

Testing Participatory Agricultural Extension:

An experience from the Hadejia Valley, Nigeria

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Participatory Agricultural Extension (PAE) approach was introduced in order to strengthen farmers' capacity to manage irrigation and increase productivity. This paper presents an overview of the program's methodology, implementation, positive contributions, the lessons learned and the technical and other constraints, which marred the realization of the strategy's full impact.

Introduction

Prior to introduction of Participatory Agricultural Extension (PAE) approach into Hadajia Valley Irrigation project (HVIP) area, a collaborative program was being implemented. The programme which is being sponsored by the French Embassy in Nigeria and implemented by Center de Cooperation International on Recherche Agronomique Pour de Development (CIRAD), the National Agricultural Extension and Research liaison Services (NAERLS) of Ahmadu Bello University, Zaria; and the Hadejia – Jama'are River Basin Development Authority (HJEBDA), Kano, has training of field staff on water, crop production and farmer associations management as its initial focus.

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² Facilitation includes a range of activities which vary with both the extension context and the facilitator's professional and personal attributes. The tasks involved may range from helping to build consensus among actors on key issues such as the nature of the problems experienced, to simple tasks of telling farmers where to obtain pruning knives. Key roles of a facilitator include organizing discussions, moderating multi-party activities like meetings, negotiations, visits, etc.

In 1997, one year after the programme started, the need become apparent to develop a new management strategy that could be applied to the HVIP, in order to assist both government and the benefiting communities to manage the fast deteriorating irrigation infrastructure in a sustainable manner. Subsequently the program redesigned its activities, planned and introduced new strategies that would lead to the adoption of Participatory Irrigation Management (PIM). To compliment the PIM process, the PAE programme was planned and introduced before the on-set of the 2001 wet season.

Methodology

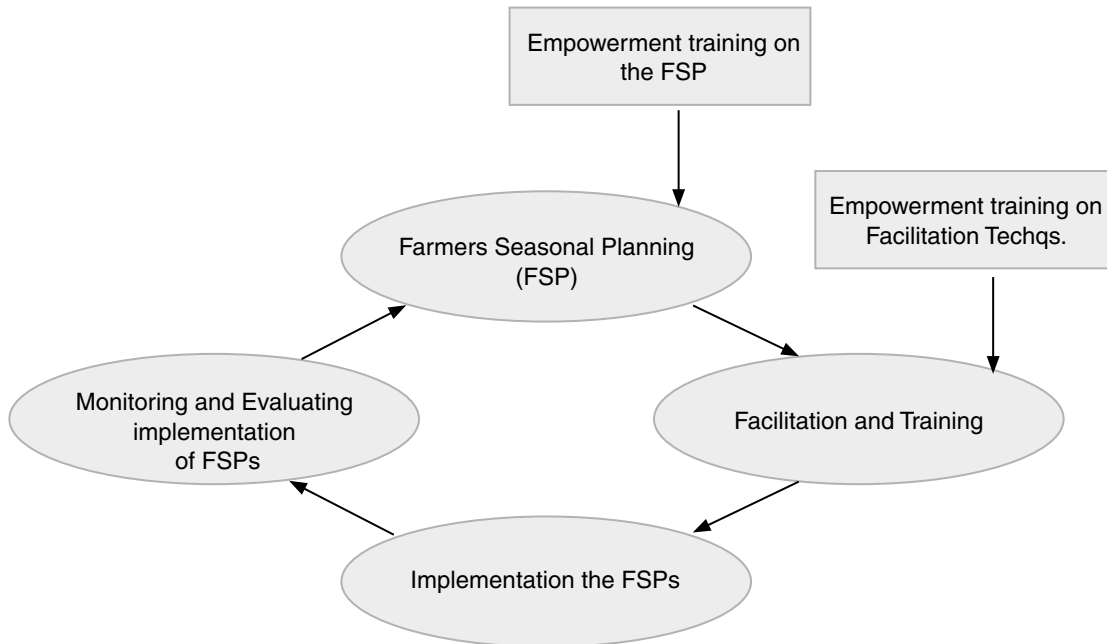
The PAE methodology is based on the philosophy that extension needs more facilitation² of processes than technology transfer. Thus the emphasis was on empowering farmers with methods and principles instead of conveying to them messages and instructions. It seeks to allow farmers to select and test from a basket of options rather than command them to adopt specific technologies. Based on these principles, a cycle of the program consists of four components as shown by Figure 1.

