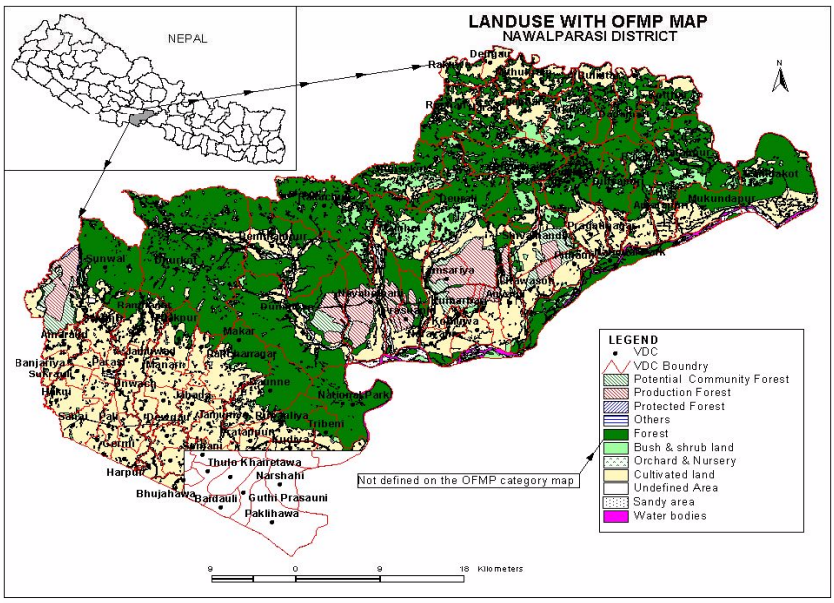
ANNEX A

Social Structure, Livelihoods and the Management of Common Pool Resources in Nepal



Final Report
NRSP Project R7975

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Overseas Development Group (ODG)
University of East Anglia, Norwich NR4 7TJ

Natural and Organisational Resources Management Services (NORMS)
P.O. Box 3671, Maitidevi, Kathmandu

Project Overview:

This research investigated the links between new systems of management of common pool resources and existing social and political relations around natural resource use. It was based on the premise that new systems of resource management are embedded within existing social and political relations, and that an understanding of these is essential for the successful design and implementation of new policies. The research focused on two districts, Rupandehi and Nawalparasi, in the Terai region of Nepal and sought to map information on the livelihoods of different social groups with access to forests and forest products. This information is used to examine the implications of proposed and actual changes being implemented in forest resource management, especially for more vulnerable groups, and to suggest ways in which participative management approaches that are designed to improve resource access of poorer groups might need to be modified to enhance the livelihood security of these groups. Our research highlights the importance of understanding the broader institutional setting in which `forest user groups' operate and that merely adjusting the membership criteria of the FUGs, for example, cannot ensure that poor women and men have access and control of the CPRs that they need to sustain their livelihoods.

Keywords: Social structure and social and processes, livelihood security, poverty, natural resource management, common pool resources, Nepal

Project location: Five fieldwork locations in two districts in the Terai of southern Nepal (selected from Nawalparasi and Rupandehi).

Start date: March 2001 (November 2001 actual start date because of delay caused by political situation in Nepal)

End date: 31 March 2003

Project team:

Janet Seeley, Paul Francis, Adam Pain and Vegard Iversen,
Overseas Development Group (ODG), University of East Anglia, Norwich.

Ghanendra Kafle, Madhu Gurung and Birkha Chettry,
Natural and Organisational Resources Management Services (NORMS), Kathmandu.

With contributions from the Department of Geography, Tribhuvan University, Kathmandu.

