Community Participation in Research

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Proceedings of a workshop held in Nairobi, Kenya, 23–27 September 1991

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Co-sponsored by the International Development Research Centre (IDRC) and the University of Nairobi
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Foreword

This publication is based on a workshop, coorganized and cosponsored by the Unit of Applied Nutrition, University of Nairobi, and the Health Sciences Division, International Development Research Centre (IDRC), held in Nairobi, Kenya, September 1991. The workshop provided the opportunity for participants to learn about some of the major participatory approaches being used in development initiatives and to consider their application to research in nutrition and agriculture.

In view of the attention being placed worldwide on participatory development, and the proliferation of rapid assessment methodologies being applied to a number of sectors, members of the Applied Nutrition Unit felt that it was important to structure time to expose their staff to these methodologies and explore the issues arising from their use. The papers draw on knowledge from a number of disciplines, and are oriented towards problems faced not only in nutrition research but also in water supply and sanitation, forestry, agriculture, and natural resource management.

On the part of the IDRC, the workshop can be seen as one in a series of efforts that have taken place over the past few years to promote the development of community-based nutrition research and to investigate innovative and promising approaches to people-centred development.

Too often, the exchange of information among disciplines, and across geographical boundaries, gets blocked. It is our hope that this publication will help to lower these barriers and promote the sharing of viewpoints, experiences, and methodological approaches. It should prove stimulating reading for researchers from a range of disciplines, as well as for individuals working in ministries, nongovernmental agencies, and donor agencies with mandates ranging from research to policy and program formulation and their implementation in disadvantaged communities throughout the world.

I would like to take this opportunity to thank Kathy Kealey and Betty Alce, whose professional services in editing and wordprocessing the manuscript, respectively, have helped to bring this work to public light.

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Executive Summary

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Research that Makes a Difference

Research is about generating new knowledge and solving problems. Results of research and statistics regarding food security and nutritional status obtained throughout the 1980s are emphasizing the urgent need to address problems associated with malnutrition and food security. Efforts to alleviate malnutrition and improve social well-being will continue in many forms of interventions, from school feeding, health and nutrition education, hygiene and sanitation interventions, and prenatal programs to agricultural interventions and so on. Either in helping planners to select the intervention(s) that will be taken in a specific context or in helping to improve an intervention, research has a contribution to make.

But how can research most effectively contribute to development? Are the investigations being conducted in country after country best suited to helping to understand and solve problems? Is there something that can be done by researchers to ensure that their investigations will indeed improve the lives of the marginalized, will improve household food security, and will lessen the burden of malnutrition?

One approach, which has only recently been introduced into conventional research programs, is that of increasing the participation of people from the community into various stages of the research cycle. Broadening the range of actors involved in a research endeavour has increasingly become a key feature of a number of approaches now being promoted in the development arena; participatory research (PR), participatory rural appraisal (PRA), rapid rural appraisal (RRA), participatory action research (PAR), and participatory evaluation (PE) are just some of the labels attached to a wide range of practices.
Participatory methods can enable communities to assess and initiate development activities to their own benefit. Borrowed from principles of popular education and from community traditions of "self-help," community participation in research has been gaining acceptance particularly in the field of farming systems research. These approaches have also been used in social, health, and agricultural research, notably for needs assessment, program monitoring and evaluation, community sensitization/mobilization, and, less often, for stimulating collective action to overcome a problem.

Moreover, having witnessed numerous examples of failed intervention programs in development, the need to ensure acceptability and sustainability of interventions has led many to look at the value of participatory methods to help match beneficiary needs and realities with development initiatives and thereby contribute to greater local control and sustainability of efforts. With this move to make research more "people-oriented" and democratic in its conception and implementation, it is expected that the research conducted will be of higher relevance and have a greater potential to lead to positive change.

To date, the predominant approach in applied research in both the North and the South has been the gathering and analysis of information by researchers (academics) for the production of new knowledge without much involvement of local people in the process. Although conventional research actors and methods will no doubt continue to play a major role, some significant changes are taking place. The control of the research process is more often being shared and the typical "subjects" of research communities are becoming involved in various aspects of the research process and taking responsibility for follow-up activities.

The Workshop

This workshop was organized to learn about and discuss participatory approaches to research in agriculture and nutrition. The 5-day workshop provided the opportunity for participants to learn about some of the major participatory approaches being endorsed and used throughout the world. A number of facilitators guided the workshop through the history of participatory approaches, methods in use in agricultural and nutrition research, hands-on learning, and group discussions on how to integrate new approaches into academic research programs. Given that the majority of participants were university academic staff, a focus on the relevance and application of PR to that setting was made.

Most participants had no prior theoretical or field experience in PR methods, and many had only a vague idea as to what PR really meant. Therefore, the workshop was designed at an introductory level with the focus on the meaning of
PR and the application of participatory methods in research. The workshop participants included academics from the Faculty of Agriculture of the University of Nairobi; Ministry personnel (the Ministries of Health, Community and Social Services, and Agriculture as well as the Ministry of Planning and National Development were represented); project personnel from nongovernmental agencies; and representatives of international donor agencies.

The format of the workshop consisted of a number of presentations, case studies, and discussion groups (both small groups and plenary). In an effort to make the workshop as interesting as possible and to enhance learning opportunities, participatory learning techniques were structured into the program.

Objectives

The objectives of the workshop were as follows:

- To familiarize participants with the concept of participatory research,
- To review participatory research methods and their application in development research,
- To discuss and appraise the value of participatory research for teaching and research initiatives in an academic environment, and
- To expose participants to a variety of resource materials on the subject.

Expectations

In general terms, participants were interested in becoming clear about the terminology of PR; to learn its applications, methods, and limitations; and to understand its value, not only in leading to development initiatives, but vis-à-vis conventional research programs that most participants had been involved in at one time or another. Some wanted to explore the potential for PR to lead to community action and development and to be able to discuss the process for involving local people in research.

For those with some knowledge of PR, specific expectations were voiced, such as how best to conduct interdisciplinary research using PR, how to use PR in monitoring and evaluation, and how best to apply PR methods to specific areas such as community food preparation and processing, the study of food habits and taboos, assessment of nutritional staples, and in research on nomadic pastoralists. An examination of the logistics, problems, costs, and time involved in PR as compared to other approaches, was also desired. Regarding the academic environment, concerns focused on how to integrate PR into teaching and research programs, how to use PR for shorter term student thesis research, and how to present PR research in peer-reviewed, "scientific" journals.
Workshop Presentations

Besides deliberating on the meaning and forms of community participation in research, the workshop was devoted to presentations that illustrated various approaches by which community members can become partners in research. The presentations were selected to expose the participants to some of the main participatory approaches being used by scientists and development change agents, as well as introduce them to a variety of methods and techniques aimed at promoting community participation.

Presentations were made relating to these approaches: rapid rural appraisal (RRA), rapid assessment procedures (RAP), participatory rural appraisal (PRA), and lot quality assurance sampling (LQAS). Case studies from Kenya, Tanzania, and the Sudan were presented. Other major presentations related to PR in academia and tools and techniques for stimulating community participation.

The first day was designed to explore expectations about the workshop and previous experience with research as well as to share opinions, attitudes, and knowledge about research and the concepts and practice of PR.

In the first exercise, participants were divided into small groups to discuss the following questions: What is research? What is PR? Have you ever been engaged in a PR project? What is the greatest challenge you have encountered in your research work? In exploring attitudes and experiences in this exercise it was clear that participants differed greatly about their understanding of just what is PR. Many felt that they indeed were using a PR approach but had just not labelled it as such.

The question of what is the accepted definition of PR and whose definition is it, was raised. In PR the characteristics of greater interaction between the researcher and community members, greater multidisciplinarity, and an action orientation were mentioned.

The second working group session focused on the meaning and forms of community participation, with the exercise designed to stimulate a discussion about how community members can be part of the research process. In this exercise, a wide range of interpretations for participation was expressed. It was agreed that in research there is generally not a lot of active participation by community members. When there is real dialogue between researchers and communities and the will to involve communities in the research process, that is when people begin to participate actively and to move toward greater sharing of power and control.
In the session on *Tools for Community Participation* training specialists from PROWWESS introduced participants to some of the many methods and techniques for enhancing community involvement in development endeavours. The session provided a glimpse of the value of participatory methods in the areas of gender analysis, program and project planning and implementation, and monitoring and evaluation efforts.

The paper on *Participatory Research: An Alternative Research Approach* provided a brief overview of the origins of participatory research and the main schools of thought. Besides describing the features of the PR approach, this paper also emphasized issues relating to the action-orientation focus of PR research, constraints to its practice, and the view held by some that PR is becoming "co-opted."

The *case study on Sudan* presented by de Treville describes an experience in using a wide variety of PRA/RRA tools and methods. The paper describes how their use by a multidisciplinary team, which included local participants, laid the foundations for future research and implementation activities. The case study shows the development of a participatory process at the project management level and at the local level. In so doing, the use of a PRA/RRA approach encouraged and enhanced the team-building process. The participatory approach taken in this study enhanced and encouraged the understanding of and ability to use a holistic approach in research and development.

In the paper by Nyamwaya, *an East African regional variant of RAP* is described wherein greater community participation is evoked. The uses and methods of RAP are outlined and the main steps taken in the RAP approach are presented. It is emphasized that RAP is not some sort of ideal research methodology but is just one more tool in the researcher's toolbox, to be used when the context indicates that it is appropriate.

In the paper by Lugeye on *Participatory Village Development Planning in Morogoro, Tanzania*, an approach to increasing villagers' participation in local-level development is described. Through the efforts of the Sokoine University Extension Project (SEP) a village leaders' training program, which aims to enhance the capacity of village leaders in identifying and solving problems in a participatory way, has been launched in 41 villages. An improved format for village development planning is being tested with the establishment of the village research committees serving the critical function of facilitating the systematic input into the village government structure of villagers' views regarding priority needs and feasible solutions. This "bottom-up" planning has been found to feed into the village, district, regional, and national levels, and the early results are promising.
The section on Participatory Rural Appraisal (PRA) for Sustainable Resource Management in Rural Kenya describes an approach that is being used by multidisciplinary teams to stimulate community involvement in preparing and implementing village resource management plans. A number of field trials of PRA have been completed in Kenya, with application of the methodology for a variety of uses, including the development of strategies for small-scale irrigation projects, the development of communal water resources, and improvement of crop production and marketing.

Dr Valadez introduced participants to Lot Quality Assurance Sampling (LQAS), a method used within a comprehensive monitoring and evaluation framework for health supervision and correction. With field testing, begun in the late 1980s, LQAS promises to be useful for screening problems, diagnosing the extent, and for the management of the quality of care being delivered. In LQAS, the minimum sample size is investigated to answer questions of adequacy/inadequacy so that scarce resources can be targeted to areas of greatest need.

Although this presentation did not address the issue of community participation directly, it provoked a discussion about the various communities of interest for program managers. In this case, LQAS focused on local, district health workers and aimed to place the management of services and day-to-day monitoring in their hands. Possibilities for stronger involvement of families in their own homes were also mentioned.

The presentation by Lugeye about PR in An Academic Setting was of special interest for many participants. In describing the outreach and extension activities at the Sokioine University of Agriculture in Tanzania, the ways in which a university can make linkages with communities was illustrated. It was emphasized that knowledge of participatory approaches was needed not only by the instructors, but also by policymakers in the field of education and curriculum development.

In the paper prepared by de Treville on the Problem Areas in PRA and Related Methodologies, the author cautions against a shift in direction to exclusive PRA approaches. She emphasizes that one should not grab for a new method, a new approach to research and development without subjecting the approach and its methods to rigorous assessment and analysis, and judicious use.

Overall, these presentations showed that it is possible for "experts" and communities to collaborate effectively and systematically learn from each others' experiences and knowledge. The limitations and constraints of community
participation were raised, particularly when the participants grappled with the implications of incorporating a PR philosophy and methods within the academic setting.

**Benefits from Community Participation in Research**

From these presentations and the discussions that followed them, a list of applications and benefits arising from community participation in the research process took shape, and these are listed in the following.

**Problem Identification and Setting Objectives**

Scientists often work in geographical areas about which they know little and design studies based on assumptions that may be incorrect. Rapid assessments can help in the definition and focusing of research objectives. The assessment may also lead to a redefinition of the working hypothesis or to the generation of a new hypothesis as well as lead to the identification of problems as perceived by the community.

**Research Design**

Participatory methodologies may help as follows:

- To formulate more detailed questions for investigation;
- To decide upon variables to include in a questionnaire;
- To develop consensus among members of a multidisciplinary team on just what you need to know to ask in a study;
- To figure out the logistics of the fieldwork (fieldwork costs, restraints, time);
- To develop practical, short-term as well as long-term plans for project implementation;
- To uncover indigenous knowledge and practices about which researchers were not aware;
- To help researchers gain a better understanding of topics such as food habits, beliefs and taboos, local availability of foods, and gender division of labour, and
- To seek out people’s attitudes, beliefs, terminology, taxonomy, etc., participatory methods can lead to enhanced validity of information collected in studies and to the more accurate interpretation of findings.
Monitoring and Evaluation (M&E)

Participatory methodologies can be used in the establishment of baseline information in a project and can be used in project monitoring and evaluation. For example, in the Sudan study the methods were critical in conducting the baseline study and in plans for the project monitoring and evaluation. The work of PROWESS amply illustrates how participatory tools and techniques can spark the use and generation of creative ways of M&E. In Kenya, RAP has been used in community feedback sessions geared to exploring whether or not community views differ from those of the experts. The methodologies may also be used to generate information about constraints to program participation, service utilization, or technology adoption.

Enhanced Local Development

Participation can help uncover impractical development plans and modify decisions made by "outside" development planners. Through community participation, research undertaken may be more likely to address issues of importance to the community, and this may increase the potential for development expectations to be met.

Overcoming Community Problems

By involving the community in research, you are facing problems together and benefiting from a wider range of possible solutions suggested. This may help to increase community support for any interventions eventually selected for implementation or for the adoption of a new technology.

Avoidance of Duplication of Effort

Study findings can be used by others working in the community, in program planning, or in helping to guide decisions about research needs and focus. For example, in Tanzania the village research committees are able to present "outsiders" with information regarding a community's research needs and priorities. In Kenya, PRA work has often left behind village resource management plans that can be used by others who wish to work within that community.

Informing and Influencing Decision-Makers/Community Members

Unconventional reporting forms (e.g., role plays, visuals, group discussions, etc.) may be more powerful means to report study findings to communities and to decision-makers than more conventional forms, such as written reports or
conferences. Various forms of popular expression can serve as a medium for providing feedback to community members and for informing, and influencing, various levels of decision-makers.

**Influencing Behaviour and Enhancing Learning**

Participatory methods can help in the following ways:

- In developing and pretesting of educational materials,
- In examining KABP related to feeding, and
- In gaining a better understanding of what community members think are the causes of malnutrition.

**Discussion Summary**

In the discussions and comments made by participants, the emergent consensus pointed toward the need for increased knowledge about participatory approaches by researchers and development agents. Also, careful reflection was needed by researchers about the goals and objectives of a study before deciding upon either the research design or the possible patterns of partnership in a study. Some of the main areas of discussion are summarized in the following.

Questions of particular interest and concern to the participants included:

- Is PR "scientifically" valid and rigorous?
- Is it ever really possible to have the community identify its needs and act on them without the involvement (and, therefore, the possible influence of) "outsiders"?
- Is the difference between PR and conventional methods characterized primarily by the different weights given to the use of quantitative and qualitative methods?
- Should incentives be necessary or be given when trying to achieve community participation in research?
- Can PR be utilized when the objective is research for the production of new knowledge or is it limited to community action?
- How can community participation in research be achieved when research timeframes and resources are often limited?
- How can bias be reduced when sample sizes are small and when qualitative methods are used?
The preoccupation with these questions was evident as they were a recurring theme throughout the workshop.

**Participation — A Means Or An End?**

The question of whether or not communities really need to participate in all stages of the research process was one of great interest. Is full participation, in each stage of research, indeed a goal to strive for? Although a listing of the benefits of participation emerged during the workshop, it was also apparent that there are a number of constraints to keep in mind.

Some questioned the necessity, as endorsed by many advocates of PR, to involve clients in all stages of the research process. On the pragmatic level, it was felt that it may not be realistic and practical to do so at all times. Yet, there was agreement that researchers must start to engage in a deeper dialogue with communities. There is a need to ask questions, listen, have patience, and learn from community members. If people's needs are to come first in the research agenda, then their involvement in the process of inquiry should begin as early as possible.

**Soloist vs Teamwork**

The relative ease for the researcher who conducts research on his or her own, without trying to undertake either a multidisciplinary team approach or to bring community members into the process, was mentioned by some. This "soloist" approach has the advantages of placing fewer demands on the researcher and is less difficult to do. Researchers can just "do their own thing" without having to worry about listening to the opinions of others or trying to satisfy all viewpoints.

**Incentives/Community Expectations**

The question of the ethics of providing incentives to a community in the case of a PR approach was raised. If a researcher aims to enlist voluntary participation and sees the community members as equal partners in a study, some felt that providing incentives would undermine the effort and, indeed, would not be necessary — to give an incentive would be seen as a bribe. But, as others pointed out, incentives are often used as a means of enlisting cooperation and participation in a study. This is especially true in settings where the research timeframes to work in a community are extremely limited and incentives seen as "consolation" for information extracted from people. Some individuals would not partake in research otherwise, and often a community is used as a laboratory, suggesting that compensation should be given.
Incentives may either be monetary or otherwise (e.g., household items, health services, information). The communities are poor and people may need to be induced into participating in a study or compensated for their participation. After all, some said it is the researcher who has taken a conscious decision to involve the communities, rather than the community who has asked for this interaction. One should keep in mind that researchers are probing into the lives of others, not vice versa.

It was stressed that action-oriented research is likely to raise community expectations, sometimes to a level that the researchers (or others) cannot meet. Researchers need to be sensitive to this and avoid the temptation of suggesting outcomes that are not possible. Some said that research for action should take place only when follow-up actions are indeed possible. It is the responsibility of action researchers to always keep in mind the potential and resources available to the community.

**Qualitative Methods**

In trying to probe the attitudes and behaviours of people, and obtain information about the realities and the context of community life, it was acknowledged that qualitative methods could make a valuable contribution. However, there is a considerable degree of lack of familiarity and use of such methods by those trained in the nutritional and agricultural sciences, and this may sometimes lead to an undervaluation of the methods. Qualitative methods can certainly be valid and reliable. It was stressed that these methods should not be seen as a substitute for quantitative methods, but should be chosen (as is also true for quantitative methods) when the use of a particular method is suited to the study objectives.

**Interaction With Communities**

The need to establish trust and good rapport with communities was a concern for many participants. The difficulties in being able to gain access to communities were mentioned. Often, local bureaucracy prohibits direct contact with communities, and permission first sought from the district officer or local chief. Can PR help to ease researchers through these official channels? Can it help to reduce some of the constraints usually present when undertaking research at the community level?