The components are briefly described as follows:

Farmers Seasonal Planning (FSP): During this activity farmers will diagnose and document the strengths, weakness and opportunities within the farming system. Participatory learning tools such as mapping and seasonal diagramming are some of the techniques to be used. The output is a plan of activities the farmers intend to do in the season.

Facilitation: This is an umbrella term for many activities. It sometimes means linking farmers and resources. Several techniques of facilitation are used in extension. Extension facilitators were to receive training on techniques of facilitation.

Figure 1: A cycle of Participatory Agricultural Extension Program in the HVIP



Implementation of farmers seasonal activities: This refers to the implementation of activities planned by the farmers for a given season (FSP). They include procurement of inputs, repairs, construction, credit sourcing, equipment hire, training, etc.

Monitoring and evaluating the FSPs implementation: Monitoring and evaluation is to be jointly performed with farmers, at regular intervals. The major goal is to evaluate the implementation of planned activities and to determine what follow – up actions are needed to complete the implementation.

Programme implementation

Programme implementation started in early June 2001, at about the start of the season. Activities implemented are:

Orientation and Planning meeting with Agency Facilitators: Planning took a day of discussion, introduction to the concept and interaction with agency staff at the HVIP office. The mission’s goal and scope were discussed and serious problems resolved or at least borne in mind. Problems of insufficient time for sensitization and mobilization of the WUAs and inadequate transport facilities for extension activities

in the project area were raised by the Agency Facilitators (AFs).

Information and mobilization of Water User Associations: A day after the Planning meeting, each AF contacted and mobilized his WUA to secure its participation in the empowerment training and subsequent PAE activities.

Empowerment Training for AFs and WUAs representatives: the trainers conducted the main exercises of the FSP together with the AFs and WUA representatives in the farmers’ fields in each of the 7 sectors. In each sector, the AF and the 10-15 WUA representatives participated. Conducting the exercises took half a day (about 4 hrs.) or less in most of the sectors.

Main Achievements

Participants’ response during and after the training can be described as generally positive. The levels of both interaction and enthusiasm were inspiring. Some of the participants’ expectations and perceptions about the PAE training may be summarized as follows:

Impact of the training on Knowledge: Post-training feedback from the participants indicated changes in

participants' expectations and perceptions. Majority indicated that the PAE training increased their awareness and perception. AFs and WUA representatives affirmed having gained new knowledge, particularly, a broader thought and ability to analyze and discuss interrelationships between practical irrigation problems.

Agency Facilitators' opinions are more diverse. While many of them commented on the positive aspects, some equally noted the weaknesses of the PAE particularly its tendency to high hopes among the people. Some observed that the ultimate success of the PAE will depend on the extent of support and quality of facilitation given to enable the WUAs solve the identified problems.

Several of them specifically stressed the need for full logistical and other support, to enable AFs to play their roles effectively throughout the program. This activity ended with a number of expectations. WUAs were expected to prepare their FSPs within 2 weeks from the date of the training. The AFs were to facilitate the FSPs. The NAERLS and the HJRBDA headquarters were to co-supervise the activity and maintain communication and information between the WUAs and local institutions (HVIP, Local Government, Input suppliers, NGOs, etc.). The next activity, training on facilitation techniques, was to follow after the WUAs prepared their FSPs.

WUAs-identified needs and solutions: Lack of farming capital and absence of land grading, a problem which has led to widespread flooding and low cropping intensity, were the more serious problems identified while the less serious ones include: Poor drainage and water logging, canals siltation & invasion by weeds, cattle encroachment, lack of fertilizers, insufficient WUA management skills and irregular water release by Agency.

Complimentary effects of the FSD on the PAE process: the Funds for Social Development (FSD), a French government support to the HVIP farmers' empowerment effort, is a key complimentary factor to the level of cooperation and interest shown by farmers. In line with the overall goal of strengthening the WUAs the PAE trainers maintained the link between

the two. In the course of the program, a review of the WUAs operation of the FSD scheme, their audited accounts, release of the third installment of the funds and preparation of WUAs action plans for the 2001 dry season were among the topics treated in meetings during facilitation visits. Evidence show that increased level of performance in both management of the funds loan scheme, access to inputs, services and productivity were achieved by the WUAs.

Appointment of a coordinator of the PAE activities at the HVIP level: One senior extension staff was assigned the responsibility of coordinating the program at the HVIP level. He is to ensure a smooth program implementation by AFs, maintain communication with all stakeholders and document progress among other things.

Obstacles and challenges

Administrative problems in program implementation: Facilitating the FSPs preparation by the WUAs as agreed earlier, proved difficult. This was because the AFs did not follow up to the WUAs due to lack of logistic facilities (the AFs foresaw this problem and indicated the need to be provided with motorcycles during the planning meeting) and other support. None of the WUAs made effort to prepare the FSP on its own either.