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Acronyms and abbreviations

CF	Community Forestry
CPR	Common Pool Resources
DDC	District Development Committee
DFID	Department for International Development
DFO	District Forest Office
FECOFUN	Federation of Community Forest Users in Nepal
FUG	Forest User Group
HJAB	Harpur Jain Amanigunj Bhaksipur (FUG)
HMGN	His Majesty's Government of Nepal
LFP	Livelihood Forestry Project
NGO	Non-Governmental Organisation
NORMS	Natural and Organisational Resources Management Services
ODG	Overseas Development Group, University of East Anglia
OFMP	Operational Forest Management Plan
VDC	Village Development Committee
WATCH	Woman Acting Together for Change (NGO)

Nepali Units and Conversion Factors

Weights:

Units in Nepali	Units in metric system	Comment
Mana	½ kg or 0.56 l.	
Pathi	4 kg or 4.5 l.	
Muri	80 kg or 90 l.	
Maund	36 kg	
Bora	100 kg	Depends on the density of the contents
Bhari	30 kg	

Volume / length

Units in Nepali	
Mutha	1 handful
Sorai	16 mutha
Bita	20 mutha
Haat/hand	1.5 ft.

Area:

Units in Nepali	Equivalent
Dhur	0.345 ropani or 0.0179 ha.
Kattha	0.69 ropani or .035 ha.
Ropani	0.052 ha
Bigha	20 kattha or 13.8 ropani or 0.68 ha

Nepali Calendar:

Months in Nepali calendar	**Months in Western calendar**	
Baisakh	Mid April to mid May	Nepalese months vary between 29 to 32 days and are not constant from one year to the next.
Jestha	Mid May to mid June	
Asadh	Mid June to mid July	
Shrawan	Mid July to mid August	
Bhadra	Mid August to mid September	
Ashoj	Mid September to mid October	
Kartik	Mid October to mid November	
Mangsir	Mid November to mid December	
Paush	Mid December to mid January	
Magh	Mid January to mid February	
Falgun	Mid February to mid March	
Chaitra	Mid March to mid April	

To convert from the Nepalese Calendar to C.E (Christian Era) subtract 57 years and add 3.5 months i.e. 2058 started in mid April 2002. The report is given in C.E dates [original Nepalese date given in square brackets] derived from subtracting 57. There is possibility that the event referred to fell into the early month of the following year C.E.

Botanical Names:

Latin Name	Local Name
Acacia catechu	Khair
Acacia nilotica	Babul
Adina cardifolia	Karma
Anogeissus latifolia	Bajhi
Artocarpus lakoocha	Badahar
Azadirachta indica	Neem
Bombax ceiba	Simal
Dalbergia latifolia	Satti Sal
Dalbergia sissoo	Sissoo
Dendrocalamus spp.	Bans
Eucalyptus camaldulensis	Masala
Ficus bengalensis	Bar
Lagerstroemia parviflora	Botdhairo
Lannea coromandelica	Jhingat
Leuceana leucocephala	Epil epil
Mangifera indica	Mango
Melia azaderach	Bakaino
Michelia champaca	Champ
Populus religiosa	Pipal
Pterocarpus marsupium	Bijay Sal
Schloechera oleosa	Kusum
Shorea robusta	Sal
Syzygium cumini	Jamun
Tectona grandis	Teak
Terminalia alata	Asna
Toona ciliata	Tooni

Summary

This report presents the findings of an 18 month collaborative research project between the Overseas Development Group of the University of East Anglia and Natural and Organisational Resources Management Services, Kathmandu, with contributions by the Central Department of Geography, Tribhuvan University, Kathmandu.

The aim of this research was to explore the links between new systems of management of common pool resources, linked to the introduction of Community Forestry in the Terai, and the existing social and political relations around natural resource use in selected sites in the Terai in order to understand how these new systems were affecting resource access for different social groups. The research focused on collecting information on the livelihoods of different social groups and their access to forests and forest products. The research sought to detail the ways in which institutional structures and relationships among users, and with Department of Forest staff, influence the ways in which forest resources are managed and exploited and benefits shared. The research highlights the pivotal contrasts between the Terai and the hills and the importance of understanding the precise implications of these contrasts for establishing effective and equitable Forest User Groups in the Terai. While recognising the small scale of this research, the intention was to contribute to the work of programmes and projects, such as the Livelihood Forestry Project (DFID-Nepal), that seek to develop more effective approaches for the livelihood enhancement of poor women and men.

The report begins by introducing the situation of community forestry in the Terai, highlighting the lack of in depth information that exists on the experience of Forest User Groups (FUGs) and participatory forest management approaches in that region in general. The report goes on, in Chapter 2 to explain the purpose of the research and the intended outputs.