In PR, the researcher may be in contact with a community for longer than is customary. This might help in establishing trust and gaining entry into the life of the community, such that reliability of information provided might be greater.
In many studies, the results and the benefits may only be apparent in the medium or long term. When there is active community participation in a research project it is likely that those involved will want to see more immediate benefits, directed within their own community.

**Constraints**

Research is often funded by external agencies who have their own expectations and desire for boundaries on the research process. This can be a serious constraint affecting the approach used in research and the pace of a project.

Conclusions made by de Treville in the Sudan case study were generally shared. That is, although there are indeed benefits to the participatory approaches the challenge will be to maintain a critical, discriminating stance so that these newly promoted approaches are used in more informed ways, appropriate to the goals and context of a particular setting or study.

**Follow-Up**

In the evaluation of the workshop, a strong desire was expressed for a field practicum to enable the participants to try out some of the participatory methods and tools introduced during the workshop. Many participants of this workshop were subsequently involved in a field training course held in March 1992, given by the Unit of Applied Nutrition, University of Nairobi and supported by IDRC.
On the first day of the workshop two group exercises were carried out to stimulate discussion about the subject of participatory research (PR) and issues regarding community participation.

**Exercise 1: Experiences and Understanding of Research**

In the first exercise, participants were divided into 4 working groups and asked to discuss the following questions:

- What is research?
- What is the purpose of research?
- What is participatory research (PR)?
- What methods have you/your institutions used in research projects?
- Have you ever been engaged in a PR project?
- What is the greatest challenge you have encountered in your research/work?

When the exercises were completed, a spokesperson from each group presented the work to the plenary.

In defining "research" all groups stressed that research is a knowledge-seeking activity. It was stressed that the inquiry should be done in a systematic way, to create new knowledge. The purpose of research was said to include the following: confirmation of existing theories and testing of hypotheses; planning, implementation, and evaluation of development projects; and identification and solution of problems. When research aims to lead to practical applications to identified problems (labelled "applied" research), one group mentioned that the research has immediate benefit. This is in contrast to "academic" research, which aims principally to advance knowledge and may or may not find immediate applications. It was stressed that such research however, is of immense importance and may lead to benefits or applications in the longer term.
In the group discussions about PR, participants mentioned the following as being characteristics of PR:

- PR demands an interaction between the "community moderator" and community members.
- PR is carried out mainly at the community level.
- PR focuses inquiry on problems identified in the community.
- PR is action-oriented.
- PR involves a range of people in the knowledge-seeking process, with people of different disciplines working together and engaging the active involvement of the subject of the research.
- PR is a more qualitative method of knowledge seeking.

A number of participants said they had prior experience with PR. Some of their studies or activities included preextension trials of new varieties of sorghum and of fertilizers, village-level nutrition seminars in which local villagers' input was sought regarding the identification of nutrition-related problems, inquiry into farmers' views about agricultural credit, and investigation of factors influencing the utilization of the sweet potato.

Rather than using multi-disciplinary team approaches to research, a mainly "soloist" approach seemed to be the norm for a number of participants.

Experience with a wide range of methods was mentioned (eg.- surveys, participant observation, focus group discussions, structured and semi-structured interviews, clinical, biochemical and anthropometric assessment of nutritional status, and sensory analysis). The laboratory, the clinic or hospital, and the community were all mentioned as the main settings for research endeavours.

Some said that maybe they were indeed doing PR but had just not labelled their work as such. This raised some discussion about the extent of participation usually invoked by various methods and the reasons for seeking community participation in research. Questions were asked, such as: What is the accepted definition of PR and whose definition is it? Could researchers be involved in PR unknowingly? What, if any, are the benefits of PR over more academic research? What is interaction? What does it mean, to be involved? Do we want communities to participate only so that they can understand why a study is being undertaken and thus increase their cooperation in providing information, or are we talking about empowerment for eventual self-action?

In doing research, the difficulty of establishing rapport and developing acceptance by, and credibility with, the community was mentioned. This was seen to be of special importance when a research team continually returns to the same community. Difficulties in gathering reliable data were also mentioned:
respondents may give the answer they feel is wanted by the interviewer. It was asked: "Can PR increase the reliability of data?" It was suggested that in general, communities may initially be closed and sceptical, but that with time, there is a relaxation and a lowering of defenses. Whether or not this is indeed a general finding was questioned by some. If it is generalizable, then, given that much research is a "one time" event, this issue is of importance. This in turn may raise the need to examine if there are particular types of data for which one-time surveys are particularly unreliable.

The difficulties in gaining access to communities, in order to talk openly with them, were raised. Often local bureaucracy operates to prohibit direct contact with community members, and permission to work within a setting must first be obtained by proceeding through a given order of hierarchy; e.g., go first to the District Officer, then to the village chief. The question was asked "Can PR help to ease us through the official channels?"

When community-based research is undertaken, many participants mentioned that this may lead to raised expectations in the community. Unfortunately, when this occurs, raised expectations may sometimes not be met. When the findings or the benefits of a given study will only be evident in the medium or long term (or, perhaps never) to the community in question, it is critical that the investigators at least educate the community about the goals of the study and be clear about the study's inability to bring immediate benefits to the community.

Other challenges encountered included the mention of: lack of sufficient research funds; small sample sizes (often due to insufficient funds); too large a sample size (may be due to lack of technical expertise in calculating sample size); analysis and interpretation of data; and pressures to conform to donors' time schedules and expectations (these may affect the pace and the approach chosen in a study).

In the discussion of this exercise, some scepticism about PR methods, their applicability, and their scientific validity was expressed and these doubts were considered later during the workshop.

A listing of questions to keep in mind when designing and assessing research projects is presented in Figure 1. This listing was posted on the wall of the workshop meeting room.
Initiation and Control

Who initiates? Who defines the problem? Who pays?

Critical Content

What is studied? Why? By whom?

Data Collection and Analysis

How is information gathered? By whom?
How is data analyzed? By whom?

Learning and Skills Development

What is learned? Who develops what skills?
What are the products and by-products?

Uses for Action

How are results disseminated? Who uses them?
How are they used? Who benefits?

Fig. 1. Questions for PR (Source: Participatory Research: An Introduction. 1982. Society for Participatory Research in Asia, New Delhi, India. Participatory Research Network Series No. 3).

Exercise 2: Meaning and Forms of Community Participation

The purpose of exercise two was to stimulate discussion on the meaning and forms of community participation and to use this exercise as a stimulant to a discussion about how community members can be part of the research process. This activity was felt to be of value because the notion of participation is central to any approach that endorses people's participation in research.

The participants were divided into four groups and asked to construct a visual continuum to illustrate and probe their understanding of the range (i.e., from a low to high level of participation) and terminology of "participation." They were then given 60 minutes to complete the task. On completion of the small, group exercise, a spokesperson from each group presented the work to the whole group. To start off the exercise, a sample diagram was shown and discussed briefly with the whole group, as an example of how vocabulary is used to define a continuum (Fig. 2).
A sample diagram:

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<table>
<thead>
<tr>
<th>force</th>
<th>coercion</th>
<th>cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>maximal</td>
<td></td>
<td>minimal</td>
</tr>
</tbody>
</table>
```

Synthesis of groupwork:

```
maximal
(authentic participation)

