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# **PROMOTING PEOPLE'S PARTICIPATION IN PROJECTS: A CASE STUDY OF A PILOT WATERSHED AREA DEVELOPMENT PROJECT IN BURMA**

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**In implementing rural development projects there are often difficulties in harmonising the project objectives with the existing local conditions. Some lessons have been learned from an integrated watershed management project for Kinda Dam in Eastern Burma. The main difficulty was to gain the support and participation of local people. The project managers failed to give local people control over aspects of the project that directly concerned them, depriving them of their sense of ownership of their environment. Yet empowerment of the local people is a vital factor in participation. It can induce constructive contributions from the people and may stimulate the formation of organisations that facilitate project implementation. While empowerment of the locals is the vital ingredient of project success, other factors promoting people's participation, such as proper information flows, good management techniques and appropriate incentives, are also important.**

## **1. INTRODUCTION - THE IMPORTANCE OF PEOPLE'S PARTICIPATION IN PROJECTS**

Rural development projects are implemented by governments, using national or international sources of finance, with the aim of bringing about desired changes in the targeted rural areas. Rural people have their own complex and interdependent social, technological and economic systems. In seeking to intervene in these systems via a development project, governments and donor organisations often face considerable difficulties in achieving congruence between the project objectives and what rural people really need or want. Often, the main difficulty, as well as the main criterion affecting the success of the project, is to obtain the participation and support of the local people. Project planners and managers may realise the importance of the participation of local people, but may not know how to go about getting it.

A good concept of people's participation is provided by Cohen and Uphoff (1979):

Participation includes people's involvement in decision making processes, in implementing programmes, their sharing in the benefits of development programmes and their involvement in efforts to evaluate such programmes.

As Oakley (1991) notes, governments and development agencies tend to see participation as a means to project implementation, rather than as an end in itself. Participation as a means is essentially a short-term perspective, whereby the local people are mobilised to facilitate the project, but their involvement tends to evaporate once the project

terminates. Participation as an end is an entirely different concept. It implies a dynamic process, whereby local people come to play an integral role during both planning and implementing stages. Through this role they should gain a sense of really being involved. Their participation should also motivate them to remain involved, even after the formal project is complete.

## 2. BACKGROUND TO THE CASE-STUDY PROJECT

The Kinda Watershed Area Development Project (KWADP) was a pilot watershed management project for the multi-purpose Kinda Dam. The dam, which is situated in a hilly area of eastern Burma, was completed in 1986. The KWADP was the first project of its kind in Burma. The project began in 1986 and ran until recently.

The watershed area of the Kinda Dam contains five townships (administrative districts) covering an area of 216 700 ha. The area is characterised by declining soil fertility due to increased pressure of population on limited land. Problems of low farm incomes and rising pressures on land, forest and water resources emerged as a result of government anti-narcotic measures.

The Pilot Demonstration Area of the project includes one township and covers an area of approximately 120 000 ha. The project was undertaken by the KWADP Section of the Department of Forests, under the Ministry of Agriculture and Forests. It was funded by UNDP/FAO and the Burmese Government.

The objectives of the KWADP were to develop the Pilot Demonstration Area and to slow down the deterioration of the watershed area in order to prevent excessive silting in the Kinda Dam reservoir.

Both engineering and vegetative measures were considered to implement the project. Engineering measures such as check dams, water diversion, bench terraces, trenches and furrows were used to only a limited extent. It was judged by the authorities that vegetative measure would be more cost-effective. These latter measures included reforestation, agro-forestry, protection of forests from fire and destructive activities, establishment of shrubs and grasses and improved cropping practices.

At the time the project was being formulated, it was realised that 'the nature of this integrated project is such that the cooperation and active participation of the people in the watershed [are] essential for a sustained success' (Thein, Nu and Maung 1990). It was recognised that this meant that information had to be collected from the people 'for only then could one find areas of common interests and forge appropriate measures for gaining their active participation in the achievement of the overall objectives of the project'. However, when the project was actually carried out, a divergence became apparent between the project personnel, who were driving for the attainment of national welfare objectives, and the local people, who were naturally much more concerned with their own welfare. The consequent conflict of goals created some misunderstandings and frictions, resulting in a lack of support from the locals, which threatened to compromise the whole project.

It is perhaps not surprising that such conflicts arose. As Korten (1983) has noted, most development agencies came into being in times when participation was not a major theme in development thinking. This was true in Burma, where the Ministry of Agriculture

and Forests has traditionally been oriented to a centralised, service-delivery approach. Consequently, the structures, systems and norms of the Ministry pose important barriers to meaningful people's participation (Ickis 1983). Moreover, the very nature of the project made it likely that conflicts would emerge. Resource conservation projects are generally characterised by important externalities - the beneficiaries of conservation measures extend to people living outside the project area, and to future generations. The events that occurred in KWADP may therefore contain useful lessons about the resolution of conflicts of interest in such circumstances. The question arises of how local people can be mobilised to participate in a project so that widespread and sustainable benefits can be attained.

### 3. THE PARTICIPATION OF LOCAL PEOPLE

Oakley (1987, quoted in his 1991 paper) has suggested that there are three broad forms of people's participation: contribution, organisation and empowering. Contributions are the core of participation in the project. Organisation is a fundamental instrument of participation. Organisations may be externally conceived and introduced, or they may emerge from the process of participation. Empowering is the development of people's skills, ability and confidence to enable them to take more control of their lives. This is the crucial aspect of people's participation; only if local people feel that they have the right and power to be involved in project decisions relating to their environment will their willing participation be assured. Moreover, it is vital that, after the project is over, local people have

- (a) a sufficient sense of ownership of the new assets and organisations created by the project to want to maintain and further develop them: and
- (b) the ability, confidence and experience to do so.

#### 3.1 The Empowerment of Local People

The usual procedure in integrated rural development projects of this kind is that decision makers at national level determine the basic objectives and orientation of the project, then project-level planners and managers are given responsibility for detailed planning and implementation. Seldom are local people even consulted, let alone directly involved, in all these decisions. The result can be a lack of participation by the people, as illustrated by Sen and Das (1987).

Such an implementation pattern occurred in KWADP which deprived people of power. They were not allowed to take action on matters essential to their well-being. From the very beginning of the project, the management approach was strongly technocratic. Choices made were heavily influenced by modern technological developments (Bhandari 1983).

##### 3.1.1 Empowerment of ordinary villagers

Empowerment means that project design and implementation should be based mostly on the choices and decisions of local community. This can 'increase their security in terms of rights and gains, because they are more in control of the situation themselves' (Drijver 1991). In the KWADP, local people had little or no say in aspects of the project concerned with managing their environment. For example, Thein et al. (1990, p. 41) commented on how poorly informed villagers were at the time of commencement of the project: 'villagers

reported that they noticed Westerners (perhaps, the project advisers/consultants) in the area with government officials, but they did not know then what these people were planning to carry out in the area. Villagers claimed that they were never clearly informed about the objectives of the project nor about what activities were to follow.'

As already noted, the KWADP was implemented with a primary objective of reducing deforestation and soil degradation in the project area, for the benefit of the local people and to reduce silting downstream. While there were project components designed to benefit local communities, some project measures were directed primarily at ecological improvement, with seemingly little regard for impacts on the local people. For example, under the project, trees were planted on land confiscated from the locals with little or no compensation. Trees were also planted in government-owned areas and, in both cases, the villagers were denied access to these woodlots for fuelwood collection. While this prohibition may have been for good ecological reasons, a large part of the benefits were in the form of externalities to down-stream groups. The local people, who lost control of their natural environment, were worse off as a result. Their reactions had more adverse environmental effects than the benefits from the reafforestation. Anger at the confiscation to their land led some villagers to destroy trees newly planted by the project. Moreover, the villagers had to continue cutting down trees in the already depleted village woodlots. Some village headmen pointed out that, had selected blocks been made available under the project for village people to establish woodlots for their own use, they would have been willing to plant the trees voluntarily. The net environmental benefits from such arrangements might well have been better than what was actually done.

### 3.1.2 Empowerment of local women

'Poverty and environmental degradation are two sides of the same coin. To eradicate poverty, development projects are set in LDCs. The fulfilment of the project's objectives requires identification of the key actors and understanding of their incentives and constraints' (Boesveld and Postel-Coster 1991). Women are among these key actors as they are directly involved in the use and management of the natural environment. The identification of such key actors, and their empowerment, will make them a force for the success of the project.

As in other LDCs, women in KWADP face a heavy burden of family responsibility (Thein, Nu and Maung 1990 p. 8). The longer working hours of women compared with men can be seen in Table 1. There are women's groups in every village taking part in the social, religious and cultural affairs of the community. However, they have no say in matters concerning the project. One woman complained that the time-consuming and heavy work of fetching fuelwood had caused her intelligent eldest daughter to drop out of school. The girl had to mind the house and younger children during the mother's long working day. The woman suggested it would have been better if the project had helped with replanting the conveniently-located village woodlots, rather than planting trees on farmland confiscated from villagers. Many women said they would have liked fast-growing fuelwood species to have been distributed to them to plant in their backyards. Without this kind of help, they were sometimes forced to cut down trees the project had grown that were neither intended, nor ready, for use as fuelwood.

Had the project been able to give more power to local people, especially to women, there would have been the possibility of their collectively finding solutions to the problem of

increasing fuelwood shortage. Communal action and control are vital for the good management of such common-property resources. Moreover, solving this problem would have eased the heavy work burden on women and girls, giving them increased capacity to improve their condition, for example by giving more time for education.

### **3.1.3 Empowerment of local leaders**

The cultural and social set up of Burmese village communities makes local leaders important 'legitimisers' - influential and respected members of the local communities. Such people as school teachers, educated younger people, respected adults and religious leaders are very influential and so should be included in decision-making about the project. They can act as a two-way channel between the people and the project personnel, so reducing the risk of alienating people from the project.

The tensions in KWADP between project objectives and the local people's needs could have been lessened if some suggestions and innovations by the local leaders had been encouraged. One experienced leader pointed out that the pace of deforestation could be slowed if people were able to rely on kerosene stoves for cooking, rather than using fuelwood. The problem was that kerosene supplies to the area were very unreliable. Apparently, the seemingly simple solution of improving the arrangement for delivery of kerosene was not recognised by the project planners. Similarly, some innovative leaders in the villages were independently investigating the use of alternative, less environmentally damaging fuel sources. In one village, the village school teacher, with the encouragement of the far-sighted village monk, has been using biogas directly as a fuel and to generate electricity. If such innovations were encouraged under the project, there would be less pressure on forest resources. Yet local initiatives of this kind can be fostered within the project only if local people and their leaders are given an active role as project managers and are not treated solely as recipients.

## **3.2 Local People's Contributions to the Project**

Contributions of local people to projects have been criticised by Drijver (1991) as giving people no decision power so that they are not participants in the project in a real sense. Only if people can take some responsibility for the design and implementation of the project does Drijver regard their involvement as true participation. The extent of the contributions of local people to KWADP through the supply of labour and information is reviewed below.

### **3.2.1 Labour contributions**

Many policy makers, and some project planners and managers, tend to regard local people as a source of labour that can easily be mobilised for a project. As Korten (1984) notes, such an attitude is typical of the production-centred, rather than the people-centred, view of development. Moreover, if the offered employment opportunities in the project do not match the opportunity cost of the time of the potential workers, including the opportunity costs associated with cultural and behavioural patterns, then the labour required for the project will not be forthcoming.

In the KWADP, the local people were needed to work on plantations and as labourers in the construction of check dams and of roads to project camp-sites. The project offered

labourers 15 Kyats per day, paid monthly in arrears, and with no meals provided. (Approximately 8 Kyats = US\$1 at the official rate.). In comparison, village rates vary between 6 and 10 Kyats per day but with meals provided and with wages paid daily. Given that a meal is worth, perhaps 10 Kyats, and that many workers face severe cash flow constraints in their hand-to-mouth existence, it is clear that, even at a wage of only 6 Kyats per day, village employment is more attractive than work for the project. Moreover, the work patterns imposed under the project were inconsistent with those used in villages. As shown in Table 1, people traditionally spread their work over the whole day, with several breaks, whereas, on the project, people were expected to work solidly for a shorter period, from 8 am to 5 pm with only a one-hour lunch break.

The project work of constructing check dams and road building required very large amounts of labour. Moreover, all these tasks had to be undertaken in the dry season to avoid damage from the monsoon rains. However, difficulties were experienced in recruiting the required amounts of labour at this time, not only for the reasons noted above, but also because:

- (a) the tasks of harvesting and land preparation fall in this season, making this the busiest time of the year for farmers;
- (b) few households have surplus labour at this time given that the opportunity cost of family labour in harvesting and land preparation is high; and
- (c) the dry season (especially March and April) is the time for religious festivals, and village people, who are mostly practising Buddhists, prefer to use any spare time in these activities rather than taking up off-farm employment.

Consequently, the project suffered from a lack of sufficient labour and some project activities were delayed. As a result, project benefits, including the expected external benefits, were reduced. The opportunity to employ local people was one means of giving them some reward for project activities that would bring few short-term advantages to the local area (and in some cases imposed costs on the villager). It was unfortunate, therefore, that this aspect of the project was not better managed.

### **3.2.2 Contributions of information**

Local people also contributed to the project as providers of relevant information. Economic and social surveys, agro-forestry experiments, and soil and agronomy research were all used to provide data needed by project planners and managers. Some of these data could have been obtained by direct observation of the current situation and of changes occurring during the project, for example, through household and resource-base surveys. But much information, including evidence of trends existing before the project began, could only come from the knowledge of the indigenous people who, because they were born and bred on the land where they live, have an intimate knowledge of the changes taking place. Information from them about the rates of environmental decay, such as depletion of forest resources, soil erosion, and increasing scarcity of water, was potentially valuable to project planners in setting priorities in deciding, for example, which villages were in most urgent need of remedial measures under the project.

Changes in the environment over the decade to 1990, as perceived by village headmen, are shown in Table 2. From this table, it can be seen that water run-off is viewed as an urgent problem, since the majority of the respondents in 11 out of 13 sample villages recognised that there are increasing water run-off problems. In most villages people also recognised that common grazing land had become scarcer due to population pressure. But in five villages scarcity of grazing land was not viewed as a problem. These villages practised shifting cultivation, and used fallow land for grazing their animals. They apparently did not notice the deleterious effects of grazing the fallows on soil erosion. In five villages people said that they had noticed increasing gully erosion.

All the sample villagers responded that they were having difficulty in gathering fuelwood because of forest depletion. Table 3 shows that, over the previous decade, the distance most households needed to travel to collect fuelwood had increased. For example, in Leywa village, 97 per cent of households had to go more than 3 miles (4.8 km) in 1988 to collect fuelwood, whereas a decade previously only 10 per cent needed to go so far and the majority were able to collect their fuelwood within a radius of 1 to 3 miles (1.6 to 4.8 km). From information in Tables 2 and 3, project personnel should have been able to sort out the urgent environmental problems needing action.

Local people can also serve as key sources of information to project managers trying to find out which activities are most likely to be implemented successfully. For instance, in KWADP, village headmen were asked about their perceptions of the people's willingness to participate in each of a number of project-related activities. The proportions of respondents reporting interest or willingness to participate in some of the project schemes can be seen in Table 4. As most villages face shortages of water for irrigation, all but one headmen (from a lowland village that had swamp lands) responded very positively when asked if the people in their villages would contribute their labour to project activities to improve the village irrigation system. However, the villagers were said to be less willing to participate in schemes they were unfamiliar with, such as agro-forestry cultivation. When asked directly, the villagers explained that they are not sure how to do this type of cultivation correctly. They felt that such cultivation would need intensive care, even if introduced only on part of their land as an experiment. Another project scheme, terrace cultivation, was believed by farmers to be very capital and labour intensive. Especially in upland villages, terrace cultivation was not at all well accepted as the farmers were not willing to uproot their established tea plantations to build the terraces.

Thus, contributions provided by the local people served the aims of project implementation. The people were not given opportunities to contribute to decision-making on how to use the environment to raise their welfare. Without the latter kind of contribution, their participation is minimal.

### 3.3 Organisations of Local People

Organisations of local people are usually needed to serve as vehicles for participation. Such organisations may be pre-existing or may emerge during the life of the project, either autonomously, taking structure themselves, or as externally conceived and introduced entities (Oakley 1991, p. 117). If the organisation is set up in a way that reflects the interests of the people, and is recognised by them as being for their welfare (which usually means it is established by the people themselves), there is a high chance that it will be successful in



promoting their participation. Such an organisation can represent the people in negotiations with project officials, ensuring that the views of the locals are heard and their rights considered.

In KWADP, both official and informal local organisations existed. A number of rural organisations have been established by the government, some pre-dating the project and others established under it. There are also informal organisations, as explained below.

### 3.3.1 Externally conceived organisations

There were pre-existing organisations in the area, such as Farmers' Councils and other organisational units of the ruling Socialist Program Party. Very few villagers are interested in these bodies, which were formed mainly for administrative and political purposes. After nearly three decades of Socialist Program Party rule, the favoured authoritarian system of top-down administration is well entrenched. As Huntington (1988, p. 100) comments:

The socialist model tends to view local participation as a means of mobilizing and channelling the energies of the masses to serve centrally defined developmental needs of the nation.

Such a view is inconsistent with Oakley's notion, mentioned above, of organisations established to reflect the interests of the local people.

The Farmers' Council members have become a powerful elite and this status has been enhanced through their involvement with the project leadership. The distribution of benefits at local level under the project was controlled by the Council members. Perceived inequities in the distribution process created resentment among the ordinary people, discouraging them from participating in the project. The role of the Council members became that of bureaucrats. According to Gran (1983, p. 237):

To promote development by people one must counteract the bureaucratization of knowledge, particularly its dehumanization. Organizations do not see people; they see clients. If we are to use knowledge to help people, starting by denying their humanity is perverse.

Thus, the Council members were ineffective in spreading information about the project to the people they were supposed to represent.

If project leaders have good relationships with the local people, organisations introduced under a project have a good chance of success. The leaders need to explain to the people how they will benefit from participation in the proposed organisation. Only then will people be willing to take part. Moreover, the benefits from participation in a new organisation need to flow quickly and clearly to the people if they are to be encouraged to participate.

In Table 5 some data are presented for KWADP on people's declared willingness to participate in various type of proposed project organisations. People were willing to join organisations such as fuelwood afforestation teams, since they saw thereby the opportunity to overcome the shortage of fuel within a period of three years. On the other hand, they were

reluctant to join fire fighting groups since they see fires as a natural hazard that they can do little to avoid.

### **3.3.2 Organisations emerging autonomously in response to the project**

Autonomous organisations may spring up in response to a project, that may help or hinder the achievement of the project objectives. In the case of KWADP, some forest areas were preserved under the project and logging in these areas was forbidden. Consequently, the local price of sawn timber rose and private timber mills began offering attractive wages to illegal wood cutters, operating in the conserved forest areas. Informal groups of woodcutters came into being to share information about opportunities for employment. These spontaneous organisations clearly hindered the attainment of the project aim of forest conservation. They might not have sprung up had the people been given more control of the forest resources and had not been denied access to less environmentally destructive sources of income from the forest, such as collecting orchids and honey.

On the positive side, groups of men formed spontaneously from the villages that had become involved in KWADP resettlement schemes. Some of the people living in villages which were in the way of the dam site had to be relocated and were given land on which to resettle. Labour needed for construction and land reclamation in these new villages was supplemented by the villagers from the catchment area. To supply this labour, organisations of men came into being to take advantage of the new opportunity to earn off-farm income.

As this example shows, even though the KWADP did not bring benefits of empowerment to the local people, and even took away from them some of their former control over environmental assets, some organisations helpful to the cause of rural development spontaneously came into being. Therefore, if local people can be empowered, the institutions and organisations they will develop can promote better use of common-property resources. They can help lessen the externalities created by inappropriate resource use in the area, for example, by promoting the exchange of relevant technical information.

## **4. Factors Promoting People's Participation**

It has been argued above that participation of local people is often a vital factor in successful project implementation, and that the first requirement for effective participation is empowerment of the people. However, empowerment needs to be supplemented in a number of ways. Three important considerations are, information flows between local people and project planners and managers, provision of suitable incentives, and management style. These are discussed further below.

### **4.1 Proper information flows**

There is a need for good flow of information in both directions between local people and project planners and managers. The terms 'top-down' and 'bottom-up' are commonly used, with a recognition that most rural development projects are top-down in both management style and information flows. Plans are drawn up at national level, arrangements for implementation are made at regional level, then some of these decisions may be conveyed to the affected local people, or they may be left to find out about them as the project develops. On the other hand, it is too idealistic to expect that a large, integrated rural development project could be planned and implemented in a bottom-up fashion. What is

required is a good two-way flow of information. The project personnel should use cost-effective ways of consulting people. One possible approach is 'Development Market Research' as proposed by Epstein, Gruber and Mytton (1991).

As mentioned, the objectives of the KWADP include prevention of land degradation and deforestation, but there were serious deficiencies in the way these objectives were first presented to the local people. They were simply informed that shifting cultivation, overgrazing, cutting fuelwood and traditional land preparation methods were reducing forest cover and increasing soil erosion, with negative effects on 'the welfare of the whole nation'. It was not appreciated that subsistence farmers who were barely able to produce enough to feed their families would have no concern for the welfare of other people who might be disadvantaged by their actions. It was only some years after the start of the project, when project personnel changed their strategy and started emphasising the objective of improving the welfare of the local people, that the villagers developed a more positive attitude to participation.

An example of the failure of information flow from the people to the project personnel relates to local cattle husbandry practices. The people keep a type of small cattle that are not useful as draught animals and are kept primarily for the dung they produce, used as manure. Almost every household has at least two of these smaller-sized cattle, while larger animals for draught use are scarce in the villages (see Table 6). The project personnel noted simply that the foraging of these seemingly useless smaller cattle was depleting soil coverage and that the traditional land preparation method was also bad for the soil. The villagers customarily heap the top soil with cattle dung and dried twigs and leaves, which are set alight to bake the soil. This practice is believed, perhaps with some justification, to release nutrients for the following crop and to control weed and pest incidence. Yet the project personnel failed to ask the local people why they were following the existing cattle raising and land preparation practices. A better two-way flow of information would have meant that the project personnel were more fully informed and might have been able to work cooperatively with the farmers to develop alternative proposals that were less environmentally damaging yet still met the needs of the people, such as the substitution of other fertilisers for cattle dung.

Two-way information flow can occur only if project personnel understand the local people's situation and help them to solve their problems for themselves, i.e., empower them to take control of their own destinies. If the actions of local people hinder the implementation of a project, consultations should take place to see how the differences might be resolved. This may mean modifying the objectives of the project or the way it is implemented, or it may require the issues to be better explained to the people so that they can better understand what is being attempted and why.

Means of facilitating the two-way information flow need to be given careful consideration. It should be easily possible for issues and problems to be raised by either side. Perhaps meetings can be arranged by mutual agreement at convenient times. This may mean public servants working on the project being willing to attend meetings in the evenings, when local people are not busy with their farm work. It will also be necessary for the project managers to take the initiative to establish the consultative procedures and to monitor them to make sure they are working effectively.

As noted above, legitimisers in the local communities are a very valuable medium for channelling information. In one upland tea-producing village in KWADP, the village monk, on the basis of information supplied by the project, came to appreciate the importance of conservation measures. He initiated tree plantings, took steps to discourage the villagers from cutting trees beside the village water hole, and used a variety of other measures, such as posters and announcements, to encourage people to adopt more environmentally sound practices.

### 4.3 Management style

A good management style is the one that lets the local people manage their environment (in harmony with the project's objectives). As noted, KWADP personnel had firstly largely ignored the opinions and needs of the local people. This style of management can hinder the operation of a project and inhibit people's participation. For example, in the initial stages of the KWADP, some farmers' land in some villages was confiscated, without compensation, for project objectives such as tree planting. Not surprisingly, the response to the project in these villages was very negative. The people even destroyed some of the trees planted by the project, and refused to take part in project activities such as the formation of forest fire-fighting groups, tree planting and meetings run by extension agents. These negative responses could have been avoided if project managers had avoided land confiscation and had, instead, worked with the people to find more acceptable ways of achieving the same ends. For example, by agreement, trees might have been planted on village common lands or woodlots, or even grown as hedges on field boundaries.

Good management also means finding the right technologies and then taking the necessary follow-up action to see that those technologies are successfully implemented by the people. This did not always happen in KWADP. For example, only those villagers who lived near demonstration plots were exposed to the improved agro-forestry technologies being promoted through the project. Not enough use was made of the mass media to extend information about these technologies to other villages. Some videos were shown, but the response from farmers was that the tapes were not sufficiently informative. Clearly, they should have been followed up with regular visits by extension agents and, perhaps, greater use of on-farm trials or demonstrations run with farmers' active participation.

Another case of inadequate follow-up by project management relates to the introduction of coffee production. Yields were satisfactory at first, but, according to one dissatisfied farmer, there was too little guidance from the project personnel, and yields fell. The farmers also claimed they lacked regular guidance by extension personnel on how to control run-off, cultivate the newly introduced cash crops and implement terrace cultivation.

The expectation of the management staff should not be too rigid. If the direction of participation by the people is more or less congruent with project objectives, the project personnel should accept the situation. In KWADP, the project personnel distributed avocado seedlings as part of the agro-forestry campaign. The people, however, switched to growing *danyin* - a more profitable local tree crop. In such a situation, the project personnel should not feel discouraged but rather should be willing to modify the project implementation to be more in line with the people's decisions.

Good inter-personal skills in project managers are important, not only in dealing with local people. Management must also be able to liaise effectively with staff of various ministries. In the case of KWADP, the cooperation of officials in the Departments of Forestry, Agriculture, Construction, Finance, Trade, Industry and Extension was needed to avoid delays in project implementation. Unfortunately, as has been experienced in many other integrated rural development projects (World Bank 1988), such cooperation was not always forthcoming, and delays were common.

## 4.2 Incentives

Incentives may not directly promote participation. Rather, they should be regarded as a necessary but not sufficient condition for people's participation. For instance, rural development projects are often built around the introduction of new technologies. In such cases, the required inputs must be supplied in a regular, reliable and timely fashion. Otherwise, farmers are likely to become disillusioned and will not persist with adoption of the technology. Further, there must be a profitable market outlet for the products of the introduced cash crop technologies.

Attempts were made under the KWADP to replace traditional farming methods with introduced techniques, such as planting long-term cash crops, better seeds, chemical fertilisers, and pesticides. In particular, the land preparation methods traditionally used, involving burning the top layer of soil, create serious erosion risks, and the generally-used shifting cultivation methods mean that land is not fully utilised, and the fallow areas (used for grazing) are also vulnerable to erosion. Yet to replace these methods with the recommended agro-forestry techniques, farmers needed access to the required inputs of fertiliser and pesticides, which were rarely available. As a result, many farmers turned back to the traditional methods.

Farm incomes can be raised through cash cropping only if there is adequate access to remunerative markets for the products. Thus, roads need to be built and transport systems developed. For example, there is only one truck ferrying farm products from Taungbogwe village in the KWADP area to the nearby town of Aungban, a half-day journey each way on a very bad road. The volume of produce to be shipped often exceeds the capacity of the vehicle, so that farmers are discouraged from growing perishable products such as cabbages, tomatoes and other profitable cash crops. With better roads, travel time to the market would be reduced, transport costs cut, and damage to produce in transit lessened. If transport arrangements were improved, the farmers would be willing to produce more market surplus, including larger amounts of the introduced cash crops. In KWADP, these cash crops would include introduced tree crops which are in great demand in other parts of the country. More tree crop production would bring additional external benefits via reduced soil erosion.

Similarly, better market access means cheaper prices and greater availability of household goods and production inputs in the village. Upland villages growing tea must purchase rice and store it for year-round consumption. The tea is mostly sold in the dry season when the quality of the tea is best and so prices are high. This time coincides with the rice harvest in the nearby lowland villages and many transactions are conducted on a barter basis. But sometimes, tea producers run out of rice, and must buy more at a time when tea prices are low and rice prices high. The incentives to the tea growers would be improved if there were better access to urban markets where seasonality of rice prices is less.

In a cash-starved rural economy, the timing of incentives is also important. People are too poor to be able to wait for perhaps uncertain returns in the distant future. In setting priorities in the KWADP, most weight was given to long-term measures such as afforestation and soil conservation. Project planners seemingly did not realise that medium-term measures such as the improvement of infrastructure and market access, were equally important in providing incentives to encourage people's participation, for example through increased production and sale of cash crops.

If welfare is to be promoted, good quality education, security, communications and health services are necessary. The very scarce facilities existing in the area are shown in Table 7. Improvements in such services via the project would be very popular among local people. Unfortunately, the project is managed by the Forest Department only. There is a need for other government agencies to be involved if the confidence and participation of the people are to be promoted.

## 5. Conclusion

The KWADP was a pilot project. If a smooth, efficient and successful way of implementation had been proven, then it could be replicated in other watershed areas in the country. In practice, there were problems of implementation, as noted above. Nevertheless, there are some generalised lessons from the KWADP that might usefully be pondered by planners of similar project in Burma and other LDCs, as well as by donors:

- (a) Success of such projects depends on participation by locals who are key beneficiaries. A divergence between the local's objectives (regional) and the objectives of the project planners (national) can be an obstacle.
- (b) The prerequisite for participation is to make local people aware that the project is directed to improve their welfare, rather than being directed towards national objectives. This means that considerable priority in the allocation of project funds must be given to measures such as regional infrastructure improvement that will bring benefits to the local people in the short or medium run.
- (c) The key for achieving participation on a prolonged basis is by letting the local people have a sense of 'owning the project'. If people have a sense of empowerment, they will be willing to contribute to decision making and will be able to form local organisations for effective implementation of the project.
- (d) The delegation of power to the people should be done with care. The prevailing political and cultural conditions in the regions should be taken in to account.
- (e) If there has been realistic transfers of responsibility to the people for aspects of project management, further ways of promoting whole-hearted participation can be used. These include provision of adequate incentives, arranging proper exchange of information, and a good and responsive style of management.

The special problems of promoting people's participation in projects of the KWADP type are well illustrated in this pilot project. When there are important externalities, so that a substantial proportion of the benefits flow to others, the difficulties in involving local people in a project are magnified. However, these difficulties can be lessened, if not totally avoided, by giving more power over relevant parts of the project to the people. It is also important to set up, or encourage the formation of, appropriate institutions and organisations. Measures to make local markets function more effectively, such as improvements to local infrastructure, may also help to reduce inefficiencies due to market failure.

If account is taken of these lessons in planning and implementing other similar project, the pilot project at Kinda will have been a success.

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**Table 1**  
**Comparison of Typical Time Allocation of Men and Women,**  
**Kinda Watershed Area**

Women			Men	
Time	Activity	Working time	Activity	Working time
6.00 - 7.00	Fetch Fuelwood	1		
7.00 - 7.30	Cooking for breakfast & lunch	0.5	Fetch water	1.5
7.30 - 8.30	Have breakfast		Have breakfast	
8.30 - 11.00	Work in fields	2.5	Work in fields	2.5
11.00 - 11.30	Rest		Rest	
11.30 - 12.30	Work in fields	1	Work in fields	1
12.30 - 13.30	Lunch		Lunch	
13.30 - 15.30	Work	2	Work	2
15.30 - 16.00	Rest		Rest	
16.00 - 18.30	Work	2.5	Work	2.5
18.30 - 19.00	Cook dinner	0.5	Relaxation	
19.00 - 20.00	Have dinner		Dinner	
20.00 - 22.30	Husking peanuts or roasting tea	2.5	Onwards - visiting friends and resting	
<b>Total</b>		<b>12.5</b>		<b>9.5</b>

Source: Field data collected by the principal author.

Table 2

**Village Headmen's Awareness of the Changing Environment  
over the Previous Ten Years**

Village	Increasing water runoff	Increasing land erosion	Scarcity of grazing land	Scarcity of wooded area
Myiang	y	y	n	y
Leywa	y	n	n	y
Thitse Gon	n	n	n	y
Nyaung Gon	y	n	n	y
Taw Gye	y	n	y	y
Lebya	y	y	y	y
Nyaung Bin Gya	n	y	y	y
Myin Kya Doe	y	n	y	y
Kon Hla	y	n	y	y
Myin Wun	y	n	y	y
Taing Bo Gwe	y	y	n	y
Min Taing Bin	y	n	y	y
Taung Myint Gyi	y	y	y	y
Number aware	11	5	8	13

Source: Nu (1989)

y = aware n = not aware

Table 3

Change in the Proportions of Households Travelling Given Distances to Collect Fuelwood in Sample Villages

Village	Within 1 mile		1 - 3 miles		3 miles +	
	1978	1988	1978	1988	1978	1988
Myiang	15	7	80	18	5	75
Leywa	19	0	71	3	10	97
Thitse Gon	85	20	15	60	0	20
Nyaing Gon	30	9	70	20	0	71
Taw Gye	11	6	89	82	0	12
Lebya	33	16	67	67	0	16
Nyaingbin Gwa	50	34	43	55	7	11
Kon Hla	70	0	10	80	20	20
Myin Wun	100	23	0	67	0	10
Taung Bo Gwe	38	28	55	30	7	42
Min Taing Bin	31	20	69	40	0	40
Taung Myint Gyi	80	10	20	80	0	10

Source: Thein et al. (1990).

**Table 4**  
**Responses of Village Headmen about Villagers' Willingness to**  
**Participate in Various Project Schemes<sup>a</sup>**

Village	Scheme of Project		
	Irrigation	Agro-forestry	Terrace cultivation
Myiang	y	y	n
Leywa	y	y	n
Thitse Gon	y	y	y
Nyaung Gon	y	y	y
Taw Gye	n	n	y
Lebya	y	y	y
Nyaung Bin Gwa	y	y	y
Myin Kya Doe	y	n	n
Kon Hla	y	n	y
Myin Wun	y	y	y
Taung Bo Gwe	y	y	n
Min Taing Bin	y	n	y
Taung Myint Gyi	y	y	n
<b>No. of villages not willing to participate</b>	<b>1</b>	<b>4</b>	<b>5</b>

Source: Nu (1989).

<sup>a</sup> y = willing to participate  
n = unwilling to participate.

Table 5

**Responses of Village Headmen about Villagers' Willingness  
to Participate in Proposed Organisations<sup>a</sup>**

Village	Type of organisation proposed		
	Land care	Afforestation	Fire fighting
Myiang	y	y	y
Leywa	n	n	n
Thitse Gon	y	y	n
Nyaing Gon	y	y	n
Taw Gye	y	y	n
Lebya	y	y	y
Nyaung Bin Gwa	y	y	y
Myin Kya Doe	y	y	n
Kon Hla	y	y	y
Myin Wun	y	y	y
Taung Bo Gwe	y	y	y
Min Taing Bin	y	y	n
Taung Myint Gyi	y	y	y
<b>No. of villages not willing to participate</b>	<b>1</b>	<b>1</b>	<b>6</b>

Source: Nu (1989).

<sup>a</sup> y = willing to participate  
n = unwilling to participate.

**Table 6**  
**Numbers of Draught Animals and Other Cattle in Twelve Villages**

	<b>Draught Animals</b>	<b>Other cattle<sup>a</sup></b>
<b>Bulls</b>	312	199
<b>Cows</b>	47	402
<b>Total</b>	359	601

**Source:** Field data collected by survey staff of the Institute of Economics, Rangoon.

**a** Animals kept primarily for manure produced.

Table 7

List of Facilities Available in the Sample Villages<sup>a</sup>

Village	Education				Health Clinics	Post Office	Police Station
	Primary	Secondary	High School	Library			
Myiang	y	y	y	n	y	y	n
Leywa	y	n	n	n	n	n	n
Thit Se Gon	y	n	n	n	n	n	n
Nyaung Gon	y	n	n	n	n	n	n
Taw Gye	y	n	n	n	n	n	n
Lebya	y	n	n	n	n	n	n
Nyaung Bin Gwa	y	n	n	n	n	y	y
Myin Kya Doe	y	y	n	n	n	n	n
Kon Hla	y	n	n	n	n	n	n
Myin Wun	y	n	n	n	n	n	n
Taung Bo Gwe	y	n	n	n	n	n	n
Min Taung Bin	y	y	n	n	n	n	n
Taung Myint Gyi	y	n	n	n	n	n	n
<b>No. of villages with facilities available</b>	<b>13</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>

Source Nu (1989).

<sup>a</sup> y = available, n = not available.