Chapter 3 outlines the research approach, explains how research sites were selected and the methods used for data collection. The report explores the challenges of undertaking research under conditions of chronic political instability, which had a profound influence on the conduct of research. It is observed that one cannot ignore or isolate the effects of political instability from the struggles over access and use of forest resources, indeed such struggles form an intrinsic part of the wider context. Much information collected by this study was also of a distinctly sensitive nature. Uncovering the hidden economies of Forest User Groups, an innovative feature of our research, is a challenging task requiring careful and iterative triangulation. The research dissemination process is then described.

Chapter 4 provides an overview of the research area, describing in some depth the historical background to the heterogeneous population and the development of forest management approaches. Given that community forestry policy in Nepal is generally informed by experiences from the hills, a key point is made of the potential problem of translating lessons from the hills onto community forestry in the Terai. It is argued that a policy that advocates transfer of managerial responsibility of, in particular, the valuable hardwood forests in the Terai must be informed by reasonable conjectures about the local processes and outcomes such a hand-over is likely to encourage.

Chapter 5 presents the analytical framework, explores external institutional processes and demonstrates the multiple ways in which the broader institutional context determines the room for manoeuvre and therefore to some extent what can happen within Forest User Groups. These external processes are not benign and have the potential to disable participatory processes with the Forest User Groups and severely limit the extent to which the poor can benefit from common pool resources. The report also highlights the ways in which community forestry in the Terai differs from the hills, and begins to show how an understanding of the differences in the Terai may illuminate our understanding of community forestry in the hills. The framework is used to explain the institutional processes, showing that the evidence on institutional processes over which the Department of Forest has jurisdiction points to attempts to gain greater control over the higher value, relative to the hills, Terai forests rather than devolve towards community forestry in the Terai.

Chapter 6 moves inside the FUGs and the `community' and looks at the origins of the demands for greater participation in the management of forests and at the local institutional forms that have been developed by user groups for forest management. The report describes, and seeks to explain, conflicts within FUGs (and between the FUGs and Department of Forest) and the instability of leadership of groups managing, in particular, high value forests. The report contends that the effect of the complex processes of social exclusion operating in FUGs reinforces the biases of the Department of Forest, towards technical, production or conservation objectives rather than the broader livelihood objectives which would benefit the poor.

Chapter 7 combines an analysis of livelihood impacts of access restrictions following the introduction of community forestry with an analysis of the distributional impacts of policies adopted by FUGs. The report highlights, through case material from the field sites, that while the establishment of FUGs may have led to positive environmental changes in the forests they manage, the processes of protection may have simply led to the displacement of extraction to areas that are not so well protected. This process has also contributed to the marginalisation of the poor, who may find themselves excluded from FUG membership because of a high membership price or having difficulties in availing of the limited opportunities for forest product collection after the introduction of community forestry. However, the livelihood impact on the poor varied a great deal across sites and was dependent on the presence of viable local alternatives, both with regard to employment or substitutes for or alternative sources of forest products. Moreover, we argue that existing attempts to assess benefit-sharing in FUGs have focused on subsistence collection and overlooked other mechanisms for forest product allocation. A striking feature of FUGs in the Terai is the presence of vast hidden subsidies in allocation of the most valuable forest product in the area, hardwood timber. While allegations of elite capture are quite common in discussions of community forestry in Nepal, precise empirical assessments of the extent of elite capture have been conspicuously absent. Our conceptual framework and empirical examples rectify this lacuna.

Chapter 8 explores the opportunities that exist for improving pro-poor livelihood outcomes. Given the control of high value forest in the Terai by both the Department of Forest and more prosperous groups, we argue that better mechanisms for benefit-

sharing must be identified and that livelihood opportunities for the poorest must continue to be sought beyond the forest.