begin to have two-way communication
```

```
- partnership/equality
- total involvement
- mobilization of people's organizations
- discussion and dialogue
- consultation
- information sharing
- cooperation
- agreement/contract
- consent
- sensitizing
- informing
- preaching
- persuasion
- inducement
- blackmail
- coercion
- force
```

minimal
(involuntary participation)

Fig. 2. A continuum of community participation.
Outcome

The four groups produced very different results, both with regard to their interpretation of the exercise and the extent of the vocabulary selected. There was some temptation to identify research tasks and place them along the line, rather than to describe the line itself.

The efforts of the small group exercises were later combined by the facilitators to form one common continuum. The continuum, which was constructed on the basis of the synthesis of the efforts of the four groups, is illustrated in Fig. 2. In constructing a continuum of community participation, the four working groups highlighted the following.

Meaning and Forms of Participation

The four groups generally identified a wide range of interpretations for participation. At the end of the spectrum labelled "minimal" level of participation, people's involvement was described as being forced, with punishment, coercion, and even blackmail potentially being used to elicit participation. At higher levels, participation was fully voluntary with people increasingly taking on a broader range of roles and responsibilities. At the maximum level, there was a sharing of power and control, with greater community input into decision-making. At these levels, the development and mobilization of people's organizations occurs, and self-help efforts can be stimulated. It was noted that, although participation is indeed a feature of many development efforts, it is rare to see the attainment of that form of participation that is characterized by full partnership and equality.

Authentic Participation

A characteristic of authentic participation is that it is an active and dynamic process. Active participation begins to occur when communication is no longer one way, but becomes dialogical (i.e., two-way communication). It was agreed that in research there is generally not a lot of active participation by community members. Although it is common practice to inform the community about a study or to seek the permission of a political figure to embark on a study in his or her community, it is less likely to find that communities are involved in problem formulation and definition of needs or in assisting with data collection and analysis. When there is real dialogue between researchers and communities and the will to involve communities in the research process, that is when people begin to participate actively in assessing and analyzing their situation and engage in activities to "empower" themselves.
Sensitization

Participants emphasized that if people are to participate, there is often a need to make an effort to educate them about the benefits of participation and, in some cases, to inform them about the existence of a problem. This situation may arise when the community’s definition of a need does not match the researcher’s, and a research program or intervention is initiated and planned without discussion of the community’s views about the importance of the problem.

Channels to Facilitate Participation

It was stressed that participation is facilitated if there are organizational structures in the community that promote and support popular participation. Examples given of such channels included women’s groups, religious organizations, farmer’s self-help traditions, and the traditional decision-making hierarchy.
Tools for Community Participation: Learning from the PROWESS Experience

During this workshop session, participatory methods training specialists from the PROWESS regional office in Nairobi (Rose Mulama and Ron Sawyer) introduced the participants to the basic principles of participatory community learning and showed how these principles can be applied in the field.¹ Participatory methods and materials developed by PROWESS were demonstrated to the group. Attempts were made by the trainers to illustrate how these materials and methods can relate to food and nutrition projects and to nutrition-related research. It was evident that the participatory methods and tools could be of value in the research process, especially for obtaining qualitative information, for the verification of research findings using other methods, for the provision of feedback to communities, and for needs assessment and evaluation. All demonstrated methods are described in the publication Tools for Community Participation: A Manual for Training Trainers in Participatory Techniques, by Lyra Srinivasan. A description of the participatory methods and tools introduced during this session follows.

The PROWESS program (Promotion of the Role of Women in Water and Environmental Sanitation Services) was initiated in 1983 at the recommendation of the Task Force for Cooperative Action within the context of the International Drinking Water Supply and Sanitation Decade (1981–1990). The Program aimed to demonstrate methods and benefits of increasing women’s involvement in the water and sanitation sector and assisted countries in:

- Project design and execution involving women in the community, including their participation in analyzing situations and collecting data,

• Training trainers to give community-level workers techniques to enhance women's participation, and

• Information and communication programs that share knowledge about, and encourage further development of, women's proven potential in water/sanitation programs.

Through field activities in more than 1000 communities and sector work in 21 countries, combined with advocacy, public information, and research, PROWWESS has demonstrated that participatory methods and women's involvement can work in most environments as key management strategies in the water and sanitation sector. Simple planning and evaluation frameworks have been developed as well as a methodology for participatory training. In developing educational materials and tools for promoting community participation, the need to involve communities and, in particular, women, in the planning, implementation, and evaluation of water and sanitation projects is emphasized.

Participatory training and materials development have been a cornerstone of the PROWWESS approach. PROWWESS has developed a package of participatory training strategies and tools primarily for the training of trainers of extension workers and for managers at the project level. More than 10,000 people have been trained, and the methods have gradually diffused beyond those directly trained by PROWWESS. In future, PROWWESS also plans to focus its field activities on extending the repertoire of tools and materials for use at the community level. A shortage of both skilled participatory trainers and appropriate materials and tools are still barriers that need to be overcome.

The value of this approach for other sectors and purposes too has also been apparent, leading PROWWESS to extend the application of participatory approaches to hygiene education, data collection for planning, and monitoring and evaluation at the community and project levels. In pursuing its people-centred development approach, PROWWESS plans to direct its efforts at convincing senior decision-makers about the value and need for people's participation. The strategy for the future, therefore, will focus on developing institutional capacity for participatory training at different levels reaching out to experienced trainers in other sectors and agencies. In Kenya, there are plans to evolve a national participatory training strategy that would address a broad range of human resource development interests.

Workshops are the main method used in the PROWWESS program to impart training in participatory methods. They generally are conducted over a period of about 10 days and include field trips to villages in the host program area. The activities of PROWWESS training workshops are based on the SARAR
methodology. SARAR is an acronym for self-esteem, associative strengths, resourcefulness, action planning, and responsibility for follow through. It is a flexible methodology that involves the use of nontraditional learning materials and training exercises. It aims not to teach (in strict terms) but to stimulate and release (through a combination of skills, the promotion of teamwork, and a positive learning environment) the creative energy of participants and the communities in the process of addressing community needs and problems. This development of local capacity is essential for sustaining low-cost water and sanitation services.

**Participatory Tools Introduced to Workshop Participants**

*Unserialized Posters*

The serialized poster technique uses three copies of a set of 10 – 15 pictures, each depicting a dramatic human situation within the community. The pictures can show, for example, a dispute between two people, a heated group meeting, a family in trouble, an illness, a community festival, and so on. They are open-ended visual aid materials that can be interpreted in many different ways. Their intent is to promote creative storytelling and discussion among community members within the objective of eliciting key issues and themes.

A set of posters is provided to different participant groups within a community. The posters are "un"serialized, meaning they are not numbered in any set order so that the participants can rearrange them in any sequence they choose. Used in a village setting, the facilitators can learn much about the community from the stories created and the issues discussed.

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**Flexi-Flans**

Flexi-flans consist of paper cutouts of human figures that have flexible arms, legs, and torsos to be placed on a flannel-covered board. A number of props are included in the set (houses, trees, animals, etc.) to depict a rural or urban scene. Human figures should be representative of all people found in a society and of different ages, both male and female. They also should be facing in different directions (e.g., front view and left/right profile) so they can be arranged to represent two or more people in a conversation or discussion.

The idea is to promote a discussion with community members using the flexi-flans to relate an incident or story about realistic situations, how they are handled, or how they affect the life of the community and its families.

**Pocket Chart**

This tool consists of rows of pockets (usually 4–6 pockets horizontally and 6–10 vertically). A set of pictures is attached above the top row of the pockets (i.e., the "columns"). These pictures represent areas in which data are needed, such as different sources of domestic water supply (river, pond, uncovered well, pump). If desired, pictures can also be placed along the vertical axis to indicate other data variables, such as age, gender, socioeconomic status, occupation, uses of water, etc.

The pocket chart is designed to be an investigative tool to permit data collection on practices that are illustrated in the top horizontal row of pictures. It also enables participants to carry out tabulation and analysis on their own and provides the opportunity for immediate feedback and discussion of results to the participating group. Through voting (by placing a chip or piece of paper in the appropriate pocket – in doing this, confidentiality can be observed) the facilitator can then take the opportunity to provide immediate feedback and discuss the results with the participants.

**Three-Pile Sorting Cards**

This analytic tool is designed to ascertain the extent to which participants are aware of the positive and negative implications of a variety of situations that are shown to them and is also useful in task and gender analysis. Using a set of cards that depict human behaviours and practices (washing hands, leaving food uncovered, etc.) that can be interpreted as "good," "bad," or "neutral" with respect to water, sanitation, and health, participants are asked to study and sort the cards according to interpretation. (Participants can also be divided into groups according to age, gender, or other factors.)
The facilitator requests that the groups explain the rationale behind their decision to sort the cards into specific "good," "bad," or "neutral" categories. Because the notions of "good," "bad," and "neutral" are culturally bound, the exercise helps the participants gain an appreciation of the values within a community.

For task and gender analysis, a number of tasks may be illustrated in pictures. First, participants are asked to place them according to who is responsible for the task (male or female) and second, to identify who has the resources to enable the task to be carried out.

**Pictures of Health**

Two pictures are placed on a flannel board, one showing a young child in excellent health, the other a child in very poor health, even malnourished. A number of other pictures are available in the set (e.g., a pit latrine, a water pump, houses, animals, a feeding bottle, etc.) to depict resources available to the family and socioeconomic conditions.

Each participant chooses a picture from the set and places it under either the child in good health or the unhealthy child. The facilitator asks the participant to explain the rationale behind their decision. This technique can be used to investigate knowledge, attitudes, beliefs, and practices related to the health of infants and young children.

**Diarrheal Disease Example**

- **Knowledge of signs of diarrhea:** Take three pictures of children of different ages (e.g., 3 months, 8 months, 2.5 years). Place markers on the children to show where signs of dehydration would manifest on the body. Describe reasoning.

- **Treatment of diarrhea:** Given a set of pictures of actions or behaviours associated with diarrhea, mothers are asked to select those she would carry out if her child had diarrhea, i.e., examples of actions: denying breastmilk, going to an herbalist, giving ORS, bottle feeding, etc. Application: assessing knowledge and attitudes, sharing information regarding options of action to take, evaluating what actions are missing, etc.
• **Feeding the child:** With a child of 6 months, have three pictures: one before, one during, and one after diarrhea (recovery). Then, with a series of pictures of foods, select those locally available. Split the group into three, one for each picture. Ask which foods would commonly be given to the child. This is a good tool to validate information collected during standard surveys.

• **Use of ORS:** Give a set of pictures of the steps in the preparation of ORS. Ask mothers to mix them up and then to put them in the correct order. This can be a useful evaluation technique.
Participatory Research: 
An Alternative Approach

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Research that Makes a Difference

Efforts to alleviate malnutrition and to improve social and economic well-being abound. Yet, the problems confronting the developing regions of the world seem without end, with misery pervasive and the human potential of millions remaining untapped and often quashed.

Research is just one of the channels into which money, ingenuity, and effort are being directed to solve pressing problems. But the manner in which research is approached can be critical in determining whether the investigations taken really have a relevance to the improvement of lives and can, consequently, lead to the meaningful application of knowledge.

Over the past few decades, a movement that promises to contribute to development has been growing: the participatory research movement. The influence and the potential of this movement is enormous and, as such, it warrants careful, critical examination and experimentation. Participatory research (PR) sets out a challenge for researchers committed to the improvement of the human condition and prompts investigators to question their assumptions and their chosen study methods.

The term PR has entered the mainstream of scientific lexicon; many researchers and development-change agents frequently describe their practice as being one of PR. Indeed, these days, one can quickly become befuddled by the array of terms being tossed about: participatory action research (PAR), participatory evaluation (PE), participatory rural appraisal (PRA), and so forth. The key concept common to all of these approaches is, as the names imply, participation.
In the contemporary practice of PR, the approach may be defined in a variety of ways, depending upon the goals, ideology, methods, and application of research results that underpin a chosen PR approach. In the history of development approaches, participatory research has emerged from a wide range of scientific fields and has been applied in a variety of settings.

**Development Approaches**

The development strategies of the 50s and 60s failed to provide the expected benefits for the poor and otherwise marginalized members of societies. The assumption inherent in these strategies was that economic growth and large-scale, top-down approaches would provide trickle-down benefits to the poor. This assumption was clearly erroneous, for almost everywhere they were attempted, development interventions failed or were not sustained.

What were the reasons for this failure? Clearly, the approach had to be reassessed. The message distilled from the examination of "development efforts" was that projects were simply not well thought out. All too often, they were conceived without an adequate knowledge of the context in which an intervention took place, and they did not respond to people’s needs, however defined. A knowledge of the social, cultural, political, and economic structures, as well as the behaviours shaped from this context, was sorely lacking. The challenge then was to find ways to develop interventions that worked, interventions that were acceptable and sustainable, and that would lead the way to improving people’s lives.

One area of hope toward which development analysts and experts pointed in the 70s was community participation. The beneficial effects of active and informed participation were increasingly being uncovered, and then endorsed, with widespread acceptance of the need to include poor people themselves in the process of problem identification and project implementation and evaluation. It became clear to many observers that whenever local populations actively participated in projects, much more was achieved for much less (Rahnema 1990, p. 201). The fact that it took so long for "development experts" to realize that one needed to speak with the people, and not only for the people, seems so apparent that it only underlines the real social distance and the uninformed assumptions from which development planners and programmers often operated.

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1In this text, the terms participatory research (PR) and participatory action research (PAR) have been used interchangeably. As the PR movement grew in the 80s, the designation PAR became more prominent, demonstrating the emphasis placed on linking action to research.
Hence, a shift took place in development approaches toward grassroots mobilization and the "bottom-up" approach. The 70s witnessed an emergence of paradigms focusing on poverty alleviation, basic needs community development, and popular participation. Adult education, "animation rurale," conscientizing education, and popular education all influenced the theory and practice of development and social change. The need to redistribute political and economic power was seen as a key to local development; equity was a key word.

Nongovernmental organizations (NGOs) were consistently a major force behind this shift toward participatory development models; they were often the channels through which such models were tried out in practice. Indeed, the work of NGOs became highly valued, with their influence penetrating the big donor agencies and national governments.

Today, the initial enthusiasm and high expectations raised by the notion of community participation in development have been somewhat dampened because field experiences reveal just how difficult it is to generate authentic participation in communities. Some real obstacles to participation seem to have been seriously underappreciated: power differentials that inhibit representation of all social groups, social and cultural constraints to women's participation, the vanguardism of professionals, and political environments that suppress democracy can all operate to stifle the extent of participation in any development effort. This is not to say that participation should be forsaken but, rather, that community participation should not naively be viewed as some sort of a magic tool that one can easily craft and then use to make development happen.

**Understanding Rural Conditions**

In the 70s, the term rapid rural appraisal (RRA) was coined to capture an approach that was emerging from the field of rural development. In 1974 and 1978, seminal conferences took place at the Institute for Development Studies (IDS), Brighton (Sussex), which grappled with the problematic of rural development and the many misdirected projects. The planning and management of rural development projects obviously needed to be improved. The key to development was to find cost-effective ways for outsiders to learn about rural and poor conditions and to identify projects that would be viable and acceptable locally (Chambers 1985).

RRA has been described as "a rapid learning process, during which the researchers progressively learn from rural inhabitants, from each other, and from observation (and from existing data, secondary sources and key informants)". (Grandstaff and Grandstaff 1987). Time is an important aspect, and RRA is
expected to "draw inferences, conclusions, hypotheses from new information acquired in a limited time." This concern reflected a growing frustration with the collection of volumes of unnecessary data and the long time often taken (and excessive costs incurred) to conclude investigations or produce results (both in research and in development interventions).

Although there is no one universal set of methods that constitute RRA, there is a vast range of methods and techniques used by RRA practitioners. One characteristic is the broadening of the repertoire of methods used and the valuation and incorporation of many more qualitative methods.

The main platform of RRA is that it endorses the absolute necessity to understand the sociological, biological, and physical components of rural systems to have interventions that have any hope at all of leading to sustainable development. Today, the influence of this emphasis can be seen by the proliferation of work that carries the descriptor "rapid" and in the systematic inclusion of "local people" in a variety of roles, including problem identification, project execution, and evaluation.

Some of the approaches that have been developed, and are still under development (vis-à-vis their methodologies and scope of application), include rapid rural appraisal (RRA), participatory rural appraisal (PRA), and rapid assessment procedures (RAP).

A feature shared by all of these approaches is a broadening of the core of people who are involved. Again, participation has emerged as a cornerstone. The clear message is that the poor cannot be ignored in development efforts and a reiteration that, after all, development initiatives must be people-centred and, ultimately, people-serving. This message has only recently penetrated some of the larger international assistance agencies, and it will be worth watching just how effectively major agencies of development reflect these principles and strategies within the initiatives that they support.

Alternative research approaches

The PR movement owes much to the fundamental questions debated in the social sciences, e.g., What is science? What is knowledge? Who creates it? How is knowledge advanced? The classical social science research methodology grew out of a conception of science that said that scientific knowledge can only be obtained from sense data that can be directly experienced and verified between independent observers; that is, a positivist view of science. The role of social researchers was to examine observable phenomena and discover basic scientific
facts or relationships; investigators were not to become directly involved in linking the research to action (Whyte 1991). How the knowledge was to be used by others was not seen as being the scientists’ direct responsibility.

The methodology of mainstream social sciences has traditionally emphasized the concepts of neutrality, objectivity, and the value-free nature of research. People were frequently treated as objects of inquiry, and methods of data collection that exercise unilateral control over the process of inquiry were used. Professionally trained personnel are seen as the sole pursuers of the pursuit of knowledge (Mbilinyi et al. 1982; Tandon 1988 p. 7).

The assumptions of this research methodology and its claims to objectivity were challenged by those who saw social science as a reflection of the structure of society and knowledge as a social product. Researchers, and the institutions in which they work, make decisions about the kind of research that they engage in. These decisions are influenced by values and by the researcher’s world view— questions grow out of their own concerns and experiences. As a consequence of these challenges, attention has turned to the questions of why research is undertaken, who legitimately should be involved in research, how are data gathered, and how should the results be disseminated.

**Action Research**

Beginning in the 40s, an alternative tradition of research grew in the social sciences: action research. Action research is generally seen to have its origins and conceptual development and practice in countries of the North. A commonly accepted description of the aim of action research is:

Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework. (Rapoport 1970, 499 p.)

The proponents of action research challenged classical social science methodology, saying that it was inadequate for developing a science geared to problem-solving. Alternative criteria of science and alternative methods were proposed as being appropriate for action research as researchers questioned the appropriateness of using the criteria of positivist science to judge the scientific status of action research (Susman and Evered 1978, pp. 594–599).

Many of the early examples of action research are found in the field of organizational science and industrial psychology. Researchers and clients in the workforce worked together to generate knowledge for use in solving problems
faced by members of the organization (Susman and Evered 1978). Much of this research had as its goal the increase of productivity for the ultimate benefit of the organization. Besides being tried in the workplace, action research has also been experimented with in the school system, health care organizations, and the field of race relations. In many of these initiatives, the relationship between the individual and the larger scale social systems was of utmost importance, with the solution of social (as distinct from individual) problems a research goal (Rapoport 1970, pp. 500–501).

The pioneers of action research felt that action was a source of knowledge. They set out to combine the aims of understanding the dynamic nature of change in social systems, with the aim of knowledge generation (Foster 1990). In the approach, the proponents advocated that the researcher would ground their inquiry in concrete experiences, and act on or in the social system in which the problem under study is situated. Susman and Evered (1978) define action research as a process consisting of five phases: problem identification or definition, consideration of action alternatives, action-taking, evaluation of the consequences of actions, and extraction of lessons learned. The process might then become cyclical, with evaluation and reflection leading back to entry into one of the phases of the cycle. Participation of nonacademically trained persons might vary, depending upon the goal and context of the research and the stage of the research process.

A novel feature of action research was that the approach called for more active collaboration between the researcher and members of the client system than had been customary. "The action researcher brings theoretical knowledge as well as breadth of experience to the problem-solving process. The clients bring practical knowledge and experience of the situations in which they are trying to solve problems. Neither client nor researcher has better knowledge; in a sense, they are both experts" (Susman and Evered 1978, p. 597).