Technical Problems: As earlier mentioned, none of the WUAs made effort to do the FSP independent of the facilitators. Although the WUA representatives can lead other farmers to do most of the exercises, they may have problems to work with a large number of participants. However, the WUAs were not expected to provide the materials (large sheets of paper, colored markers, etc.) needed for the FSP exercises. This is a rational decision because we need to allow awareness and confidence of farmers in the PAE approach to build-up before we devolve financial responsibilities to them. Nonetheless, the farmers are unlikely to bear the financial implications at the time.

The PAE experience under small user-managed irrigation schemes couldn't be replicated without alterations, in the HVIP where the area and number of farmers are larger and share a common water source and sev-

| Participants responses | |
|---|---|
| Farmer Facilitators | Agency Facilitators |
| <ol style="list-style-type: none"> 1. The techniques, especially seasonal calendar, are interesting and useful. 2. The techniques are practical and relevant to irrigation 3. We acquired more knowledge and better understanding of the relationships between climate, labour demand, water availability and choice of crop rotations. 4. We will give more cooperation to PAE team in future. | <ol style="list-style-type: none"> 1. The training will improve farmers' knowledge capacity. 2. The exercises enabled farmers to identify their needs by themselves. 3. The level of interest shown by WUA representatives is encouraging. Some of the techniques may be difficult for farmers to do on their own, like Mapping. 4. Some of the tools can be use to discuss non-agricultural problems. 5. Farmers hope has been raised. The facilitation phase must not fail, lest the farmers loose hope on the Program. In which case the entire program fails. 6. Not all the WUA representatives participated. Hence, the training should be repented to involve all of them and the duration longer. |

eral other decisions. Specially this problem made it impossible to include all the WUA representatives in the empowerment training and the training on action planning and facilitation.

Natural Problems: Occurrence of floods in the HVIP in 2001 was a major hindrance to the implementation of the PAE program. The floods happened not long after the take off of the season's activities. The damage caused to farmlands and crops is alarming. Many of the affected farmers are beneficiaries of the FSD scheme.

The situation in its aftermath left many of the victims desperate with little or nothing to hang on. The shock was high as to attract many public appeals for official intervention. The cumulative effects of these obstacles and difficulties led to the suspension of the PAE program.

Lessons learned

The process of introducing PAE into the HVIP although brief is a rich experience. The major lessons learned can be summarized as follows:

- **Timely consultation and mobilization of target group motivates participation.** The groundwork of sensitizing and mobilizing the local community is essential in order to secure active participation.

- **Time, material and other resources deserve special consideration during planning.** The chosen scale of implementation should be matched with available resources. The HVIP is large, the commensurate costs and other commitments should be expected to be large.
- **Community empowerment is one of the keys to participation.** Giving farmers the lead in identifying their needs and setting their own priorities is a key objective in PAE. The HVIP experience show that when empowered, farmers' horizon of thought became broadened and their analytical capacities enriched. The success of empowerment largely depends on quality of its facilitation. However, facilitation skill need training, experience and a change in professional attitude of extension workers.
- **Organizations implementing PAE need to adopt simple, flexible administrative procedures.** Existence of lengthy administrative channels delaying the satisfaction of the needs identified by the community creates discontent, which in turn can discourage participation and lead to low dedication of extension facilitators and other staff. Constant communication and information with communities about the project's progress is essential.
- **Economic and financial standing of the community influence participation.** This fact was

visible in the HVIP case. To a large degree, the parallel implementation of the PAE with the FSD scheme reinforced WUAs confidence on the program and motivated participation. Through the FSD scheme, many of the WUAs in HVIP demonstrated the ability to operate a bank account and manage a revolving credit facility fairly successfully. These were experiences that helped the WUAs to appreciate the relevance of PAE topics like Seasonal Action Planning.

The life of the PAE program in HVIP though short, created opportunities for benefits and important lessons to be learned. Among these, the level of interest and enthusiasm demonstrated by WUA representatives and Agency Facilitators alike is encouraging. This is an important asset, which shouldn't be hazard by introducing new programmes which later will not be realized.

This paper concludes that success of a PAE program will depend largely on the quality of the initial planning, timing and allocation of commensurate resources. But above all, affected communities must be thoroughly informed, sensitized and mobilized to secure their maximum cooperation and participation. It further signifies the need for positive reforms in our present extension approach and the extent to such a positive change could make a big difference in our search for an effective and sustainable agricultural extension strategy.

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