

ANNEX 1: METHODOLOGY

Introduction

The methodology of the case studies of the OMRD programme was initially proposed by ICIMOD and discussed at a meeting of Project representatives and Principal Investigators for each case study in February 1987. The basic intention was that an agreed methodology be applied in each case study, however it was assumed that there would be flexibility to allow for differences in approach within each case study, where appropriate. In fact, early field experiences lead to some modifications which were incorporated into the agreed methodology in a second workshop held in July 1987.

The approach adopted in the Sindhu Palchok and Kabhre Palanchok case study followed the agreed pattern, although some variations were introduced and check-lists of questions were specifically prepared for the case study. The major elements of the methodology used were as follows.

- o Open-ended interview/discussions, with project personnel and selected government officials.
- o Analysis of project reports and records.
- o Participant observation of project activities. (As the Principal Investigator is an NAFFP officer, this "participant observation" was integrated with normal duties.)
- o Field investigations of selected villages within the project area. These investigations involved a team of field investigators. (The Principal Investigator accompanied the field assistants on at least one visit to each selected village.) The field investigations used the following techniques:
 - a. Rapid rural appraisal (RRA) techniques such as:
 - Venn diagram, maps, transects
 - History time lines
 - Flow charts of inputs-outputs
 - b. Semi-structured interviews
 - c. Participant observation
 - d. Interest group discussions

Analysis of supplementary villages through existing documents and interviews with departmental and project staff.

The original proposal was to study villages in two or three rounds of visits. The first round was to include 8-12 villages, each to be visited for a few days to collect initial information and develop an overview of the situation in that village. It was expected that some villages might be eliminated from the study at this stage, either because they were not as interesting as expected or because for some reason (such as the reluctance of villagers to become involved) study proved to

be impractical. The original selection was to be pared to perhaps 5-7 villages at the end of this stage. In stage two more intensive study would take place.

It was further proposed that at the end of the second stage, one or two of the more interesting villages might be selected for more intensive follow-up.

The overall amount of time in each of the villages studied in stage two was planned to be approximately 7 days. The breakdown of time allocation between stages one and two was intended to be flexible, as was the overall time for each study. The importance of building rapport in the first visit meant that it would be inappropriate to be too rigid in determining the length of the visit.

In fact, the idea of subsequent rounds placing greater concentration on a decreasing number of villages was abandoned. The study involved two rounds of field visits to seven of the eight villages selected; one village was visited three times.

In addition to the villages included in field visits it **was proposed** that further villages be used as supplementary studies. In these cases there had already been extensive Project input and it was felt that visits by the field assistants might be intrusive and/or counter productive. However a great deal of relevant information was already available in these cases, both from study of file records and interviews with government and project staff.

Implication of Specific Arrangements Between NAFP and ICIMOD

In the other case studies in the Organisation and Management of Rural Development Program, the projects involved are multi-sectoral. The fact that NAFP is specifically a forestry project, and the fact that the **Principal Investigator** is a project employee led to several variations in emphasis in terms of both focus and methodology.

1. The emphasis in this case study has been on forest management and development of forest resources. Other resources and other components of development have been examined, but they have been given relatively little attention.
2. While the field work itself placed considerable emphasis on **evaluation** of NAFP and its operations (indeed, the opportunity for evaluation was one reason why NAFP welcomed the opportunity to work with ICIMOD), the fact that the Principal Investigator is an NAFP officer obviously introduces a potential bias. Because a conscious decision has been made to prevent the case study from becoming an apology for NAFP, this report concentrates more on the village level than the project level. At the same time a major aim of the study is to make recommendations for future project policy.

Evaluation of the Methodology

Reservations about Time Available for Each Village.

At the commencement of the case study some reservations were expressed as to the potential effectiveness of visits of approximately seven days to each village. The Programme Co-ordinator suggested that splitting time in each village into two stays would dramatically increase the effectiveness of field work.

This proved to be correct. The field team found that, at the end of 5-6 days (spread over two visits), much of the information required had been obtained. A break between visits meant that the field team was able to concentrate on initial survey and rapport-building in the first visit. During the break between visits villagers apparently had a chance to discuss the study and to become familiar with its purpose. On returning to the villages team members were not seen so much as newcomers. Further, in the interim, the field team had been able to analyse preliminary findings and to decide what issues and questions were most important for follow-up. Possibly, villagers had also had time to consider issues and this may have affected the quality of information for the second visit.

While the information was necessarily fairly superficial, further advances could probably not be made without substantial increases in field-time, say in the order of stays of 3-4 weeks or longer. Given the nature of the study, and its emphasis on obtaining a compromise between very superficial survey data and intensive anthropological-style case studies, the RRA methods adopted appear to have been quite appropriate.