**The Growth of a Movement**

Although participatory research has been influenced by these developments in the social sciences, the PR movement is generally seen to have its roots in the countries of the South. It is through the efforts of researchers, adult educators, and development activists in the South who tried to address the problems of poverty, dependence, and exploitation that the concepts, theories, and practice of PR emerged in the late 60s and early 70s. PR also took root in the North, particularly within the feminist, ecology, and workers' movements. By the late 80s,
the term PR had become commonplace within a wide range of settings and used as a tool to obtain a variety of goals, not all of which were compatible with the original philosophy and aims of PR.

The term PR has been in existence for about 20 years, with the first discussion of the concepts and practice appearing in the adult education journal *Convergence* in the mid 70s. By the late 70s, a number of regional PR seminars had been held in the Third World, with numerous papers on PR practice and methods presented at the World Symposium on Action Research and Scientific Analysis held in Cartagena, Colombia, in 1977. The first, broad international meeting on PR was held in Yugoslavia in April 1980, with more than 50 people from 23 countries in attendance and, in 1982, there was the first formal presentation of PAR to academic circles at the 20th World Congress of Sociology in Mexico City. More recently, there was an international conference held in Calgary, Canada, in 1989.

**Knowledge Creation**

Participatory research, as an emerging alternative research methodology in the 70s and 80s, focused on knowledge and power as central issues. A central objective of PR was the enhancement of the ability of the poor to generate and control their own knowledge, and control the means of the production of knowledge (Tandon 1988, p. 11). Ultimately, a more equitable distribution of power and resources and the attainment of basic human needs and social development was seen as the goal of research efforts.

Budd Hall, one of the early leaders in the PR movement, asked questions about knowledge creation and raised challenges about the validity of the knowledge that is produced by the various academic societies and intellectuals who dominate the production of knowledge (Hall 1979). Hall points out that only a few people of relatively advantageous position in society are the ones who traditionally create knowledge about the entire universe of people and problems.

The conclusion has been made that it is necessary to involve people in the investigation of their own reality to achieve a clearer and more valid understanding of natural and social phenomenon. One needs to learn more about the varieties of experience and begin inquiry from the subject's experience. For when knowledge is fragmented, there will only be partial knowledge, and this can only produce incomplete, or perhaps even invalid, scientific knowledge.
Who Benefits

One of the original platforms of PR was that scientific knowledge should be used to transform fundamental social structures and relationships to decrease societal inequities and liberate people from oppression. Accountability in research was seen to be of prime importance; PR advocates clearly called out that research should benefit people and be pertinent to their needs and should lead to action. Fals-Borda, a sociologist and early founder of the PR movement, has said that "research without action is not pertinent to the needs of transformation. Participation without action is not participation." The main axes of PAR are generally regarded as collective inquiry of concrete problems, mutual education, and action for change.

In focusing on problems of social inequity and forming partnerships with the marginalized, the proponents of PR are clear about the political nature of PR and its potential to incite conflict. As the objective reality of poor or otherwise marginalized people is investigated with a view to changing it, it is inevitable that the status quo is threatened, disturbed. This raises questions about the ethics of doing PR. In particular, the feasibility and high risks involved in conducting PR in a context of repression need to be fully appreciated. Because of its potential to restructure relations of power, it may be that the forms and degree of oppression in certain contexts make it untenable to engage local populations in PR.

In PAR, the separation of roles between the academically trained researcher and the "ordinary" person is blurred. In the conceptual development of PAR, it was proposed that the poor and powerless should become equal and active partners in the research process, from setting the agenda of inquiry, collecting and analyzing data, to the articulation of solutions that can be acted upon. Control of the research process by the participants is seen as one important step toward empowerment. Through their active involvement, participants acquire skills and recognize that by learning and acting together they can create the power to make changes in their social conditions. Another outcome is that research is demystified, as participants realize that they can often do the same kind of work as the so-called experts.

Methods and Techniques

In PAR, a wide range of research methods and techniques may be used, many of which are not used with any frequency in other systems of knowledge production. There is an emphasis on qualitative methods of data collection, and much work has been invested in developing methods for "conscientization" that aim to enhance people's capacity to understand and analyze their reality. Some of
the methods most commonly used are group discussions, public meetings, open-ended interviews, community workshops, fact-finding tours, popular theatre, and role playing.

Besides legitimizing the use of a highly expanded range of research methods and techniques, PR has also shown that there can be creative, effective ways to communicate research results, disseminating them through channels and in forms that previously had not gained much attention by academicians (e.g., community meetings, popular theatre, music, etc.). Communication of research findings through published articles was clearly seen to have its limitations.

**Characteristics of PR**

Although the specifics of the practice of PAR are context-bound, there are a number of features that can be generally described.²

- **The approach is problem-centred and action-oriented.** Research is not viewed as mere data gathering or science for the sake of science. Rather, the dual aim of research is to focus attention on problems that arise because of conditions of inequality and to generate new knowledge. This knowledge is then applied to decide on actions to resolve the problems. A planned consequence of inquiry is locally determined and controlled action (Hall 1979; Maguire 1988).

- **The researcher has a subjective commitment to the target community and to the betterment of the human condition.** The approach recognizes that science is not neutral and value-free. In PAR, research is developed "with and in favour of the group that traditionally has been excluded from the production and utilization of knowledge." (PAHO 1988). As such, research can contribute to giving the marginalized a channel to express their own perceptions of their problems and their views regarding relevant solutions.

- **The research process is collaborative.** Unlike traditional academic research, where the researcher is the expert, the PR approach assumes that a mutual learning will occur and that there will be close involvement of the

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²This summary is extracted mainly from writings of the early leaders in PR and is broadly representative of the objectives and methods as described by them. The main sources tapped for the summary were: Maguire (1988), Society for Participatory Research in Asia (1982), volume XXI (2,3) (1988) and volume XIV, No. 3 (1981) of the journal Convergence, and Kassam and Mustafa (1982).
researcher with members of the community where the problem is situated. Not only is more research time spent in and with the community, community members themselves become involved in aspects of the research study that traditionally have been the domain of the academician (e.g., the identification of research questions, selection of methods, data collection, data analysis, etc.). Indeed, there are those who say that if a project is one of PAR, then there must be involvement of people in all phases of the research study, from full participation in problem definition, the collection of data, the selection and testing of solutions, to the assessment of efforts taken.

- **People’s knowledge is respected.** With PAR, the notion that knowledge creation should be the monopoly of the professional is challenged. The academically trained researcher is not the sole expert and not the only one who can contribute to knowledge. The existence of various forms of knowledge and of valid, popular knowledge that results from a person’s sociocultural heritage and practical experience is accepted.

- **PAR releases human potential.** PAR encourages the development of a capacity to analyze and solve problems, and it may modify social relations. In this respect, PAR can be empowering. PR is based on the conviction that ordinary people can take control of the circumstances within which they live. In the process of doing PAR, people can learn new skills, better understand their society and the forces that shape their circumstances, and take better advantage of services available to them. Also, confidence can be gained in their ability to exercise and to demand their rights (PAHO 1988).

**PR Critique and Objectives**

A number of criticisms have been aired about PR. Although some of these relate to the philosophy and methodology itself and the original objectives of the early leaders of the PR movement, others have arisen as inconsistencies and tensions arising from the actual practice of PR have become evident.

Although early PR practitioners emphasized that the goal of PR was social transformation and the restructuring of society, experience and reflection seem to have tempered this view. Rather than being able to lead directly to radical social change, PR is instead more modestly seen as a methodology that can make a small but important contribution to the social change process (Tandon 1988, p.12).
Further deliberations are needed on participation as a means or an end in research. To define problems that respond to people's development needs, to conduct a local situational analysis, or when skills development is an explicit aim of a project, PR may have much to offer as a method. Yet, the benefits and the real difficulties involved in attempts to build community participation into the research process need to be carefully assessed in the context of each project.

**Participant Manipulation**

Participatory research theorists have been criticized as promoters of vanguardism, prone to repeat the behavioral patterns of the experts (Rahnema 1990, pp. 205–207). This critique derives from the understanding that through participatory ways, PR practitioners try to persuade the "uneducated" to shed their false perception of reality and, instead, to come eventually to share the PR advocates' own ideologies and understanding and analysis of socioeconomic reality. PR theorists counter this criticism by pointing out that people cannot be liberated by a consciousness and knowledge other than their own, and PAR aims at the liberation of people through organized action which emerges from their own deliberations (Rahman 1985). Even though an outside facilitator might indeed lead people through a process of analysis and reflection, it is the people themselves who arrive at the conclusions and who are the determinants of any action that might be taken.

**Role of Researchers and Participants**

The principle of collaboration on an equal basis between professionally trained researchers and community participants is one that in practice has been difficult to achieve. In most of the experiences of PR, it is uncommon to have a research study initiated by the groups for whom research is meant to benefit or to have nonacademics in a position of full control over the overall project design, direction, and use of results. One needs also to ask what purpose is served endorsing broad involvement at all stages of a study. Should participation be valued as an end in itself? In a study, what benefits accrue from participation that cannot be gained without local participation?

Another difficulty has been that professional researchers are often confronted with constraints and limitations due to their accountability to the institution in which they work (IDRC 1988), and these may prove to be incompatible with the local determination of the action research. The PAR process is often unpredictable, as the objectives and the methods derive from the process itself. This feature may create difficulties for institutions that are not prepared (either intellectually or administratively) to deal with such uncertainties.
**Is PR Scientific?**

Participatory research, as a reaction to contemporary social science, is seen by some as having an anti-intellectual component, with the concept of science not well-articulated and the apparent acceptance by PR advocates of any type of knowledge as scientific knowledge (Latapi 1988, p. 315). Scientific knowledge requires theoretical foundations, methodological rigour, validation, and systematization — elements that may not be an underpin of all PAR efforts. In this regard, PAR is still trying to learn to cope with the self-imposed task of successfully combining contributions to immediate problem-solving and to scientific knowledge (Maclure 1990).

**Who Participates?**

Participatory research and indeed any endeavour that tries to promote community participation, often makes references to community members or "the people." This lack of specificity regarding the individuals represented and the nature of their participation may mask realities of local power structures and relations (Maclure 1990, pp. 7–9). The complex reality of power relations in a community acts to favour different levels of participatory activity for individuals, dependent on factors such as age, gender, socioeconomic status, ethnicity, family background, and so on, a fact that may be under appreciated.

Implicit in PR is the notion that there is greater benefit when the type and number of people who participate are enlarged. This needs careful assessment for it may be that certain problems would best be addressed by selective participation strategies, or that local forms of decision-making exist that provide for popular representation but do not necessarily reflect the same values and forms for participation that are held by outsiders.

**Claims and Co-Optation**

In describing the evolution of PAR, Fals Borda (1989, p. 4) writes that "as the Participatory Action-Research approaches gained respectability, many officials and researchers began to claim that they were doing Participatory Action-Research, though in fact they were engaged in something else." Fals Borda emphasizes that there are many examples of the co-optation of PAR, as PAR has by now become a popular appellation for the work of many researchers, and participatory approaches in development have become commonplace.
These developments, for Fals-Borda, place "the survival of original Participatory Action-Research ideals at risk." Thus, the very acceptance of the respectability of PAR has led to some confusion, because there are now numerous advocates of, and definitions for, PAR. Many who call themselves PAR practitioners do not share the conviction that PAR should be focused on the problems of the poor and the marginalized, with the aim of research being to reduce societal inequities through planned action.

In this regard it may be important, as Maclure stresses, to make a clear distinction between PAR on the one hand and qualitative and ethnographic research on the other hand. Both the PAR and the ethnographic approaches share a central concern with the search for better understanding of local perceptions and values and try to capture the interpretations that people have of their own problems and aspirations. To do this, both advocate that the professional researcher needs to have close involvement with the people over a lengthy period of time. In the classical ethnographic approach however, the researcher aims to stay detached from the community. Detachment is necessary so as not to disturb the equilibrium of the society and thus jeopardize the attainment of authentic data (Mbilyini et al. 1982). Action on problems found in the community is not an aim of the research. The investigators have complete control over the research process, extracting data from the research subjects and analyzing it without feedback to them. Further, there is no explicit commitment to enhancing the capacity of community members or to changing the local reality in a way that touches on the power relations or societal structures. Thus, the three tenets of PAR are missing; participation, mutual learning, and action.

In the same vein, it is useful to look at research projects that claim to examine and help provide solutions to practical technical or social problems and to ask if these are indeed examples of studies that lead to community benefits. Here, one may be led to examine operations research projects, policy-oriented applied research, social marketing studies, farming systems research, and projects using "rapid assessment procedures."

In many projects that bear these labels, the claim is made that "people have fully participated in the project" or that the project is an example of PR. However, just because people participate in a research process does not guarantee that there will be a benefit to them. The question of "for whose benefit is this project" must remain one of prime importance.

Community members might indeed be fully involved in a project, but only after the major decisions have been made, for example, regarding the topic, project objectives, and methods. Such is the case with many of the projects that aim to enhance the appropriateness and the acceptability of technologies or
interventions. Have people been consulted about their needs and priorities? For whom is a project relevant? A project might be described as being relevant because it conforms to a stated government policy or program, but the research may indeed be relevant only to the goals and strategies of policy-makers and program planners. Do the people for whom an intervention is meant to benefit actually perceive a benefit or not? Who has selected the technology or made decisions about the service under study?

Nonresearchers might become intensively involved in the development and testing of an intervention, and take full part in discussions about results. Yet, the study itself might remain distant from realizing the goal of lessening oppression and enhancing people's control over their lives, or of directing attention to that link in the causal chain that might have the greatest potential for development. For example, a group of women might be fully involved in a study to determine which high-yielding variety of coffee bean might grow in their farmlands. But yet, they have been totally excluded from discussions about whether or not coffee can help in their own economic and social development.

**Conclusions**

Participatory action research is a methodology that has emerged from the search to develop a problem-solving science at the service of human development. PAR has advocated that the monopoly of the professional researcher be broken and that the ability of people to contribute to knowledge creation be recognized and harnessed in research efforts. In recognizing popular knowledge and preaching the democratization of science, it was inevitable that there would be a reexamination of the role of the researcher and a call for a restructuring of the relationship between the "scientist" and the "lay person."

In trying to pursue the sometimes contradictory goals of knowledge creation and action for changing living conditions, it is not surprising that the literature and experiences to date with PAR reveal that the approach presents numerous dilemmas and difficulties.

Whatever the future of further conceptual, theoretical, and practical developments of PAR may be, it is clear from more than 20 years of experience with the methodology that PAR has made some significant contributions to the ways in which science is conceived and research conducted, opening a debate on what kind of knowledge best serves development. PAR has challenged the academic community to ask questions about the research that is supported and the assumptions that underlie the chosen goals and methods. In PAR, traditional approaches to scientific inquiry have been seriously called into question and the
tables cannot be turned. Researchers and the research they undertake must be accountable to society if their outputs are ever to contribute to sustainable development.

References


Rapid Assessment Procedures:  
The East African Experience

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Origins

In 1983, a group of anthropologists and health workers met in Geneva to explore the possibility of developing an anthropology-based approach to the study of nutrition and primary health care (PHC) activities globally. The Geneva meeting led to the development of rapid assessment procedures (RAP), a methodology that was then experimented with in countries in Africa, Asia, and North and South America. The results of applying RAP in a variety of settings were encouraging and, within a few years, RAP became established as a viable research and development methodology. The first international conference on RAP was held in Washington, D.C, in November 1990, with participants drawn from all parts of the world and was sponsored by Pan American Health Organization (PAHO), UNICEF, United Nations University, and World Health Organization (WHO). There now exists a global network of RAP specialists that is responsible for training researchers on the use of the methodology and regional and national workshops have been held in Africa, Asia, and the Americas.

What is RAP?

RAP is a methodology that was developed to improve the planning, implementation, and evaluation of nutrition and PHC interventions.1 RAP is now widely used in several countries worldwide and, although still principally applied in the fields of health and nutrition, application of the methodology has been extended to rural development, agriculture, and business. In Eastern and Southern Africa alone, there are well over 100 fully trained "rappers." Sessions on

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1For a detailed description of the history of RAP, fieldwork considerations and commonly used methods and techniques see Scrimshaw and Hurtado 1987. Rapid assessment procedures for nutrition and primary health care. United National University, Tokyo, Japan.
RAP have been incorporated into the curriculum at the Applied Nutrition Unit, University of Nairobi and RAP is also used by several nongovernmental organizations (NGOs) and government departments.

Basically, RAP can be thought of as an anthropological approach to data collection, analysis, and report writing. Conventional anthropological inquiry usually involves lengthy fieldwork (up to 3 years or more) with the researcher generally living at the investigation site. However, this approach to research is usually not problem-centred, and the findings often do not help to improve the effectiveness of any of the development programs or projects that may exist in the community under study.

In RAP, basic anthropological methods and techniques are employed to improve ongoing interventions. Time is seen as a critical factor and flexibility as a basic need. RAP usually requires between 6 and 8 weeks, but may take longer depending upon the nature of the problem or the community under investigation.

The methods used in RAP can provide detailed information regarding the performance of development programs and yield concrete recommendations for their improvement. Also, the methods permit the detailed study and heightened understanding of human behaviour within its natural setting, yielding critical data when behaviour change is a goal in projects.

RAP is people-centred in the sense that the techniques used for data collection also facilitate the respondent's participation. People are not seen as existing in a vacuum, but rather as living beings situated in a sociocultural context. In this way, RAP may focus on the nature and extent of community participation in development programs or projects and the reasons influencing this participation. The use of a participatory version of RAP is increasing rapidly in East Africa. This development shows a slight deviation from the original version, which was research centred and did not involve the target population (except principally as respondents).

An important point to note is that the paradigms that guide classical anthropological inquiry and the research designs that arise from them differ from those that underpin RAP and, especially, the participatory version now commonly used in East Africa. In particular, the difference is seen in the aim of research, the role assumed by the researchers and their relationship with community members, and in the way study findings are reported and used.
A Regional Variant of RAP

As originally developed, RAP was not tailored for use as a tool in participatory research. However, the developmental conditions in East Africa are such that a preferred way to promote the use of RAP was by making it a tool for facilitating community action, besides its use as a tool for program evaluation. This development reflects the flexibility of the RAP methodology as a body of applied knowledge. It also shows that anthropology is not a static discipline but one that can be interpreted to suit specific socioeconomic contents. Development of the East African variant has also resulted from the fact that most RAP practitioners in this region work in the field, often with NGOs and government departments.

There is great potential for incorporation of a participatory element into a RAP program, especially because the methods are flexible, and with the emphasis on informal interviewing, joint design of the research process is possible.

When Can RAP Be Used?

RAP is used to collect data relatively quickly, with an aim to improving the planning, execution, and/or the evaluation of interventions taking place in a community. Some of the specific purposes of RAP are the following:

- To collect baseline qualitative data useful for program planning;
- To improve the design of surveys (e.g., RAP may be used in the pretesting of research instruments, in the formulation of questions to be used in a questionnaire, or in the exploration of basic attitudes, beliefs, perceptions, and behaviours [KAPB]);
- To evaluate projects or programs;
- To generate research hypotheses;
- To investigate, in detail, findings generated through surveys or any other research methods;
- For the identification of issues that may require further investigation (e.g., RAP may identify the most popular strain of crop grown, but cannot provide information regarding the proportion of the population using this particular strain); and
- For the pretesting and further development of education materials or new technologies.
The RAP "Tool Kit"

The methods used in RAP are essentially qualitative and constitute the "tool kit" of the anthropologist:

- Formal interviews
- Informal interviews
- Conversations
- Participant observation
- Focus group discussions

The effectiveness of RAP lies in its use of a variety of research methods for collecting data in a single study. Used together, the foregoing data-collection methods can help to enhance the reliability and validity of the information collected.

The methods used in RAP do not generally yield information that can be generalized or be subjected to statistical analysis. A comparison of RAP with a map is a useful analogy. A map can show us that there are rivers, mountains, valleys, or populated settlements. However, the map cannot tell us the depth or velocity of a river, the specific contours of a mountain, or the characteristics of a population. Likewise, RAP can help researchers identify the presence or absence of beliefs, attitudes, perceptions, and behaviours. RAP cannot provide us, however, with information about the proportion of a population that exhibits a specific attribute.