Chapter 9 draws a number of general lessons in relation to what has been learnt on community forestry processes in the Terai, not only for the Terai but also in relation to community forestry in the mid-hills. There are clear interlinkages between the hills and the Terai and livelihood diversification, multi-location households combined with seasonal migration are a feature of households in the hills as well as the Terai. Opportunities for land-based livelihoods may be greater in the Terai but the differences between are a matter of degree: many of the institutional processes observed in the communities in the Terai in this study also operate in the hills and limit the opportunities for sustainable pro-livelihood community forestry. The report concludes that community forest practice will have to move beyond the limited definition of `user' that dominates current practice to a much wider recognition of people's rights as managers, and the giving of custodial authority of forest land. This is something that is unlikely to be possible under the current institutional arrangements.

1. Background

1.1 Introduction

This report presents the findings of an 18 month[1] collaborative research project entitled `Social Structure, Livelihoods and the Management of Common Pool Resources in Nepal', carried out by the Overseas Development Group of the University of East Anglia and Natural and Organisational Resources Management Services, Kathmandu, with contributions from the Central Department of Geography, Tribhuvan University, Kathmandu. The research was funded by the UK Government's Department for International Development (DFID), through its Natural Resources System Programme (NRSP).

This research was initially planned for the hills but a variety of circumstances including insecurity, and a shift of interest, led to a repositioning in the Terai. The research set out to investigate the linkages between current and proposed new systems of management of common pool resources, linked to the introduction of Community Forestry in the Terai[2], and prevailing social and political relations around natural resource use. It was based on an understanding that even new systems of resource management are embedded within existing social and political relations and the knowledge of such relations is essential for the design and implementation of effective and equitable institutional arrangements. The research focused on collecting information on the livelihoods of different social groups and their access to forests and forest products.[3] The research also sought to detail the way in which institutional structures and relationships among users, and with Department of Forest staff, influence the ways in which forest resources are managed and exploited.
The project had the following objectives:

- To develop and test a framework elaborating the linkages between social and economic processes and natural resource access and use in specific locations.

[1] The project period was 24 months, but the project had to suspend activities for six months because of political instability in Nepal.
[2] The current and new `systems of management', through Community Forestry Forest User Groups, are well established in parts of Nepal, particularly in parts of the the Mid-Hills. In the Terai the formation of Forest User Groups has been slower, so the systems of management are still quite new. See Paudel and Pokharel (2001).
[3] Strictly speaking the forest contains resources which do not become products until something is done to them which creates value. Messerschmidt and Hammett (1998) prefer the generic terms ‘resources’ and also question the timber / non timber product terminology. For the purposes of this report, the term ‘products’ and ‘resources’ are used interchangeably.

- To increase and promote the understanding of the implications of existing social and economic processes for proposed changes in natural resource management including benefit sharing amongst target institutions and more widely.

- To explore ways to increase the opportunities for vulnerable groups to access benefits of common pool resources integrated into specific plans for their improved management.

- To enhance local capacity to link social, economic and technical concerns in developing and promoting changes in natural resource management.

This report presents findings relating to all four objectives, although the dissemination activities linked to the second objective is on-going as findings are taken up by stakeholders in Nepal (most notably the Livelihoods Forestry Project [DFID] and ICIMOD) and publications allow the findings to be shared more widely. The testing of the framework in its present form, mentioned in the first objective, has not been done because of the reduced time period available for this research.

This report consists of nine chapters. Following this chapter, which provides the theoretical background to this research and the context of community forestry in Nepal and, specifically, in the Terai, Chapter Two sets out the project purpose and outputs and Chapter Three describes the research design and methods. In Chapter Four the research area is described and Chapter Five looks at community forestry processes and introduces the framework. Chapters Six and Seven look inside the communities studied to explore institutional issues around membership, resource management and benefit sharing. In Chapter Eight, the theme of the third objective is taken up as the report looks at the potential of community forestry for improving the livelihoods of the poorest. Chapter Nine summarises the main lessons. Material related to the fourth objective of capacity building is presented in Appendix Seven.