In order to obtain a fuller understanding of the dynamics of local resource management systems more intensive work is needed. Understanding the dynamics requires knowledge of what happens when things go wrong and an understanding of the implications of conflict usually requires much more time than was available for individual villages in this case study. It is precisely in providing information about disputes that informants are likely to be reticent, particularly when disputes are current.

Nevertheless, some information can be obtained from short field visits. The field team was present in Mahadebtar at the time of a major dispute about an irrigation system and people, at least on one side, were very ready to give their account. Unfortunately the presence of outsiders (particularly as they were linked to a major project) may have exacerbated the conflict and we were in great danger of being associated with one party in the dispute.

The opportunity for short-term visitors to obtain a clear picture of disputes is certainly limited. Given the importance of understanding conflict as a key to understanding organisational dynamics, a number of more in-depth case studies would be justified.

The Settlement as Area of Study.

A basic premise of the OMRD programme methodology was that field studies would operate on a settlement basis, rather than on the basis of political divisions. There were two major reasons for this. Firstly, the relationship between settlements and political units differs in each of the three countries (Nepal, India and Pakistan) in which case studies were to take place. The size and structure of *gaun panchayats* in Nepal, *gram panchayats* in India and administrative units in Pakistan are quite different from each other. In order to enable comparison between field data from the various case studies the settlement seemed more likely to be useful. Secondly, units larger than the settlement were likely to lead to superficial data. Again, the emphasis on seeking a compromise between useful detail and broad coverage, was the ruling principle.

In this particular case study the decision to concentrate below the panchayat level certainly led to increased depth of coverage. Nevertheless, emphasis on the concept of settlement led to some difficulties.

The main problem is that the decision as to what actually constituted a settlement proved not to be at all clear-cut. Settlements in the Middle Hills of Nepal vary from villages of say 20-25 households to small scattered hamlets, which may, or may not, be given a common name as a

single village. It is, therefore, difficult to use the term settlement to define units of even approximately consistent size. The smallest hamlets are too small to be the focus of study and the boundaries of diffuse villages consisting of a number of hamlets are highly arbitrary.

The settlement was assumed in program design to be a useful basis for examining resource use. In fact, however, user groups (particularly for forest resources) often extend beyond the boundaries of single settlements and an arbitrarily defined settlement is not much more useful than an arbitrarily constructed political unit as the basis for analysis. For example, people in one village or settlement may be members of a forest user group along with residents of another village, but may use irrigation in combination with people from a third village. Further, not all people from a particular settlement are in the same user groups as other people from the settlement.

Given the fact that the concept of settlement is unclear, and does not coincide with a meaningful social unit at anything above the level of a cluster of closely related households, delineation of the boundaries of settlements for study was necessarily arbitrary. We defined a settlement to include all contiguous dwellings in an arbitrarily selected geographical area; either a ridge, valley or hillside. Natural boundaries (rivers, forests, major ridges) were used to define boundaries, but settlements, as defined, sometimes included adjoining areas on either side of such boundaries. The main consideration was convenience. As natural boundaries and coherent locally recognised social division did not coincide it was necessary to select an area of reasonable population (say 100 households) which were close enough to suggest a common interest in certain resources.

In fact, it became necessary to think in terms of concentric circles. The greatest emphasis was on settlements (arbitrarily defined as discussed above). Beyond this level, adjoining settlements were examined to the extent that they seemed relevant to resource availability and management within the subject settlement. For example, where other settlements also used a forest resource their role was examined, but greatest emphasis was placed on the primary settlement. The next level was the panchayat level. As the panchayat is, by legislation, a centrally important unit in development, this level was relevant to the study. Again beyond this was a concentric circle containing adjoining panchayats. This was particularly important in forestry as forests are often used by people from more than one panchayat. In fact, there is a systematic reason for this; forests are often located on ridges and around streams and rivers - the very features which tend to be used as panchayat boundaries.

Thus, while working with relatively small population was a useful starting point conceptually, it has to be borne in mind that the unit was arbitrarily defined. It was necessarily not a community in the sense of having common agreed leadership, shared resources which were exclusive to the settlement or even in the sense of having a single locality name.

Given that this particular case study was particularly concerned with forests it was inevitable that members of user groups would rarely be from a single settlement. People, after all, tend to approach a forest from whichever side it is accessible. Further, people often use more than one forest, and the usage pattern of one forest may affect other forests. For example, effective protection of one forest may depend on alternative accessible resources.

For these reasons, it is probably most appropriate to select a patch of forest (or contiguous patches of forest) as the unit of study and to work into the social structure by identifying usage patterns. While this approach would not have been immediately useful for this study, given that it was, to some extent, concerned with a variety of resources and institutions, it would be useful to direct specific studies of forest management at this level.