Unlike quantitative surveys, only small, sample sizes are used in RAP. For example, 30 households can be used to provide a map of the beliefs, attitudes, and behaviours relating to the use of foods rich in vitamin A in a community with more than 3000 households. The basic assumption is that the community is homogenous. Where a community is heterogenous, a number of mini-RAPs may be required.

How to Use RAP

Although there are, of course, variations in conducting RAP depending upon the local setting and the problem under study, the RAP approach can be described in the following sequence:
Steps

1. The study objective is identified and its components analyzed.

2. A decision is made as to the suitability of RAP, i.e., its comparative advantage over other methods that might be used to achieve the study objective.

3. A data-collection guide with specific categories of data needs is developed, e.g., Community:
   - Geographic characteristics
   - Socioeconomic characteristics
   - Overview of resources (e.g., nutritional)
   - Basic beliefs, attitudes, perceptions, and behaviours
   - Perception of existing services (e.g., agricultural extension)

4. Which information should be collected, using which technique, is determined.

5. Specific checklists are developed, pretested, and finalized.

6. Fieldworkers are selected and trained. The fieldworker needs to be conversant with anthropological methods, because these form the basis for RAP research. Formal academic training in anthropology or sociology is required.

7. Data collection is undertaken using the pretested instruments. A diary is kept and field notes, brief and expanded, are made. It may be necessary to use several techniques to collect data about something. For example, food preferences may be assessed through formal interviews, observation, and focus groups.

8. Data is analyzed, while data collection may continue.

9. An outcome results. The outcome can be a written report, a group discussion, verbal presentations, etc. Its format depends on the objectives of the study and its intended use.
Conclusion

Rapid assessment procedures (RAP) have been accepted as a methodology that can help to improve program and project effectiveness in the fields of health and nutrition and, more recently, agriculture and rural development. The application of RAP requires trained personnel who can work within a limited period of time to produce a useful report following quickly upon the completion of fieldwork. In East Africa, a participatory version of RAP is now widely used.

Before a decision is taken to use RAP, the study objectives should be carefully reviewed and the suitability of RAP assessed. RAP is not some sort of ideal research methodology. It is just one more tool to be used when the context indicates that it is appropriate.
Participatory Rural Appraisal for Sustainable Resource Management in Rural Kenya

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In the past, the Kenyan government has noted that even with a massive infusion of capital into rural areas and accompanying technical support, inappropriate economic policies and misguided development programs have not allowed the government to halt environmental degradation.

It was with this in mind in 1988 that the National Environment Secretariat (NES) of the Ministry of Environment and Natural Resources in collaboration with the Ford Foundation and Clark University, USA, looked for an approach that could be used for effective resource management. The approach eventually chosen was known as participatory rural appraisal (PRA). The NES has used this methodology to foster sustainable development through improved community resource management. The use of PRA complements Kenya’s District Focus for Rural Development, a strategy that encourages rural institutions to initiate their own development.

Participatory rural appraisal offers an approach that mobilizes the community and facilitates discussion within any given community; thus the knowledge and experience of local people with differing opinions is fully utilized.

What is PRA?

PRA is a field-based methodology that enables multidisciplinary teams to join with village leaders to gather data and rank village needs and priorities and thereby help mobilize rural communities to participate in preparing and

1A number of documents are available that describe the PRA approach and its applications in village development. Prime sources are listed in the Appendix entitled "Additional Resources."
implementing village resource management plans. The plan then becomes the basis for action in the community and enables local institutions, government agencies, and NGOs to cooperate in achieving the goal of sustainable development. The following aspects are central to the PRA approach:

- Strengthening village institutions including local leadership, rural-based organizations, and government and NGOs;

- Integrating different sectors and organizations directly into village planning and implementation;

- The use of participatory methods and techniques to increase the community's involvement in its own development; and

- The development of a village resource management plan (VRMP), which the community owns, as a product resulting from the PRA in a given community.

There are eight steps generally taken in conducting a PRA as outlined in the following:

- **Site Selection**

  Sites for PRA are chosen either through requests from the community or upon the recommendation of an extension officer or government official.

- **Preliminary Visits**

  A PRA team generally consists of four to six specialists of whom at least half are technical officers assigned to the area. The team meets with village leaders before starting a PRA to clarify what PRA will do as well as what it cannot do.

- **Data Collection**

  In addition to finding out about existing projects, institutions, and government services and examining other secondary sources of information, PRA may generate data sets related to the following four categories:

  (a) **Spatial Data** A village sketch map, a village transect, and farm sketches might be prepared by the PRA team in cooperation with village residents.
(b) **Time-Related Data** A time-line might be prepared to record and discuss the most important events in a community's past; trend lines may be developed, based on village perspectives, of a 30- or 40-year pattern of changes in resource issues such as rainfall, crop production, deforestation, health, and other topics of concern to a community; and a seasonal calendar might be prepared to gather data on topics such as hunger, disease, and food or cash availability.

(c) **Social Data** Individual interviews may be carried out in households to gather additional social data and confirm that the information coming from group meetings is a valid representation of the community's condition. The PRA team also gathers data about village institutions.

(d) **Technical Data** Technical officers on the PRA team assemble information on economic and technical feasibility needed to help villagers rank project activity.

- **Data Synthesis and Analysis**

  The PRA team, sometimes with village leaders, organizes the collected data and compiles a list of problems and opportunities for possible action.

- **Ranking Problems**

  The PRA team and villagers meet together to rank the listed problems. The outcome is a set of problems that village groups agree are ranked from most to least severe.

- **Ranking Opportunities**

  Opportunities that address the highest priority problems are then ranked. Criteria for ranking include equity, productivity, sustainability, and feasibility. Technical officers play an important role in this discussion so that solutions will be feasible in technical, economic, ecological, and social terms.

- **Adopting a Village Resource Management Plan (VRMP)**

  The highest priority solutions are organized into a VRMP, which takes the form of a contract between village groups, technical officers, NGOs (if any are involved), and sometimes external groups (such as a donor or international agency).
• **Implementation**

Once the VRMP is completed it is time to implement the plan. In general, the actual work has been performed mainly by the community's self-help groups.

**PRA Field Trials**

PRA has been applied in many rural communities in Kenya, for a variety of uses. Some of these applications are briefly described below.

(a) *Mbussyani Sublocation (Machakos) 1988*: This PRA was carried out by NES through a request by the community to help them plan their resources. Currently, the community is using their resource management plan to develop communal water resources. One of the ongoing water projects involves rehabilitation of a dam through the Kenya Water for Health Organization (KWAHO). The results of the Mbussyani PRA have appeared as training material in the "PRA Handbook."

(b) *Njukini Irrigation Scheme (Taita-Taveta) 1988*: In this community where the goal of food sufficiency was already met, the aim of the PRA was to look at ways of improving the production and marketing of horticultural crops. Basically, it was discovered that farmers needed expert assistance and advice in marketing horticultural crops. This was done with assistance from the Horticultural Development Authority (HCDA).

(c) *Njoguini Gitero Kabati Self-Help Water Project (Nyeri) 1988/89*: This project was chosen primarily for two reasons: first, because NES wanted to assess effective management strategies for small-scale irrigation projects; second, this project represented a grassroots effort for people to help themselves. Benefits of this scheme have been wide and varied and include increased food security and income generation. The community came up with a resource management plan that they are following.

(d) *Kyevaluji Sublocation (Machakos) 1989*: This PRA was carried out as part of the NES/Egerton University/Clark University training of 20 government and NGO extension officers. The community has so far managed to build several water tanks at the various primary schools within the sublocation.

(e) *Usigu Sublocation – Bondo (Siaya) 1989/90*: The aim of NES in this community was to mobilize women’s groups toward effective, sustainable resource management while working with the community as a whole.
Currently, ways of funding one of the projects that arose as a result of the PRA exercise are being examined.

(f) **Pwani Sublocation (Nakuru) 1990:** Like Kyevaluji, Pwani was used as a site to train government and NGO officers on the use of PRA. The community has been able to carry out some of their planned resource-management activities.

(g) **Kapkalelwa Sublocation (Baringo) 1990/91:** This was funded by UNICEF. Kapkalelwa Sublocation is an area that had not yet been covered by UNICEF’s Child Survival and Development (CSD) Program. Here NES looked at the overall resource base with a bias to UNICEF’s target group, i.e., women and children.

(h) **Katolo Sublocation (KISUMU) 1991:** In this UNICEF CSD program area, the nutritional status of children was given special consideration.

**PRA Training Courses**

Training in PRA is seen as a major need. Since 1989, the National Environment Secretariat (NES) of the Ministry of Environment and National Resources in Kenya, has collaborated with Egerton University, Kenya, and Clark University, USA, to organize and conduct short-term training. Some of these courses included:

1989: Three-weeks training of 20 government extension officers and NGO officers in the use of PRA. The training was jointly carried out by NES/Egerton University and funded by USAID. Participants came from Kenya, Somalia, Ghana, and Sierra Leone.

1990: Four-weeks training of 25 government extension officers and NGO officers. Training jointly held by NES/Clark/Egerton University and funded by USAID. Participants came from Kenya, Cameroon, and Uganda.

1990: Three-day Opinion-Makers Seminar, held in Mbussyani. Attendance included 80 village leaders and 20 technical officers.

1991: One-week training by CARE International of Kenyan field officers attached to SHEWAS project in Siaya. One-week training of PVO-NGO/NRMS technical staff in Uganda. The training in 1991 has been carried out solely by Mrs Elizabeth Oduor-Noah.
Sudan Reforestation and Antidesertification Project

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The Sudan Reforestation and Antidesertification Project (SRAAD) is situated about 50 kilometres south of El Obeid in western Sudan. This is a semi-arid area where traditional acacia Senegal agroforestry practices are breaking down as a result of increased population and other factors, and where natural resources are similarly under increasing stress by farmers, herders, wood/charcoal merchants, and other harvesters of forest products. Thus, the project was conceived and designed with two goals in mind:

- To introduce and adopt innovative approaches for assessing problems of desertification and declining agricultural productivity over a large part of Western Sudan, and

- To promote reforestation and resource conservation using well-known and widely accepted technical practices at the farm level.

SRAAD is a 5-year project with its work organized into two phases: Phase I used a general, systems-based RRA/PRA (rapid rural appraisal/participatory rural appraisal) approach, whereas Phase II was characterized by more detailed, quantitative research and the continuation of select PRA/RRA activities. Phase II of the project built on what had been learned from the general, systems-based RRA/PRA approach used in Phase I. Phase I had introduced the team to key concepts and methodologies of PRA/RRA research/diagnostics and in the early part of Phase II we wanted to develop and refine our qualitative and quantitative research activities, concentrating on select topics identified during Phase I. Additionally, we wanted to assess the validity of our Phase I RRA/PRA results through more detailed and rigorous diagnostic/research methodologies. Finally, Phase II activities served as a vehicle for training staff in more advanced diagnostic/research techniques.
Over the course of the first year, a comprehensive baseline was conducted and activities centred on developing both short- and long-term work plans. These activities were designed, implemented, and modified (as needed) by project staff together with local consultants who participated on a long-term basis. This group formed the SRAAD (or baseline) team and consisted of 13 persons of different disciplines, levels of training, and experience. Initial perceptions about what the project should or could do varied greatly. Training ranged from 2-year technical college to postgraduate, and disciplines included both the biophysical (soils, forestry, livestock, etc.) and the socioeconomic sciences (agricultural economics, anthropology, sociology, etc.), and experience ranged from minimal to extensive.

Thus, a key challenge in the project was to find and utilize methods whereby very different skills could be upgraded or modified such that a disparate group of individuals could learn to operate as a consensus-based team. In this process, there was a need to develop a common language, a shared perspective, that would form the base in designing and implementing project activities.

Through the use of PRA/RRA methods, followed up by more orthodox research and development (R&D) activities that were identified by the initial PRA/RRA work, the SRAAD team was not only able to lay a basic foundation for future work but also to use these activities as hands-on training in PRA/RRA methods and, very important, in consensus-based team building. In this way, they were able to incorporate project clients (farmers, herders, and others) actively into the work.

This paper discusses major project activities of the first phase of the project (i.e., the first year), the tools and methods used in conducting these activities and the rationale for their use and closes with a brief description of findings relating both to the project area as well as to the use of tools and methods employed during this first year. A detailed description of the entire project can be found in the reports mentioned at the end of this paper.

The SRAAD Approach

From the beginning, the project was both conceived and implemented such that PRA/RRA methods would be central both in the research and in the implementation aspects of the program. Phase I utilized a rapid/participatory rural appraisal (RRA/PRA) approach, with the following principles guiding the process:

- Team building and training in field techniques as a primary goal.
- Active participation of locals in the R&D process.
• Move from general to particular in data collection.
• Move from descriptive to analytic in data analysis.

The Baseline

To achieve the foregoing, we developed and used the baseline so that it would go well beyond traditional methods of data gathering and analysis that are generally used in carrying out a project baseline. Data collection for the comprehensive baseline survey served a number of purposes including:

• Basic redesign of a complex and top heavy project;
• Fine-tuning and prioritizing implementation activities;
• Identifying topics for further, detailed research; and
• Development of compatible data sets to be incorporated into the project’s Geographic Information System (GIS). The GIS would serve to coordinate biophysical, economic, institutional, social, and policy data sets.

Participatory and Team-Focused Interdisciplinary Work

Commitment, Team-Building, and Training

An interdisciplinary, participatory team approach was pursued with persistence and care. The fostering of interdisciplinary and consensus-based decision-making and fieldwork by the SRAAD team together with local inhabitants was stressed throughout the project. This approach was considered a prerequisite for developing participatory activities at both project management and village levels. Emphasis was placed on skills development, and project staff and Sudanese consultants and technicians who would have long-term input into the project were trained in PRA/RR, methods.

Long-term involvement, capacity-building, and team-building were keys to the success of the project so efforts were directed to training staff and Sudanese consultants and technicians who would have long-term input into the project in PRA/RR methods. This led to:
Implementation based on findings generated by the staff together with local inhabitants. Thus, both staff and local inhabitants link their findings into future implementation, applied research, and monitoring; and

- The establishment of basic monitoring activities that would also be jointly conducted by locals, project staff, and researchers.

**Teamwork at the Project Management Level**

The baseline is designed and conducted by the SRAAD team. Thus, it becomes "our" baseline, not a baseline done by outside experts that is then used as a cookbook by the staff in implementing activities. In this sense, the baseline is part of project implementation, not a preimplementation activity. Baselines and other research activities conducted specifically for projects are often carried out by persons who are completely separated from both staff and ongoing implementation. When implementing staff are not directly involved in the baseline work, they may have a diminished understanding of key processes at farmer or regional levels that are related to the "facts" generated and presented by a baseline, or of how baseline results can be translated most effectively into project activities.

Also, by doing the baseline and related analysis and generating recommendations themselves, staff learn how results of a study can be used to modify or alter recommendations; i.e., that neither results nor recommendations are written in stone but are best treated as guides and stepping stones to incrementally improved processes. Accountability and responsibility are thus developed at the project management level through the use of participatory and team-focused interdisciplinary work.

**Teamwork at the Local Level**

From the very beginning the project was introduced to locals and they were centrally involved in defining and prioritizing important questions to be researched more thoroughly and in suggesting specific interventions. In short, local people and not the SRAAD team took the lead in identifying, from their different perspectives, areas and issues of relevance for future project implementation and research.
Thus, from the perspective of local inhabitants, the project becomes "our" (the rural inhabitants') project and not "their" (the implementers' and researchers') project. In this way, a farmer, client-centred participatory process is initiated at the local level, just as a team-centred, participatory process is initiated at the project management level.

**Two Different Perspectives**

In these ways, two different client groups of the project became important. Both a farmer-centred perspective and a team-centred perspective were developed, with problems and opportunities determined and analyzed from both viewpoints. The two perspectives can then be coordinated. Understanding the farmers' points of view and how they can be addressed is vital in the larger goal of improved natural resource management. In the team-centred perspective, most aspects of project implementation are generated by joint decision-making processes. Neither the principal researchers nor one or two senior counterparts make key decisions that are then carried out by a passive staff. Decision-making is shared among staff representing different disciplines and perspectives, as is accountability for the results and ongoing monitoring, research, evaluation, and revisions of activities.

As mentioned, staff, local consultants, and technicians worked as a team in all areas of first-year activities: in training, developing materials, formulating questionnaires, selecting sites, tabulating and analyzing data, and writing up the final results. Here the use of PRA/RRA approaches both encouraged and greatly enhanced this team-building process.

**A Summary of Baseline Activities**

**Key Methodologies Used**

A variety of tools suitable to the foregoing principles and goals were selected, modified, or developed for particular tasks. The work done in Phase I helped to develop key issues and construct general profiles of the project area to be explored in more detail in the Phase II questionnaire and its other data-collection activities. During Phase I, these tools were based on principles of PRA/RRA operation. They were to be time- and cost-effective, producing reliable and

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1For more detailed information about PRA or RRA search references given in the Participatory Research Bibliography and the section on Additional Resources in the Appendix. For reference to the source documents used to prepare this article refer to de Treville et al. (n.d.), SRAAD/RR (1990), and El Tahir et al. (1990) in the Appendix.
readily useful information, requiring minimal training, and encouraging both interdisciplinary team work as well as active farmer/client involvement. A brief description of those used is as follows:

**Review of the Literature** Books, reports, journal articles, historical records, and government offices were all canvassed to compile a modest compendium of knowledge for use throughout the project, but especially in the beginning.

**Maps and Air Photos** Maps and air photos of the area were collected, focusing especially on historical sequences and a diversity of map types.

**Focused Group and Individual Discussions** These were held around key topics selected by the team.

**Open-Ended Discussions** Open-ended discussions were held with individuals on key topics that were identified in earlier exercises (e.g., occupation, land, off-farm employment, agricultural practices, etc.).

**Key Informant Interviews** Team members conducted these interviews either with individuals or in small groups of select persons from the local villages.

**Ranking** Problem ranking was done by individual project participants, in the domains of agriculture, natural resources, and livestock, and reasons for the ranking were probed. Opportunities ranking was done by individual project participants of their "best bet" economic opportunities, and reasons for the selections and assigned ranks were investigated. Tree and soil rankings by individual project participants of favoured trees and soils, and reasons for this ranking, were examined.

**Mapping** Sketch maps of select markets and cultivated areas were produced and later compass-based mapping of the project area was done by team members.

**Transects** Transects were constructed with local farmers to develop profiles of land use, soils, crops, livestock, trees/shrubs. Major problems and opportunities for project assistance, as determined from the perspectives of local inhabitants and from the perspectives of our technicians and scientists (the two perspectives did not always agree), were determined.

**Seasonal Calendars** These were constructed with the participation of local inhabitants (village sheiks) and included seasonality of labour demand, major illnesses, and food availability.
Shell Forms  Shell forms were developed to organize and quantify select data collected by means of PRA/RRA methods. Institutional profiles were compiled using shell forms to gather basic data on all projects and informal group activities (savings clubs, etc., in the area).

Market Surveys  Through observation and discussions with petty traders and merchants involved in the periodic markets of the project area, market surveys were completed.

Case Studies  Individual case studies were prepared by all members of the team, each on a topic agreed to be relevant to project activities by all other members of the team.

Questionnaires  Based on results of Phase I RRA/PRA exercises, detailed questionnaires, to be used in Phase II, were prepared (as discussed in the following).

Workshops  Of the four workshops, each built on the results of the previous workshop. These were held at El-Obeid (in-house), El Obeid (regional), Khartoum (national), and Washington, D.C., (international).

Key Activities Undertaken

Training  A formal training course was organized for members of the baseline team at the Development Studies Centre, University of Khartoum on methods of field research and data analysis in a project or ministry context. There were also week-long, in-house training seminars held before Phase I fieldwork. Training then continued on a weekly or biweekly basis during the entire project. Training included field techniques, what data to collect and why (or why not), how to interact with farmers, different data-gathering techniques, role-playing, and case-study methods with respect to specific topics.

Individual Case Studies  Each team member selected a topic that was investigated in some depth throughout Phase I and II of the project. The reasons for conducting case studies included:

- To develop in-depth information on topics that we identified as being important in developing and implementing specific project activities;
- To train team members in systematic collection and analysis of data associated with a particular topic, and link these findings and analysis to specific project implementation activities;
To enhance staff understanding of and ability to use a holistic approach in R&D, this is especially important in disciplines such as forestry and natural research management, where the environment is often separately considered from the people–policy–economic institutional context. Holistic case study methods situate all of these components in relation to each other.

Individual case studies begun in Phase I were refined and then critiqued by other members of the team through a process of peer review in both internal and external workshops. A poster session giving the results of the case studies was included in the final workshop in Khartoum, and drafts of 1–20 pages were prepared by each team member.