1.2 Theoretical Issues

Past pessimism over management of resources like forests and rangelands, most powerfully expressed in Hardin's (1968) "Tragedy of the Commons", has been replaced by a new optimism. Theoretical progress in the analysis of repeated social interactions, conceptual clarifications and a large number of in-depth case studies have highlighted the potential and the actual contributions rural communities can make to natural resource management in

developing countries (Ostrom 1990; Baland and Platteau 1996). The likelihood that collective action will be effective is circumscribed by the characteristics of the resources and communities in question and much research effort has been geared towards identifying these characteristics (Baland and Platteau 1996). Eloquently synthesised in Wade's (1988) analysis of indigenous systems of irrigation management in South-India and Ostrom's (1990) design principles, this literature contains important lessons for the design of local institutions for *effective* management of common pool resources. The list of important characteristics has, however, continued to grow: a recent overview identified no fewer than 36 variables conducive to such effective management (Agrawal 2001). In spite of this abundance, we shall argue that crucial relations between resource and community characteristics and pivotal outcomes have remained virtually unexplored. A salient example of this neglect, providing an entry point for our research, is the failure to systematically uncover the implications for decentralised natural resource management of the contrasts between forest resources and communities in the Middle Hills and in the Terai in Nepal. At the moment, community forestry policy in Nepal is based on experiences from the hills and a policy that advocates transfer of managerial responsibility of, in particular, the valuable hardwood forests in the Terai must be informed by reasonable conjectures about the local processes and outcomes such a hand-over is likely to stimulate. Drawing on primary data from forestry user groups in two Districts of West Central Terai, we will show that neglecting pivotal aspects of these contrasts may lead to serious policy mistakes.

The question of whether decentralised management halts or reverses the degradation of forest, rangelands or other common pool resources has been the central preoccupation of the academic and popular debates in Nepal and more generally. In terms of environmental outcomes, our research in the Terai suggests that neither heterogeneity nor contrasts in forest values obscure the finding that the introduction of community forestry has improved the state of forests presently managed by recently formed Forest User Groups. This corroborates observations made by others (Baral and Subedi 2000a) suggesting that forests under FUG-management are regenerating and improving.[4]

However, effective protection is no guarantee of an equitable distribution of benefits nor is it evidence of a management system that provides a balanced utilisation of local resources. It

[4] This is not, of course, sufficient to suggest that the overall state of Terai forests is improving. Indeed recent evidence suggests (FAO 1999) that there has been an overall decline in forest cover.

can be helpful to distinguish, on the one hand between equity as a cause and as an effect, such as the impact of various forms of inequality on effective collective action, and the distributional impacts of decentralised management (here community forestry) on the other.[5] Whereas the relationship between inequality and other forms of heterogeneity and effective collective action have received considerable theoretical and empirical attention,[6] the distributional impacts of decentralised management, despite its obvious importance in poor countries, has remained largely unexamined.[7] Moreover, whereas concerns over elite capture are heart-felt and routinely expressed in discussions of community forestry in Nepal (e.g. Baral and Subedi 2000a and 2000b; Chakraborty 2001), they are also typically based on anecdotes. In a context where about 40 percent of the population live below the poverty line and livelihoods are biomass based, few questions would seem more worthy of research attention than who the winners and losers from community forestry have turned out to be. The research findings reported below suggest that as community forestry in the Terai continues to gain momentum, the present policy may not be viable, as it ignores the often complex challenges associated with establishing effective and equitable user groups in the Terai.

1.3 Background to Community Forestry in Nepal

The growth of Community Forest User Groups (FUGs) over the last ten years in Nepal is often read as a story and model of successful community based resource management. The basis for community forestry was laid out in the 1978 Forest Act that established the principle of participatory forest management. However it was not until the early 1990s (Pant 2002:10) when a combination of pressure for democratic reforms and frustration with the failure of community forestry to develop led to the 1993 Forest Act and the Forest Regulations of 1995 which established a legal basis for forest user groups. In 1991 the number of forest user groups was a few hundred, this grew to 2756 by 1994, 8559 by 1999 (Britt 2002). In September 2002 the Community Forest Division of the Department of Forestry recorded a total of 11,586 FUGs in its database, made up of 1,276,433 households managing just under a million ha. of forest.

