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Who should choose? Community participation in prioritising road network rehabilitation

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• Introduction

In May 1994 PRA methods were used with the people of Katuba, Ndola Rural East in Zambia with the aim of enabling communities to identify and prioritise their own District feeder road networks, a function traditionally carried out by outside 'experts'. The methodology has subsequently become standard, and has been applied and used on all further feeder road improvement programmes undertaken by the Smallholder Development Project. This paper outlines the approach taken, and explains how the approach of community participation in the decision making process has been expanded enabling local communities to take on the role of organisation, co-ordination, and management at every stage of the project cycle, with minimum external assistance. This is thus a case study where a local experience with PRA was subsequently scaled up to the level of a whole programme. It also demonstrates how initiating a programme with community planning increases the likelihood that the programme will be sustained.

• The feeder road improvement programme

The Smallholder Development Project was initiated in April 1988 to improve the productivity of smallholder farms in Ndola Rural East. A major aim has been to establish a labour intensive rural Feeder Road Improvement Programme (FRIP).

Experience has shown that more often than not improving rural feeder road networks is an important priority for rural communities. A

poor road network often has an adverse effect on the livelihood security of the rural population because it leads to problems of access, especially during the rainy season. This, in turn, causes a decrease in agricultural production because it reduces availability of and access to inputs, markets for produce, health care, and educational facilities. This inevitably leads to isolation and a lack of incentives for local communities to prosper by expanding production, diversifying their farming, developing enterprises, or adopting new methods and techniques.

Feeder road studies are traditionally carried out by technical experts or consultants in conjunction with government staff. Indeed, this was the approach that had previously been taken in the project area. A road inventory would be carried out by the outside experts on a limited number of roads. Roads would be prioritised according to future population growth, development potential etc. This method is time consuming, costly, and unlikely to establish the true value and priority of the feeder roads to the community, the main beneficiaries. Farmers who were consulted afterwards commented that:

... although the road structures had improved movement and access, they had been badly constructed. The community should have been part of the decision-making, and using their own local knowledge, labour and other available resources would have been mobilised to implement construction work, rather than the outside domination.

Another important issue is the future maintenance of these rural feeder road structures. If communities feel that the work

done by outsiders was of a poor standard, there is little hope of community maintenance and rehabilitation in the future. It was thus decided to use a pilot PRA to assess how far communities in the project area could be effective in identifying, locating and prioritising their own feeder road network.

• Methods

Katuba Ward was chosen for the pilot because the project and District Council have done little work in this area. About 50 local people, agricultural staff and the local Councillor took part in the exercise.

The local people were asked to draw a map of Katuba showing all the main roads in their Ward, along with other facilities such as rivers, markets, schools, clinics and so on. The group were able to map and name 34 District feeder

roads. Next the group was asked to list all criteria that they considered to be important when choosing roads to be improved. The results are summarised in Table 1.

Identification of key district feeder roads

To identify the most important feeder roads out of the 34 already named, the group was split into three smaller groups. Each group was asked to list the 10 most important roads and to then list the reasons for their choice according to the criteria they had identified earlier. The results from the three groups were then combined. The number of times each criterion is used is added together for each of the groups. The scores for each of the groups are added together to give a final score in order to rank the criteria in order of importance (Table 2).

Table 1. Criteria used for the prioritisation of feeder roads (in no particular order)

Criteria	
Access to clinic	Access to Chief
Access to school	Access to market
Access to railway station	Access to sand pits
Access to road for farm produce	Access to depots
Access to farm inputs	Impassable road
Access to agricultural camp	Large population of farmers

Table 2. Ranking of criteria used in the prioritisation of roads

Criteria	Number of Times Criteria Used			Total Number of Times Criteria Used	Rank
	Group 1	Group 2	Group 3		
Access to clinic	2	4	6	12	3
Access to school	3	5	8	16	1
Access to railway station	1	3	1	5	5
Access to road for farm produce		3		3	7
Access to farm inputs		1		1	11
Access to agricultural camp	1	4	1	6	4
Access to Chief	1		3	4	6
Access to market	2		1	3	7
Access to sand pits	1		1	2	9
Access to depots	1		1	2	9
Impassable road	1			1	11
Large population of farmers	1	2	10	13	2

The results from the table show that three criteria were particularly important to people: access to clinics; access to schools; and the presence of a large population of farmers.

Each of the three groups were asked to prioritise the 10 chosen roads using pair-wise ranking. Each road chosen was compared against each of the other roads in turn to assess whether it is of greater or lesser priority. The results were tabulated in matrix form. When the matrix was full each road's score was totalled and was then ranked in order of priority from 1 to 10.

The scores from the pair-wise ranking for each of the groups were added together giving a final total score. These scores were ranked and the results are shown in Table 3.

A final group discussion was held to summarise and confirm the results, and to ensure that the community as a whole agreed. The group was happy with the results, and confirmed that the ranking of roads obtained from the exercise was correct according to their chosen criteria. This

then concluded the exercise, which took approximately four hours to complete.

Project strategy

The methodology described above has subsequently been adopted by communities throughout the District, forming the basis for all roadwork projects implemented under the FRIP. This approach allows local communities to make decisions at the very beginning of the project cycle, which is ultimately the most important stage given limited resources, capital funds and time. Following the identification by the community of the priority roads, there are four further stages to the FRIP (see also Figure 1):

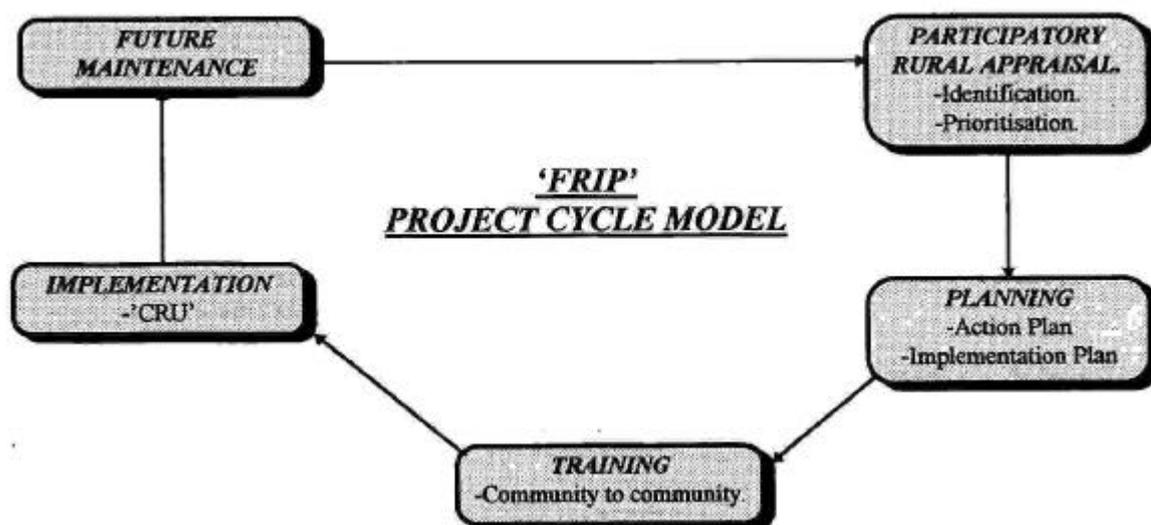
1. Planning
2. Training
3. Implementation
4. Future maintenance

Community facilitators provide a vital link in assisting the local people with all stages of the project cycle.

Table 3. Final community prioritisation of district feeder roads in Katuba Ward

Road Name	Group Scores			Total Score	Final Rank
	Group 1	Group 2	Group 3		
Mupapa 1	9	9	7	25	1
Mukubi	4			4	10
Katuba	8	8	5	21	2
Mwanakonse	7			7	8
Senseta	1	4	3	8	7
Kango	2			2	15
Chabalankata	7	0	8	15	3
Chintilye	4	6	2	12	4
Mikula	3			3	13
Chela	4			4	10
Mupapa 2		1	9	10	6
Saka 1		6	6	12	4
Palace Road			4	4	10
Lamba Lima Extension			0	0	17
Mulobelela		6		6	9
Shinkonde		3		3	13
Chikululu		2		2	15

Figure 1. The FRIP project cycle model



Planning

Following the prioritisation exercises, people then decide how they would like to participate in the rest of the project. Communities draw up detailed action and implementation plans and select members for a Technical Committee to be responsible for co-ordinating reconstruction works and future maintenance works. There is always a balance between men and women.

Having identified and prioritised roads, the community is set a target number of days in which they can use the Core Roadworks Unit¹ (CRU) to complete their proposed project. This period is usually 14 days, but can be increased up to 21 days, although from experience this is the maximum period of time that communities are able to continuously commit to the project. The community sets a date to start work. With the help provided by the CRU, the local community is able to plan and commit periods of their time to the intensive work programme, which would otherwise interfere with farming, business, or family activities.

Organised through the locally-selected Technical Committee, communities provide all the labour requirements for the implementation

¹ The CRU is run by the Project, and provides tools, transport, materials and technical advice for rural road rehabilitation.

of the road reconstruction and rehabilitation works.

Training

In addition to being involved in both the planning and implementation stages of the programme, the community also gains experience in road rehabilitation and maintenance. The community sends members of the Technical Committee to visit roadworks in other areas. In this way they are taught the basic skills of labour intensive rural road rehabilitation. The members then return to their respective community prepared to implement their programme having acquired the relevant skills, which are then passed onto other community members during implementation of their roadwork programme. This cycle of training continues for all future areas.

Implementation

Local communities work on their feeder road network for the pre-determined period of days. The Project assists through the provision of the CRU. Having agreed on the identification and prioritisation of feeder roads as a community, there should be no confrontation between individuals during implementation since everyone is aware of the reasons and benefits of their working programme, with no questions of favouritism.

Maintenance

Most road maintenance only requires the most basic of skills. A lack of maintenance by communities in the past can partly be attributed to their perception that expert technical knowledge was required.

The project enables local people to acquire all the skills necessary to maintain their own feeder roads. The fact that communities have been involved in choosing the roads themselves, and that maintenance is being carried out on their most important roads greatly improves the chances of those roads standing the test of time.

Community monitoring and evaluation

All the outputs from the PRA exercises are kept by the Technical Committee for use by the community for the following reasons:

- As a record of the decisions made by the community;
- As a management tool for planning and programming the implementation of the project;
- To enable performance indicators to be set;
- To monitor the progress of roadworks;
- To evaluate the project when completed and to plan future projects; and,
- To act as a record base for future feeder road improvements.

• Conclusions

It is clear that simple PRA methods enable communities to prioritise their feeder road networks effectively and efficiently. The methods enable people to explain the criteria that are important to them but which would otherwise have been omitted by external technical experts. For example, the external technical experts would use access to farm inputs and depots as an important factor when making an economic evaluation of feeder roads. Table 2 showed how low a rank these criteria were given by people when compared with access to facilities such as schools and clinics.

Through community participation the time spent in relation to the information gained is exponential. In just under four hours a

community is able to locate, identify and prioritise the entire feeder road network in their Ward. Technical experts would find this very hard to match using their techniques. If community members were to be trained in the PRA methods described above they could conduct similar exercises in their own areas. This would enhance the technical experts' understanding of the priorities on which they can then carry out their road inventories and economic evaluations. The end result is a feasibility study that is more thorough, cost effective and has a greater chance of future success as opposed to other alternative external forms of mechanical implementation which continue to leave communities 'watching and wondering'!

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