**Questionnaire** The baseline team developed a questionnaire from the Phase I. This developed out of farmer-centred and need-to-know assessments of Phase I work. We held a series of joint sessions to discuss and agree on the final selection and wording (including issues of wording of questions in the local Arabic). Thus, this was not an office-bound selection of questions, nor were sections of the questionnaire treating the specific disciplines constructed only by those in the particular discipline. Always, while jointly constructing the questionnaire, we asked one another, "Why do you want to ask that question?" "What will we learn from it?" "Of what direct relevance is it to the project?" and so on. Our questionnaire construction sessions were filled with discussion and debate, often well into the night. But we were all well pleased with the results, and found that little readjusting was necessary following our pretest. This was indicative that Phase I had served us well as a base on which to construct our detailed questionnaire. Indeed, this exercise taught us that a good PRA/RRA provides an excellent base on which to design and conduct an informed, well-focused questionnaire.

**Sampling** Selection of villages for preliminary future work, was based on joint analysis of key variables developed out of Phase I work together with a demonstrated level of commitment within the different villages of the project area (over 20). Thus, we did not use a fully random sample for Phase II activities, but developed a stratified sample that targeted key areas in which the project was to work.

**Survey** A survey of 150 compounds was conducted by team members themselves, with assistance from enumerators hired locally who knew the area and worked closely with us. We retained the active involvement of even the most senior scientists and project management staff members in these key activities.
Transects  A series of transect exercises conducted by a subgroup of the team helped to develop and refine the methodology for conducting ethnobotanical surveys in Phase II. Three kinds of transects were designed and conducted: a series of short (about 2 km each) intensive transects (North, South, East, and West) were done around the villages in which the questionnaires were to be administered; longer, extensive transects were done between the three major village clusters; and several short chronological (extending back to 1940) transects were done with the involvement of local inhabitants.

Preliminary ethnobotanical transects were completed and used as a vehicle for interdisciplinary training of the baseline team, active incorporation of locals in the process, and preliminary identification of areas for potential project assistance and for more detailed research.

Data Analysis  Tabulation and analysis of data were done entirely by the team, and included training in both manual and computer-based statistical analysis.

Data Base Development  A joint data base was developed with the Forest Inventory component of the project and these compatible data sets were then linked to the GIS.

Community Feedback  Local inhabitants are debriefed on results of Phase I and reasons for conducting Phase II. By this time, even our drivers had become enthusiastically involved in participatory research, holding their own discussions with local inhabitants on various aspects of the project, what it could/should do, and the like. Considerable appreciation and enthusiasm were expressed by our village colleagues, that we were approaching our work, from the beginning, with them; not treating them as unknowledgeable "objects" to be studied.

Workshops were an important activity to train project staff and permit presentation of findings and generate discussion. Two workshops were held in El Obeid, one internal workshop and one external workshop that were organized and conducted by the baseline team. The in-house workshop served as a training exercise and peer review for staff, whereas the external workshop provided a forum to present findings and generate discussion and suggestions at the regional level. Two more workshops were conducted, one in Khartoum to discuss Phase I findings and another in Washington, D.C., on participatory agroforestry research.
Summary of Methodologies

- A structured but open-ended methodology allowing for modifications of basic data-gathering tools and related analytic techniques. This offers flexibility to accommodate the unique characteristics of a particular project, the variations within a project region, or changes over time. The methodology is also appropriate for constructing a baseline, followed by either short- or long-term monitoring that can be conducted as part of, or separate from, GIS-based monitoring.

- An interdisciplinary team approach to research and project implementation at both the project level and the client/village levels. This process involved intensive and ongoing interaction among representatives of different perspectives and vocations, different disciplines, different institutions, and different kinds of training.

- A vehicle for interdisciplinary, team-based and client-oriented training. Interactive, participatory training was undertaken in which methodological approaches and related training exercises and materials were presented and then jointly developed according to the needs, capabilities, and resources of the team.

- A method to develop new or modified existing PRA/RRA activities and approaches. This can be applied to a number of areas including staff training, data collection, monitoring and analysis, and the design and implementation of forestry and natural resource-focused projects. This was done in ways that stress involvement at both farmer and staff level and facilitate interaction between these two "levels."

- A mechanism whereby the future clients of research and project implementation, i.e., the local inhabitants become central actors in key aspects of the work. The goal was to develop farmer- and client-centred research and project implementation in which the perspectives of clients were embodied in the identification, design, and implementation of both on-farm and on-station R&D.

Conclusions

As a result of the first year activities described in the foregoing, the team was able to identify and develop a series of topics requiring more detailed research and field implementation. For example, a variety of preexisting agroforestry and
agroforestry-related activities (water harvesting, forest-based enterprises) that could be more immediately addressed either by research (as needed) or by direct improvements were identified.

The team learned that, for a variety of reasons relating to recent droughts, ongoing disruptions not far to the south and west of us, rapidly changing economic conditions at local and national levels, and policy impacts, there appeared to be an increasing reliance on forest-based enterprises and related processing and marketing activities, especially by women and the landless. Thus, we concluded that research should focus equally on biophysical aspects, enterprise activities, and improved resource management including the interrelations of these three areas rather than concentrating on tree seedling production and out-planting as stipulated in the original project document.

The team also discovered that individual tenure is not necessarily a constraining issue. Contrary to popular belief, nearly all women do manage to farm their own plots, and many rent-in land as well. Further, although the number of landless certainly is increasing, several indigenous forms of land rental continue to provide most of the landless with basic plots. The team also was surprised to learn that, across strata, gender, area, and ethnic group, clients were more interested in participating in the project for assistance with food, rather than cash crop production. Furthermore, they were more interested in livestock rearing over both food or cash crop production.

The team discovered that, although local villages are more subsistence oriented, nearly all food producers, both men and women, commonly sell most of their food crops throughout the year to gain cash, rebuying it as needed. Thus, the role of regional, periodic markets in the supply and distribution of basic food commodities remains the single most important market mechanism for local inhabitants, and is a prime area for continued applied research and related development activities.

The team became aware of a "new" soil type of considerable significance to resource management and farming practices. This created great excitement and enthusiasm for the work of the project at the agricultural research station.

Finally, the team was able to demonstrate that, in nearly all cases, deviation of data accuracy between Phase I RRA/PRA methods, on the one hand, and the more traditional Phase II data collection and analysis methods, on the other, was minimal. This finding was important in validating both the findings of our Phase I and later the PRA/RRA work as well as legitimating the methodology itself.
These and other findings from the Phase I PRA/RRA and Phase II follow-on activities substantially altered staff expectations about both the kind and the magnitude of future activities, both research and implementation, that would be feasible. Their expectations of how research and implementation could be effectively carried out and coordinated so that farmers and other clients took a central role were also extended.

References

dé Trelieve, D., B. El Tahir, T. Elamin, and M. Mukhtar. Transformations in Sahelian farming systems: How do we define "the system" and count "the farmer?" Experiences from an Agroforestry Project, Paper prepared for the Twelfth International FSR/E Congress.


Assessment of Decentralized Health Services Using LQAS

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Background

Lot Quality Assurance Sampling (LQAS), the method described in the following brief examples\(^1\) stemming from field testing in a number of countries, is a tool for rapid assessment and monitoring of health care adequacy, coverage, and quality of care. It has been tested at the district level in several developing countries within the health services delivery system. In terms of RAP, it is useful for screening whether problems of this sort (adequacy, coverage, quality) exist, for diagnosing the extent of the problems and for management of the quality of care being delivered. It asks qualitative questions about the functioning of a system and applies rapid, quantitative methods for giving the answers. The method can essentially place the management of services and day-to-day monitoring in the hands of local district management teams and health workers if their involvement is encouraged. Given its orientation to identifying problem areas for supervision and correction, it may provide a link to helping health workers become more aware of needs within the system and for improvement of their performance.

Up to now, the standardized method of evaluating coverage of health interventions (e.g., vaccinations) has been limited by sampling designs measuring coverage throughout an entire region or nation using observations of children representing the whole population.

The case study presented in this workshop field tested a comprehensive approach, which assesses service adequacy, coverage, and health worker (HW) technique within the communities served by local health facilities in a region or nation. The method used was LQAS, which was originally employed in industrial quality control more than 50 years ago. With a small investment, this method enables program directors to identify rapidly the health facilities with below-standard services and, therefore, requiring special attention.

In this workshop, three criteria of quality were used for program assessment. The first one is "adequacy," which determines whether risk groups in a community are receiving services at the appropriate age as defined by Ministry of Health (MOH) norms. This criterion was important for assessing the Expanded Program of Immunization (EPI), because the Ministry norms required, for example, that infants be vaccinated with 3 doses of polio within the first year of life beginning at 2 months of age with a minimum of a month interval between doses.

The second criterion was "coverage," which measures the proportion of individuals in a community, regardless of their age interval, that have received services. This criterion was pertinent to all services included in the assessment because all children under 3 years should, for example, be from mothers educated in the preparation and administration of oral rehydration therapy or had their vaccination status updated even if doses were received at ages older than specified by Ministry norms.

The third criterion was quality of the technique used by HWs. This consideration was included to ensure that critical components of the health system (e.g., the cold chain, the availability of oral rehydration salts, HW hygiene, education of mothers) were implemented correctly.

**Principles**

LQAS was developed as one small portion of a comprehensive monitoring and evaluation system for peripheral health facilities as well as the overall national health system. It can be used to screen a primary health care health facility rapidly to determine whether the HW is covering an adequate proportion of the population with health services and whether he or she is using an adequate technique while doing so. The attractive feature of LQAS is that it requires very small sample sizes and produces very precise classifications of HWs. Basic LQAS principles are as follows.
LQAS is a method that uses binomials to classify HWs by their performance adequacy. This judgment takes place within the context of a triage system consisting of three divisions: adequate service delivery, somewhat inadequate, and very inadequate. For example, a triage system used for assessing service delivery coverage was:

(a) Adequate = 100 – 80%,
(b) Somewhat inadequate = 79 – 51%, and
(c) Very inadequate = 50 – 0% of the community covered with a given service.

LQAS can precisely identify HWs whose performance quality is at either end of the continuum: adequate or very inadequate. It is less sensitive for identifying HWs within the middle category. However, this limitation is not severe because the closer the quality of the HW is to either end of the continuum, the greater the likelihood that he or she will be classified as adequate or very inadequate. These two categories of HWs are the most important ones to identify correctly. Health system managers need to identify very inadequate HWs so that resources can be directed to improving the quality of care in the communities they serve. Conversely, adequately performing HWs need to be identified so that additional resources are not needlessly spent on them.

Conventional sampling methods measure the proportion of a population covered with a service. It is then compared with a standard set by a Ministry of Health (e.g., 80%) to judge whether or not coverage is adequate. With this method, a substantial amount of resources have been invested to produce a measure that is merely compared to an existing standard. In the LQAS system, the minimum sample is investigated to answer questions of adequacy or inadequacy. Then scarce resources can be targeted to identified areas of greatest need.

The measure produced by LQAS is a probability estimating whether or not the HW under assessment has reached the Ministry standard. The exact coverage of a given HW is less important than determining whether the service was adequate with respect to a reference. However, there are occasions in which conventional sampling approaches are more appropriate. For example, if managers want to know what the coverage of a service is in a large area comprised of several health facilities, such as a region or the nation, then LQAS would not be the preferred method. An EPI cluster sample would probably be more rapid and less expensive.
To use LQAS, a series of initial decisions must first be made:

- Define performance standards. These standards ought to be expressed in terms of the triage system discussed earlier. For example, coverage as adequate (80% or more), somewhat inadequate (51–79%), and inadequate (50% or less).
- Determine the permissible classification errors of the LQAS screening. In the case study, the project staff decided that <5% of all HWs could be misclassified.
- Develop a decision rule that indicates the maximum number of individuals permitted in the LQA sample who have not received the intervention. Any number greater than this threshold results in judging the HW’s performance as inadequate. For example, in the first field test of LQAS a sample of 28 children under 3 years of age and their mothers was selected from the catchment area of each of the 60 HWs included in the study. The decision rule was to classify the HW as inadequate if more than 9 of the 28 children (or their mothers) had not received the intervention under assessment.

All three of these decisions (i.e., performance standards, the classification error, and the number of permissible defectives) are interrelated, and the LQA sample size is a function of all of them.

During the first field test of LQAS in 1987 (reported in this workshop), the performance standards of ≥ 80% = adequate and ≤50% = very inadequate, and a precision of >95% for classifying either adequate or very inadequate HWs was achieved by selecting a sample of 28 children under three and their mothers, and permitting no more than 9 of these individuals to have not received the intervention.

For example, for the sample size of 28, a total classification error of 8% results when no more than 9 individuals are without the intervention. This total error is calculated from the preceding two columns in Table 1, namely, (1 minus the probability of detecting adequate areas) + (1 minus the probability of detecting very inadequate areas). As can be noticed in Table 1, classification error is the smallest with a rule of 28:9 (marked with an asterisk). It increases or decreases as the threshold number of individuals who have not received the intervention either increases or decreases. Another feature of this sample size is that the classification error is the same for detecting either adequate or very inadequate areas (i.e., 4%).
Table 1. Example of the application of the LQAS statistics to detect the probability of 80% or 50% coverage of health area residents with respect to a PHC vaccination program according to sample sizes of health area residents ranging from 8 to 28, and numbers of cases not receiving a hypothetical intervention ranging from 0 to 10.

<table>
<thead>
<tr>
<th>Sample size of appropriate residents</th>
<th>Number in the sample not receiving the intervention</th>
<th>Probability of detecting health areas with 80% coverage (a)</th>
<th>Probability of detecting health areas with 50% coverage (b)</th>
<th>Total classification error (1−a)+(1−b)</th>
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Note: All probabilities have been rounded.
* Indicates the minimum total classification error for a sample size.
If a sample of 14 individuals were selected, as exhibited in Table 1, the other parameters would change as a consequence. With three individuals lacking the intervention permitted in the sample, 97% of the very inadequate performances would be detected. However, the precision is 70% for identifying adequate HWs. Total classification error is 33% for the 14:3 decision rule. If a 14:4 rule is chosen, then the precision of each judgment shifts. The LQAS would identify at least 87% of the adequate areas and at least 91% of the very inadequate ones. Total classification error would be less than the preceding option (i.e., 22%). Therefore, a 14:4 decision rule would be preferable to a 14:3 rule assuming that minimizing total classification error is the guiding principle.

Similar decisions can be made for any type of LQAS. Several other examples are given in Table 1. The propitious decision rule for each sample size is marked with an asterisk.

Two labels are given to the probabilities obtained from LQAS. The first, (1 minus the probability of detecting adequate areas) is called the provider risk. This name comes from the fact that providers are at risk whenever they classify an adequate area as inadequate. The risk comes from (a) using resources to improve areas unnecessarily, and (b) labelling a health worker inaccurately as not performing adequately, which may affect the worker’s own self esteem and his/her relationship with the manager. Second, consumer risk is (1 minus the probability of detecting very inadequate areas). The consumers exposed to the risk of health problems are the members of the community for whom an inadequate performing health worker is responsible. Consumers are at risk precisely because the quality of care they receive is deficient.

Another reason the sample size of 28 was chosen for this first comprehensive use of LQAS was to maintain conventional alpha and beta errors of <0.05. However, I would not recommend this sample size again. The 28 households in the catchment area of each health area required about 8.2 person days of interviewing. A sample size of 19 individuals, with six uncovered individuals permitted, saves about 2.7 person days of work with an inconsequential increase in alpha and beta errors (0.07 and 0.08, respectively). Assuming that exactly half of the 60 health areas studied have 80% and half have 50% coverage, a 28:9 rule will misclassify 1.2 + 1.2 health areas; with rounding these fractions of health areas to integers, the misclassification is 1 + 1 health areas. With a 19:6 rule, the misclassification would be 2.1 + 2.4 health areas (or 2 + 2 health areas with rounding) (see Table 1). The difference in misclassification is 2 health areas.

During the last few years, I have advised various quality-of-care work groups in ministries of health in different countries to define triage systems for acceptable consumer and provider risks. In one ministry, the work team selected an upper
threshold of 50% coverage and a lower threshold of 20%, resulting in an appropriate LOQAS design with a sample size of 19 with 12 uncovered individuals. With given criteria for adequacy (upper and lower thresholds of the triage system) and specifying the maximum number of individuals not covered for a given sample size, the probability of accepting as adequate, HWS working at different levels of adequacy, can be constructed. These probabilities can also be defined in curves constructed for specific sample sizes.

**Improving Health Systems through Regular Supervision**

The use of LOQAS for regular supervision of health worker performance represents its largest potential use. Health systems throughout much of the world are currently not equipped to perform this function reliably. Fig. 1 illustrates that regular use of LOQAS supervision can reduce classification errors.

*Fig. 1. Classification errors for 1 through 5 supervision sessions.*
The 6:1 sample size and decision rule is feasible for supervisors to perform during one day, and the information produced from it permits managers to classify each health worker, as well as to determine whether any problem of technical quality is wide-spread throughout the system. Therefore, with LQAS supervision procedures supervisors can aid a health worker to improve his or her technique once it has deteriorated and can recommend ways to improve national training programs that have produced numerous health workers who were never trained adequately for certain procedures. In the case study presented in this workshop, the project staff found that health workers tended not to maintain the thermos component of the cold chain, although they performed many other tasks well.

A 6:1 LQAS design is 97% specific for identifying tasks that a health worker performs 95% of the time correctly. Therefore, supervisors can be certain of the deficiencies they have detected. Few false positives have occurred. However, the cost of high specificity in this design is lower sensitivity to inadequate performance. The 6:1 LQAS design is 77% sensitive to activities performed adequately 60% of the time. It is 58% sensitive to activities performed adequately 70% of the time. The worse the performance, the greater the sensitivity.

In our experience, we have found that this trade off is worthwhile. During a single round of supervision, numerous performance errors were detected. A substantial amount of work by Ministry of Health supervisors and the continuing education unit was required to address these problems. All of these individuals agreed that because a large number of problems had been encountered, a low provider risk was desirable. The Ministry needed assurance for investing into ameliorating these problems.

This need was met with the 6:1 LQAS design. Since the specificity was 97%, they could be sure that only a small number of false positives had occurred. However, a larger proportion of false negatives did occur. Nevertheless, since supervision is performed frequently during the year, the sensitivity of the method improves during longitudinal applications. The likelihood of misclassifying the same health worker for the same task, regardless of the performance level, continuously decreases over time and within one year most of the problem activities should be detected. Eventually, most health workers with a problematic technique will be identified.
Participatory Village Development Planning in Morogoro, Tanzania

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How can the food and cash crop production problems of village households be solved? How can the traditional forms of village government planning be improved so that it is villagers themselves, from all social groups, who have a say in the policies and plans that affect their lives?

In a selected number of villages in the Morogoro region of Tanzania, the Sokoine University Extension Project (SEP) is grappling with these questions and is working to create linkages with village planning structures to promote popular participation in village-level development. The way this is being explored by the SEP team is through the use of participatory approaches to rural development planning and program formulation.

The Need for a Participatory Approach

This outreach to rural communities by the SEP team originated from its concern that many failures in community development efforts are due to the way policies and projects are conceived and implemented. Often they are based on preconceived ideas of outsiders about what local problems are and how they should be solved. Planning takes place without any involvement of the people concerned and implementation of the plan is viewed simply as a technical action without any consideration of the cultural and societal attitudes and the experiences and local knowledge of the population. The fact that the planning of a village development program is meaningful and viable only when appropriated by the people who are meant to benefit from these plans is often overlooked.

Also, it is often acknowledged that, although rural development programs of the last decade or so have placed the interests of small-scale farmers high on their agenda, the results so far have failed to measure up to expectations because of a failure to address the question of popular participation. This results either in
inappropriate innovations or in support for the least appropriate groups in the farming community. Typically, project inputs fail to work as intended or they end up in the wrong hands, with the most marginalized groups again excluded from development programs.

**Village Development Planning**

"Planning is choosing," goes a wise saying. This is true in view of the fact that planning involves a careful analysis of the situation and charting out possible means of solving the identified problems to fulfil the community, group, and individual needs.

Plans can be categorized into short-term, medium-term, or long-term planning horizons. Whatever planning horizon is adopted, the plan must show clear and concise objectives as well as spell out how these will be fulfilled.

A planning exercise should address three basic questions:

- Who should be involved in planning?
- What should be planned?
- How and for whom should the plan be addressed?

To ensure that the village development program is relevant both to villagers and to planners, it is essential that the programs are planned. Planning village programs involves the selection of activities and their prioritization and can help to:

- Assist in the identification and selection of village needs and problems,
- Ensure appropriate allocation and use of resources,
- Identify constraints during implementation of projects and programs,
- Increase cooperation between institutions involved in planning and implementation of projects/programs, and
- Solicit funds for projects from the government as well as donor agencies.