[5] As will be elaborated in chapters 5 and 7, decentralised "management" is a strongly misleading term.
[6] See Olson (1965), Baland and Platteau (1999), Varughese and Ostrom (2001), Dayton Johnson and Bardhan (2002), among others.
[7] See Byron (1991) for an early discussion. Recent exceptions include Bhattarai and Ojha (2000), Kumar (2002) and Richards *et al*. (2003). Two of these studies focus on Nepal and will be revisited in detail in Chapter Seven.

With the growth in numbers of FUGs, a FUG members association, the Federation of Community Forest Users in Nepal (FECOFUN) was established which has become a significant lobbying force for FUG interests. Growing out of a forest user network, FECOFUN was formally established in 1996 and now has a membership of over 7500 FUGs. It has played a key role in representing user group interests and pressing for legislative and institutional reform in relation to the management of forest resources (Britt 2002).

There is a widespread opinion that the community forestry programme of Nepal has been an effective example of community based resource management (see for example Dahal 1994, Karki *et al. 1*994, Hobley 1996 and Arnold 1998) and could come to be a model of community driven development. The environmental outcomes have been positive with a reported improvement in forest quality in community forest areas (FAO 1999), although the total amount of forest cover in Nepal has decreased over the last decade.[8] Forest User Group organisations have been established that are rule bound, as evidenced by constitutions, operational plans and committee structures (Barraclough and Ghimire 1990, ICIMOD 1995).

One should not underestimate the significant shift in the balance of power between forest users and the Department of Forest in the very specific circumstances of Nepal, a shift that is in progress and under continuing negotiation. However a closer reading of the evidence – and what is missing from the evidence – raises important questions over the public story of success (as discussed below in Chapters Five to Seven). As Malla (2002) puts it, there is a need to carefully examine unstated objectives, interests and outcomes rather than official intentions and rhetorical claims. It is significant that community forestry remains an important arena of contest between Non Governmental Organisations (NGOs), forest user groups and the Department of Forest.

1.3 The Terai and Community Forestry

The Terai region is made up of a 26 to 32 kilometre wide belt of fertile plain along the southern part of Nepal. Twelve million people, nearly half of Nepal's population, live in the 17 Districts that make up the Terai.[9] Until the 1960s, the Terai of Nepal was a malaria-

[8] The forest cover was 32 percent of land area in 1990 and 27 percent by 2000 according to an FAO report monitoring progress towards achieving the Millennium Development Goals (FAO 2000). www.fao.org/es/ESS/mdg_kit/env_sus.asp

[9] Ministry of Population and Environment (2000) `The State of Population, Nepal, 2000' www.mope.gov.np/status/popstat/chapter15.html

infested zone, settled only by the communities of Tharu and Danuwars. The forests of the Terai had been managed for timber, supplying railway sleepers in the 1940s for the British colonial government in India and later supplying timber to the Indian market. In recent years the rich forests of the Terai have supplied the towns and benefited the state through revenue collection and `city dwellers who needed timber and firewood, timber contractors, politicians and DoF staff (who benefited both officially and unofficially)' (Baral and Subedi 2000a: 21). The total forest area in the Terai Districts of Nepal is estimated to be 560,000 ha, with 188,000 ha in the Terai and inner Terai potentially available for community forestry (Department of Forest [HMGN] 1995).

With the proximate eradication of malaria, and as a consequence of catastrophic floods in 1956 which left many hill people homeless, the HMGN initiated a settlement programme which promoted the movement of people from the hills to the fertile Terai.[10] This influx of settlers contributed to the deforestation of the Terai and affected the quantity and quality of forests in Terai (see Soussan *et al.* 1995: 93-131, for a discussion on the nature of deforestation in the Terai). Thacker and Gautam (1994: 1-2) note that while forest working and management plans were prepared by the Department of Forest in the 1970s and 1980s, the implementation of these plans was not attempted:

> Although the working/management plans were prepared on good silvicultural ground [sic], the implementation status has always been noticed to be very poor or absent. The main reasons are that the socio-economic realities have not been considered. For example, the community are not homogenous and there are variations in forest resource collection and utilisation, based on ethnicity, cultural and religious practices, economic status and organisational indigenous systems. The management plans were based mainly on management of timber concerns. Whereas local people look upon timber as one of the forest product resources necessary for their subsistence requirement. This implies that other forest resources, such as leaves, climbers, herbs, grasses, twigs, branches and pasture land form an equally important aspect of overall forest management. Secondly, the working plans gave no consideration to rational supply system for the local people to obtain forestry products for their household and non-household requirements.