At the same time, whether studies of local resource management and rural development are based on the resource itself or on a settlement, it is also necessary to have a complementary concern with formal local-level political and developmental units. Thus, in Nepal, studies of forest management must be complemented by consideration of resource development at the panchayat level.

Application of Methodology to Project Activities.

The methodology used in the case study has been demonstrated to be a fairly effective way of obtaining reliable information on forest use and management systems relatively quickly. The techniques can be applied for initial information gathering as the first step in developing and negotiating management arrangements.

Further, the approach is a useful method for project evaluation. NAFP gained much useful information about the effects of project activities through the case study. Village studies, along the lines of those done for the OMRD program will be carried out as a normal part of NAFP evaluation in future.

Conclusions

As far as the methodology used in this case study is concerned there are some mixed conclusions. On the one hand the methodology has proved useful as a sort of rapid appraisal approach for obtaining a working knowledge of forest resources and indigenous forest management systems in a given area. It has provided insights into sociological and project operational factors which have limited effective development. This approach could profitably be used before forest development work commences and, as an evaluation procedure, at later stages of development activity.

Further, it has proved possible to find out a little bit about the dynamics of these systems, particularly in that a focus on oral history has taught us something about the fragility and normally short life-spans of formal organisations. Their adaptability and flexibility have been highlighted. To this extent understanding has moved beyond the largely anecdotal accounts previously available.

On the other hand no detailed analysis of the structure and dynamics of individual systems has been possible. That sort of study remains rare in the literature and would best be carried out through intensive ethnographic fieldwork.

ANNEX 2 : CASES OF LOCAL SYSTEMS OF FOREST MANAGEMENT

Case 1: Nala-ko-Thulo-Ban, Ugrachandi Panchayat, Kabhre Palanchok District

Note: This case was not studied as part of the OMRD study. Information was obtained from field notes by NAFP/Forest Department staff).

Nala-ko-thulo-Ban is a natural forest of approximately 70 ha situated on a hill-top a few kilometres from the town of Banepa, just outside the Kathmandu valley. The forest, at some points, is only a few minutes walk from a motorable road and would seem to be an easy source of firewood for sale in Banepa and Kathmandu.

There are no big trees in the forest and from a distance it may look like a degrading forest. From close up the forest appears quite healthy and has vigorous regeneration. Local informants unanimously state that about 35 years ago (at about the end of the Rana period) there was no forest at all. Thus, far from being a degrading forest, it is a regenerating one.

This regeneration is the result of a strong local system of protection. In 1953 a forest development committee was started. The committee had 14 members and appointed local watchers (called *Chitadars*). According to the founding Chairman, minutes were kept, but have since been lost.

About six or seven years ago another committee was formed. Presumably, between 1953 and the formation of the new committee, the original committee had become inactive. It is possible that there may have been a succession of committees. Again, in 1987, probably prompted by Department of Forest and NAFP activity at nearby Tukucha, permission was sought from the Range Office to create a formal Panchayat Forest Committee. The 10-member committee consists of the nine ward chairmen and the Pradhan Pancha.

Until the formation of this formal Panchayat-level committee, the organisation was very clearly an indigenous one. Permission has now been sought from the DFO to start harvesting green wood and requests have been made to convert the forest to Panchayat Protected Forest. While the indigenous organisation is, thus, in transition, it is nevertheless true that from 1953 to 1987 an effective local forest protection regime existed. The conversion of degraded land to new forest is clear evidence of this.

The user group is very large compared to other systems we have seen. People come from three wards of nearby Rabi-opi Panchayat and from most of Ugrachandi Panchayat. Only the Ugrachandi people are represented on the committee. However, one of the watchers is from Rabi-opi panchayat.

The regime emphasises protection: no green material can be cut. There is a system of sanctions operating. Primarily these involve collection of fines and confiscation of baskets and sickles. The ultimate sanction is reporting to the DFO. Formally, the forest was opened five times a year for collection of leaf and dry firewood. There is apparently no sub-division of the forest into areas for particular users - people may go where they wish. In practice, they naturally go to the part nearest their houses or fields.

In addition to one forest watcher employed by NAFP, there are four watchers paid through the *manapathi* system. Under this system users contribute grain from each household for the watchers. While the system is essentially based on payment in kind, people in Nala sometimes pay cash in lieu.

The Nala case is particularly interesting because the success of protection is strikingly obvious. It is unusual because the forest is very large and there are a large number of potential and actual users. The fact that there is little evidence of illicit pruning suggests that the protection is accepted by villagers. However, the conversion of the mainly protection oriented regime to a system allowing controlled utilisation and increased distribution of forest goods will be more difficult. It remains to be seen whether such a large system can function effectively under the changed circumstances.

While no detailed study has been made of Nala-ko-thulo-ban it is presented here as an example of an unusually large, and unusually long-lived and highly structured system.

Case 2: Ganesthan and Maina Bisauni Forests, Badase Panchayat, Sindhu Palchok District.

These two patches of forest are on the Northern and Southern slopes of a valley which runs into the Balephi Khola, a major river. (See Map 2). Ganeshtan Ban is in Ward No 5 of the Panchayat, while Maina Bisauni Ban is in Wards No 1 and 2. From about 1981 until 1986, the two forests were managed by users through a committee. Although there was a slight difference between the user groups for each of the forests, the same committee was responsible for both.

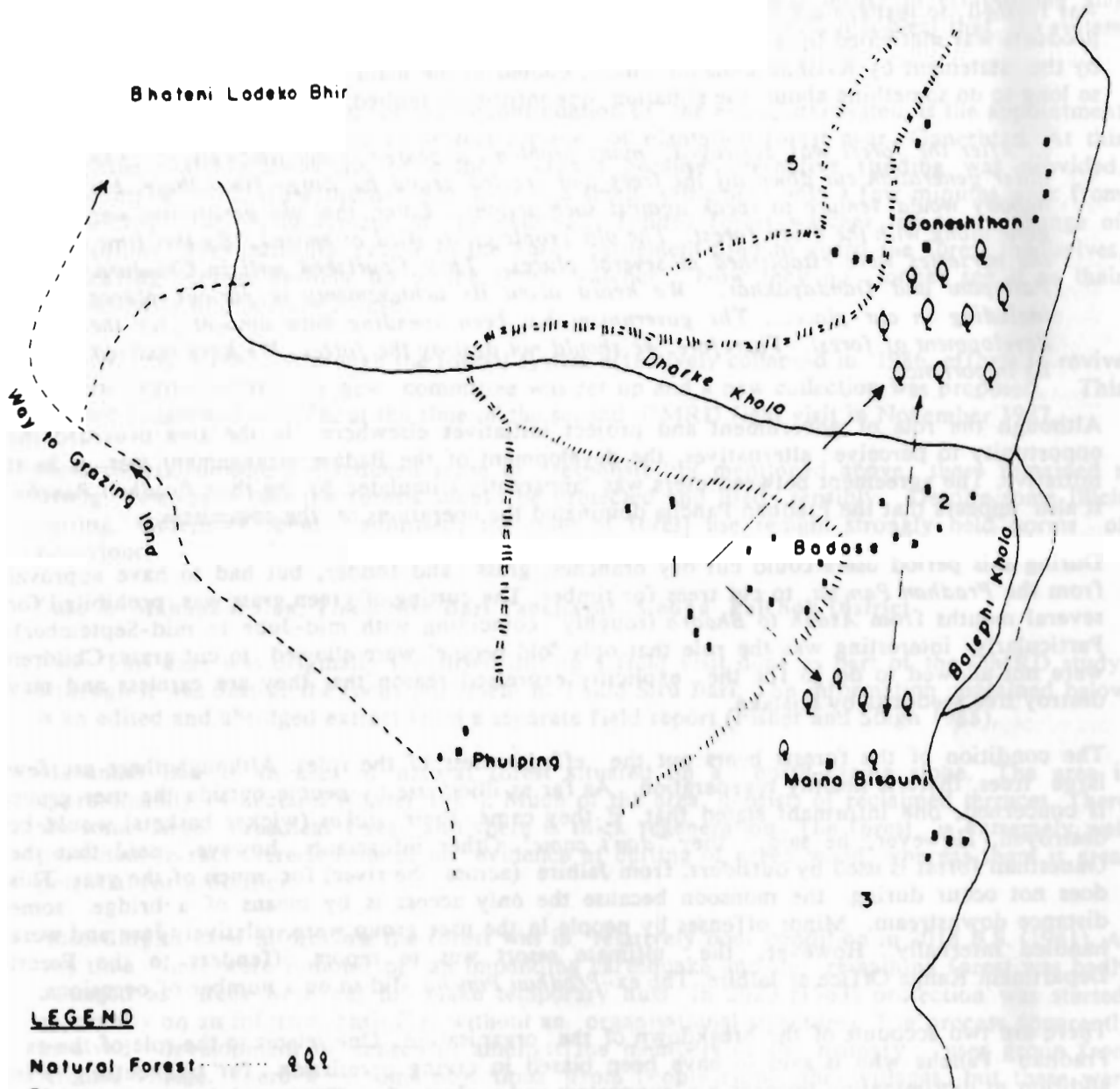
The current user group for Ganeshtan Ban includes all residents of Badase village, which consists of all residents of Ward 2 (on the lower parts of the valley near the Balephi Khola) and those residents of Ward 1 resident on the steep slope above Ward 2. Residents of Phulping, a Tamang village high above Badase but also in Ward 1, are not users. They obtain forest products from Bhoteni Ladeko Bhir, a patch of high grassland with some shrubland. Ganeshtan Ban is actually located in Ward No 5, but is readily accessible to people from Wards No 1 and 2. People living in the lower parts of Ward No 5 (adjoining the Balephi Khola) have use-rights, but those at the top of the very steep cliffs above the forests do not. Thus, users were: all Ward 2, some from Ward 1, a few from Ward 5. The user group of Maina Bisauni consists of all residents of Badase village (as for Ganeshtan) and some residents of Ward 3.

These two forests are of particular interest because there was, until very recently, an operating indigenous forest management system. There is also some information on a number of stages of forest management for the two forests. Before turning to the contemporary situation we will discuss each of these stages in turn.

Stage 1: Pre 1950. The early history is not very clear. However it is known that the two forests were granted to Sanab Singh Thapa by the Rana ruler about 100 years ago. Under his general control the forests were managed with the co-operation of *Chitadars*. From this time until the end of the Rana period tree cutting was theoretically restricted, requiring the permission of the *Chitadars*. In return for this permission, gifts were given to the *Chitadars* at specified festival occasions. According to the accounts of older villagers the area was heavily forested until the end of the Rana period. Informants attributed this to low demand due to the small population. Because there was relatively low demand on the resource, permission to cut was given fairly readily.

Stage 2: 1950-1981. After the fall of the Rana Regime, in 1950, the two forests were managed as part of a large area of *guthi* land, which consisted of seven modern Panchayats. This *guthi* was held by an influential family. Nominally the area is still part of a *guthi* grant.

MAP 2
SKETCH MAP OF BADASE SETTLEMENT
SHOWING GANESHTHAN AND MAINA BISAUNI FOREST



LEGEND

Natural Forest	☪☪☪
River	~~~~~
Users	— — —
Cliffs	
Steep Slope	
Foot Path	- - - - -
Word No.	2

During this period there was gradual deterioration of the forest, although in the late 1960s the situation was not too bad. However, by 1981 the situation had become critical and supplies of forest products were very limited. Throughout the period there was no effective management of the forests.

Stage 3: 1981-1986. In 1981, the users of the two forest patches began to make a monthly collection of one or two rupees per household in order to pay two forest watchers. A committee was formed to manage the forests. The decision to do something about the shortage of forest products was motivated by a perception of the seriousness of the situation. This is demonstrated by the statement by Krishna Bahadur Thapa, quoted in the main text. When asked why it took so long to do something about the situation one informant replied:

... After the forest was destroyed, many problems appeared in our daily lives.... The older generation cut down all the trees and erected grand buildings from these, but nobody would venture to speak against such actions. Later, that old generation was gone along with the green forest. The old people either died or retired. By this time, the nurseries were established at several places. They flourished well in Chautara, Patlepani and Dandapakhar. We heard about its achievements in various places including in our place.... The government has been spending huge amounts for the development of forest. Therefore, we should not destroy the forest. We have realised its importance.

Although the role of government and project initiatives elsewhere in the area provided the opportunity to perceive alternatives, the development of the Badase arrangement was a local initiative. The agreement between users was apparently stimulated by the then *Pradhan Pancha*. It also appears that the *Pradhan Pancha* dominated the operations of the committee.

During this period users could cut dry branches, grass and fodder, but had to have approval from the *Pradhan Pancha* to cut trees for timber. The cutting of green grass was prohibited for several months from *Asadh* to *Bhadra* (roughly coinciding with mid-June to mid-September). Particularly interesting was the rule that only "old people" were allowed to cut grass. Children were not allowed to do so for the explicitly expressed reason that they are careless and may destroy tree seedlings by mistake.

The condition of the forests bears out the effectiveness of the rules. Although there are few large trees, there is healthy regeneration. As far as illicit use by people outside the user group is concerned, one informant stated that, if they came, their *dokos* (wicker baskets) would be destroyed. However, he said, they "*don't come*". Other informants, however, said that the Ganesthan forest is used by outsiders, from Jalbire (across the river) for much of the year. This does not occur during the monsoon because the only access is by means of a bridge some distance downstream. Minor offenses by people in the user group were relatively rare and were handled internally. However, the ultimate resort was to report offenders to the Forest Department Range Office at Jalbire. The *ex-Pradhan Pancha* did so on a number of occasions.

There are two accounts of the breakdown of the organisation. One relates to the role of the *ex-Pradhan Pancha* who is said to have been biased in giving permission for tree-cutting. In addition to discriminating towards his supporters and against others (by not giving permission) he allegedly filed complaints against those who were not his supporters. In 1986 he allegedly gave permission for several people to cut down trees, then reported them to the Department of Forest. By 1986 the users had stopped supporting him and no longer contributed to the payment of forest watchers. He was voted out of office in the 1987 panchayat election. In his place a young man, who he had (allegedly unfairly) reported to the DFO, was elected.

There are a number of interesting points about this situation. Firstly, the ex-Pradhan Pancha, in giving permission to anybody to cut trees at all, was acting extra-legally. From the point of view of the Department of Forest he had no authority to do so. The fact that, while acting extra-legally in some cases, he then used the forest legislation as a sanction for misuse of forests, at first sight suggests that there were no effective local sanctions. On the other hand the actual use of filed complaints suggests that they were used more as a political weapon than as acceptable sanctions. Secondly, while the role of this strong leader in establishing and maintaining a system which worked for several years, is very evident, it is clear that the system could not survive a major conflict.

The second explanation given for the discontinuation of the *manapathi* system is the appointment of an NAFP-funded watcher to protect a piece of plantation forest near Ganeshtan. At this point the monthly collection of money ceased because alternative funding was provided. According to an old *Sarki* woman who lives in a small settlement only a few minutes walk from Ganeshtan, the appointment of the externally-funded forest watcher led to a change of perceptions. Previously the people in the *Sarki* settlement used to guard the forest themselves, not leaving things entirely up to the forest watcher. Now they no longer see it as their responsibility to guard the forests.

Stage 4: 1986-1987. Although the formal system effectively collapsed in 1986, efforts to revive it were made in 1987. A new committee was set up and a new collection was proposed. This had not progressed very far at the time of the second OMRD field visit in November 1987.

Nevertheless, despite the reduced sense of responsibility mentioned above, there remained a strong consensus that the forests should be protected and used sensibly. Despite some illicit cutting, sometimes openly admitted, the rules of forest use remain strongly held norms of behaviour.

Case 3: Mahankal Ban, Thulo Siru Bari Panchayat, Sindhu Palchok District

Note: This case was originally identified during a field visit done as part of the OMRD study, although it was outside the focus settlement in Thulo Siru Bari. The information contained below is an edited and abridged extract from a separate field report (Fisher and Singh 1988).

Mahankal Ban is an area of natural forest situated on a north-facing slope. The area is approximately 14 hectares (Carter 1987). Much of the area consists of reclaimed terraces. There are some large broadleaf trees and there is thick regeneration. The forest is extremely well protected. In fact there is little or no evidence of cutting of green wood, whereas there is great potential for utilisation.

According to local informants the forest was in relatively poor condition in 2018 B.S. (1961). At this time there were rumours of an impending earthquake and the remaining forest was badly damaged as trees were cut to make temporary huts. In 2020 (1963) protection was started, apparently on an informal basis (i.e. without an organisational structure). The process apparently involved development of consensus amongst the members of the primary user group from Archale village. There were some objections from people from other villages, but these were resolved when these secondary users were told they would get equal benefits. (It should be noted that this somewhat idealised account comes from one of the leaders of the primary user group, and is open to considerable doubt.)

Between 2028 (1971) and 2030 (1973), a committee was started. There were 15 or 16 members. An unconfirmed claim was made by one of the leaders of the user group, that he was a major mover behind setting up the committee. Some people from outside the primary user group were included on the committee.

For about two years (c.1977-78) a forest watcher was employed locally. He was paid Rs 60 a month from money collected from user households. The rate varied, depending on wealth, from one to five rupees per household). In about 1979 the same forest watcher was employed by NAFFP to look after a small patch of plantation in Ward No 6 but adjacent to Mahankal Ban. He retained responsibility for the natural forest. The forest watcher continues under NAFFP employment, at a current salary of Rs 360 per month. The committee lapsed (in 1979) when the forest watcher was employed by NAFFP.

The effectiveness of protection in Mahankal is clear evidence that the "protection ethic", which underlay the earlier indigenous organisation, has outlived the decline of the formal committee. As the presence of a committee is often seen as the essential (often the only) sign of the existence of local management systems, this is an important observation. It demonstrates clearly that it is the presence of institutionalised rules, values and behaviour, that is the essential feature of systems of resource management, not the presence of a committee or other formal structure.

The users of Mahankal Ban fall into two categories. The primary users are the residents of Archale village. This user group consists of 60 households of *Dulal Brahmins* and *Dulal Chettris*. There are no other castes or clans present. Secondary use-rights are more or less available to anyone, although not many people come from outside any more. The secondary users fall into two sub-groups. The first sub-group consists of people from other villages, who live seasonally in *goths* (temporary shelters) near the forest. The second sub-group consists of any other outsiders who wish to use the forest within the rules. The two other villages in Ward No. 5 (Bhul Bhule, 33 households of *Tamangs* and Thanda Gaon, 20 households of mixed *Brahmin* and *Chettri* castes) have no rights separate from those of other secondary users. Use-rights are as follows:

1. Primary users are allowed to collect grass and dry wood from the ground. (They are not allowed to cut green timber or even dry branches still attached to trees.) They are able to collect the fruit of the *Katus* trees when it appears (every two years). This represents a considerable source of income (an estimated Rs 15,000 in 1987).
2. Secondary users living in *goths* have the same rights as primary users during their period of residence in *goths*. When living in their normal residences they are not entitled to collect firewood.
3. Other secondary users are also entitled to collect grass and *Katus* fruit, but are never entitled to collect firewood.
4. Grazing is free, but the number of livestock is small because fodder species are not readily available.

Secondary users have no rights in decision making. According to the Ward Chairman, who is a leader of the primary users, they regard their rights as being at the discretion of the primary users. This is in need of confirmation.

The present system of management of Mahankal Ban concentrates on protection rather than utilisation. No cutting of green products is permitted, and little or none occurs. Despite this, village leaders show surprisingly little interest in increased utilisation. Part of the explanation for this may be a fear that a change from protection to utilisation may take the lid off effective control, leading to an open-access situation. However, it is likely that the main reason for the emphasis on protection lies in the structure of the user group.

The population of Archale village consists entirely of *Dulal Brahmins* and *Dulal Chettris*. Within the *Dulal Brahmins* there is a dominant group of relatively wealthy people, including the Ward Chairman and another man who is a key figure in the management of Mahankal Ban. The latter's paternal grandfather was a *Mukhiya* for the area during the Rana period.

There are strong indications that this group has enforced protection despite the needs of poorer villagers for enhanced access to forest products. The members of the dominant group have private land from which they are able to obtain forest products. Further, limiting access to forest products makes it easier for them to command cheap labour. They can do this by providing forest products from their own land in exchange for labour.

Despite the apparent fact that decision-making is dominated by a small group, it is clear that the poorer villages go along with the decisions made. This seems to fly in the face of the argument (Fisher 1988a) that consensus seems to be necessary in effective indigenous forest management. If there is no willing consensus, then at least there must be some way of enforcing reluctant consent. How can the local leaders impose their will upon others in forest management?

It doesn't explain anything to say that they are "traditional leaders". All that does is to take the question back one step: how can "traditional leaders" assert their legitimacy? There are three ways in which the local elite can impose its will:

1. As they are comparatively rich they place others in debt either by providing loans or small gifts.
2. They act as brokers (intermediaries) between villagers and officials/project people etc. To the extent that changes or "*bikas*" come to the village, it is credited to their power to influence outsiders.
3. Because they are land-wealthy they provide labour opportunities. Employment is implicitly conditional upon adherence to their wishes.

Case 4: Banechaap, Ward No 4, Badase Panchayat

In this fairly weak system the users (who come from various parts of three different wards) report offences against locally agreed practices to the Range Office. There is no formal committee or structure.

Case 5: Harre Ko Ban, Ward No 6, Badase Panchayat

Again the arrangement is informal. Users are from Ward 6, although people from Wards 8 and 9 may also collect leaves. As in Case 4, offences are reported to the Department of Forest. However, in the case of offenders from other wards, the products are seized. Construction timber can be taken on the basis of mutual consent.

Case 6: Padhyeroko Ban, Ward No 1, Mahadebtar Panchayat Kabhre Palanchok District

Padhyeroko Ban is a small forest (perhaps a little less than one quarter of a hectare) situated near the village of Mahadebtar. An irrigation canal runs through the forest and there are two wells cut into rock. The forest is dedicated to *Nag-puja* (worship of the snake god) and some people claim to have seen the *Nag* near the wells. Once a year, before the maize-harvesting season, the Newar residents of Mahadebtar worship the *Nag*.

The forest consists mainly of large and very old trees. There is little sign of regeneration and there are no intermediate size trees. In the past the collection of dry branches and leaves was permitted. However, a recent meeting decided to ban this. No cutting, pruning, livestock grazing or collection of dry leaves are permitted now. This change was made explicitly to allow small trees to grow. The extent to which this new regulation works remains to be seen.

No formal committee exists for the management of this forest. Whenever specific issues arise (such as the question of what to do with timber from a fallen tree) meetings are called by interested parties. The *Upa-Pradhan Pancha*, a *Newar* resident in Mahadebtar village, seems to be prominent in this respect. There was no evidence of any dispute about the forest.

The trees are seen as belonging to the community. To the extent that they are used, this is for religious activities or for some project of communal benefit. For example a fallen tree seen in the first visit was cut up and sold for firewood to people within the ward. The money collected (nearly Rs 300) is intended for use for the Mahadeb Temple (Case 7).

The informality of this arrangement is significant. There is an obvious consensus that trees should be protected and this consensus has led to effective protection of large trees, which are certainly a valuable resource. The emphasis on protection and very limited utilisation of these trees is fairly typical of religious forests. The poor condition of the forest, in terms of regeneration, is also typical.

Case 7: Jogeswor Mahadeb Mandir Forest, Ward No 1, Mahadebtar Panchayat, Kabhre Palanchok District.

The Mahadebtar Forest is a fairly small patch of forest, again about a quarter of a hectare in area. A rather run-down *Newar* temple, the Jogeswor Mahadeb Mandir is in the upper part of the forest and adjoins a school on the edge of the village. The plot is quite steep. The forest is *guthi* land dedicated to the temple, or is, at least, locally regarded as being so. The area was effectively a wasteland until the villagers decided to plant seedlings and to turn it back into a forest. In 1981, under the leadership of a young *Newar*, who was elected *Upa-Pradhan Pancha* in 1987 (also referred to in Case 6), 1300 seedlings were carried from Budol nursery. This represents a round trip of about 2-3 days. All capable *Newar* households contributed one person for this work.

Livestock grazing and the cutting of leaves and branches are not allowed at present. No decision has been made about the long-term utilisation of the forest.

The trees planted in 1981 are now in good condition, although some trees adjacent to fields have been damaged by cutting. This may have been done by field owners anxious to avoid decrease of crop yield due to shade from trees.

The conflict due to this does not involve conflict within the group of *Newari* adherents to the temple, as the fields are owned by *Tamangs*.

As in Case 6 there is no formal committee. Meetings are called on an ad hoc basis when issues arise. While the forests are distinct the two forests are essentially the concern of an identical interest group.

The situation is similar to that in Case 6 in terms of the consensus-basis of protection and the lack of formal organisation. In both these cases the decisions of the interested group are apparently readily adhered to by others within the group. A major difference, however, may lie in the extent to which the consensus extends beyond gross protection in each case. In Case 6 the protection of old trees has gone on for many years (some informants say 60 or 70 years), but concern with the overall health of the forest (in terms of regeneration) has been limited. Only very recently has there been a decision (as yet untested) to protect seedlings. In Case 7 the consensus led to an active decision not just to protect existing trees, but to plant and protect new one.

The very limited concern with protection of big trees only in Case 6 is probably fairly typical of management of religious forests. We suggest that it is probable that the active enthusiasm for the Mahadeb Forest (Case 7) will not continue unless the current protection is later extended to allow some utilisation of forest products.

Case 8: Hokase Bazaar,¹ Hokase Panchayat, Kabhre Palanchok District.

This locally protected "forest" is in Ward No. 6 of Hokase Panchayat, near the village of Hokase Bazaar. The village is situated just below a ridge, at the other end of which is the well known temple of Palanchok Bagwati. The forest area is located a few minutes walk from the village on the side of the ridge.

The forest consists of scattered shrubland intermingled with a plantation one year old. Planting was carried out by local people on their own initiative. The land is private. The current owner apparently wishes to sell it, but those involved in the forest user group are resisting and are attempting to have the land declared to be government forest.

Just below this forest area, more or less on the valley floor, is a patch of government plantation, which is effectively treated as a part of the protected area. There is a project-employed forest watcher for the area, but he apparently never visits his area of responsibility and villagers say they don't even know who he is.

About 1981 or 1982 the people in Hokase Bazaar (a population mostly of *Brahmins*) set up a system of protection for the private shrubland. There is a committee, all nine members of which are *Brahmins*. Each household pays two *pathis* of maize (or the equivalent in cash) once a year. About 40 households contribute and the resulting 80 *pathis* are divided between the two forest watchers. The user group consists of those who contribute to the collection. Contributing households are entitled to collect leaf litter and grass from the forest every Sunday, although no cutting of green wood is allowed. The collection is carried out under the supervision of a forest watcher.

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1. Because of the apparent fragility of this local organisation detailed study was not carried out and Hokase Bazaar was not included in the full OMRD study.

Although people from the separate Tamang settlement in the ward are entitled to participate, none apparently do so. There are separate patches of fairly extensive and unprotected forest closer to that settlement so non-involvement in the protected patch is not surprising.

The fact that this is a new system, in the process of consolidation, makes it particularly interesting. Concern about shortage of forest products clearly stimulated action. While there is little information about the beginnings of the system, no prominent leader seems to have been involved. The current *Pradhan Pancha* (a *Tamang*) is not actively involved. Nor is the ward president, although he pays his annual two *pathis* contribution.

The fragility of indigenous forest management systems was particularly evident from this case. During a brief visit to Hokase Bazaar to make a preliminary examination of the system, the field investigators told a local guide (who is a user) of the purpose of the visit. The guide was very pleased, interpreting this as evidence that the government would start to pay for the forest watcher. In other words the local system may have developed only because the government (and NAFP) were not seen as being able to provide a solution to the perceived need for protection, not because people particularly wanted to do it themselves.