**Sokoine Extension Project (SEP)**

**Project Aims**

SEP is a collaborative research cum extension project that involves collaboration between academic institutions (from Tanzania and Ireland), government ministries, and selected villages. Specifically, those involved in the
project are the Department of Agribusiness, Extension and Rural Development, Faculty of Agriculture, University College, Dublin, Ireland; the Institute of Continuing Education (ICE), Sokoine University of Agriculture, Morogoro, Tanzania; the Agricultural Extension Service, Ministry of Agriculture and Livestock Development, Morogoro region; and selected villages in the Morogoro region. SEP began in 1988 with 20 villages, and by the end of 1990 was operating in 41 villages in three districts of the Morogoro region. A second expansion of the project brought the number of participating villages up to 47 by the end of 1991.

SEP has become involved in working closely with village leaders in planning and developing programs for villages to meet these aims:

- To upgrade the training and programs of village-level extension workers in project villages;
- To bring the university, extension service, and village government together in solving the food and cash crop production problems of village households; and
- To identify the critical level of inputs needed to sustain and replicate the SEP approach both from the ICE and from the Extension Service. The inputs include the resources (personnel and financial) required to provide training and the support/monitoring and management structures needed to help extension workers implement extension programs and projects.

**Participatory Village Development Planning in SEP**

Over the past 3 years the evolution of this project (SEP) has taken place in four progressive stages. Each stage has built upon the cumulative knowledge and lessons of the past:

- The examination by the SEP team of the development planning process and development of a recommended format for promoting village-level development planning,
- The establishment of stronger links between the SEP team and village leaders to improve the village development planning process,
- The establishment of village research committees, and
- The further consolidation of the improved planning format.

**Stage 1. Gathering Information**

In the first stage, project staff gathered as much information as possible about the villages to arrive at recommendations about programs and solutions
needed to improve village life. The active involvement of villagers was minimal. According to these findings interventions were then tried out. Monitoring and evaluation was done by project staff and focused mainly on whether the solutions had worked or not. Although there were many successes, there were difficulties in determining whether the solutions addressed the real needs of the communities.

Stage 2. Building Links With Village Leaders

In the next stage, project staff were encouraged to listen to local people so that they could better understand what the village perceived as its needs and priorities. Based on this information, actions were taken. Feedback from villagers was sought to evaluate these actions.

In this stage, a village leader’s training (VLT) program was initiated by project staff and villagers. The VLT program emphasized the enhancement of the capacity of village leaders to plan and select problems and solutions of high priority to a majority of the people. This approach encourages the project team and the villagers to work as partners because it is built on a two-way communication, problem-solving techniques, and a commitment to what works for the community. In forging links with the villagers, the relationship between the village extension workers (VEWs) and the village community is built upon.

The VLT program was conducted by way of seminars and workshops held in village centres in the districts of Morogoro, Kilosa, and Kilombero. Participants came not only from the district centre but also from the surrounding villages. About 280 villagers from 47 villages have participated in the training program. Of the six participants from each village, there are one or two village leaders, one VEW, and two to three members of the finance, planning, and production committee. Although a target had been set to have women make up close to 20% participation, the actual number of women in the VLT program was very low.

The workshop served as a discussion forum where the use of methods familiar to the peasants permits their active participation. Cognitive and emotional engagement and actions are stimulated through group discussions and case studies. The role of the SEP team is to facilitate the learning process. The team recognized that local knowledge is culturally signed and specific to the social organization.

External and local knowledge are both seen to be valid, so the external agent creates a bridge between the two by means of an intercultural communication process, permitting the exchange of different ways of perception, common agreement, and joint planning of social action. It is at this stage that
local knowledge is combined with outside knowledge. It is based on the premise that it is the villagers who are the ultimate beneficiaries of the project inputs. Sustainability depends, to a large extent, on the village leaders' ability to analyze, judge, and explain to others the value of various options.

Through the SEP workshop, farmers produce detailed technical information, which is verified by the experience of the whole group. Constraints to the solutions they pose themselves are identified by the group. They feel proud of their contributions and are motivated to report the value of their own knowledge to others. This strengthens their commitment to build upon and use their leadership skills and practices and to mobilize social efforts to enhance development. Analytical skills are thus supported and strengthened enabling them to ask and answer their own questions. An important spin-off benefit of the workshops is that they contribute to the learning experiences of both the project staff and the village leaders, as well as to the development objectives of self-help and sustainability.

**Joint Assessment and Planning**

Besides holding workshops, seminars were held with village leaders and VEWs. The village leaders included the village chairman, the village secretaries, and two members from the finance, planning, and production committee of each village. The objectives of the seminar were:

- To exchange information about the process by which village leaders and the SEP VEWs, respectively, prepare development plans;
- To develop an improved format for village development planning that would combine the desirable elements of the SEP development planning process with those of the village development planning process; and
- To prepare an action plan and test the improved planning format.

Through these seminars, it was revealed that village planning for most villages in the Morogoro Region followed a similar process. Traditionally, it is the village government and its leaders who are responsible for making decisions that affect the development of a village. The village is the basic administrative unit in Tanzania, and it usually is made up of 250 – 450 families. The village government determines the needs of the villagers, draws up plans for village development, decides on which projects are to be implemented, and ensures that they are carried out.

Decisions at the village level are made following the established hierarchy with a chairman at the top, down to the people. The village development plans are then presented to the government, in a sequence moving from the village to
the ward, division, district, regional, and finally national level. The administrative structure of the village government is illustrated in Fig. 1.

One of the major benefits of the villagization program in Tanzania is its potential to enable villagers to have the power to contribute to their own development plans. The village development planning process is usually carried out by deliberations and actions at five different levels of the administrative structure.

- *The Ten-Cell Unit* People in the village identify their problems. Meetings at the 10-cell level are called to discuss the cell’s problem.

- *The Village Committee* The relevant committee is informed about problems from 10-cell leaders in the village.
Village Government  All village committees meet to discuss the village problems and plans for their solution.

Village Council/Assembly  Open meeting to all villagers to receive village government's decision on plans and implementation procedures to solve the problem.

Villagers (the People)  Villagers' participation in the implementation of the plans and program is agreed upon. The 10-cell leaders are the key resources in following up the implementation of plans that have been accepted at the village level.

In describing this structure, seminar participants noted that, as per a Village Act (1974), the introduction of committees to the village government structure was permitted. Accordingly, one can find subcommittees related to forestry, water, and health in some villages. Participants also said that the village government, especially village committees or the village secretary (VC/VS), made most of the decisions. The 10-cell leaders played key roles in the identification of problems and implementation of village development plans. The village meetings were used for publicizing the village plans and gave people a chance to state their views and participate in decision-making before the implementation stage. An important disclosure was that, although women and youth play important roles in the social and economic life of the community, they are rarely involved in the planning process.

First, the village development plans start with situation analysis and problem identification. The villagers, together with village technicians (community development, forestry, teachers, etc.), assist in situation analysis including the identification of casual factors.

In the second step, the priority problems are discussed and ranked according to their perceived priority for action and their solutions discussed. A decision is then made about which solution should be pursued, and objectives and plans of action are developed with the involvement of the villagers and technicians in the village.

Third, implementation plans are developed. In this stage, the village leaders, technicians, and other village resources arrange for implementation of the plans of action. During the implementation stage, constant follow-up is maintained and periodic consultations are conducted. During the follow-up, the SEP staff, along with village leaders, makes the necessary adjustments, discusses problems, and evaluates the progress made.
**Proposed Village Development Planning Format**

The planning process proposed to seminar participants by the SEP team has three main steps as shown in Fig. 2.

1. **Problem/situation analysis**
   - Identify resources
   - Problem identification
   - Situation analysis
   - Casual factors

2. **Selection/decision**
   - Priority problems
   - Solutions/feasible
   - Plan of action
   - Objectives

3. **Implementation of plans**
   - Arrange for implementation and plan of action
   - Implement, evaluate
   - Follow-up

*Fig. 2. Stages in the SEP village development planning process.*

**Recommendations**

As a result of interchanges during the seminars, between the SEP team and villagers, the following recommendations were made:

- An improved format for the village development planning process was agreed upon.

- It was recommended that research committees be established in each village and include technical staff from the village and emphasis on increasing women's representation.

- The need to develop plans for the orientation and training of research committees was agreed upon.

- An action plan was agreed upon to enhance uniformity in implementation of the activities.

- Recommendations regarding measures to improve the performance of the VEWs were made.
**Steps in the Improved Format**

- The villagers or groups of people and village leaders participate in the selection and identification of problems and solutions.

- The village research committee assists in the investigation and identification of priority problems and solutions.

- The village finance, planning, and production committee receives findings about the village situation as identified by the research committee. It considers these problems in relation to other village plans, projects, and programs and makes recommendations to the village government.

- The village government considers recommendations made by the finance planning, and production committee and selects relevant problems of high priority to the village. The action plans to be followed are formulated.

- The village assembly receives decisions made by the village government. At this stage, the village assembly discusses problems, solutions, and action plans that need to be followed.

The process proposed by SEP seminar participants for the village development planning process involves a number of people situated within the village government administrative structures (see Fig. 3), and relies particularly upon the finance, planning, and production committee and the village government and assembly. The establishment of a village research committee is proposed to serve the critical function of allowing for the systematic input of villagers’ views regarding priority needs and feasible solutions into the village government structure.

**Stage 3. Village Research Committees**

The third stage of the SEP has been the experimentation with the introduction of the improved planning format in the villages, with the establishment of the VRCs playing an important role in promoting enhanced village-level input into the planning process. There can be 6–12 people on the committee including:

- A village extension worker (VEW),
- One to six village technicians with representation from a variety of sectors (e.g., teachers, community development personnel, forestry officer, medical officer, a women’s representative),
- Two village production committee members, and
  Two women representatives.

The function of this committee is to:

- Identify village problems, needs, and solutions,
- Identify village resources,
- Study the village situation (food, social/economic),
- Make recommendations to the village governments,
- Conduct and direct research activities in the villages,
- Comment upon the use of data collected in the village, and
- Contribute and influence planning and development of the villages.

Village research committees have been formed in all 41 villages that are involved in the SEP as well as the six other villages that are administered under another project.

![Diagram]

Fig. 3. The SEP village planning structure.

Stage 4. Consolidation of the Project

The fourth stage of the SEP project is to continue training and assisting village government leaders and research committees to fulfil their functions. Constant follow-up is maintained to keep villagers further motivated, with
Weaknesses being identified and corrected as part of an ongoing evaluation process. It has been realized by most villages that the role of the VRC must be supported and maintained continually if the overall standards of living in the village are to be improved. The active and full representation of all village members continues to be a challenge, with women and youths underrepresented. By the end of 1990, only about 5% of VRC members were women. One approach taken by the team to overcome this problem is the VRC's deliberate efforts to approach women's groups for discussions about problem identification.

Data generated through the improved planning format have been used to prepare village development plans that are then submitted to the district development council and to some donors for assistance. It has been relatively easy to convince them of village problems and priorities and attract their support.

As a result of these efforts, a number of microprojects have been developed and implemented, including the following:

- Ozonization project,
- Small animal projects (rabbits, goat keeping),
- Agroforestry,
- Sunflower oil extraction,
- Vegetable gardens (especially among women, youths, schools),
- Citrus fruit gardens,
- Irrigation channels,
- Storage structure, and
- Green manure.

**Conclusions**

Planning of village programs needs to involve the village leaders and their governments. They are responsible for making decisions that influence local development. It has also been pointed out that other technical people in the villages must be involved in planning and executing the village development programs. The SEP experiences show that women and youths play an important role in the village activities but are rarely involved and do not participate in the planning of village development programs.

It is emphasized that sustainable change and development at the village level can only occur when the beneficiaries are involved. The use of the village leader training programs and village research committees are means to enhance local participation in identifying and solving community problems.
This project is based on the firm conviction that sustainable change and development at the local level can only occur when the beneficiaries are involved. The current activities of the VRCs are very encouraging and are facilitating bottom-up planning, which effectively feeds into the village, district, regional, and national levels. By utilizing a participatory approach and by building upon existing political structures and local knowledge, it is hoped that this experiment in rural development planning will help realize local development goals.
Participatory Research
in an Academic Setting

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In addressing the issue of participatory research in an academic environment like our universities, four questions can be asked:

- Can the participatory research approach be practised by students in the undergraduate or graduate (MSc/PhD) programs?
- Are university staff trained and interested in using participatory research approaches?
- Are there university links with the communities?
- What is the university curriculum and how can content on PR be integrated into it?

Since its inception, the Sokoine University of Agriculture has taken up the challenge of participatory research by developing a mechanism of links with the community.

Linking Universities to Communities

The Institute of Continuing Education (ICE) has been established with a mandate as a university organ to carry out outreach activities. Outreach programs is a term used to mean all of the activities of the university that extend its benefits to the communities. It is through this link that the university facilities and activities (research/teaching/extension) are made known to people away from the institution. The experience at the Sokoine University of Agriculture shows that this arrangement makes the university training more relevant to its clients.
Similarly, through the outreach program and extension activities, it has been possible to develop a pool of identified problems and needs from the surrounding villages and communities. The list of problems are used in directing research interests among university staff and students. For example, research topics generated include cooperatives, vermin, storage, traditional irrigation, crop varieties, dairy goats, rabbits, forestry, soil conservation, and women’s income-generating activities, etc. It is, therefore, important that village problems become the foci of staff and student research and encourage further participatory research approaches.

Building the Links

Village Research Committee

These are very useful in assisting researchers in problem identification, prioritization and analysis. As already discussed, village research committees help to improve the exchange of ideas and dialogue between the university and villages.

Village Meetings

Through the outreach program, university staff and students can attend village meetings. These help in understanding the village environment and the ways of dealing with their situation. By keeping close contact with village leaders, universities can contribute effectively during these discussions and can influence decisions.

University Open Days

It is important that these annual events of the university are accessible to the communities. These events help to provide a forum for communities to see firsthand what universities are involved with and what they can offer to the communities.

Farmers’ Tours to Universities

Special efforts need to be made so that universities arrange for farmer/community tours during term time. This could be directed to a specific department or research activity.
University Visits to Villages/Communities

It is very important that university staff and students get as much time as possible to visit the villages. This could be part of a lesson or lecture or an application of some concept. For universities to divorce themselves from being looked upon as foreign bodies, interaction by visits must be encouraged.

Outreach Programs

For outreach programs, it is necessary that a department or an institute within the university takes the role of coordinator. Lack of coordination of university activities in the villages/communities can lead to duplication or conflict. All members of university departments carrying out research in the villages/communities need to know and share their experience and schedules. It is only through a well-organized outreach program that useful information will be generated from villages and improve community participation in university research activities.

The Challenge

A shift in curriculum is needed to influence the teaching and training of staff, research, and extension activities. Furthermore, the policymakers in the universities and ministries need to be advised constantly so that they understand the need and importance of a review of university curriculum to allow for some of these changes.

The challenge that we have as scholars in this workshop is to see how we understand participatory research and try to structure our research activities to allow the use of participatory research approaches.
Problem Areas in PRA and Related Methodologies

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Participatory rural appraisal (PRA) and related approaches¹ (RA, RRA, PTD, RAP, FSR, etc.) aim to be client/farmer-centred; that is, to involve clients systematically (farmers and others) at key stages in the problem identification, technology development extension process. Clients play an active and central role in the identification, development, testing, and dissemination of particular technologies and interventions. This methodology is often associated with NGO (nongovernmental organizations) project work in Africa and Asia, but increasing members of international and national research institutions, university staff, and ministerial and other government agencies and donors are also experimenting.

In contradistinction to classic transfer of technology (TOT) models, these approaches generally begin by working with clients in developing an understanding of local conditions, in other words, working with local clients to construct a "model of" local reality from the client's perspective. Finally, they seek to introduce or modify specific practices or technologies to meet local demands and to mesh with local conditions.

As with all research and development (R&D) methodologies, there are difficulties associated with PRA and related approaches. Some result from incorrect use of the approach, others are linked to the current stage of development of the approach and the corresponding need to continue working out and refining both tools and methods. A few of these difficulties are discussed in the following.

¹There is a profusion of acronyms now being used in conjunction with participatory approaches to research and development. Some of the most common are rapid appraisal (RA), rapid rural appraisal (RRA), participatory technology development (PTD), rapid assessment procedures (RAP), and farming systems research (FSR).
Difficulties

Concerning the myth of self-containment, first, one needs to ask "bottom up" to what? The relevance of the question lies in the commonly found assumption that "people-oriented" approaches can "do it all" and require no, or few, linkages with either (a) higher-order (public or private sector) entities such as research institutions, universities, national extension, and other agencies; or (b) lateral linkages to local extension, marketing, research, or other relevant entities.

Second, methods and tools associated with the approach, if not knowledgeably and sensitively used, can overemphasize the ability of local people to define and prioritize comprehensively their own problems in ways that can be realistically addressed through project activities. It may be assumed by users of PRA and related approaches that local communities can identify their needs and prioritize them fully and correctly and that, based on plans of action developed out of the PRA exercises, local participants will be able to proceed with implementation, or will at least know where to go next, for assistance. Thus, that they do not need, or need little, ongoing assistance from the outside by research, extension, and other public- or private-sector services either during the problem identification/solving stages or afterward during the implementation stages. Thus, the myth of the self-contained local village or community is perpetuated.

This conclusion, however, misses an important point. By definition, the process of development implies increased and more regularized linkages by local villages and communities with broader, more capital-intensive markets and other institutional processes as well as with professionals with specialized training. Development thus implies transformations from segmented markets and partly monetized economies to increased integration into regional, national, and international economies, together with the development of systems of legal and policy checks and balances. It also implies increasing differentiation of professional and technical skills, and thus increasing use of "technical" specialists in all areas of society and economy — in agriculture, health, education, administration, and the like. In part, this is what the "discovery" (or recent creation) of a world economy is all about (Wallerstein, I. 1974. The modern world system: Capitalism, agriculture and the origins of the European world-economy in the sixteenth century. Academic Press, New York. 410 p.)

Thus, neither communities nor NGOs, nor government organizations can "do it all." Failure to treat this issue of micro-macro linkages, as well as the issue of lateral linkages, may be one of the most problematic aspects of PRA, "farmer-first" or "bottom-up" approaches to R&D. Put another way, empowering end-users to define their condition, diagnose key constraints, and develop community action plans to address these constraints, is but the first phase of a
PRA-based R&D process and is generally incomplete if it is not systematically integrated or coordinated with complementary R&D activities that extend this process and develop it.

**Indigenous Knowledge and Action**

Indigenous systems of knowledge and action do need more recognition and systematic attention. However, just as transfer-of-technology approaches can lead to difficulties by their lack of client involvement, so can participatory technology development (PTD) models take a pendulum swing too far in the other direction. This creates, in reverse, the same degree of difficulties that can be associated with the TOT approach. In the case of PRA, this can lead to an overemphasis on indigenous knowledge, indigenous farming, or natural resource management systems, etc., as models for development. PRA becomes a reverse image of classic TOT models that brush aside the very same indigenous system in favour of supply-driven technology development and transfer approaches that marginalize or disempower clients as well as make the environmental impact of the technology less sustainable.

