vietnam. One of the 7 sub-programmes focuses specifically on development of approaches to enhance farmer participation in agricultural development activities and promotion of supportive policies. This sub-programme, "People Centered Sustainable Development", is coordinated by ANGO in the Philippines. For more information, contact: Bishar Singh, ANGO, 14A 11th Jamboree Street, Barangay Sacred Heart, Kamuning, Quezon City 1103, Metro Manila, Philippines (fax +63 2 9215122)

● TRAINING REPORTS AND EVENTS

PMHE 1994. **PMHE Second follow-up training in participatory technology development, September 1994** 47 pp. PMHE, POB 154, Kandy, Sri Lanka. Sri Lanka, farmer experimentation, group approach, training Documents a mission to support field staff of the bilateral PMHE project and their colleagues of the Mahaweli Economic Authority actively involved in PTD activities

since 1991. Training support "in the field" was followed by a three days workshop. Key themes discussed include the importance of farmers' knowledge, supporting farmer experimentation, and the role of groups in PTD and how to encourage group development.

● AUDIOVISUALS

CIAT. 1993. **El método IPRA: investigación participativa para la agricultura.** Centro Internacional de Agricultura Tropical (CIAT), AA 6713, Cali, Colombia. Spanish version of 20 min. video "The IPRA Method". participatory research, on-farm experimentation, farmer-scientist interaction

● COLOPHON

**PTD Circular
Six-monthly update on
Participatory Technology
Development
Number 3, May 1995**

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.

Editors

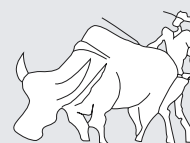
Laurens van Veldhuizen and Ann Waters-Bayer.

Printing

BDU, Barneveld.

Subscriptions

Write to Marika van den Brom at ILEIA for a free subscription. A limited number of the first issues is still available.



ILEIA, PO Box 64,
3830 AB Leusden,
Netherlands.
Fax: +31 33 940791.
E-mail: ileia@antenna.nl

Order form PTD Circular

Subscription No. ILEIA Newsletter (on address label):

Name of Organisation:

Contact Person:

Address:

Postal code

Town:

District/State:

Country: