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Participatory Approaches in Government Bureaucracies: Facilitating the Process of Institutional Change

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Summary. — This paper examines why a growing number of government bureaucracies are attempting to develop and integrate participatory research and development approaches into their program activities. Using a conceptual model of the institutional learning and training cycle, it analyzes the experiences of three large public agencies in Sri Lanka, Kenya and the Philippines which have made significant progress toward building internal capacity to employ participatory approaches effectively and facilitate the process of institutional change. The training of agency personnel in participatory principles, concepts and methods has played an important role in these transformations. Both the model and the case studies reveal, however, that to have a lasting impact training must be viewed as part of a broader process of organizational learning. The paper concludes with 10 key elements necessary for institutionalizing participatory approaches within public agencies.

1. RECOGNIZING THE NEED FOR INSTITUTIONAL CHANGE

There is abundant and rapidly growing interest in participatory approaches for research and development in many parts of the world.[1] To date, most of the innovations and accomplishments relating to participatory research and development have emerged out of what Hulme (1994) calls the "third sector" (i.e., private organizations that are nonprofit-making but which are not political parties).[2] These organizations normally manage relatively small programs with limited budgets and areas of coverage and, consequently, achieve limited results. The lessons regarding the activities of third sector organizations in this area, and attempts to spread and scale-up their successes, have been analyzed and documented widely.[3] Less well known, and less well understood, is the increasing use of participatory approaches by large, public institutions, especially given the widely held notion that most state agencies are centralized, authoritarian, formalistic, inefficient bureaucracies incapable of experimentation, self-critical learning or imaginative change (Mouzelis, 1994; Wunsch and Olowu, 1990; Chantornvong, 1988; D. Korten, 1988, F. F. Korten, 1988).

An examination of the literature indicates that there are four main reasons why public sector agencies are taking an increasing interest in participatory

approaches. The first reason has more to do with attempts by government bureaucracies to ensure their continuing survival than it does with any meaningful embrace of the ideals of good governance, democracy or empowerment. Political economic exigencies, including rising debt, declining terms of trade, economic liberalization and market integration, are forcing many developing countries to reduce the size of their civil services and thus their capacities for direct service provision (Boer and Rooimans, 1994; Due, 1993; Helleiner, 1992). In the drive for efficiency, governments are searching for new ways to do more with less. In some cases, the state is doing this by establishing new partnerships with third sector organizations, albeit reluctantly, and by adopting new participatory approaches which give local people more control over research and development processes

(Farrington and Bebbington, 1994, 1993; Thrupp, Cabarle and Zazueta, 1994).[4]

Second, the international aid community has been instrumental in stimulating Third World governments' growing interest in participatory approaches. With increasing frequency, donors are placing conditions on grants and loans to governments that require them to support participatory research and development programs and projects (Grounder, 1994; Griffin, 1991; Bowles, 1989). Their stated objective is to create decision-making processes in which local organizations and associations have a presence and open those public processes to more scrutiny. In this manner, donors claim to be linking participatory development directly to state accountability, empowerment of local groups and transparency in decision making. In reality, much of this increased accountability is focused upward (toward the donors), rather than downward (toward local people), thus placing greater pressure on public agencies to perform to donor-defined standards (Mitlin and Thompson, 1995).

Not all donor involvement has been constraining, however. Some funding agencies are making long-term commitments to supporting public sector institutions with the specific aim of promoting bureaucratic reorientation.[5] Moreover, some donors have come to recognize the pivotal role that small numbers of outside resource persons can play, not in the traditional positions of technical advisors or financial comptrollers, but as catalysts for change. While it goes without saying that a "critical mass" of committed agency professionals is essential for initiating and supporting change within an organization, outside perspectives and experiences are also available in illuminating internal problems and identifying a range of possible solutions. In some cases, these outside resource persons are university-based researchers, private sector professionals, or nongovernment development practitioners, while in others, they are program officers or associates of the donor agencies themselves.[6] Whatever their background, these external facilitators often are in a position to take risks that agency staff cannot and, thus, are capable of creating political space in which innovative internal advocates for change are able to manoeuvre. Experience suggests that these effective synergies between external facilitators and agency professionals usually only happen through sustained contact and close collaboration on long-term research and development initiatives where trust and a shared set of objectives can be established.

Recognition of the failure of past research and development approaches is a third reason why state agencies have become more amenable to participatory alternatives. Over the past two decades "blueprint" development strategies have been shown to be ineffective in meeting the basic needs of large numbers of marginalized, vulnerable people (Chambers, 1995;

Kates and Haarman, 1992; Wisner and Yapa, 1992; Doyal and Gough, 1991; Wisner, 1988).[7] From environmental health (Hardoy, Mitlin and Satterthwaite, 1992) to low-cost housing (Hardoy, Cairncross and Satterthwaite, 1990), and from agricultural research and extension (Scoones and Thompson, 1994; Chambers, Pacey and Thrupp, 1989) to water resource management and irrigation (Guijt and Thompson, 1994; Postel, 1993), standardized, reductionist approaches have been shown to be incapable of addressing the complex realities of poor people, which are locally specific, diverse and dynamic. Although many government bureaucracies have been slower than their third sector counterparts to recognize and respond to these failures, they, too, have become aware of the need for fundamental institutional change.

While the failure of past research and development approaches has prompted some government agencies to look for viable alternatives, the successful application of participatory approaches by other organizations has been equally convincing. The manifold achievements of third sector institutions have begun to attract the attention of government policy makers and planners, especially as official aid disbursements to that sector increase while those to the public sector decline or remain static. It is, however, the positive experiences of other public agencies, either through their own efforts or through new alliances with other institutional actors, that have proved most persuasive. These "success stories" have demonstrated that it is possible for public sector agencies to develop, implement and institutionalize more people-centered approaches and attain positive results (Pretty and Chambers, 1994; World Bank, 1994a, 1994b; Cernea, 1991).

2. TRAINING FOR TRANSFORMATION?

Given these influences, today the question many public sector institutions are asking is not why to adopt and apply participatory research and development approaches, but how to go about it.[8] For many, the first policy decision is to organize one or a series of training workshops and field activities, often facilitated by external consultants, to expose their staff to the new, people-centered approaches, with little thought given to the long-term management and organizational implications. As a result, public agencies soon encounter the thorny problem of how to build internal capacity in these participatory, process-driven approaches, without fundamentally changing their cumbersome bureaucratic systems and risk-averse management styles. Eventually the contradiction will force the agencies either to abandon their newly adopted participatory methodologies (sometimes while continuing to use the associated rhetoric) or to

begin the long, arduous task of reorienting their institutional policies, procedures and norms.

Clearly, training does not take place in an institutional vacuum, it happens within a particular organizational system with its own unique set of management structures, professional norms and field practices (Thompson, 1994a). These influences are influenced by the set of "working rules" that individuals use to order particular relationships with one another. These rules determine who is eligible to make decisions in certain areas, what actions are allowed or prohibited, what procedures must be followed, what information must or must not be provided, and what penalties or rewards will be assigned to individuals or groups as a result of the actions (Ostrom, 1990, 1986). Any government agency contemplating adopting a participatory approach soon recognizes that training alone will not convert a conventional, technically oriented, bureaucratic institution into a more people-centered, learning-oriented, strategic organization.[9] The institution's rules-in-use, financial management practices, reporting systems and supervisory methods must also be reoriented if its role is to be transformed from that of a primary "implementor" (i.e., one dictating the terms of research or development work) to an "enabler" (i.e., one supporting people's own research and/or development efforts). Improving the type and mode of staff training may help this transformation to occur, but it will not *ipso facto* bring it about.

Transforming a bureaucracy demands changes to an organization's working rules in order to allow its staff to experiment, make and learn from mistakes, and respond more creatively to changing conditions and new opportunities.[10] Identifying key principles to guide the process of institutional change is a useful starting point. Functions and objectives must be clarified before new structures can be designed. At the same time, there must be a shift away from the standardized procedures and specialized units responsible for discrete stages in the research or development process, and more emphasis must be placed on interdisciplinary sharing and learning. Finally, a range of incentives for reorienting and restructuring systems and structures need to be developed for rewarding those who promote and facilitate the process of institutional change.

Training must be linked closely to these internal change processes if it is to have a lasting impact. For this reason, the term "training" as used here refers to the creation of interactive learning environments and continuous learning opportunities rather than simple classroom-based teaching and instruction. Only by creating space for various actors to interact, question, experiment, share and learn — from one another and from local people — can an implementing organization become a learning organization.

As Bawden (1994, pp. 259–260) has stated:

Learning organisations are collectives or communities of individuals who share experiences and understanding through cooperative learning and genuine participation in those events which affect them. For any organisation or community to learn, individuals must not only themselves be active learners, but they must also be committed to sharing that learning in ways which allow consensual understanding or meaning to be reached. Here then is the essence of the participatory process through which "people-centred development" is made possible through "social learning concepts and methods."

In the next section, a conceptual model of the institutional learning and training cycle is presented to aid in understanding the learning process that many centralized government institutions are undergoing currently. This model is used to help analyze the experiences of three large government agencies in Sri Lanka, Kenya and the Philippines, and chart their efforts to institutionalize participatory approaches and become learning organizations. After drawing lessons from their efforts, the article concludes with a broad set of policy recommendations on training and the institutionalization of participatory approaches within public sector agencies.

3. THE INSTITUTIONAL LEARNING AND TRAINING CYCLE

Many of an agency's most pressing methodological problems will not be solved by a change in policy alone. In many instances, donor and government policies already mandate, either implicitly, or explicitly, that local people should be actively engaged in development and research. For various reasons, however, true interactive participation is not occurring. What is needed is a learning process that develops and promotes new methodologies and changes the prevailing attitudes, behavior, norms, skills and procedures within the agency. This process of institutional transformation will, of necessity, be gradual, based on trial and error, combined with self-critical reflection and further experimentation and innovation.[11]

According to F. F. Korten (1988), institutionalizing a participatory process involves five interrelated learning stages or phases, each of which can last a number of years (Figure 1).

(a) Identify and evaluate aspects of the institution's programs and practices that are not meeting its objectives — or the people's needs — and require significant improvement, modification or rejection.

(b) Conceptualize a new, more dynamic, participatory approach and test it on a small scale under different ecological and socioeconomic conditions.

(c) Draw lessons of relevance to applying the approach on a broader scale following a period of experimentation, assessment and adjustment.

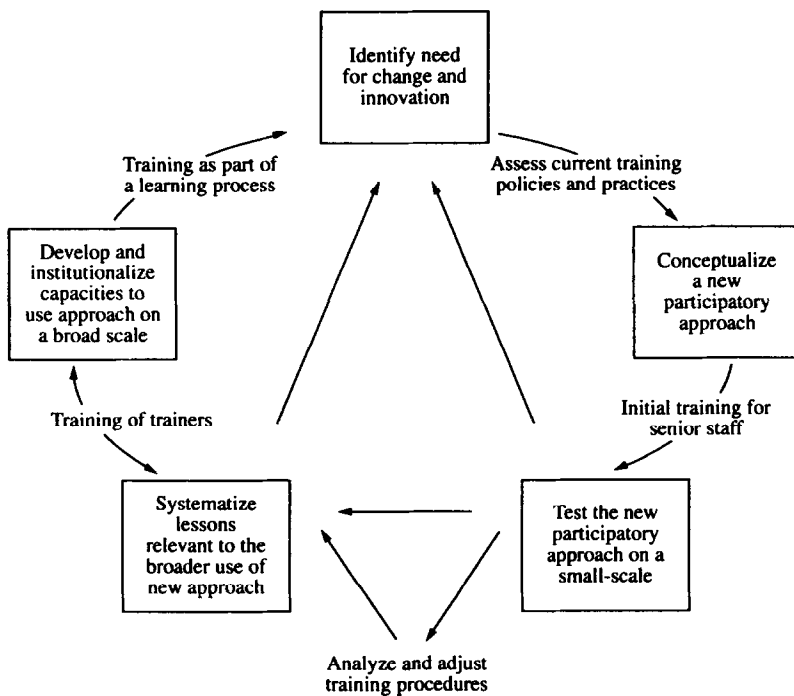(d) Analyze and integrate lessons into forms and

Figure 1. *The institutional learning process and training cycle. Adapted from F. Korten (1989) with additions from Bawden (1989), Macadam and Packham (1989), Checkland (1984) and Kolb (1984).*

procedures that can be applied widely throughout all levels of the institution.

(e) Develop capacities throughout the organization and institutionalize the appropriate changes into the agency's routines.

Through these five phases, the identification of a need for institutional reorientation and innovation gradually leads to improved practices on an agency-wide level. A linear conception of those phases, however, represents only part of the learning process. Equally important are the feedback loops within the cycle. The small-scale, site-specific experiments, the process of systematizing the lessons, the interactions between internal innovators and external facilitators, and the broader scale applications are all used to identify additional program elements needing modification and improvement, which then initiate new learning cycles. Similarly, lessons are not drawn only from small-scale field tests, but from experiences and insights drawn from other institutions, thus enriching the lessons and increasing their applicability.

Training is an integral element in this process of organizational learning. As part of the first phase of the cycle, an agency reviews its existing training policies and procedures and identifies aspects that need to be altered or redesigned to support the new participatory approach. During the second phase, after the new

participatory approach has been adequately conceptualized, a small group of mostly senior staff is exposed to the new approach, sometimes with support from one or a number of outside agencies with substantial practical experience in training in participatory approaches.

The reason for concentrating initially on higher ranking officials rather than more junior personnel is that these senior officers will determine whether the new approach receives further testing and institutional support. If they give their approval in these early stages, then there is a good chance that the new approach will receive broader acceptance.[12] If they do not, then its proponents will face an uphill struggle to obtain institutional backing. It is the mid-level officers, however, with their detailed knowledge of the agency's operational problems and their understanding of how new strategies may be integrated effectively into existing systems and policies, who eventually will carry the responsibility for developing and institutionalizing the new participatory approach. Hence, once approval from senior management is received, then the focus shifts to building a working team of well-trained, well-motivated and well-resourced, mid-level advocates capable of building a coalition for change within the agency and formally representing the change process to the outside world.

In the third phase, the new participatory approach is tested under diverse field conditions (e.g., different production systems, settlements, social groups and so on). Following these early field trials, the methodology's strengths and weaknesses are assessed, after which it is modified and amended further. During this phase, lessons are also learned about the procedures used to train the working teams.[13] These, too, are analyzed and adjusted according to feedback from the team members, the field coordinators and, in some cases, the outside resource persons who are supporting the agency.

This process of testing and modification both of methodology and training procedures continues until the agency feels confident enough to attempt to apply the approach on a broad scale. At this point, a greater number of skilled trainer-facilitators, especially those with extensive field experience, will be required to train large numbers of agency staff. This may be accomplished by employing trainers from other organizations, such as nongovernment organizations (NGOs) or universities. This has the advantage of maintaining links between the agency and third sector organizations which can take a more independent view and give local people's interests high priority. Such an approach, however, can be prone to budget cutbacks, internal resistance to outsider involvement and outsider resistance to collaboration with the state.[14]

For these reasons, most government agencies will identify and strengthen the capacity of a team of trainer-facilitators within their own organizations in the later phases of the training cycle. The training of these "in-house" facilitators serves two purposes: it builds a cadre of skilled trainers within the institution and it enables the agency to shape future training to meet its own specific requirements.[15]

4. TRANSFORMING BUREAUCRACIES: LESSONS FROM THE FIELD

It is a widely held view that third sector organizations are able to utilize participatory approaches more effectively and efficiently than government organizations.[16] Consequently, a great deal of financial and technical support has been given to those organizations to develop and promote their use. Yet, while such organizations may make an impact in a few communities or areas, the restricted scope of their work serves to highlight the question of how to assist the vast number of communities that remain unreached by their activities. The fact that the majority of the world's development resources flows through official government channels underscores the importance of finding ways in which public sector agencies can learn to implement participatory approaches effectively.

Although calls for greater people's participation in research and development are commonly heard, it is rare to find major programs that actively involve local people in meaningful ways, and rarer still to find such programs being conducted by government agencies. The experiences of three government agencies, described below, represent exceptions that hold out prospects for the possibility that even large, technically oriented, bureaucratic programs can be reoriented in directions that enable local people to take an active role in their own development. The three examples, from Sri Lanka, Kenya and the Philippines, offer insights into institutions operating at different phases of the institutional learning and training cycle. Respectively, these cases show how large government agencies have involved local people in the planning, implementation and management of rural development activities, soil and water conservation, and irrigation systems. In each case a supportive policy environment and new management structures, combined with well-designed training programs, have played a crucial role in the continuing transformation of these agencies into more people-centered, strategic institutions.

5. THE RURAL DEVELOPMENT DIVISION, MINISTRY OF POLICY, PLANNING AND IMPLEMENTATION, SRI LANKA — EARLY DAYS

(a) Changing course

Since 1992, the Rural Development Division (RDD) of the Ministry of Policy, Planning and Implementation, Sri Lanka, has been developing a strategy of Participatory Village Planning (PVP) that it hopes will eventually be applied in all 14 of its Integrated Rural Development Projects (IRDPs) across the country.[17] The RDD took the decision to adopt a more participatory approach to village-based planning after a number of detailed internal evaluations and consultancy reports revealed that the top-down strategy it had followed throughout the 1980s and early 1990s had failed to meet its mandate of poverty alleviation and bottom-up development (Kahandawa, 1994; Thompson and Nott, 1992).

In 1992, RDD launched the second phase of its IRDP in Badulla District in southwestern Sri Lanka with the policy decision to initiate a participatory Community Mobilization Program that was markedly different from the approach used previously. The RDD, along with the International Fund for Agricultural Development (IFAD) and United Nations Development Programme (UNDP), the main donors supporting the Badulla IRDP (BIRDP), recognized that the implementation of the new approach, with its focus on participation, priority for the poor and the direct involvement of divisional officers in facilitating

and supporting participatory village planning, would take some time to establish. Consequently, they gave the BIRDP coordinators a seven-year window in which to develop, test, analyze and adjust their new approach. They also acknowledged that, given the experimental nature of the undertaking, fund disbursement would be slower than in the more conventional investment projects, especially during the early stages of the programs.[18]

The first stage in BIRDP's new program, which drew to a close at the end of 1993, involved a process of combining Participatory Rural Appraisal (PRA) with elements of the Social Mobilization Approach, then testing this hybrid, termed the "Community Mobilization Approach," in a small number of villages in two divisions (Thompson and Nott, 1992).[19]

Having achieved satisfactory results in these pilot communities, the BIRDP has gone on to apply its new participatory approach in over 60 villages in nine of Badulla's 14 divisions by the end of 1994 (Kahandawa, 1994).

(b) *Training and technical support teams and social mobilizers*

The success of the new approach has depended in part on the effectiveness of its interdisciplinary Project Training and Technical Support Team (PTTST), which is coordinated by the Deputy Director of the Badulla IRDP, Mr. K. A. J. Kahandawa. Mr. Kahandawa is in a unique position
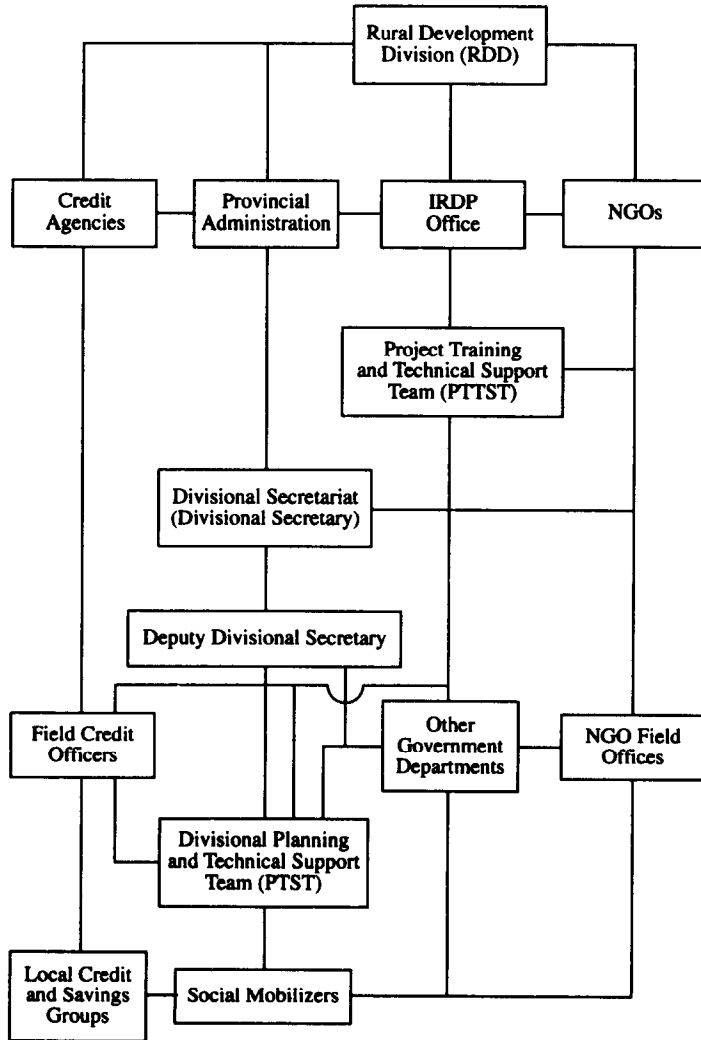

Figure 2. *Structure of the Badulla IRDP Community Mobilization Program.*

among civil servants, as he is both a senior officer in a major government development program and the head of a small, local NGO, Future In Our Hands. This dual role has allowed him to draw on resource persons in both sectors to support the PTTST and use his NGO experiences to inform his government work.

The Project Technical Training and Support Team has been instrumental in developing the new community mobilization methodology, in training at divisional and provincial levels, and in providing back-stopping and follow-up to district officers. In addition to the Deputy Director, who is a community mobilization specialist, the PTTST members include an agriculturalist, a conservationist and a women-in-development specialist. They have been contracted for a period of 36 months and are expected to build up a cadre of "master trainers" at the provincial level during this time. The plan is for these master trainers to continue training in the province after the PTTST is disbanded.

During 1993–94, the Project Team's priority activity trained the Divisional Technical Support Teams (DTST) in each of Badulla's divisions in the participatory Community Mobilization Approach. These teams are coordinated by Divisional Officers (DOs), who are responsible for initiating and supporting the participatory development process at the divisional level. Along with the DO, each DTST consists of between four to five officers, including two village planning officers, an agriculturalist, a land tenure specialist and a technical assistant.[20]

The DTSTs employ PRA to conduct baseline studies of local conditions, constraints and opportunities, and to initiate a dialogue with communities about their local planning priorities. The PRA analysis helps the divisional team to identify issues that require immediate attention and areas where the Badulla IRDP may be able to provide assistance at a later date. During this process a young local woman or man who demonstrates initiative and interest in the participatory process is selected by the community and trained by the project as a paraprofessional Social Mobilizer (SM). The SM maintains continuous contact with the community and acts as a liaison between the community and the DTST.

The participatory village planning process usually takes 12–18 months, from the start of the PRA exercise to the implementation of a village "action plan." During this period, local people are assisted by the SM to devise first individual and then group action plans.[21] These plans emerge out of a series of discussions in which local people are encouraged to reflect on the causes of their problems and to consider how these might be mitigated or ameliorated.[22]

New or existing interest groups who wish to take part in this process are asked to establish a revolving credit and savings association and to maintain a group fund for a period of at least six months, with the support of Field Credit Officers from the Project. After several groups have developed their own action plans, they are brought together to form a single village plan. Priorities are identified through a process of negotiation and accommodation. Typically, the plans emphasize self-help initiatives, rather than large-scale, capital-intensive, infrastructure projects. All village action plans share two common points of reference; they articulate "what local people believe they can do for themselves and what local people believe they can do with help from outsiders" (Kahandawa, 1994, p. 4).

The divisional teams operate in about 15–20 villages in this manner. Any village action plan must represent the priorities of at least 50 percent of the community before it is referred to the Divisional Secretary, the administrative officer responsible for coordinating all development activities at the divisional level. The Divisional Secretary consolidates the individual village plans into a single, divisional-level plan and submits this to the Badulla IRDP Project Office for approval (Figure 2). With the assistance of the DTSTs and the Divisional Secretaries, the BIRDP chooses priorities from the divisional plans that it has the capacity and resources to address, then passes on the remaining priorities to the government line ministries and NGOs operating in the division for action.

(c) The role of training and social learning

Training has played a central role in the development and evolution of an effective Community Mobilization Program. Eventually, the participatory training activities will cover all levels of government staff — from the provincial to the local. Thus far, however, training efforts have been concentrated on three groups: (i) senior officers in the Rural Development Division and Badulla Project headquarters; (ii) the Divisional Technical Support Teams; and (iii) the paraprofessional Social Mobilizers.

The experience of the RDD and BIRDP senior staff with the new Community Mobilization Approach began formally with an intensive, field-based workshop in Bandarawela, Badulla District, in June 1992. The aim was to expose the officers to Participatory Rural Appraisal for community mobilization and village planning. The convening of the exposure workshop at the very start of Phase II of the Badulla Project was a requirement of the loan agreement signed between the Government of Sri Lanka and IFAD. It was the active involvement of key policy makers, however, including the then Director of RDD and now Director General of MPPI, Mr. Chandrasena Maliyadde, the Project Director of the Second Badulla IRDP, Mr. J. H. Bandula, and the UNDP Senior Program Officer responsible for the BIRDP, Mr. Asoka Kasturiarachchi, that helped make it a success. Their enthusiastic participation and willingness to

interact freely with junior staff and local people created a learning atmosphere that was relaxed and constructive.[23]

The exposure training was followed immediately by a one-day meeting in Colombo that brought together the BIRDP and RDD senior officers with those from other government line agencies and the donor community, including representatives from IFAD/Rome, UNDP/Colombo and UNDP/New York. At that meeting, the Badulla officers presented a summary of their recent field experiences and outlined their proposed procedure for initiating the Community Mobilization Program under the second phase of the project. They also discussed the role of training in capacity strengthening, the institutional lines of responsibility, including those of the donors, procedures for monitoring and evaluating the process, and strategies for incorporating the new approach in the divisional and provincial planning systems (Nott, 1992). One of the most important outcomes of that meeting was an acknowledgement by the donors of the need to provide flexible funding and allow considerable time for experimentation and innovation before expecting any "visible" results.

A number of senior officers from the Rural Development Division attended a second, intensive field training in Hambantota, Sri Lanka, in August of 1993 (Thompson, 1993). Later that same year, a separate short course on PRA and the Community Mobilization Approach was organized for the directors of all 14 of RDD's integrated rural development projects. These hands-on experiences helped create awareness among the principal government decision-makers of the complexities of institutionalizing participatory approaches and made them more sympathetic to the challenges the Badulla team is facing.

The introductory trainings of the Divisional Technical Support Teams facilitated by the Badulla Project Training and Technical Support Team have consisted of three main phases. First, the divisional team members are exposed to the guiding principles, core concepts and primary methods that comprise the Community Mobilization Approach in a classroom-based workshop lasting two to three days. These workshops usually involve the DTST, other line department officers, and, occasionally, local NGO practitioners. The facilitators use videos, slides, written materials and interactive, small group exercises to expose the participants to different aspects of the approach. These include detailed case studies of the use of participatory approaches by the government and third sector agencies in Sri Lanka and elsewhere.

Second, after receiving approval from local leaders and active groups, the participants apply the Community Mobilization Approach in a village and a dialogue on local development priorities is initiated. This initial encounter between the DTST and the village serves two purposes: it creates awareness within

the community about local planning and development priorities and it generates useful socioeconomic data on which later analysis and action can occur. Because of the desire not to "experiment" on the host village, a commitment is made prior to launching the fieldwork to follow-up the training exercise with long-term community mobilization and participatory planning activities.

Finally, the participants return to the workshop, where they reflect on their individual and collective experiences, analyze their findings and write brief field reports. In this final stage, the facilitators work with the DTSTs to develop appropriate workplans for carrying out their own community mobilization activities over the coming year.

Throughout these introductory trainings the emphasis is on analyzing critically the participants' attitudes and behavior and perceptions and prejudices toward local people, rather than on imparting technical skills and creating a "tool kit" of methods. This orientation is based on the belief that the techniques are easy to learn, while understanding the participatory process and the development professional's role in it remains a key challenge.

Social Mobilizers (SMs) are the third group to receive the attention of the Badulla training team. In many of the communities in which the First Badulla IRDP operated, Social Mobilizers were trained to stimulate and support village planning and self-help activities. That training has continued in the second phase of the project. The training of these village volunteers normally is divided into three parts: orientation and skills development; field assignment; and debriefing and future planning. This process lasts three months, one of which is spent at the project office and two of which are spent in their own communities.

The training at the project office begins with an introduction to the Community Mobilization philosophy, with its emphasis on awareness creation, empowerment and collective action. They also are introduced to the policies and procedures of the Second Badulla IRDP and how their activities will be linked to other project actors and processes. This orientation is followed by formal instruction in group facilitation and conflict management, using various interactive exercises, including role plays and story telling. Record-keeping and documentation procedures are also introduced during this portion of the training, as regular reporting to the BIRDP of local group activities is seen as an important aspect of the Community Mobilization process.

On completion of the first part of the course, the Social Mobilizers return to their respective communities where they identify and work with vulnerable local groups to analyze local conditions and constraints, and consider appropriate courses of action for overcoming them. Periodically the SMs are visited by

the project facilitators, who provide moral support and technical advice, but otherwise keep a low profile. The SMs are not required to help initiate any formal development activities during this time, but they are expected to stimulate debate about local problems and opportunities, and where appropriate, begin organizing small groups around themes of common interest.

At the end of their field assignment, the Social Mobilizers return to the project office, where they share and analyze their experiences with their peers, and prepare field reports of their work. Following the training, they return to their respective communities where they act as catalysts for initiating local planning and development activities on a voluntary basis.

With the advent of the Second Badulla IRDP, the Social Mobilizers are now being exposed to Participatory Rural Appraisal for village analysis and planning. Training takes place "on the job," when the Divisional Technical Support Teams initiate the PRA work in the SMs' own communities. Occasionally those SMs who demonstrate good facilitation skills during those PRAs are invited to take part in similar activities in other villages.

(d) Extending the lessons and changing the bureaucracy — slowly

In October 1993, the North Western Province Dry Zone Participatory Development Project (DZP) in Kurunegala, a remote, drought-prone part of the country, became the second IRDP to begin training its sector staff and field officers in participatory approaches. Like the Badulla project, the DZP is implemented through a project office and provincial government agencies under the authority of the provincial council, and coordinated by the Regional Development Division of the Ministry of Policy, Planning and Implementation. It is financed through a loan from IFAD and a technical assistance grant from the German Government, which is implemented through GTZ, the German Agency for Technical Cooperation.

Drawing on the lessons learned from Badulla, the Dry Zone Project was designed to assist peasant farmers in 500 villages across 13 administrative divisions to develop and implement "Participatory Village Resource Management Plans." As in Badulla, the DZP is to last seven years and concentrate on "human resource development" and "capacity strengthening" rather than physical infrastructure and disbursement targets.

While these high ideals sound impressive on paper, the reality can be quite different. Conflicts have been encountered between the new participatory approaches being developed by the DZP team and their Badulla counterparts and the performance targets set by RDD and its donors. While acknowledging that these performance criteria are inadequate, the RDD

continues to use short-term physical targets (e.g., kilometers of rural roads built, hectares of irrigated land rehabilitated, etc.) and financial indicators (e.g., amount of allocated funds spent in Financial Year X) as measures of success. At the regular monthly planning meetings at ministry headquarters in Colombo, the performance of the various IRDPs are compared and contrasted using these conventional targets and indicators. The two participatory IRDPs consistently have recorded the lowest levels of financial disbursement among the ministry's 14 IRDPs, while achieving the highest levels of local group formation and training.[24] Although the Badulla and North West Dry Zone Project coordinators have not been reprimanded formally for these low levels of disbursement and investment by either the RDD or their donors, they cannot help but feel the pressure, as one senior official put it, "to get the money out."

There is also a sense of urgency within the ministry to expand and extend the participatory planning process and show results rapidly. In an honest and insightful account of the struggle to meet the predefined targets set in the North Western Province Dry Zone IRDP's terms of reference while maintaining the integrating of the participatory process, Kar and Backhaus (1994, p. 2) state:

> The targets set for the [IRDP] require that the participatory planning process is to commence in 20 villages within the first project year, and that it will be extended to another 70 villages in Year 2. Although the project has so far mostly tried to comply with these numbers, experience shows that such ambitious targets do not allow the development and spreading of a sound participatory approach.

Kar and Backhaus (1994, p. 3) go on to note that pressure from the government and its donors to show results often is compounded by that from influential local politicians. They suggest that:

> The highest possible degree of awareness about the "disadvantages" of participatory development must be created amongst [the politicians] during the planning of the project. It should be made clear...that a participatory project requires...time to bear fruit...and that it aims at something far beyond the construction of a few hundred agrowells or micro tanks...

Despite the pressures to spend, spread and scale-up quickly, progress is being made. K. A. J. Kahandawa, Deputy Director of the Second Badulla IRDP, reports overhearing a conversation between a skeptical government official and a peasant farmer, two years after the participatory planning process had started in his village of Nagolla:

> *Official:* "So, this participatory development business, it is very slow going, eh?"
>
> *Farmer:* "I am 52 years old and have not seen much of your so-called 'development' in my life. But in these last

two years I have seen more than in my first 50. It may be slow, but it works!"

The Regional Development Division has begun to seek ways to establish an institutional training capacity in community mobilization and participatory planning at national level. This is being achieved by creating alliances with local NGOs, universities and other institutions who have a recognized interest and expertise in participatory approaches. In particular, the RDD has taken an active role in establishing and supporting a national network of practitioners, trainers and organizations involved in the development, application and promotion of participatory research and development approaches (Samaranayake, 1994). Thus far, the representatives of the RDD and its participatory IRDPs remain the only members of the network from the government sector.

This growing willingness to collaborate with the third sector has marked a subtle, but significant shift in the government's attitude toward nongovernment agencies, a shift that has moved in parallel with the implementation of the Badulla and North West Province Dry Zone IRDPs. As one senior government official observed: "These [NGO] people have a lot to teach us and we them. If participatory approaches are to have an impact, then we must find ways of working together."[25]

Clearly, significant progress is being made by the Badulla and the North West Dry Zone Integrated Rural Development Projects and the Rural Development Division.[26] These accomplishments reveal the interrelationship of one learning cycle with another. Once the basic participatory pilot projects were underway, they served as an arena for identifying other needs, which stimulated additional leaning cycles. The RDD and officers in the participatory IRDPs supported learning cycles for many other project elements, including the creation of interdisciplinary teams of trainer-facilitators capable of supporting senior officers, technical support teams and local social mobilizers, and increasing collaboration with third sector agencies.

Nevertheless, these are still early days in Sri Lanka. If the new participatory village planning and development approaches are to be institutionalized and employed more widely, then they must be accompanied by further changes in the RDD's bureaucratic management procedures and the development of more appropriate performance indicators. Donors, too, must learn to match their own good intentions with policies and procedures that give the project teams the flexibility to experiment and refine their participatory approaches without the pressure of having to meet predefined disbursement and investment targets. IRDP officers will have to ensure continued investment in training and human resources development if sufficient internal capacity is to be created for putting

the new approaches into practice on a broad scale. Above all, there must be a willingness on the part of all concerned actors to learn from mistakes and to give the process time.

6. THE SOIL AND WATER CONSERVATION BRANCH, MINISTRY OF AGRICULTURE, KENYA — SCALING UP

(a) The Catchment Approach

After initiating a string of unsuccessful soil conservation programs throughout the 1970s and early 1980s, the Government of Kenya decided that the only way to achieve widespread conservation coverage was to mobilize local people to embrace and implement soil and water conserving and land management practices on their own terms. In order to meet this objective, the Soil and Water Conservation Branch (SWCB) of the Ministry of Agriculture adopted the Catchment (or Area of Concentration) Approach in 1988.[27] Since then, the SWCB has tested, improved and applied its approach in hundreds of catchments across the country, as it has built its own internal capacities to collaborate with and learn from smallholder farmers.

While it is clear that the Soil and Water Conservation Branch still has some way to go before completing the institutional learning cycle, it has taken remarkable steps toward scaling-up and institutionalizing people-centered policies and practices in less than a decade. Evidence from a series of impact studies conducted during 1993 and 1994, as well as officers' observations from their own field sites, indicate that the Branch's participatory catchment planning process has led to: improved productivity; decreased land degradation; increased local resilience and decreased vulnerability to external natural and socioeconomic shocks and stresses; increased capacity of local groups to manage their own productive resources; the spread of conservation awareness and technologies into nonprogram areas; and brought about closer ties and greater understanding between farmers and Ministry staff (Pretty, Thompson and Kiara, 1995; Thompson, 1994b).

The objective of the Catchment Approach is to concentrate resources and efforts within a specified catchment (typically 200–500 hectares) for a specific period of time (generally one year), during which all farms are laid out and conserved.[28] Small modifications and maintenance activities are then conducted by the community members themselves with the support of local extension agents. Previous practices, such as the provision of financial subsidies for conservation work, have been stopped, and now resources are allocated instead to extension, training, tools and farmer-to-farmer exchanges (Admassie, 1992).

The ultimate aim of the Catchment Approach is to involve local communities in the analysis of their own agricultural and conservation problems, and in the technical decisions on the conservation and management of their own productive resources. Community mobilization is achieved through close cooperation and interaction between farmers and interdisciplinary planning teams, and the formation of democratically elected Catchment Conservation Committees (CCCs) comprised of local women and men farmers. Collaboration and interchange also occurs through intensified training during field-days, *barazas* (public meetings), on-farm demonstrations and farmer-to-farmer exchanges. This open dialogue and more balanced partnership between farmers and outside agents has help facilitate improved flows of ideas and information, establish better understanding of the conservation problems specific to each catchment and stimulate closer collaboration between farmers, the SWCB and other government departments and NGOs.

The conservation work generally begins after a round of consultations between the Divisional Planning Teams (DPT) and the local residents within a catchment. The DPT, comprising the Divisional Soil Conservation Officer and two Technical Assistants, operates in three to four catchments each year. Priority is given to those catchments where local people or administrations have requested support, where land degradation is serious, or where the Ministry has not operated before. Following the launch of the catchment work and formation of the CCC, a conservation plan is drawn up and farms are laid out with new biological and/or physical structures. By the end of the year, the aim is for all farms in the catchment to be conserved (Mwenda, 1991).

(b) *Participatory Rural Appraisal and the evolution of the Catchment Approach*

Inevitably, since the launch of the Catchment Approach implementation has varied from site to site and over time. Perhaps the single most significant influence on improving practice has been the adoption, in 1989, and growing use of first Rapid Rural Appraisal (RRA) and then Participatory Rural Appraisal (PRA) for appraisal, analysis, planning, implementation and collaboration among officers from different government departments and NGOs, and between government staff and local people.[29] The intention has been consciously to reorient the extension system away from the delivery of predesigned "packages" and projects and toward meeting the site-specific resource management and conservation needs and priorities of rural communities.

As in the Sri Lanka case study, the original interest in participatory methodologies came not from the government agency, but from its main donor. The

Swedish International Development Authority (SIDA) has been the Soil and Water Conservation Branch's primary souce of foreign assistance since 1974. As in any long-term institutional relationship where one organization is dependent on the other's resources, the SIDA-SWCB partnership has not been without its difficulties. The Branch's senior management, however, would be the first to acknowledge their debt to SIDA, not only for providing consistent and significant financial support on relatively flexible terms, but also for introducing and supporting actively the use of participatory approaches.

In late 1988 and early 1989, the idea for organizing a training in RRA for Branch officers came from the Regional Soil Conservation Unit (RSCU), Nairobi, a SIDA-supported technical advisory body established to support soil conservation and land husbandry programs in Eastern and Southern Africa, the Popular Participation Programme of the Development Studies Unit of the University of Stockholm, to which SIDA had given a mandate "to identify and analyze practical, methodological and theoretical experiences in participatory research and development," and Swedish advisors working at Branch headquarters. They invited resource persons from the Sustainable Agriculture Programme of the International Institute for Environment and Development (IIED), London, an agency with broad research and training experience in RRA and agroecosystem analysis, to facilitate a two-week, field-based, training exercise in mid-1989.[30]

Initially, SIDA's main reasons for introducing RRA into the Branch had more to do with improving the agency's information collection procedures and identifying appropriate technologies to extend to farmers than with finding a participatory approach for actively involving local people in the conservation planning and implementation process. In a letter to IIED written in early 1989, a Swedish technical advisor working with the Branch, outlined SIDA's position[31]:

> The [SWCB] aims to reach all small-scale farmers in the country. We have now initiated the "Catchment Approach", which means that we are concentrating our efforts on small groups of farmers (50 to 100) in sub-catchments of a few hundred hectares in size. In order to find techniques that will be adopted easily by farmers we think that some kind of systematic way of collecting information through RRA might be useful. Up to now [the Branch has] done small studies...using questionnaires...which are time-consuming and expensive. Our plans are to find simpler ways of collecting basic information...

That limited focus soon was expanded, however, as senior officers and field staff of the SWCB, with support from their Swedish advisors, began to experiment with RRA in the catchments and discover its potential. In particular, they became aware that gathering useful

information quickly was only one of many benefits of using RRA. Other advantages included more effective interaction with local people, which, in turn, led to a greater appreciation of their knowledge and capacities; more accurate diagnosis of local constraints and priorities through the work of interdisciplinary teams of officers and field staff; and improved collaboration and cooperation among staff at different levels in the hierarchy. By mid-1990, Branch had adapted RRA to suit its own requirements and began calling the modified approach "Rapid Catchment Analysis" (RCA) (Mwenda, 1991; Pretty, 1990).

Between 1989 and the end of 1991, IIED resource persons, with the assistance of Swedish and Kenyan training officers of the Branch, facilitated three national-level trainings for senior officials from SWCB headquarters and soil conservation officers from the provincial, district and divisional offices. Officers from other government departments, national research institutions and NGOs also participated. At the last of these trainings, in October 1991, Participatory Rural Appraisal was introduced and field tested by the soil conservation officers for the first time. Further field tests convinced Branch officials that the participatory principles of PRA improved their ability to engage local people in constructive discussions and joint analyses of local soil and water conservation problems and opportunities, and to mobilize local resources effectively. As a result, PRA was seen as an improvement over RRA and, thus, became the standard methodology in the RCA framework.

PRA is used for Rapid Catchment Analysis by interdisciplinary teams comprised of six to 10 officers from the Branch, other government ministries and various NGOs, to assess the past, present and possible future state of land use and land degradation in a microcatchment. Each RCA is coordinated by an experienced facilitator from the SWCB, usually the divisional, district or provincial soil conservation officer. The objectives of the RCA include: (i) training Ministry of Agriculture (MOA) front-line staff and participants from other government agencies and NGOs who are new to process; (ii) conducting a participatory diagnostic analysis of local soil and water conservation (SWC) needs and opportunities; (iii) creating awareness among farmers and mobilizing support for SWC activities; (iv) establishing Catchment Conservation Committees; (v) and initiating the design of a detailed "Land Treatment Plan" for implementing soil and water conservation activities. Typically, the RCAs involve one day of orientation, introductions and reconnaissance, three days of intensive fieldwork and a final baraza (public meeting) during which findings are analyzed with local farmers. Catchment reports are prepared at the end of these activities and serve as baseline documents for later planning, implementation, monitoring and evaluation.[32]

Catchment Conservation Committee members are nominated and elected by their neighbors at the close of the baraza.[33] The SWCB representatives hand over a small number of tools to the committee as a symbolic gesture to mark the formal start of the catchment planning and implementation process. During that process, the CCC receives support in the form of basic tools, equipment, technical training and advice from Ministry staff, particularly the Divisional Planning Team (DPT), a local unit comprised of the Divisional Soil Conservation Officer and a number of Technical Assistants. In turn, the CCC works with the DPT to develop and assist local farmers to carry out their Land Treatment Plan.

The Land Treatment Plans are based on the PRA findings and farm-level assessments conducted by the DPTs and CCCs. Every LTP is recorded in what Branch personnel commonly refer to as "The Book," a file containing details of the biological and physical conservation measures planned for each individual farm in the catchment. The Divisional Soil Conservation Officer is responsible for maintaining and updating the files during implementation of the LTP. Each Divisional Planning Team typically works in three to four catchments each year. Priority is given to those catchments where local people or administrations have requested support, where erosion is serious, or where the Ministry has not worked before.

(c) The role of training and social learning

In addition to the periodic national-level trainings supported by external resource persons, the Branch organizes introductory and follow-up training and refresher courses on PRA for mid-level staff at headquarters and officers in the provincial, district and divisional Ministry of Agriculture offices, during which they not only train staff, but also launch the Catchment Approach in new sites. Normally, officers from other government departments, research institutions and NGOs are invited to attend, often at no charge.[34] These events are residential courses held at suitable training centers near preselected field sites, and facilitated by experienced officers from the Branch's training unit at headquarters. The trainings usually involve three phases: (i) one or two days of orientation and review of previous experiences; (ii) three or four days of fieldwork in one or more catchments (following the RCA procedures with a baraza on the final day); and (iii) one or two days to reflect on the process, write summary reports and plan future activities.

The residential trainings of mid-level staff serve five functions. First, they introduce and reinforce the principals, concepts, and methods of PRA and the Catchment Approach. Second, they are used to launch the participatory planning process in the catchments

where the fieldwork is conducted, which is then followed up by the Divisional Planning Teams. Third, they help officers keep abreast of new methodological and institutional innovations, share experiences, and raise concerns with colleagues from different parts of the country. Fourth, they enable the Branch to interact intensively with representatives from other government and nongovernment agencies, thus improving interinstitutional collaboration and communication. Finally, they create opportunities for senior staff from headquarters, who often participate in portions of the trainings, to stay in touch with what is happening "on the ground."

Several observers have pointed out that these intensive field trainings can be expensive in terms of time and human resources. A standard training, when combined with the participatory catchment planning or impact analysis process, can involve 12–24 officers and field staff for up to 10 days, thus requiring a total of between 120 and 240 person days. In the estimation of most senior provincial and district-level soil conservation officers, who are responsible for training their own teams, they appear to be worth the investment. According to Mr. J. O. Owiro, Provincial District Soil Conservation Officer for Coast Province[35]:

> In most cases, it is only the training of the senior soil conservation officers at the provincial and district levels that is expensive, since these courses are residential and last a minimum of one week. Training of local technical staff usually only involves lunch and walking. Even with our limited budgets, that is something we can afford.

(d) Advocates for change and continuity in policy implementation

Since 1989, several mid-level and senior officers in the Branch have emerged as skilled trainer-facilitators in their own right, including J. K. Kiara, Maurice Mbegerra, L. I. Mwarasomba and Ezekial Mwenda. This core team has been instrumental in testing the participatory Catchment Approach in different parts of the country, facilitating trainings and review workshops for other officers and field staff, promoting the approach within the upper echelons of the Ministry of Agriculture, establishing alliances with third sector institutions and beginning the process of institutionalization. This last aspect, the institutionalization of participatory procedures, has been remarkable not least because it has happened despite the transfer of three directors of the Branch and the arrival of a fourth within a span of less than seven years.[36] Although there is much to be said for continuity in leadership for ensuring continuity in policy formulation and implementation, the Branch's experience indicates that even with frequent changes at the top a participatory

approach can be scaled-up and institutionalized within a large government agency.

Continuity in policy making has been maintained at three levels. First, SIDA has provided flexible funding and administrative and technical support to the Branch throughout this period and continues to endorse the use of participatory approaches. Second, IIED has remained involved by facilitating a series of interlocking, field-based trainings and evaluation workshops, providing information on experiences with participatory approaches in other organizations, and periodically arranging for SWCB resource persons to facilitate trainings and take part in international workshops in other countries. The third and most critical contribution has come from inside the agency itself. The cadre of mid-level trainer-facilities who have been established within the Branch are fully conversant with the approach and committed to improving, spreading and institutionalizing it (Mwarasomba, 1994, 1993).

One might expect that the hierarchical structure of the SWCB would result in the isolation of senior staff, the disempowerment of junior staff and a general lack of open communication and constructive criticism, as it has in so many other government bureaucracies. With advocates for change working both inside and outside the Branch, however, the agency has evolved along with the Catchment Approach. During field trainings, impact studies and practical fieldwork, senior and junior staff work side-by-side as team members. These collegial and supportive working arrangements are yielding impressive results and creating a new learning environment where members of staff at different levels can share ideas, express opinions and offer constructive criticism (Thompson, 1994b).

(e) Analyzing the impact of the Catchment Approach

A series of recent impact studies and self-evaluations carried out by the SWCB in collaboration with IIED were the first to link the process of implementation with the impacts occurring in different catchments in various agroecological and sociocultural contexts. In the first of these studies, the investigating team employed PRA with the local people of six catchments in Western, Rift Valley and Central Provinces to assess the changes that had occurred as a result of the Catchment Approach (Table 1) (Pretty, Thompson and Kiara, 1995; Thompson and Pretty, forthcoming).

As Table 1 reveals, the impacts varied according to the quality of the interaction between extension staff and local people. Where PRA was used, and where participation in planning and implementation was interactive and interdisciplinary, as in Siuna-Miruli Catchment, Bungoma District, the impacts were sub-

Table 1. *Comparison of the impacts of Participatory Rural Appraisal and the Catchment Approach in six catchments in Kenya (1993)*

Catchment name	Siuna-Miruli	Sinenden	Muroki	Gaturia	Getuya	Shiakunga
District	Bungoma	West Pokot	Trans Nzoia	Nyeri	Kirinyaga	Kakamega
Year of implementation	1991–92	1989–90	1988–89	1990–91	1991–92	1989–90
1. Launch process	PRA launch *Baraza*	No PRA *Baraza*	No PRA *Baraza*	No PRA *Baraza*	No PRA *Baraza*	No PRA *Baraza*
2. Organization and composition of the CCC	Elected women & men	Elected women & men	Elected men only	Elected men only	Elected & selected men only	Selected men only
3. DPT committed and active	Very active	Very active	Very active	Active	Active	Not active
4. Community mobilized by DPT	Yes	Yes	Yes	No	No	No
5. Other contributing factors to community mobilization	Handover *Baraza*	Provincial field Day	—	—	—	—
6. Farmers involved in planning & layout	Yes	Yes	No	No	No	No (No DPT)
7. PRA study conducted, independent of CA	No	Yes	No	Yes	No	No
8. Conservation before CA	20%	40%	30%	60%	20%	10%
9. Conservation after CA (% farms conserved)	90%	90%	90%	80%	60%	10%
10. Maize yields*	+++	+++	+++	++	+	—
11. Fodder availability*	++	++	++	+	+	0
12. Real wage labor rates*	++	ND	ND	ND	ND	ND
13. Trees numbers*	+	++	+	+	++	+
14. Diversity of crops grown	++	++	+	+	+ (cash crops)	—
15. Multiple cropping*	++	++	+	+	+	0
16. Reappearance of springs: surface water availability	Yes	Yes	Yes	No	No	No
17. CCC active during implementation	Very active	Very active	Active	Active	Active	Not active
18. CCC active after implementation						
— Known by other farmers	Yes	Yes	Yes	Somewhat	Somewhat	No
— Active	Very active	Active	Not active	Not active	Not active	Not active
19. CCC developed own management rules	Yes	Yes	No	No	No	No
20. Replication to neighboring catchments:						
— Aware of changes	Yes	Yes	Yes	Yes	Yes	No
— Adopting practices	Yes	Yes	Yes	No	No	No

* — relative changes (+ = increase; ++ — significant increase; +++ — substantial increase; — no change/no activity).
CA — Catchment Approach.
CCC — Catchment Conservation Committee.
DPT — Divisional Planning Team.
ND — No Data.
PRA — Participatory Rural Appraisal.

stantially greater than when local participation was simply consultative (e.g., Getuya and Shiakunga Catchments). Where there was mobilization of the community, support to cohesive local groups, committed local staff and collaboration with other department in interdisciplinary planning and implementation of the Catchment Approach, there was increased agricultural productivity, diversification into new enterprises, reduced resource degradation, enhanced water resources, improved activities of local groups and independent replication to neighboring communi-

ties within two years. These improvements occurred without payment, subsidy, or coercion, and therefore, are likely to be sustained.

The results of the impact studies reinforced the SWCB's commitment to using PRA for participatory conservation planning and implementation within the Catchment Approach framework. In addition, they have convinced the agency to incorporate the procedures developed for the studies into a regular program of participatory monitoring and evaluation (PM&E), so that district and provincial officers can keep a close

eye on what is working, what is not, and make adjust-
ments accordingly. In mid-1994, following the last
of the impact studies, a senior officer at headquarters
were given the task of coordinating the PM&E activi-
ties and supporting the soil conservation officers
responsible for carrying them out.

The studies also taught the Branch an important
lesson. The fieldwork revealed that a major challenge
facing many smallholder farmers is not how to con-
serve their soils, but how to improve the fertility of
those soils. Consequently, a key question Branch offi-
cials are asking themselves is: "What happens after all
farms in a catchment have been conserved?" As the
cost of agricultural inputs increases and their supply
becomes more scarce and unreliable, and as growing
population pressures and farm subdivision mean that
farmers must make do with smaller parcels of land to
support their livelihoods, more integrated ways must
be found for increasing and sustaining soil fertility and
agricultural productivity using local resources.
Branch officials have acknowledged that this will
require a redefinition of the Catchment Approach to
encompass soil fertility and land husbandry, as well as
conservation measures and strategies (Thompson,
1994b).

To tackle some of the broader land husbandry ques-
tions that emerged from the impact studies, the
SWCB, in collaboration with the Kenya Agricultural
Research Institute's (KARI) National Soil and Water
Conservation Research Programme, is planning to
conduct on-farm research linking conservation and
soil fertility. Currently, there is a wide range of nutri-
ent management systems that can both maintain soil
fertility and sustain productivity. These systems focus
on improving the efficiency of inorganic fertilizers,
introducing new crops that fix nitrogen into rotations,
improving livestock-crop mixes and utilizing organic
sources of nutrients (e.g., compost, manure and leaf
litter). With the assistance of KARI researchers, the
Branch intends to test different combinations of these
systems and monitor their impacts on smallholder
farms with the active involvement of the farmers. The
mix of technologies and measures will depend on
farmers' preferences and local agroecological and
socioeconomic conditions.

(f) Changing operational procedures and
sustaining the process

None of these lessons and impacts could have been
achieved without significant changes in the opera-
tional procedures of the Soil and Water Conserva-
tion Branch. There is widespread support within
the Branch at all levels for the use of PRA and the
Catchment Approach for conservation planning,
implementation and impact analysis. Recent efforts
have aimed at drawing on the skills and resources of

other government departments and interested NGOs
to join the Branch in these activities (Mwarasomba,
1994, 1993). The senior management in the Branch
has taken the lead by inviting other institutional actors
to participate in various trainings and practical field
exercises. It has held briefing seminars and distributed
reports on its activities to relevant authorities on a
regular basis. Moreover, soil conservation officers
have been encouraged to facilitate trainings and field
exercises organized by other agencies in Kenya
and elsewhere, including Lesotho, Tanzania and
Uganda.

Reactions to this collaborative approach generally
have been positive, both from the agencies involved
and from the farmers. To the farmers, this interdepart-
mental and interdisciplinary style of development
seems a welcome change to the more top-down,
sector-specific approaches of the past. To the Branch
itself, this mode of operating represents both an oppor-
tunity and a challenge. It is an opportunity to establish
new alliances with a range of agencies, each with its
own technical expertise, resources and modes of
operation. It is also an opportunity to work in a more
holistic manner, one which links the biophysical and
socioeconomic processes, thereby leading to the gen-
eration of more integrated, flexible and adaptive
development planning. At the same time, it represents
a challenge to an agency still situated within a con-
ventional, hierarchical, sectorally oriented, govern-
ment system. As effective interdepartmental
collaboration becomes more central to the success of
the Catchment Approach, it is likely that it will test the
limits of the Branch's ability to coordinate its activi-
ties with other agencies, each with its own goals and
objectives.

Long-term funding support and limited interven-
tion in internal affairs by the Swedish International
Development Authority, the SWCB's main foreign
donor, has given the Branch space to experiment and
make these gradual adjustments. Although indications
are that this direct support will be phased out by the
end of the century, it is likely that many of the opera-
tional changes now under way will carry on.

Training has played a crucial role in the continuing
transformation of the SWCB. Today, mid-level offi-
cers who were trained in one or more of a series of
national RRA/PRA workshops since 1989 are now
training their own teams to employ them in their field-
work. The Branch has produced detailed field reports
of the work conducted in most of catchments in which
it has initiated participatory planning. These reports
are now used, together with slides of past field experi-
ences, by the officers to train their own teams.[37]

After nearly six years of field tests, methodological
adjustments, and national and local staff trainings, the
SWCB is beginning to develop and institutionalize the
capacities to use its participatory Catchment
Approach on a broad scale. In the 1995–96 financial

year, for example, the Branch plans to launch the participatory planning in 809 catchments covering a total area of 177,000 hectares and involving 93,000 farm families.[38] There is now scope for the agency to have a major impact in Kenya, as it operates in all 54 districts in the country, with varying degrees of effectiveness. The introduction and scaling-up of PRA and the Catchment Approach has demonstrated tremendous potential for improving performance, but it also has created new professional and institutional challenges.

The motivations that SWCB staff have brought to these challenges vary considerably. Those initiating the process in the late 1980s brought with them a vision of a more people-oriented approach to soil and water conservation. As the program expanded, many of the soil conservation officers at the provisional, district, divisional and field levels support it because they were concerned with improving the quality of their work and saw the participatory approach as an improved means of reducing land degradation, conserving productive resources, and most importantly, collaborating with local people.[39] In this way new institutional norms and working rules were created which emphasized interdisciplinary teamwork, interdepartmental collaboration, active farmer participation in all phases of catchment planning, through documentation of the process and phased training of staff.

Whether these processes can be improved and extended will be determined by the Soil and Water Conservation Branch's management staff and field officers, policy makers outside the agency and the farmers themselves, whose voices are now being heard with increasing regularity. Many obstacles remain, both internally and externally, from maintaining continuity in policy making as directors come and go, to surviving the eventual phasing out of SIDA support and drastic reductions in staff numbers and resources which the Government of Kenya has imposed under Structural Adjustment.[40] It will take constant vigilance and creative leadership both within and outside the SWCB to sustain the program and move the transformation forward in the years to come.

7. THE NATIONAL IRRIGATION ADMINISTRATION, PHILIPPINES — COMPLETING THE CYCLE

(a) Learning from experience and shifting policy

The experience of the National Irrigation Administration (NIA) of the Philippines, a semi-autonomous government organization established in 1964, is significant not only because it is an agency that has employed participatory approaches effectively on a national level for some time, but also

because it has succeeded in introducing, spreading and institutionalizing those approaches in what were once decidedly bureaucratic programs.[41] The pioneering efforts of the NIA have helped inspire similar efforts in other centralized technical agencies, particularly within the irrigation sector (Bruns, 1993; Uphoff, 1991).