**Timing and Nature of Client Involvement**

Participatory approaches can lead to the assumption that direct client involvement and concurrence is necessary at all stages of technology development. This is not the case. In fact, what clients may perceive as a major problem may in reality be addressed through more efficient and locally sustained methods. For example, a locally perceived lack of water can perhaps be satisfied by managing water resources through plowing and planting configurations, water harvesting, or the like. The key factor is not simply promoting direct client involvement and empowerment at field level. It is also a question of seeing that the local perspective is well understood by researchers and others involved at different stages of R&D activities. This perspective then needs to be taken "back" with them to their laboratories, government offices, policy centres, development institutes, NGOs, and the like.

**Specialized Skills and Resources**

Just as some TOT advocates sometimes ignore or exhibit outright hostility to traditional or indigenous technical and socioeconomic forms and processes, so too can PRA advocates spurn or down play the specialized skills and resources of R&D specialists and institutions. This not only obstructs the flow of knowledge and methods in both directions but also encourages the notion found among some institutions that "we can do it all ourselves."
Other Difficulties

There are other difficulties that can weaken the use of PRA. For example, there may be a temptation to reduce "the community" to a homogeneous grouping separated at best only by considerations of gender. Questions such as how stratification is determined and maintained by locals and the attributes associated with it can form part of the most important data that a good PRA and related follow-up provides. Similarly, PRAs that are not implemented and followed up sensitively can miss critical aspects of the local context coming up with one dimensional and static facts rather than with an understanding of local processes.

PRAs, because they are easily conducted, may be associated with a certain lack of critical rigour. There is a danger of making oversimplified decisions and judgments in the name of the community, without giving the matter objective and thorough scrutiny. Being easily conducted, PRAs may be implemented by persons who have not yet had sufficient hands-on experience in leading such an exercise. Associated with this difficulty may be an implicit antiscientific or anti-intellectual bias; a notion that minimal training and "hands-on" work can "do it all." In some cases, this is true. But the reality must be judged on a case-by-case basis.

Finally, a PRA can raise local expectations unrealistically, especially because of the degree of local involvement that it generates. This can make future project work with the same people extremely difficult. The ideology associated with "participation" may backfire if misused, being transformed into politically charged fodder for use in ways that undermine the real intent of the exercise.

Need for Critical Reflection

The discussion thus far may appear overly critical or to suggest that one must employ either TOT or PRA. This is not, however, the case. In this discussion, the two have been analytically separated to clarify major differences, both strengths and weaknesses, especially with reference to PRA methods. Indeed, taken separately, each tends to be incomplete; supply-driven, classic, top-down TOT approaches need better linkages with end-users and their indigenous contexts, just as demand-driven, bottom-up PRA approaches need better linkages with the community of research institutions, universities, and other institutions and processes.

Thus, it would be irresponsible, or at the least naive, to shift direction toward PRA approaches to the extent that the most positive aspects of TOT approaches to R&D could (or would) not be incorporated. Conversely, for those
trained primarily in a TOT approach, it would surely be self-defeating not to incorporate into this approach the most appropriate aspects of PRA in addressing a particular R&D issue. The current trend in some research and training institutions is to do just that, and an emerging emphasis on "retooling" their researchers and staff through training courses in on-farm and on-site research that stress PRA and similar methods can be seen.

The issue of technology development and of developing reliable and cost-effective delivery systems is a difficult, costly, and time-consuming process that is pot-holed with failed or misguided attempts. The complexities involved are enormous. In the process of unravelling these complexities, there is always the temptation to grab for a new method, a new approach, a new model for R&D. As the "new kid on the block," PRA is similarly being grabbed for, often without the kind of rigorous assessment and judicious use and associated analysis that it, or any methodology, requires.

By critically reflecting on some of the difficulties associated with PRA, both researchers and developmentalists stand to use it, together with their clients, in more informed and productive ways, thereby enhancing the many benefits that are associated with this approach.
Appendices

1. Participatory Research Bibliography


Cervinskas, J. and Young, R. 1990. Community nutrition research: Making it rapid, responsive, and relevant. In IDRC-MR264e, Ottawa, Canada. 29 p.


CUSO Education Department 1987. How to Do It: A program planning guide for development education. CUSO, Ottawa, Canada.


de Terville, D., El Tahir, B., Elamin, T. and Mukhtar, M. Transformations in Sahelian farming systems: How do we define "the system" and count "the farmer"? Experiences from an Agroforestry Project, Paper prepared for the Twelfth International FSR/E Congress.

el Tahir, et al. 1990. Research-client linkages: The Sudan reforestation and antidesertification project. Case Study One in Successful Approaches to Participatory Research. Winrock International Institute, Arkansas, USA.


Rifkin, S. et al. 1990. Rapid appraisal to assess community health needs: A focus on the urban poor. Institute of Tropical Hygiene, University of Heidelberg.


2. Additional Resources

**Rapid Assessment Procedures: Qualitative Methodologies for Planning and Evaluation of Health Related Programs**, N.S. Scrimshaw and G.R. Gleason, eds. 1992. This 520-page book, published by the International Foundation for Developing Countries (IFDC), Boston, contains 42 papers, based on presentations made at the International Conference on RAP, held in Washington, D.C. 12–15 November 1990. The papers illustrate the use of rapid assessment methodologies in a range of sectors and sub-sectors, with application to diverse topics, and deal with many issues that the use and endorsement of RAP raises (e.g., constraints and difficulties in using rapid assessment methodologies, training needs, institutionalization of RAP, etc.). A must-read, both for initiates and for seasoned practitioners of RAM. Available for USD 25.00 (plus USD 4.00 for postage and handling) for industrialized country citizens and staff from international organizations, or for USD 15.00 (plus USD 5.00 for surface postage) for developing-country citizens. Cheques should be made payable to INFDC, and orders sent to INFDC, Charles Street Station, PO Box 500, Boston, MA 02114-0500, USA. Tel: (617) 227-8747. Fax: (617) 227-9405.

**Rapid Assessment Procedures for Nutrition and Primary Health Care: Anthropological Approaches to Improving Program Effectiveness**, S.C.M. Scrimshaw and E. Hurtado 1987. Tokyo. The United Nations University. 70 p. This booklet contains specific instructions for the use of anthropological methods for the rapid assessment of health and health-seeking behaviour. The classic RAP methods derive from the basic anthropological methods of the formal and informal interviews, conversation, observation, and focus groups. Included are sample data-collection instruments intended to help focus research, organize the data-collection process, and standardize the information gathered. Information records, field techniques, and data management and analysis are also discussed. A 17-minute instructional video complements the RAP publication. Price is USD 8.95 for the text, USD 17.40 for the video, and USD 35.00 for the PAL version (not including tax and delivery charges). Available in either English or Spanish from the UCLA Latin American Centre, University of California, Los Angeles, California 90024-1447, USA. Tel: (213) 825-6634.

**RAP News**, available from the United Nations University, Food, Nutrition and Human Development Program, 22 Plympton Street, Cambridge MA 02158, USA., Tel: (617) 495-0419, Fax: (617) 496-3227.
Series on Participatory Rural Appraisal (PRA). The National Environment Secretariat (NES) of the Ministry of Environment and Natural Resources in Nairobi, Kenya; the Program for International Development of Clark University in Massachusetts, USA; and Egerton University in Njoro, Kenya, have jointly published a series of publications on PRA. In this series one can see how PRA has evolved, and adapted to field needs following its emergence in Kenya in 1988 as a direct outgrowth of PRA. Although the original aim of PRA was mobilization for improved resources management and the development of village resource management plans (VRMPs), RRA field activities have indicated that PRA has a broader base of applications and that community action plans (CAP) is a better title for the community-based PRA recommendations for action. The first book in the series is An Introduction to Participatory Rural Appraisal for Rural Resource Management 1989. PRA, according to this 23-page booklet is "a simple methodology that brings a village focus to rural development and enables rural communities to participate in preparing and implementing village resource management plans. These plans support village-based projects that lead to sustainable natural resource management." This booklet explains the merits of the PRA and briefly describes the rationale and steps to carry it out. Available in English (free) or Kiswahili (USD 4.00). Order from the Director, Program for International Development, Clark University, 950 Main Street, Worcester, MA 01610-1477, USA. Tel: (508) 793-7201; FAX: (508) 793-8820.

The Participatory Rural Appraisal Handbook: Conducting PRAs in Kenya (1990, 85 p.) was prepared with assistance from the Centre for International Development and Environment, World Resources Institute. The handbook aims at enabling extension officers to help rural communities define problems, prioritize project activities, and adopt village-based resource management plans. Detailed information is provided on getting a PRA started, gathering data, evaluating, and planning. Chapter 4 provides detailed information about data gathering with good explanations and examples of recommended data-collection techniques. In Chapters 5 and 6, one can find good ideas to stimulate thought about community needs analysis and action on priority development problems. Chapter 7 contains a detailed example of a VRMP. Cost is USD 12.50 or free to NGOs in developing countries. Available from the foregoing address or from the World Resources Institute Publications, PO Box 4852, Hampden Station, Baltimore, Maryland 21211, USA. Tel: (800) 822-0504.

Implementing PRA: A Handbook to Facilitate PRA (1992, 66 p.), is a draft of a field manual aimed to show village groups how they can implement plans they have created using PRA. The handbook presents practical information and guidance, based on the experiences of others in launching rural development
projects. Available for USD 8.00 (agencies working in the field can request a waiver of fee), from either Clark University (address as above) or Egerton University, Division of Research and Extension, PO Box 536, Njoro, Nakuru, Kenya.

RRA Notes is a series of short, informal publications, that enable the reader to get a good sense of the background, methods, recent developments, and applications of PRA and RRA. It provides a good way to keep abreast of recent experiences and current thinking, and practitioners are encouraged to share their experiences and views. As of July 1992, there were 16 issues in the series. Back copies may be available for some issues. In Number 16 (July 1992) a special issue on "applications for health" (115 p.), a full listing of the contents of back issues is listed. Available free on request from the Sustainable Agriculture Program, International Institute for Environment and Development, 3 Endsleigh Street, London WC1H 0DD, England. Tel: (44) 71-388-2117; Telex: 261681 EASCANG; Fax: (44) 71-388-2826.

Rapid Rural Appraisal: Proceedings of the 1985 International Conference on RRA, published by Rural Systems Research Project and Farming Systems Research Project for Khon Kaen University, Khon Kaen, Thailand, 1987, provides an excellent introduction to RRA. There are sections in this 357-page book devoted to the evolution of RRA and its underlying concepts; methods, tools, and techniques of the methodology; and contexts and types of RRA application. A 181-item bibliography is also presented. To obtain copies (at a cost of about USD 15.00) contact Dr Terd Charoenwatana, Leader of FSR and RSR Projects, Faculty of Agriculture, Khon Kaen University, Khon Kaen 40002, Thailand.


The Rapid Rural Appraisal Annotated Bibliography, J. Hassin-Brack, (December 1988) is available from the Office of Arid Land Studies, 845 N. Park Avenue, Tucson, Arizona 85719, USA. Tel: (602) 621-1955; Telex: 561507 ARID UT. This same office can provide articles cited in the bibliography, and most are under USD 5.00.

Tools for Community Participation: A Manual for Training Trainers in Participatory Techniques, by L. Srinivasan, 1990, 179 p. PROWWESS/UNDP technical series involving women in water and sanitation, lessons, strategies, tools. This field manual for trainers is replete with descriptions of techniques and activities that aim to involve communities in the process of addressing community needs and problems. Although the content is based on experiences in the water and sanitation sector, the manual should be useful to those working in a variety of sectors who seek ideas and resources on participatory training, human capacity development, and planning and organizing productive workshops. A video has also been produced to complement this work (available in English and French, VHS, systems PAL, NTSC, SECAM). The manual and video are available as a package from PACT, Inc., 777 UN Plaza, New York, New York 10017 USA Tel. (212) 697-6222. FAX: (212) 692-9748. Cost is USD 35.00 plus shipping.

The PROWWESS/UNDP Technical Series "Lessons-Strategies-Tools" has prepared numerous publications, many of which are available free of cost from PROWWESS. For information on the PROWWESS programs and publications contact PROWWESS, UNDP/World Bank Water and Sanitation Program, 1818 H Street N.W., Room S-11125, Washington, D.C. 10433, USA. Tel: (202) 477-1234, Fax: (202) 477-6391.

The Forest, Trees and People Newsletter, which focuses on issues related to sustainable production, is published quarterly by the International Rural Development Centre, SUAS (The Swedish University of Agricultural Sciences), Uppsala, Sweden, and the Community Forestry Unit, FAO, Rome, Italy.

Basic and Tools: A Collection of Popular Education Resources and Activities (1985, 183 p.) is a handbook that describes basic models and principles of experiential adult learning and provides numerous examples of exercises and activities suited for group use in development education. Available for CAD 11.00 from CUSO, Canada Desk, 135 Rideau Street, Ottawa, Ontario, Canada K1N 9K7. Tel: (613) 563-1264, Fax: (613) 563-8068.
Rapid Assessment Procedures for Nutrition and Primary Health Care: Anthropological Approaches to Improving Program Effectiveness, is a 17-minute video in which the principles, techniques, and applications of RAP are featured against the backdrop of a project in Guatemala. The video complements the publication of the same name, and is available from the same address as the written resource.

Participatory Training for Water/Sanitation Projects (1989, 24 minutes) is a complement and introduction to the text "Tools for Community Participation" (described earlier). In this video, which features a PROWWESS Regional Training of Trainers Workshop in Tanzania, a participatory approach to training is shown. The use of active learning exercises and the development of participatory tools to use in working with communities is well-illustrated. Available from the foregoing address.

A Self-Study Kit on PAR is being produced by the International Development Research Centre. The kit is based on two research projects financed by IDRC in Indonesia and the Philippines, which shared the basic goal of improving the living standards of the poor. It includes a manual, two comic books which illustrate case studies, and a video discusses the background, concepts, and methods used in PAR. The kit should be ready for distribution sometime in 1993. For information, contact Ebenezer George, AV Production Manager, Creative Services Group, Corporate Affairs and Initiatives Division, IDRC, PO Box 8500, Ottawa, Ontario, Canada K1G 3H9. Tel (613) 236-6163, Fax. (613) 238-7230.

The IPRA Method. This is a well-produced video running about 20 minutes that shows how farmers in Columbia have participated in field trials on beans and cassava. The video emphasizes the valuable contribution that farmers’ input can make in agricultural research. Available free in VHS or Beta format for USA standard television sets by sending a blank tape to the Coordinator, Participatory Research Projects, CIAT (Centro Internacional de Agricultura Tropical), AA 6713, Cali, Columbia.

Participatory Research with Women Farmers (1991) is a 25-minute video that shows Indian women farmers who have participated in conducting trials of varieties of pest-resistant pigeon-pea, in consultation with an entomologist from a leading agricultural research centre (ICRISAT). The video shows how the women’s knowledge and views influenced the selection and serves as a powerful illustration of the importance of farmers and scientists working together. The video is available free-of-charge to organizations in the South and for £20 to
organizations in the North, in either VHS or Betamax format; in PAL, NTSC or SECAM format; in either English, French or Spanish. Order from T.V.E., PO Box 7, 3700 AA Azist, The Netherlands. Tel: (31) 3404-20499. Fax: (31) 34-4022484. E-mail GEONET GEO2: TVE-NL.

*The Goddess and the Computer* describes the development of a computer model by a team of American scientists to simulate the irrigation systems in Bali, Indonesia. The resultant model demonstrated the link between the irrigation system and the local religious practices/location of the temples, a fact already known by local people but viewed skeptically by many "outsiders." This video, although not really an example of PR, underscores the value of indigenous knowledge, and the benefits that can be attained if scientists seek greater input from the lay person. A good discussion starter, but at USD 245.00, expensive. Distributed by Documentary Educational Resources, 101 Morse Street, Watertown, MA, 02172, USA. Tel: (617) 926-0491, Fax: (617) 926-9519.
3. Evaluation Feedback

Participants' Feedback

The question on the "most important" lesson learned during the week, can be categorized into three major areas:

- The methods applied in PR, and their uses in research;
- The importance and advantages of participation in research; and
- That universities can engage in PR with communities.

The Session Most Liked, Shared Three Ways

- RAP, focus groups, and qualitative methods because of the clarity and practicality of the methods;
- The "tools for community participation" by PROWWESS, because it put participation into practice; and
- The case studies because they illustrated the strengths and weaknesses of PR.

Areas That Need Strengthening

- The application of PR in an academic environment;
- More group discussion, using case studies and examples for participants to dissect;
- More use of participatory methods; and
- Greater involvement of rural sociologists, agriculturists, economists, and other related disciplines.

The composition of the group was felt to be good, reflecting the need for interdisciplinary involvement in PR. It could have been broader as suggested by some participants, i.e., to include policymakers, more ministry officials, social scientists, and district-level officers. Clearly, PR has appeal for a wide variety of researchers, program planners, policymakers etc. This points to the need for further training in these approaches.

The suggested follow-up needed after this workshop includes:

- Learning PR methods in a practical field training environment, testing of one method (i.e., RRA) in the field;
- Making steps toward incorporating PR in an academic environment (institutionalizing it); and
• Further training workshops including training of trainers (TOT), and more intensive training in single methods (i.e., RAP or RRA).

Participants felt they contributed toward meeting their expectations, however, several felt there was insufficient time for discussion, questions, and small group learning.

On the Scale Measure of Usefulness of Selected Sessions, (where 5 indicates very useful and 1 not useful):

- Group work on definitions of research/PR: 71% level 4–5 (very useful)
- Group work on levels of participation: 57% level 4–5; remainder level 2–3
- Panel presentation on issues in PR: 71% level 4–5
- Case studies, Sudan, Kenya etc: 57% level 4–5; remainder level 2–3

Comments on the facilitators include: overall, good and clear; some lecture styles were monotonous; facilitators were not well informed at first on the knowledge level of the participants; some lectures could have been shorter with more time for discussion.

Regarding the venue, organization etc; most comments showed that the venue, breaks, space, organization, and resources were fair to excellent. Some other comments of note: need to keep time, bigger space needed for group work; a list of resources and newsletters would have been very useful; seating arrangement could have been more conducive to full group discussion.

Finally, general comments on the workshop

• That this has been a good start to introduce the concepts, and follow-up is needed now to put these into practice;
• A good learning experience, enjoyable and relaxed;
• Much more time for discussion was needed;
• Nice to interact with people from different, but related, disciplines; and
• Hold the next one outside of Nairobi!

Facilitators' Feedback

Although most expectations of facilitators were met, it was suggested that specific follow-up activities to the workshop could have been discussed before the end of the workshop, i.e., a pilot project or training experience to put into practice
some of the concepts discussed. This could involve the university, IDRC, and an NGO or development agency, along with relevant ministry input. Also, there was a feeling that more examples with direct application to food and nutrition should have been used.

Comments on the Most Important Thing Learned:

- Can be a high level of interest in PR from academics,
- Rapid assessment methods are relevant across sectors,
- Application of interactive learning methods,
- Comparing PR experiences across sectors has much value, and
- Further training is necessary before full appreciation of RAP can be gained.

Facilitators appreciated the case studies the most, mainly because they felt case studies can expose what PR can/cannot achieve in reality. They also demonstrate the extent to which communities participate and to which researchers gain an understanding of the communities. Comments on other sessions raised the issue that RAP methods should be presented systematically, with more emphasis on the principles and methods.

The Workshop Program Could Have Been Strengthened in Several Ways

- Develop potential follow-up activities with rationale for each,
- More hands-on work during the week in group exercises,
- Greater depth in explaining techniques and their limitations, and
- More time for discussion, providing summaries and synthesis of sessions.

All facilitators thought the mixed discipline composition of the participants was good and contributed to the richness of discussions and ideas.

Follow-up from the workshop could include:

- Field training;
- Information exchange with participants and others interested;
- Mechanism for university departments to meet and discuss/suggest action;
- Discussion between donors, universities, NGOs to formulate demonstration or pilot projects using PR; and
- Further workshops on research methods.
General comments made by facilitators:

- Very useful to gauge the level of knowledge on PR,
- Good forum for meeting people from different institutions,
- Participants demonstrated high level sensitivity to issues,
- Need to exchange more information on PR and to network on experiences, and
- Need for more workshops of this type: could have wide implications for ways in which research is approached in communities.
4. Workshop Agenda

University of Nairobi, Food Technology and Nutrition
Department, Unit of Applied Nutrition

Date: 23 – 27 Sept 1991
Venue: Methodist Guest House, Nairobi
Participants: University academic staff, Ministry officials, NGOs

Objectives of the Workshop

- To familiarize participants with the concept of PR,
- To review participatory research methods and their application in social and development research,
- To discuss and appraise the use of participatory research and its value for teaching and research initiatives in an academic environment, and
- To expose participants to a variety of resource materials on the subject.

Program

Monday 23 September

09:00

Welcome – Dr G. Maritim, Head Unit of Applied Nutrition, University of Nairobi

1.0 Opening of Workshop
Prof. Mukunya, Dean, Faculty of Agriculture, University of Nairobi

1.1 Introduction of participants and facilitators: exercise in pairs
– S. Baldwin, ANP

1.2 Discussion of content/objectives and written exercise on expectations
– S. Baldwin, ANP

10:30 – 11:00 Tea break
11:00

1.3 Group work: What is participatory research?
   – J. Cervinskas, IDRC

13:00 – 14:00 Lunch

14:00

1.4 Lecturette: Definitions of research, participation and participatory research – J. Cervinskas, IDRC

15:30 – 16:00 Tea break

16:00

Video: "The Goddess and the Computer"
Open discussion of the video and PR

Tuesday 24 September

09:00

2.1 Group exercise: Levels of participation in research, using a continuum
   – J. Cervinskas/S. Lugeye

2.2 Rapid Rural Appraisal (RRA) in agricultural research, methods and practice:
   – D. de Terville, Winrock International

10:30 – 11:00 Tea break

11:00

2.2 RRA continued

13:00 – 14:00 Lunch

2.3 Participatory rural appraisal (PRA) in natural resource management
   and food security
   – J. Ayieko, Egerton University and J. Muinde, National Environment
   Secretariat

15:30 – 16:00 Tea break
2.4 Case studies on RRA: Sudan Reforestation Project
   – D. de Treville

   Video films on PR in agricultural research

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*Wednesday 25 September*

09:00
3.1 Qualitative research methods and Rapid Appraisal Methods (RAP)
   – D. Nyamwaya, AMREF

10:30 – 11:00 Tea break

11:00
3.2 Rapid assessment for health services monitoring: Lot Quality Assurance
   – J. Valadez, AMREF

13:00 – 14:00 Lunch

14:00
   Group re-energizer: Sculpturing exercise

3.3 Case study: Participatory research committees in the Morogoro region
   of Tanzania
   – S. Lugeye, Sokoine University

15:30 – 16:00 Tea break

16:00
3.4 Video presentation: "Rapid Assessment Procedures"
   Group discussion of video for Nutrition and Primary Health Care

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*Thursday 26 September*

09:00
4.1 Tools for community participation: Experience of the PROWESS
    program
   – R. Sawyer/R. Mulama – PROWESS/UNDP/KWAHO
10:30 – 11:00  Tea break

11:00  Group work on participatory tools and methods (PROWWESS)

13:00 – 14:00  Lunch

4.2  Case study of PRA in Pwani, Nakuru District, Kenya
    – J. Ayieko
    Open discussion on case study

15:30 – 16:00  Tea break

16:00

4.3  Issues in Participatory research – Panel Discussion
    – D. de Treville: Benefits of RRA methods
    – J. Cervinskas: Advantages of PR
    – D. Nyamwaya: Applications of RAP methods
    – S. Lugeye: Timing of participation in research
    – J. Ayieko: Community expectations/training needs

    Video: "PR in Agricultural Research"

Friday September 27 (half day, with lunch)

09:00

5.1  Limitations of participatory research
    – D. de Treville

5.2  Participatory research in an academic environment
    – J. Ayieko/S. Lugeye/J. Valadez
    Group discussion

10:30 – 11:00  Tea break

11:00

5.3  Evaluation of workshop by participants and facilitators

5.4  Closing of Workshop
    – Professor Mukunya

12:30 – 14:00  Lunch (restaurant) and goodbye
5. Participants

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