The NIA's success is the result of the convergence and complementarity of a number of factors. First, the NIA's participatory approach to irrigation planning, construction and operation of maintenance was supported by an interdisciplinary committee involving key individual and institutional actors who facilitated the policy reforms, despite internal opposition which resulted in the periodic loss of momentum of change at several junctures. Second, many long-standing rules affecting design, construction, operation, maintenance and finance were modified and made more process-oriented. Third, these rule changes led to well-documented improvements in system performance. Fourth, considerable effort was devoted to increasing other aspects of social capital, including the skills and understanding of irrigators, public officials, community organizers, researchers and donors.

Irrigation systems in the Philippines cover about 1.49 million hectares (ha), of which about 625,000 (42%) ha are in National Irrigation Systems (NIS) managed by the NIA. Another 715,000 ha (48%) are in Communal Irrigation Systems (CIS) generally managed by farmers' irrigation associations. While these systems vary in size, most serve less than 1,000 ha of farmland. The final 10%, or 150,000 ha, are in private systems owned by individual farmers (Svendsen, 1993, 1992). Thus, farmers either individually or collectively manage 58% of the total amount of land under irrigation. Moreover, in the NIS, the tertiary-level system following NIA policy has to be managed by farmer associations or groups while the main system is managed by the agency. From 1983, the NIA has been turning over the management of small national systems and substantial parts over the tertiary level in medium-sized national systems to organized irrigation associations. As turnover of these systems continues, this further increases the area under farmer management.[42]

The Philippine government created the NIA as a semi-autonomous corporation with broad powers to undertake irrigation development with the aim of achieving self-sufficiency in rice production. Initially, the NIA received a large subsidy from the government to cover both construction and operation and maintenance (O&M) costs. The understanding, however, was that NIA would eventually become self-financing.

During the 1960s and early 1970s, the NIA's programs were distinctly top-down. Engineers planned irrigation infrastructure and constructed systems with only nominal consultation with the people presumed

to benefit from the effort. Farmers were not consulted about proposed changes on their systems and they saw no reason to take on management responsibilities thereafter (de los Reyes, 1980). Moreover, "farmers knew they could lobby their member of Congress for additional free 'pork-barrel' assistance, so that they often let their system fall into disrepair, waiting for the government to do the work" (Bagadion, 1988, p. 7).

During that period, the NIA began to take note of research showing that indigenous Philippine irrigation systems continued to perform satisfactorily over many decades with little or no government intervention (Siy, 1988, 1982; Coward, 1979).[43] The research indicated that local ownership of a system and investment of labor and resources in its construction developed commitment to its continued operation and maintenance.[44] Influenced partly by poor cost recovery in its own systems and partly by research on indigenous irrigation systems, the mode of NIA's intervention in communal systems was changed radically.

In 1974, NIA's charter was substantially amended to enable it to operate more like the public corporation it was designed to be. Among other things, Presidential Decree 552 (quoted in Wijayaratna and Vermillion, 1994, pp. 3–4) granted the NIA power to:

> charge and collect from the beneficiaries of all irrigation system constructed by or under its administration such as may be necessary to cover the cost of operation, maintenance and insurance, and to recover the cost of construction within a reasonable period of time to the extent consistent with government policy; to recover funds or portions thereof expanded for the construction and/or rehabilitation of communal irrigation systems which funds shall accrue to a special fund for irrigation development...

Until that time, fees collected by the NIA were remitted to the national treasury. The annual operating budget of the agency was included as part of the general appropriations procedures. The amended charter allowed NIA to keep the irrigation fees it collected, while providing for a subsidy to cover explicitly O&M costs for both national and communal systems. The subsidy was to last for a period of five years after which it would be phased out. Hence, by the end of the 1970s, the NIA was directly dependent on collections from farmers for all of its O&M expenses (Wijayaratna and Vermillion, 1994; Svendsen, 1993, 1992). The implementation of the new policy, however, added repayment and farmers' participation to problems already facing the NIA. The need to develop strong irrigators associations became an urgent priority.

In its search to support development of more resilient and self-reliant IAs, the NIA, in 1974, contracted the Farm Systems Development Corporation (FSDC) to organize farmers in communal systems that were being constructed or improved. Since FSDC had

been developing small pump irrigation systems and created similar groupings of irrigators to manage them, and since the NIA had been instrumental in setting up the Corporation, this appeared to be a mutually beneficial partnership.[45] In the resulting agreement, the NIA undertook to plan and construct the projects and the FSDC organized the farmers. The assumption was that the two activities were not directly related to each other and therefore could be carried out independently by two separate agencies. These arrangements soon proved unsatisfactory, however, as poor field coordination resulted in many IAs refusing to accept the system improvements because of misunderstandings over their loan repayment obligations and claims that the new facilities were not functioning properly.

(b) *Pilot projects and community organizers — getting the process started*

Two years after the NIA-FSDC partnership began, the NIA's senior management decided to try to develop the Administration's own capacity to organize and strengthen irrigators associations. As Benjamin U. Bagadion (1988, p. 11), a civil engineer and a key actor in the transformation of the NIA, has observed:

> The basic concept of the new approach was for the government to provide financial and technical assistance but do so in a manner which would maximize farmers' participation in the planning, design and construction of the system, as well as the operation and maintenance. NIA top management wanted answers to the questions of how to implement such a participatory approach, whether it would result in more viable irrigators associations, and, if so, how processes could be developed for applying such an approach on a broad scale throughout the NIA.

In an attempt to answer these questions, the NIA initiated pilot projects in two communal systems in Laur, Nueva Ecija, Central Luzon, in 1976, with Ford Foundation funding. Six women and men community organizers (COs), trained in the social sciences and experienced in working with rural and urban low-income communities, were recruited by NIA to develop and test its participatory approach in the two locations. The COs were able to speak the local dialect and most were from farm families, which increased their identification with the farmers. Much like the Badulla IRDP in Sri Lanka, the NIA "intentionally sought to recruit idealistic young people who saw their work with the...program as an opportunity to provide an important service to the farmers of their country" (D. Korten, 1988, p. 122). Their appointments were short-term, as it was expected that these young, generally unmarried COs would later want to move on to other positions which afforded them a more settled life.

Before entering the field, the organizers were trained in the basic organizing steps to be used in the pilot projects, oriented regarding the policies and procedures of the NIA, and exposed to an operating irrigation system to learn about its functions and the farmers' problems and priorities. Like their Sri Lankan counterparts, the COs' role was to "lead from behind" and to help the farmers use the preconstruction and construction activities to build and strengthen their associations. To do this, the COs lived for extended periods in the villages, interacting regularly with local farmers and encouraging them to participate in the planning and construction of their irrigation facilities. They remained with the pilot projects for almost three years, spending at least 10 months helping to organize the farmers into irrigators associations. The mandate of the organizers was to strengthen the capacities of the IAs in five areas: (i) decision-making processes within the associations; (ii) planning improvements and extensions of the irrigation systems; (iii) securing water rights and right-of-way of new canals; (iv) constructing viable irrigation facilities; and (v) controlling construction costs.

The introduction of this small group of highly motivated, college educated and predominantly female COs into a technically oriented organization staffed mainly by male engineers was to have a profound effect on the NIA.[46] Their influence was partly due to the fact that there was close contact between the junior organizers and senior management, including Benjamin Bagadion, an Assistant Administrator in the NIA, who was to prove an important supporter.[47] "Judicious use of this access gave them influence within the organization well beyond their numbers, seniority and budgetary authority" (D. Korten, 1988, p. 123).

By 1983, the number of COs assigned to the communals program had increased to 295, and by 1987 the NIA employed some 560 working on both communal and national irrigation systems (D. Korten, 1988). Today, they are referred to as Institutional Development Officers or IDOs to reflect more accurately the specific nature of their work.[48] They continue to undergo training in the basic procedures for mobilizing and organizing irrigators associations, and in the policies of the NIA. Trainings are carried out at the Provincial Irrigation Office, and facilitated by officers from the NIA's Institutional Development Department.[49] As in the Sri Lanka and Kenya cases, the training and support of these field organizers constitutes a government subsidy for the transaction of community mobilization and collective action. After nearly 20 years of experimentation and development of the CO approach, the NIA firmly believes it is worth the investment.[50]

(c) *Expanding the pilot projects and launching the working group — making adjustments*

The first three steps in NIA's learning cycle included the identification of the need for an improved approach to mobilizing farmers, the conceptualization of the new participatory approach and the initiation of the two pilot projects. Two and a half years after the first pilot projects were launched, however, the NIA became concerned that no systematic analysis of these experiences was being conducted. Aware of the need to draw lessons from the pilot projects, a review was carried out which revealed three conceptual problems with the organizing work (Alfonso, 1983). First, NIA technical staff were still only involved peripherally in the participatory process and therefore unable to appreciate and respond to the needs and constraints of the farmers and COs. Second, the organizing process was based on a confrontational philosophy which assumed that perceived threats from external forces would create a sense of local solidarity and mutual trust. In reality, the approach had the opposite effect, and unnecessary confrontation by COs and other external agents served more to destroy possible platforms of negotiation and cooperation than to create them. Third, the COs had failed to appreciate how the farmers had operated their systems prior to their intervention and thus were not able to systematically relate the development of new irrigators associations to existing systems and procedures.

These lessons revealed that further pilots were needed to modify and improve the new approach further before it could be applied more broadly. For this purpose two new pilot projects were initiated in Southern Luzon.[51] By the time of the expansion of the two new pilot sites in mid-1978, an interinstitutional working group had been formed. The Communal Irrigation Committee (CIC), as the working group was known, met over a period of six years to help bring about the transformation of the NIA's approach to communal irrigation assistance. The CIC was based at NIA, chaired by Benjamin U. Bagadion, and assisted by Frances F. Korten, who, as a Ford Foundation Program Officer, acted as the group's facilitator and funder. The interdisciplinary CIC included agriculturalists, anthropologists, economists, irrigation engineers, institutional management specialists, sociologists and trainers. Its members came from several NIA divisions, the Asian Institute of Management, the Institute of Philippines Culture, International Rice Research Institute and the Central Luzon State University (Bagadion and Korten, 1991; Korten, 1988).

According to Bagadion and Korten (1991) the CIC was formed to provide a clear structure for interactions between researchers, who had a policy analysis role, and agency personnel, who were responsible for policy making and implementation. Whether they

contributed as researchers or as agency staff, the philosophy of the working group was to encourage its members to participate openly as concerned individuals, rather than as representatives of institutions, as this created a sense of commitment to the process. Through these encounters the researchers' role broadened as they tried to respond creatively to the emerging needs of the agency staff. In turn, the agency personnel benefited from more frequent contact with the researchers, who channelled information to them at regular intervals, rather than at the end of conventional research projects. In this way, decision making became an iterative process and the working group became a forum for open dialogue, critical reflection and continuous learning. Hence, by the time any final project report was written, its contents were well known to NIA personnel and sometimes many of the recommendations had already been integrated into the agency's program.

(d) Sociotechnical profiles of communal systems — improving the process

To avoid the problems experienced in the Laur pilot projects, the NIA pioneered the use of "sociotechnical profiles," which were used to collect more adequate social data and to introduce intensive critical analysis into the assessment process. To develop the approach, the NIA called upon social scientists, including Romana P. de los Reyes, at the Institute of Philippine Culture (IPC) of the Ateneo de Manila to work with NIA staff.[52] In 1977, as a researcher with IPC, de los Reyes directed a study of 51 communal systems throughout the Philippines. Later, as a member of NIA's Communal Irrigation Committee, she used the methodology of that earlier study as the basis for developing the sociotechnical profile.[53]

The first six communal system profiles were prepared on an experimental basis in 1979. They soon proved that the approach was capable of yielding important information about existing local organizations and their histories, and farmers' perceptions and priorities regarding NIA assistance. They also highlighted the need for better coordination of field activities between COs and technical staff. Furthermore, the profiles helped detect projects with serious social or technical impediments and decreased the number that were delayed or abandoned (de los Reyes, 1987). One of the most important techniques to be developed was the flow chart, which was used to make visible the activities of the COs, the farmers and the technical staff, and helped each group understand their respective roles and the linkages among them (Korten, 1988).

Over time, the NIA, with the aid of the IPC researchers, developed five different instruments which are used sequentially to guide their work: (i) preliminary data-collection process used to estimate project feasibility; (ii) detailed interviews with the farmers, conducted only after the project is deemed feasible; (iii) process notes of those interviews; (iv) analysis of the interview data by both project engineers and COs; and (v) summary of the analysis, which is used for selecting candidate projects. Thus, by 1983, when the participatory approach was made the standard NIA approach to communals, the sociotechnical profile had become the Administration's standard approach for site selection and planning for communal irrigation development. By the end of that year, profiles had been completed on a total of 687 systems. The total time required per profile, including initial fieldwork, preliminary review at provincial and regional levels, and the collection of follow-up data, was five weeks (de los Reyes, 1987).[54]

(e) Transferring lessons from communals to the national systems — extending the process

Once local irrigators associations had learned to work together in designing and improving their communal systems, the successful IAs used this experience to invest collectively in threshing floors, undertake bulk procurement, manage storage facilities and provide credit to other groups of farmers. This stimulated the less successful IAs to do the same. Irrigators associations also collaborated with NIA in the preparation of Agricultural Development Plans (ADPs) which cover crop mixes and rotations, equitable water distribution in cases of shortages, reforestation, soil and water conservation, nurseries and other development activities. The ADPs defined farmer training, extension worker visits, demonstration programs for crop production methodologies, integrated pest management and mechanization, as well as cooperatives and other means of increasing access to credit and marketing opportunities to each IA.

The effectiveness of the participatory approach used in communal systems may be attributed to progressive learning and capacity strengthening of the irrigators associations in decision making in planning, implementation, and operation and maintenance. Developing farmers capacities to plan strengthened their capacities to construct their systems. Active participation in construction then improved their abilities, and their willingness, to operate and maintain their systems.

While systems vary in size, communal irrigation systems average about 200 hectares. Traditionally, CISs were planned and constructed jointly by the NIA and irrigators associations. When completed, the systems were turned over to farmers. In contrast, national systems can be five or more times larger than communal systems. Previously, they were planned and con-

structed by the NIA, with only limited farmer involve-
ment, and were owned by the government. These
arrangements proved less than satisfactory, both in
terms of active farmer involvement and overall system
performance. "Where irrigation service was indiffer-
ent, and whether farmers paid their irrigation fees or
not, the government systems personnel received their
pay. Farmers were not organized for effective repre-
sentation in the operation of the systems and thus had
no participation in important decisions" (Bagadion,
1988, p. 6).

Due to differences in size, complexity, ownership
and management arrangements between communal
and national irrigation systems, modifications were
necessary before the participatory approach could be
applied in the national systems. For every communal
system only one IA was organized. In national sys-
tems of less than 1,000 hectares a similar approach
was followed and NIA staff attached to those systems
were either transferred to other sites or offered early
retirement. In national systems larger than 1,000
hectares two or more IAs were organized and their
activities were harmonized. In those systems farmer
participation in planning, construction and O&M was
limited to that part of the system operated by the IAs.
This procedure resulted in several modes of sharing
O&M responsibilities between NIA and the IAs. For
example, farmers in national systems often bore
primary responsibility for planning, construction or
rehabilitation and O&M at the tertiary level. Their par-
ticipation of the secondary and primary system levels
was limited, however, to O&M activities, such as the
formulation and implementation of policies, proce-
dures and cropping calendars, planning and imple-
mentation of water distribution, period maintenance
and monitoring of the systems.

From 1987, organizing of the national irrigation
systems generally followed the communals approach.
In the rehabilitation of national systems, a major activ-
ity, the NIA and IAs jointly decided the location of
turnouts, main farm canals and supplementary canals.
Construction of these facilities was undertaken by the
IAs, with supervision from NIA technical staff. In
addition, a program of work was developed by NIA
and IAs in many systems which indicated their respec-
tive roles and responsibilities, specified their financial
contributions, and defined rules and regulations.
These activities helped strengthen the capacities of the
IAs and their leadership, improve NIA-IA relations,
and increase the area under irrigation through water
savings invoked by farmers. Improvement has also
been seen in the financial viability of the irrigation and
water use efficiency (Svendsen, 1993, 1992).

At present, there are three types of contractual
O&M arrangements between NIA and IAs in national
systems (Wijayaratna and Vermillion, 1994). The
Type I contract (maintenance contract) entitles the IA
to take over canal maintenance and water distribution

from an NIA ditchtender. The IA carries out O&M,
implements water-distribution schedules, overseas
rotation of water delivery, and resolves conflicts,
under the supervision of the NIA watermaster. Under
Type II contracts (system operation and ISF collection
contract), the IA undertakes systems operation and the
collection of irrigation service fees (ISF).[55] Under this
contractual arrangement, the IA will also bear respon-
sibility for water distribution and O&M activities.
Type III arrangements (turnover contract) allow the
NIA to turnover full management responsibility to an
IA. This type of contract may be executed for either
entire systems or sections of a system, such as a branch
or distributary canal. This agreement requires the IA
to take over all O&M responsibilities, collect the ISF,
and amortize the cost of construction (without inter-
est) over 50 years.

As Wijayaratna and Vermillion (1994, p. 1) have
noted: "the NIA's official objective [is] to achieve full
turnover...in the majority of [systems]." The attain-
ment of that objective is still some way off, however.
As of 1991, NIA had organized 1,723 IAs in 521,270
hectares in the national systems. This covers about
83% of the total area in the national systems. Out of
the total number organized, 472 IAs (37%) have
entered into Type I Contracts (maintenance), 755
(60%) IAs have entered into Type II Contracts (sys-
tem operation and ISF), and only 33 IAs (3%) have
entered into Type III Contracts (turnover) (NIACON-
SULT, 1993). Clearly, the process of turnover is a
gradual process. The pace varies from system to sys-
tem, according to a wide array of factors, including the
gradual retirement or transfer of NIA staff, the cost
and complexity of transferring staff, the cost and com-
plexity of managing the systems, mediocre fee collec-
tion rates, and the willingness of farmers to take over
management (Wijayaratna and Vermillion, 1994).
Nevertheless, the process has begun and the NIA
remains committed to handing over management
responsibility to the farmers.

The NIA has used various strategies for developing
irrigations associations in the national systems. In
1980, the agency launched its Irrigation Community
Organization Program (ICOP) which was modeled on
the participatory approach developed for the commu-
nal systems. As in the communals, the ICOP strategy
called for the deploying of professional community
organizers, paid by NIA, who were expected to work
closely with farmers and help them organize their own
associations. This approach proved too costly and
impractical for national replication, however. As a
result, the NIA took the bold decision to recruit and
train local farmers as organizers under a new initia-
tive, the Farmer Irrigator Organizers Program (FIOP).
The farmer organizers (FOs) work under the super-
vision of NIA watermasters and with support from
Institutional Development Officers from NIA
(NIACONSULT, 1993).

The cost of these FOs has proved to be significantly lower than the professional COs used under ICOP. Prior to FIOP the area served by a CO was 419 ha in the communal systems and 3,991 ha in the national systems. Under FIOP, the farmer organizers only serve an average of about 175 ha, thus allowing them to interact with a small number of local irrigators' groups on a regular basis. When FIOP began, the FOs received a small honorarium of 500 pesos per month (about $20) from NIA. As more and more irrigators' associations responded enthusiastically to these local organizers, they began to pay the FOs directly for their services, and the NIA was able to cease providing stipends (Wijayaratna and Vermillion, 1994).

(f) Flexible funding — sustaining the process

Funding for developing processes of farmer participation requires more flexibility in purpose and usage than is found in standard budgetary practices of most donors and governments. In the NIA pilot projects, expenses for project documentation and the employment of local consultants were not covered by the government's appropriations for the project and, therefore, funds had to be found from other sources. The Ford Foundation provided flexible grants to both the NIA and the assisting institutions in ways that were responsive to emerging requirements. These funds were provided in a manner designed to encourage productive relationships among members of the NIA working group, the Communal Irrigation Committee, thus creating space for researchers, policy makers and technical staff to interact and exchange ideas and information.

The NIA has learned that it is unrealistic to try and predict the amount of time needed to create effective IAs and ensure full participation. Pre-set targets tended to undermine the farmers' authority over the systems and, with it, their commitment to operating and maintaining them. In view of this, NIA persuaded the World Bank, its principal donor, to avoid setting specific, long-term targets for construction. Flexibility was achieved by developing work programs one year at a time, depending on the progress of the preceding year rather than rigidly scheduling work for the entire loan period (World Bank, 1994b).[56] This flexibility has allowed the NIA to concentrate on strengthening existing IAs instead of pressing to meet arbitrary targets for the creation of new ones.

(g) The role of training and social learning

The widespread use of participatory approaches in the communals and national irrigation systems was achieved by gradually involving increasing numbers of key NIA officers and field staff in the development and refinements of new training procedures and methods. The process by which these approaches were developed and introduced was as important as the approaches themselves. Following a social learning perspective of organization change, the Community Irrigation Committee encouraged the active participation of a wide variety of actors who were involved either directly in implementing the new participatory approaches, or in supporting and supervising their use. A series of workshops and training programs were used as fora for discussing the new approaches, eliciting ideas about possible constraints and opportunities, and airing possibilities for change and improvement. New methods, once developed, were tested in pilot projects in each region, so that key agency personnel could have direct experience in their use and could participate in refining them. That process gradually developed broad understanding and support for the new approaches within the NIA.

With irrigators' associations assuming responsibility for O&M, the NIA recognized the need to provide long-term support to strengthen and sustain the capacity of the farmers to manage their systems. NIA launched its "System Management Task Force," headed by Alan Early of the International Rice Research Institute, and composed of individuals from the CIC, to formulate a concept of NIA's system management to IAs. Over a nine-month period the task force designed a series of training modules to help farmers review their own experiences with their systems, identify constraints and opportunities, and develop clear plans and functions. The modules covered cropping calendars, water distribution, system maintenance, conflict management, the roles and responsibilities of officers and personnel of the IAs, and the development of farm-level facilities (F. F. Korten, 1988).

Training programs for IA officers are considered a major component in the institutional development effort. These training programs are provided to augment the organizational activities undertaken by the COs in the communal systems and the FOs in the national systems. The process of developing the associations' capacities is incremental, the activities are phased, iterative in nature and continuous, as long as the association exists and chooses to participate.

Informal and formal institution-building programs are provided to the IAs as a whole. Informal training is operationalized in the IAs' O&M planning meetings and during board of directors meetings held to formulate the IAs' policies. The process is usually informal in the early stages of association formation and during the organizing phase. Formal training takes place once association officers have been selected and the association has gained legal recognition. It involves training in basic leadership development, financial management, and system management. A variety of inter-

active training methods are employed to achieve objectives. These methods emphasize experiential learning and include the use of group "buzz" sessions, small group exercises, case analysis techniques, farmer-to-farmer exchanges and occasional lectures. The NIA uses facilitators from its Institutional Development Department, as well as experienced staff from the regional, provincial and irrigation system offices, to support these activities.

The NIA trains association leaders both in technical subjects and in the skills necessary to maintain and manage their organizations. Learning how to facilitate a meeting, keep records and set priorities, as well as how to benefit from services offered by NIA and other agencies, are some of the basic skills inculcated in these leadership programs. Training blends into technical assistance as government staff interact with the associations and their leaders to learn specifically about their needs, to impart information and to mediate between an association and the NIA where linkages are not working effectively.

(h) *Core elements of innovation — mapping the process*

Fundamental changes were made to the internal management structures of the NIA over more than two decades that influenced the agency's ability to carry out its new participatory strategy. Seven major innovations, including the recruitment and training of key staff members, were responsible for these changes:

(i) The reorientation of site assessment and systems planning to reflect diverse local agroecological and sociotechnical realities, rather than standardized engineering standards and procedures;

(ii) The devolution of authority and change in management styles and procedures to make the provincial irrigation engineers responsible for overall coordination of the NIA's communal irrigation program in their respective provinces — including the organization, design, construction and post-construction assistance, with support for this role provided by interdisciplinary, problem-solving teams;

(iii) The strengthening of agency accountability to the irrigators associations through the emphasis on financial viability, which required provincial and regional offices of the NIA to recover their own O&M expenses from equity contributions, amortization payments and fees received from the farmers;

(iv) The shift in emphasis toward communal and small national irrigation and away from the large national system[57];

(v) The provision of external support in the form of both social capital and financial assistance over a sustained period, during which the agency made the

transformation to a more people-oriented, strategic institution;

(vi) The integrated development of the new participatory research approach and a flexible training program that drew lessons from the early field experiences and made adjustments and improvements to training procedures accordingly;

(vii) The introduction of a cadre of highly motivated, well-educated, mostly female community organizers into an agency staffed by predominantly male engineers, and the active involvement of farmer organizers in national irrigation systems.

Along with introductory workshops, the agency's training program included three key elements. First, the relationships of the principle activities of the technical staff, the community organizers and the farmers was succinctly documented in the form of process reports and made available to all actors. Second, detailed case studies on management issues encountered in the participatory projects were written, which were later used in training courses where other NIA staff were introduced to the new approach. Finally, site visits by working group members were often combined with workshops with project coordinators at which emerging problems and issues were examined. All of these allowed the NIA staff to gain a clearer sense both of the strengths and limitations of the new participatory approach and of the farmers' priorities and capacities.

In carrying out its programs, the NIA has assumed a learning and enabling role, one of developing its staff members' capacities to facilitate local people's efforts to analyze, initiate and carry out important development functions in their own way. In this respect, the NIA's program represents a striking contrast to most conventional governmental programs in which agency personnel view themselves as "implementors," while the people themselves are simply "the beneficiaries" or "target groups," passive participants in an externally driven activity.

The NIA's experience holds a rich array of lessons regarding the macro-policies, field methods, organizational change processes and management structures needed to transform an agency's role from that of primary implementor to a learner-enabler, supporting people's own development initiatives. Nevertheless, as Korten and Siy, Jr. (1988, p. 157), two prominent figures in the evolution of the NIA, have stated,

> Both the dangers of backsliding and the possibilities for further transformation lay ahead. Which possibility would emerge in the [future] would be determined by the agency's management staff and field implementors, policy makers outside the agency and the farmers themselves...Wise decisions by all of these parties would be needed to maintain and improve the quality of the program. Such decisions would need to be based on a well developed understanding of the complex dynamics that made the NIA's program a rare instance of a suc-
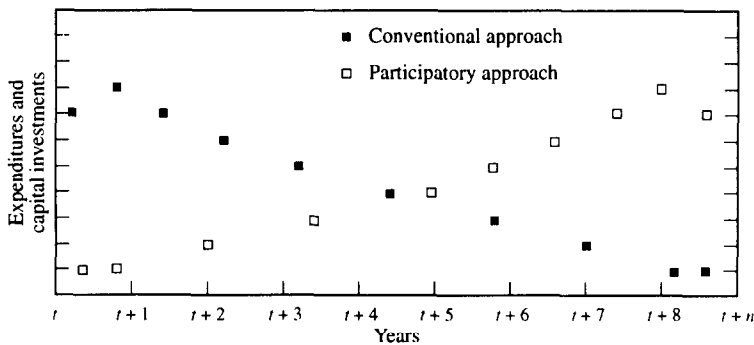
Figure 3. *Conflicting patterns of expenditure and investment.*

cessful government-managed participatory development project.

8. CHARTING THE COURSE FROM PARTICIPATORY RHETORIC TO PARTICIPATORY REALITY

For more than a decade a growing number of public sector institutions have been experimenting with participatory approaches for research and development, and remained hopeful that these might be employed on a wide scale. Such sentiments are frequently expressed in the national plans produced by planning agencies, in the project appraisal reports of donor agencies, and by the heads of government agencies themselves. Sadly, this participatory rhetoric is rarely backed by more than the introduction of a few training courses or perhaps the addition of a new type of personnel (e.g., social mobilizers or community organizers).

As the cases from Sri Lanka, Kenya and the Philippines reveal, to implement participatory approaches successfully, an agency must examine every aspect of its work and determine whether its policies and procedures are capable of responding to the needs and priorities of local people. Does an agency's staff have any reason to care whether they are providing an effective service, and if so, whether it is valued by local people? Do participatory approaches for analysis, planning, implementation, and monitoring and evaluation result in the selection of viable projects, programs and processes that strengthen local capacities and support local livelihoods? Do internal structures and management systems facilitate effective problem solving and active learning? Do existing budgetary procedures allow local adaptation and flexibility in investment and disbursement?

As we have seen, the typical mode of investment and expenditure followed by most government agen-

cies and their donors continues to make it difficult for programs to employ participatory approaches effectively. Their emphasis is on disbursing funds and showing measurable results quickly. By contrast, constructive dialogue, joint analysis, participatory planning, all of the critical elements of participatory, run counter to this way of thinking. Instead of "front-end loading" of capital investments and expenditures, there would be a more gradual release of funds only after a substantial period of interaction with local groups and institutions (Figure 3). This would mean that the initial investment would be quite small in terms of capital improvements, but significant in terms of human resources development, including training. Such a strategy would require the development of new indicators for assessing performance and measuring success. It also would necessitate a reduction in or elimination of rigid, predefined targets for expenditure and investment.

Coordinating expansion temporally and spatially is critical to the success of the institutional reorientation process. Expansion and integration that proceeds too slowly will leave the agency little changed, while rapid expansion could outpace the organization's ability to train staff and adjust internal procedures to facilitate implementation. The same is true at the project or community level, as a substantial amount of time will be required for community facilitators to gain local people's trust, understand their problems and priorities, and help support the development and strengthening of representative local organizations. Several strategically selected, low-risk, high-profile, tangible projects could be undertaken, however, in the early stages of the new program. These would have the advantage of making the participatory process visible at relatively low cost, and thus placate impatient politicians, reassure anxious donors and government officials, and strengthen local people's self-confidence and capacities.

Particular attention needs to be given to creating learning mechanisms within an agency and facilitating

transitions to successive phases of the institutional learning cycle. All three agencies discussed above used pilot projects as "learning laboratories" for testing, modifying and refining their new participatory approaches. These lessons were analyzed and discussed in great detail by key decision makers from the agency and, in some instances, other external resource persons in a variety of workshops, review meetings and working groups. The emphasis in all of these sessions was on critical reflection, open sharing and constructive dialogue — and learning. Various forms of process documentation were also initiated, including regular village reports, catchment reports, process reports and sociotechnical profiles. All of these forms of documentation were distributed and discussed by a wide array of key stakeholders on a regular basis.

These and other conditions that determine whether a particular institution's programs and policies can be effective at all, irrespective of whether "participation" is involved, will need to be examined concurrently with efforts to introduce a new participatory approach to any development or research activity. Each of these changes must constitute an integral part of the whole, all contributing to change involved in an organizational learning process in which errors are detected and embraced, alternative solutions examined and tested, adjustments are made, and competing interests confronted and negotiated.

Training is only one of many components that shape and influence the institutionalization of participatory approaches, albeit an important one. For it to have a lasting impact, training must be viewed as a social learning process, not simply teaching and instruction, and must be integrated into a wider program of human resources development. Such a program would not only focus on preparing agency personnel to use certain innovative field methods, but also improve their communication, analytical and facilitation skills. It would encourage staff at all levels to take increased responsibility for their own learning, support the development of competencies such as adaptable, transferable skills, and focus on learning how to learn rather than absorbing facts (Ison, 1990; Bawden, 1989; Macadam and Packham, 1989). This kind of training process would help to foster a relaxed and open environment in which staff from different levels in the institutional hierarchy felt comfortable and thus able to work together constructively. This would mean concentrating on attitudes, behavior and principles, as well as key methodological concepts and techniques.

The case examples of the Badulla Integrated Rural Development Program in Sri Lanka, the Soil and Water Conservation Branch in Kenya and the National Irrigation Administration in the Philippines illustrate that it is possible to alter the operational procedures and institutional cultures of centralized, bureaucratic, public agencies. A second and equally important lesson is that such a transformation is neither easily nor quickly achieved. These cases also indicate that the transformation of these public agencies into strategic, enabling institutions requires 10 key elements:

(i) a policy framework supportive of a clear role for local people in research and development;

(ii) strong leadership committed to the task of developing learning organizational systems, capacities and working rules;

(iii) long-term financial commitments and flexible funding arrangements from key donor agencies;

(iv) better systems of monitoring and evaluating performance, and new mechanisms for ensuring accountability — both to the donors and senior decision makers and to the local people;

(v) careful attention to and patience in working out the details of systems and procedures — each involving careful analysis of lessons learned from small-scale pilot tests, and the negotiation and accommodation of different interests and perceptions;

(vi) creative management, so that improved policies, procedures and field practices, once developed, can be scaled-up and implemented effectively;

(vii) an open, supportive, yet challenging organizational climate in which it is safe to experiment and safe to fail;

(viii) small, interdisciplinary teams or working groups of innovative and committed agency professionals working in collaboration with external resource persons capable of acting as catalysts for change;

(ix) regular documentation and analysis of lessons for improving practice and building an institutional memory;

(x) a flexible, integrated, phased training program over a sustained period of time, involving key actors at different levels.

Institutionalizing and operationalizing participatory approaches is undoubtedly an extremely complex and problematic business. Change and stability are inextricably linked to any open management system; the challenge for large public institutions attempting to employ participatory approaches is to facilitate the emergence of new ways of knowing and behaving so as to manage change creatively. This will offset growing concerns over the coopting of the term "participatory" by those with short time horizons and narrow agendas who may be promoting stasis and the status quo rather than change, innovation, and eventually, transformation.

NOTES

1. These approaches are process-oriented methodologies combining guiding principles, core concepts and sets of interactive methods in flexible frameworks for participatory learning and action. They have been developed over the past decade in an attempt to realize high levels of active local involvement in official programs and projects, and, more importantly, to give local people greater control over the process of research and development. Today, a wide array of participatory approaches are being promoted and employed with varying degrees of skill and sensitivity by agencies ranging from the World Bank to community-based organizations. They are being applied in an ever-increasing number of sectors, from agriculture to environmental health, and from organizational analysis to low-income housing, across the rural-urban continuum. Some of the more common approaches include Participatory Rural Appraisal (PRA); Participatory Technology Development (PTD); Participatory Action Research (PAR); Farmer Participatory Research (FPR); Participatory Monitoring and Evaluation (PM&E); Groupe de Recherche et d'Appui pour l'Auto-promotion Paysanne (GRAAP); Development Education Leadership Teams (DELTA); Rapid Assessment Procedure (RAP); and SARAR (Self-esteem, Associate skills, Resourcefulness, Action planning and Responsibility). (See Chambers, 1994a, 1994b, 1994c; Cornwall, Guijt and Welbourn, 1994; Rocheleau, 1994; World Bank, 1994a, 1994b.)

2. "Third sector" organizations include local nongovernmental organizations (NGOs), international NGOs, community-based organizations (CBOs), including slum-dwellers associations, farmers federations and church organizations, and social movements. See Hulme (1994) for a typology of these third sectors actors and their interactions.

3. See, for example, Farrington and Bebbington (1994, 1993); Fowler (1994, 1993, 1992); Hulme (1994); Kaimowitz (1993); Uphoff (1993, 1992); Edwards and Hulme (1992); Clark (1991) and D. C. Korten (1990) for empirical evidence and detailed discussions on the strengths, limitations, diversity, activities and influence of NGOs.

4. Some central governments accept the necessity and even the desirability of third sector organizations, but only if those organizations can be controlled adequately by the state or the official party. They are not willing to tolerate associations that can operate independently of central tutelage, make claims for resources that may strain or embarrass the government, or become instruments of opposition groups. To prevent such unwelcome contingencies, some governments effectively proscribe certain third sector organizations or suffocate them with surveillance and attention so paternalistic as to undermine all local initiative. (See D. C. Korten and Alfonso, 1983.)

5. The Scandinavian bilateral agencies, in particular, have attempted to provide more flexible, long-term funding arrangements while continuing to promote accountability and transparency in decision-making (David Satterthwaite, personal communication, 1995).

6. Among large foundations, The Ford Foundation has been one of the most proactive and engaged in the internal management discussions of large, public institutions, from the Philippines (see F. F. Korten and Siy, Jr., 1988) to India (Gordon Conway, personal communication, 1994) to East Africa (Alan Fowler, personal communication, 1994).

7. Using data drawn from the Worldwatch Institute, USA, on various social and economic indicators of well-being by country, Kates and Haarman (1992) estimate that there are approximately 1,225 million people living in absolute poverty, half of whom live in Asia and a quarter of whom reside in Africa.

8. The concept of institutions is fundamental in understanding why many government organizations established for the provision of public services and management of resources create obstacles or disincentives to the sustainability of development projects and programs. In the social science literature, the term "institution" often refers to established social relations, such as the institution of marriage or family. In the development literature, it may be used to describe a particular organization in a specific country, such as the Ministry of Agriculture, or to denote the set of "working rules" that individuals use to order to organize repetitive activities that produce outcomes and create particular relationships with one another and others. This paper uses the term "institution" in these second and third senses, as both public organization and as rules-in-use. The term "agency" is used interchangeably with institution.

9. For a useful discussion of the distinction between bureaucratic and strategic organizational forms, see D. C. Korten (1984). For an insightful analysis of the differing theoretical and epistemological bases of these two basic organizational types, see Lincoln (1985).

10. This holds true for large organizations in both the public and private sectors. The parallels between debates about organizational learning in the two sectors are striking. For more than a decade the corporate world has been engrossed in discussions about "corporate cultures" (Peters and Waterman, 1982), "learning organizations" (Senge, et al., 1994; Pedler, Burgoyne and Boydell, 1991; Senge, 1990), "leadership as stewardship" (Block, 1993) and "management revolutions" (Peters, 1994, 1987). Many of the same concepts and principles can be found in the emerging public sector literature with regard to the management of large government agencies (Godfrey, in Senge et al., 1994, pp. 493–499), consensus building and conflict resolution (Kahane, 1994), communities as learning organizations (Weisbord, 1992) and the design of participatory research processes (Webber and Ison, 1995).

11. Over the past 15 years, there has been a convergence of opinion that has called for the rethinking of management systems and policies. This has been a recurrent theme in the development administration literature, particularly with respect to "process-oriented planning" and "the learning process approach" (Pretty and Chambers, 1994; D. C. Korten, 1990, 1984, 1980; F. F. Korten and Sly, Jr., 1988; Hage and Finsterbusch, 1987; Blair, 1985; Honadle and VanSant, 1985; Rondinelli, 1983; Johnston and Clark, 1982; Moris, 1981). Similar sentiments have been expressed in the

soft systems literature, especially with regard to agriculture, development education and extension science (Bawden, 1994, 1989; Röling, 1994; Bawden and Ison, 1990; Ison, 1990; Macadam and Packham, 1989; Checkland, 1985, 1984; Bawden et al., 1984; Kolb, 1984).

12. This strategy was used recently in a series of high-level workshops organized to assist in the process of designing and implementing the new Government of South Africa's participatory rural development, agriculture and land reform policies (Cousins, 1994). A similar approach was employed for exposing senior government officers to PRA in an FAO-supported program aimed at promoting participatory artisanal fishing port development in Guinea (Reusen and Johnson, 1994).

13. The recognition of the need for systematic institutional reorientation frequently is driven by individuals within the agency who perceive problems and opportunities and take action. Hence, change occurs through policy decisions by senior members of management. "Pen-stroke" decisions by senior officials can be effective in changing such policies as training practices and whether a particular research or development approach is to be adopted and promoted. These policies, however, may do little to change the agency's incentive systems, norms or working rules, or develop better management procedures. Learning-based change is more likely to occur through the sustained interaction and experimentation of small teams of internal and external professionals representing different perspectives and priorities, who help programs navigate through a phased series of expansions. F. Korten (1988) refers to these teams of facilitators as "working groups."

14. Although government-third sector collaboration is occurring with increasing frequency, there is still a tendency among government staff to view the non-government "outsiders" with a degree of suspicion ("They are a bunch of leftists, so what do you think their real agenda is?"), envy ("They are just like us, only they get paid more") and even disdain ("It's easy for them, they get plenty of money from the donors, are not accountable to the people and are not responsible for servicing the entire country"). I have heard senior government officers utter these and other similar statements on several occasions when the subject of government-NGO collaboration was raised. The reverse is also true, as many third sector organizations fear that by becoming associated closely with a government-led initiative they will either lose their reputation as independent advocates for the poor or be manipulated and exploited by the state for its own dissolute ends.

A third, separate shortcoming is that most third sector agencies are small and, hence, unable to provide the kind of large-scale, long-term support necessary to train large numbers of government staff. For example, in 1994, the newly-elected Government of Sri Lanka abolished its *Janasaviya* program, which was designed to identify and channel resources to the poorest sectors of the community, when it was discovered that those resources were not reaching their intended "target groups." An alternative program is now being developed that would employ a modified form of Participatory Rural Appraisal. The Sri Lankan authorities have estimated that they will need to train 10,000–15,000 staff in the new approach over the next one to two years in

order to implement the participatory poverty assessments across the country. The combined resources of the entire third sector in Sri Lanka would have difficulty training that number of field staff (Mallika Samaranayake, personal communication, 1994).

15. For examples within irrigation bureaucracies, see Bruns, (1993); Korten and Siy, Jr. (1988); and Uphoff (1986). For examples within forestry bureaucracies, see Someshwar (1993) and Poffenberger (1990).

16. See discussions in Farrington and Bebbington (1994 and 1993); Fowler (1992); Kaimowitz (1993); Uphoff (1993, 1992).

17. Following the 1994 national elections, the new Government of Sri Lanka changed the name of MPPI to the Ministry of Planning, National Integration and Ethnic Affairs, although the mandate of its Rural Development Division, the department responsible for coordinating integrated rural development projects, remained unchanged (Chandrasena Maliyadde, personal communication, 1994). To avoid confusion with references to earlier documents and initiatives, I have chosen to use MPPI in this paper.

18. The Second Badulla IRDP is supposed to facilitate a participatory planning and development process in hundreds of villages in 14 administrative divisions over a seven-year period. Participatory Village Planning is to be initiated in each village with the aid of local facilitators, called "social mobilizers" and interdisciplinary technical support teams. The government services receiving support from the Badulla IRDP technical assistance and funding support for the rural development and resource management activities given the highest priority by the villages. As in the first phase, project assistance is limited to a predefined list of project components, such as productive and production-related activities (e.g., land regularization, soil and water conservation, home garden development, seed multiplication and tree nurseries, livestock, small scale rural industries), adaptive agricultural research and demonstration projects and village investment activities (e.g. rural roads, small-scale irrigation systems, domestic water supplies, sanitation systems and schools). In Phase II, however, the donors and government have built greater flexibility into the disbursement and implementation procedures, and placed greater emphasis on community mobilization and the strengthening of local organizations (Kahandawa, 1994; Thompson and Nott, 1992).

19. Chambers (1994b, p. 1253) defines PRA as: "a family of approaches and methods to enable local...people to share, enhance and analyze their knowledge of life and conditions, to plan and to act." The guiding principles of PRA include: a reversal in learning and power relations (where local people become the analysts and professionals become the facilitators); learning rapidly and progressively; offsetting biases; optimizing trade-offs between quantity, relevance, accuracy and timeliness of information gathered ("optimal ignorance" and "appropriate imprecision"); cross-checking ("triangulation"); seeking diversity of perspective and opinion; self-critical awareness; and personal responsibility ("use your own best judgment at all times").

Over the past 15 years, PRA and its methodological forerunner, RRA (Rapid Rural Appraisal), have been applied in

a wide array of agroecological and socioeconomic contexts, both for research and development purposes. For a detailed analysis of PRA's origins, strengths, weaknesses and its broader institutional and professional implications, see Chambers (1994a, 1994b, 1994c). For reflections on method-ological innovations and applications of PRA, RRA and other participatory approaches, see *RRA Notes* (1988-present).

The Social Mobilizer Approach has been used by the Government of Sri Lanka in its rural development activities for more than a decade (Tilakaratna, 1982; Talagune, 1982). Generally, it involves a single individual from a rural com-munity, usually a young man or woman with secondary edu-cation, who is deployed as a village paraprofessional to organize local self-help groups and support village planning and development activities. The "social mobilizer" ("SM") is not expected to act as a local leader, but to play a catalyzing role in stimulating a critical consciousness among the most vulnerable social groups within a community. The objective is to help those groups to identify constraints, articulate needs, strengthen capacities and initiate social action.

20. Significant efforts have been made to recruit women pro-fessionals to these key positions and create a gender balance on the technical support teams. The Badulla Project has found this difficult, however, as many of the most qualified women candidates live and work in Colombo and the other major cities and thus, have been disinclined to move permanently to the relatively remote district (J. H. Bandula, personal com-munication, 1993).

21. In most cases, the self-help groups are comprised of 5–10 people of the same gender who share the same socioeconomic profile, and who are from the most vulnerable sectors of the community. The BIRDP management believes this homo-geneity in membership helps create a strong sense of group cohesion and common purpose, and limits conflicts over objectives and responsibilities.

22. This reflexive dimension of the Social Mobilzer Approach, with its emphasis on "conscientization" and empower-ment, draws on the thinking of Paulo Freire (especially *Pedagogy of the Oppressed*, 1970) and central themes in Participatory Action Research (Fals-Borda and Rahman, 1991).

23. The 10-day, field-based exercise was facilitated by two international resource persons, Gladys A. Nott, a private con-sultant and the author and two local resource persons, Mr. K. A. J. Kahandawa, the Badulla Deputy Director, and Mrs. Mallika Samaranayake, Joint Director of the Self-Help Support Programme (SSP), a Sri Lankan NGO supported by Swiss Intercooperation. Despite the RDD's familiarity with Mrs. Samaranayake's extensive experience and its tacit approval of Mr. Kahandawa's dual roles, there was a reluc-tance on the part of the senior officers to endorse closer gov-ernment-NGO collaboration. Although reasons for this resistance were never expressed openly, it was clear that some officers felt they possessed skills and experience that were of greater relevance to implementing a participatory approach in a government program than their NGO counterparts. Consequently, the facilators decided to bypass this issue and concentrate on areas of mutual agreement, specifically the development of the new participatory approach for commu-nity mobilization and village planning.

24. Personal communication from Mr. K. A. J. Kahandawa, Deputy Director of the Second Badulla IRDP, 1994.

25. Personal communication from Mr. Chandrasena Maliyadde, Director General of MPPI, 1994.

26. The Government of Sri Lanka and IFAD have been impressed enough by their experiences in Badulla and DZP to agree to launch yet another participatory integrated develop-ment project; this time in North Central Province, with a tech-nical assistance grant from the Swedish International Development Authority.

27. For details on the factors leading to the adoption of the Catchment Approach by the SWCB, see Pretty, Thompson, and Kiara, 1995.

The name of the Ministry of Agriculture has changed several times over the past two decades, as it was merged, separated, and then remerged with Livestock Develop-ment. Currently, its full title is the Ministry of Agriculture, Marketing and Livestock Development (MALDM), although, at the time of its founding, the SWCB was situated within what was then known simply as the Ministry of Agriculture.

28. The term "catchment" is not used by the SWCB in the strict hydrologic sense to mean a topographically defined area drained by a river or stream, or a system of rivers or streams, such that all outflow is discharged through a single outlet. Instead, it refers to an area, often defined by its settlement pat-terns and administrative boundaries, as well as its hydrologic features, in which all farms can be conserved within a single year.

29. Chambers (1994b, p. 1255) has observed that the prin-ciples shared by RRA and PRA are "mainly epistemological, to do with obtaining information and gaining knowledge, while those special to PRA are personal, to do with outsiders' behavior and attitudes. This contrast indicates the emphasis in PRA on how outsiders interact with local people."

30. At that time, the Sustainable Agriculture Programme of IIED also had a framework agreement with SIDA "to support the development of participatory methodologies to improve Swedish development assistance" (Eva Tobisson, University of Stockholm, in a letter to IIED dated March 15, 1989). Thus, SIDA expected to draw on IIED's services for the Kenya RRA work as part of that grant. Training and research support from IIED to the SWCB continues to the present through a similar agreement and has involved contributions from Jennifer McCracken, Jules N. Pretty and the author.

31. The letter, dated March 2, 1989, was written by Rolf Tjernström, a Swedish technical advisor working with the Branch, to the Sustainable Agriculture Programme of IIED. Other important Swedish actors at that early stage included Mikael Segerros, the former Training Officer of the SWCB. Eva Tobisson and Anders Rudqvist from the Development Studies Unit of the University of Stockholm, Lill Lundgren and Göran Bergman from the Regional Soil Conservation Unit, Nairobi, and Karin Wohlin from SIDA headquarters, Stockholm, and Klas Markensten from the Development Cooperation Office of the Swedish Embassy, Nairobi.

32. The reports are sociotechnical profiles which provide details of the functioning, needs and priorities of each catchment. While the primary focus is on soil and water conservation, the interdisciplinary nature of the exercise inevitably means that information on other social and technical aspects of local life are captured, including health, education and economic issues. The catchment reports are written by the field team immediately after the RCA is conducted and later combined with other secondary data and technical reports to give a clear picture of local problems and opportunities.

33. Catchment Conservation Committees typically are composed of 8–15 women and men, with a local Technical Assistant acting as an *ex-officio* member. In some cases, entirely new committees are formed where no similar local institutions exist. On other occasions, they are derived from existing traditional or formal institutions, such as farmers associations, elders groups, cooperative societies and so on. Their role is to provide a link between the local community and external agencies. Thus, they articulate local priorities as well as mobilize local resources.

34. The Branch has no set charging policy for officers from other organizations to participate in its trainings. In most cases, the training team responsible for organizing these events believe the extra expense of involving non-SWCB staff is worth the investment, as it introduces PRA and the Catchment Approach to other organizations and builds networks of resource persons with which the Branch can interact later.

35. Mr. Owiro was speaking at a planning and review workshop in July 1994, which the Branch had organized prior to conducting the third impact study of PRA and the Catchment Approach in Kenya. The first two days of the workshop were spent analyzing the problems and opportunities faced by provincial and district soil conservation officers to strengthen the capacities of their field teams to facilitate catchment planning and implementation (Thompson, 1994b).

36. The three former heads of the Branch involved in this process were: Mr. H. G. Kimaru (1988–90), Mr. M. Mbegerra (1990–92) and Mr. L. S. Munyikombo (1992–94). All three directors were trained in RRA/PRA and each played an active role in institutionalizing participatory approaches in the SWCB. Mr. Kimaru and Mr. Mbegerra have moved to the Permanent Presidential Commission for Soil Conservation and Agroforestry, an influential advisory body on land husbandry issues within the Office of the President, where they remain active proponents of PRA and the Catchment Approach. Mr. Munyikombo has become Provincial Director of Agriculture for Nyanza, where he continues to support participatory catchment planning activities. Mr. F. W. Mbote, formally the Agroforestry Officer in the Branch, became its acting head in December, 1994. Mr Mbote attended the 1991 national training held at the Kenya Forestry Research Institute in Maguga and thus, is well acquainted with PRA and the Catchment Approach.

37. The SWCB has conducted Rapid Catchment Analyses using PRA in all 54 districts in the country. At the end of each RCA, after the Catchment Conservation Committee has been elected and local priorities and conservation objectives have been established, a detailed catchment report is written and distributed to all relevant institutions and individuals. Although the quality of the reports varies considerably, this practice, so often lacking in assessments of this nature, is now seen as a fundamental part of the process, helping to build a strong institutional memory within the Branch and set high standards for all future work.

38. This figure is up from the 1994–95 financial year, when 745 catchments were treated covering an area of 165,000 hectares and involving 85,000 farm families (J. K. Kiara, personal communication, 1995).

39. In early 1990, the former director of the SWCB, Mr. H. G. Kimaru (in Kiara *et al.,* 1990), described the Branch's shift in thinking in this manner: "We seek to develop a dialogue between the change agent and the farmer in order to ensure that new technologies can be focused towards solving the farmers' perceived problems (and not merely what the change agent may want to promote)...All of us should learn to recognise the central role of the farmer in development."

40. In early 1995, SIDA awarded 15 million Swedish krona (US$2,025,000) to cover the SWCB's plan of operation for the 1995–96 financial year. This figure is down by some 10 million krona (US$1,350,000), or 40%, from the level of funding received only three years earlier. Branch officials are uncertain whether SIDA will continue to provide assistance beyond this financial year, as no formal agreement has been signed. They have expressed hope that their achievements will convince SIDA to continue supporting their activities at least until 1999, to give the Branch time to seek alternative funding sources (J. K. Kiara, personal communication, 1995). If SIDA decides not to renew the agreement, however, it will mean the end to over 20 years of fruitful collaboration between the two agencies.

The impacts of Structural Adjustment Programs are beyond the scope of this paper. For views on their effects in Kenya and other parts of Africa, see Gibbon, Havnekik and Hermele (1995); Boer and Rooimans (1994); Adepoju (1993); Helleiner (1992); Klitgaard (1991); and World Bank (1989).

41. The NIA experience is one of the best documented examples of the transformation of a major public administrative institution in the world. The literature is both voluminous and rich in insights. *Transforming a Bureaucracy: The Experience of the Philippine National Irrigation Administration* edited by Frances F. Korten and Robert Y. Siy, Jr. (1988), provides the most comprehensive examination yet produced of the history of the NIA and the evolution of its participatory approach. It includes contributions by the editors and other influential participants in the shift of the NIA, including Benjamin U. Bagadion, Romana P. de los Reyes, Jeanne Frances I. IIIo, Sylvia Ma. G. Jopillo and David C. Korten.

A discussion of NIA's irrigation management turnover strategy can be found in Wijayaratna and Vermillion (1994). See Svendsen (1993, 1992) for an analysis of the effects of policy change on the NIA's performance. Other useful references include Bruns (1993); Bagadion and Korten (1991); Cablayan (1990); Bagadion (1987); Siy (1987); de los Reyes and Jopillo (1988), F. F. Korten (1982); de los Reyes (1980); and Coward (1979).

42. The term "turnover" refers to the formal transfer of responsibility and authority for irrigation management from the government agency (NIA) to irrigators' associations (Wijayaratna and Vermillion, 1994, p. 4).

43. In particular, the indigenous irrigation associations in Northern Philippines known as *zanjera* taught the NIA many lessons, including what motivated farmers to organize and the logic and sophistication behind apparently "simple" systems.

44. The research revealed: (a) the irrigation systems were constructed with little or no assistance from the government and with only basic technologies and materials; (b) farmers had their own rules for allocating and distributing water, maintaining canals and repairing weirs, penalizing violators and settling conflicts; (c) local leadership was knowledgeable, dedicated and respected, and irrigators associations were strong and had clear roles and responsibilities; and (d) in contrast to the government-initiated systems, the indigenous systems continued to be maintained by the farmers (Bagadion, 1988).

45. Not only was the NIA instrumental in establishing the FSDC, its Administrator was the Chairman of the Corporation's Board of Directors. Thus, it was expected that the arrangements with the FSDC would answer the NIA's need for strong irrigator's associations.

46. The degree of NIA's acceptance of the female field staff "is apparent in the rise to key central office positions of three women — Victoria Pineda, Susan Leones and Grace Ignacio — who worked as COs on the original pilot projects" (D. Korten, 1988, p. 122)

47. According to F. Korten (1988) Bagadion and his son, who had been successful in developing self-reliant grassroots organizations in low-income urban communities in Manila, first thought of the idea of community organizers. The basic modes of operation were fleshed out with the help of Carlos Isles, an irrigation organizer, who began to experiment with the ideas in communal systems. After demonstrating positive results, the NIA decided to apply the new approach in two sites in Central Luzon.

48. The NIA originally used the term "community organizers" or "COs" to refer to its field facilitators. The term, however, was later changed to "institutional development officers (IDOs) to denote more accurately the specific nature of their work. For simplicity's sake, the term "community organizer" or "CO" is used throughout this section.

49. Before 1986, several groups functioned within the NIA to support its Institutional Development Program. In 1986, all groups within the communal and national systems were incorporated into the Institutional Development Department (IDD). The basic functions of the IDD are to: (a) formulate policies, programs and operational guidelines for the organization and provision of technical support and training assistance to the IAs: (b) formulate policies and procedures for preparing IAs to assume O&M responsibilities; (c) formulate guidelines for institutional development programs; (d) design and conduct appropriate training programs for NIA staff in institutional development programs; (e) development guidelines for monitoring and evaluation of institutional develop-

ment programs; and (f) coordinate with other agencies to provide services and support to IAs.

50. Training support for the community organizers working in the communal irrigation systems has been a particularly crucial dimension of institutionalizing participatory approaches within NIA. These activities take substantial time and usually cannot be done well if organizers also have many other responsibilities. Over the last decade, experienced COs have moved into the role of trainers and supervisors. It has proved difficult to create many permanent positions for these organizers within NIA, however, and most continue to be contractual employees. As a result, turnover rates are reported to be high (Bruns, 1993).

51. For a detailed case history of how the pilot projects of NIA's communal assistance program operated, see Illo's (1988) account of the Taisan Project in the communities of San Jose and Magadap, Camarines Sur Province, Southern Luzon. By the end of 1979 enough experience had been generated in Taisan and the other Camarines Sur pilot projects for the NIA to expand the pilot research projects to all 12 regions of the country. These projects were used as "learning laboratories" for developing understanding and capability for promoting farmers' participation and were based on the processes developed in the pilot projects in Camarines Sur and Nueva Ecija (Bagadion, 1988).

52. The social scientists from IPC not only developed the sociotechnical profile approach, but also trained NIA personnel to collect such data routinely. In addition, they took on a consulting role by taking part in workshops to analyze the profiles and by helping develop the agency personnel's capacity to determine the profile's action implications (de los Reyes, 1987).

53. For a fuller description of the development, content and impact of the socio-technical profiles, see de los Reyes, (1987).

54. This refers to the actual profile of the communal system prepared under the guidance of the regional irrigation office. It does not include the collection of the initial technical-economic data by the provincial irrigation staff.

55. The ISF is collected in the form of *cavan* (50 kg sacks of paddy), three cavan per hectare in the wet season and two in the dry season.

56. First, as D. Korten (1988, p. 130) observes, NIA obtained "a change in the appropriations process so that the appropriate for communals was made on a lump sum basis rather than an individual project basis". This gave them more flexibility to shift funds among projects and a greater capacity to keep commitments made to user groups. Then, Korten, notes, the NIA began to draw on its corporation fund: "By 1980 this fund had become substantial and the NIA began to use it to finance communal construction work during the initial three months of the year, pending release of the new annual appropriation." Repayments were made once the appropriations were released. "The problem of returning unexpended funds to the national treasury at the end of the year was eventually solved by appropriating the communal irrigation funds to the Ministry of Public Works instead of directly to the NIA."

When the Ministry released funds to NIA, they were legally "expended" and did not have to be returned, Korten concludes.

57. This process is still taking place. As Bagadion (1988, p. 18) notes:

> While touching all of the provincial and regional offices of

the NIA, including all of the NIA's communals work and some of its work on the small and medium sized national, improvements in these programs are still needed, and change has yet to come to the larger national projects and systems. The processes used in small and medium national systems need to be applied more widely and creative thinking is needed regarding the application of such processes to larger systems.

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