Thacker and Gautam go on to contend that the way to resolve this mismatch between forest management planning and local needs is to involve local people in forest management: `in the case of forest management, which needs sustained action to ensure sustainable reaction, participation of the local people or primary users, is not only desirable, but also essential […]

[10] Nepal Resettlement Company (2037) *Nepal Resettlement Company (An Introduction)* Lalitpur, Nepal

Orienting forest management towards this practicable approach to implementation, can be achieved if participation takes place in the initial stage of forest management plan preparation' (*ibid*. p.2).

But is people's participation in forest management the answer to people's livelihood needs and, indeed, the management requirements of the forest? Thacker and Gautam's concern was with the involvement of local people in the production and implementation of conventional Department of Forest-led forest management planning. Others have expressed concern about the introduction of the community forestry as a `one size fits all' approach and have suggested that a combination of community forestry, private forestry (forest development on private land) and agro-forestry is needed to take account of the complexity of the social structure and land tenure patterns of the Terai (Shrestha and Budathoki 1993).

Baral and Subedi (2000a) explore the background to community forestry in the Terai. They remind us that the 1989 forest policy while recognising that community forestry was a priority and advocated the handing over of forest resources to users, stipulated `phased handing over of all the accessible hill forests to the communities to the extent that they are able and willing to manage them (HMGN 1989 a: 14). This policy mentioned the handing over of hill forest, but makes no reference to high value or other Terai forests. Community forestry policy in Nepal has been developed on the basis of the experience in the hills and a considerable amount of expertise has been developed through involvement in a range of community forestry programmes in the hills since it is there that the government and donors have mainly, until recently, concentrated their efforts.[11]

There are a number of problems that face the proponents of community forestry in the Terai, not only the conflict between those who wish to manage the forest for timber production with local people with more diverse needs, alluded to above, but also the heterogeneity of the Terai population, the product of the massive settlement that has taken place of people from all over Nepal, and parts of India, who have come in search of fertile land on which to settle. This has made defining 'communities' – or groups to which forest might be handed over – a challenging task (Paudel and Pokharel 2001). Another factor, as Shrestha and Budathoki

[11] DFID has only recently begun work on community forestry in the Terai with the `Livelihoods Forestry Project' which began work in the Terai in 2001. DANIDA, SDC and GTZ have had a longer involvement, but

(1993) and Baral and Subedi (2000a) point out, and which is supported by the findings of our own study, is that `the majority of people in the Terai live at some distance from the forest. Despite this they are forest users and have derived for decades at least some degree of benefit from the forests. Many of these forest users are very poor and the forest represents an important source of livelihood for them.' (Baral and Subedi 2000a: 20).[12]

The positive impact of community forest management on livelihoods in the Terai has not been widely demonstrated, and there is little real justification for thinking that what has been achieved in terms of the formation of Forest User Groups necessarily has pro-livelihood consequences.. The government has also turned its attention to the economic benefits being captured by communities and planned to tax these for more widespread development purposes, and a 40 percent tax on sales outside the FUG has been imposed by some DFOs. However a very recent (March 2003) ruling by Nepal's Supreme Court has ruled this action unconstitutional, and it is unclear how the government will respond to this.

While the positive impact of communities' management on the state of the forest has been demonstrated in the hills in Nepal (Gilmour and Fisher 1991, Hobley 1996, FAO 1999). Even here evidence of improved livelihoods at the level of individual households is less clear and concern is being expressed that poor and vulnerable groups, including women, are not involved in decision-making and have not benefited from any improved management systems (Springate-Baginski *et al. 2*001). Often local forest managers/ management groups have prioritised conservation and paid less attention to management and sustainable pro-livelihood systems of use. This is now the main concern of the Department of Forest, as well as of donors and other agencies involved in forest management in Nepal.[13] Springate-Baginski and colleagues, in their earlier NRSP project (*ibid.*), tried to address this problem and developed a tole-level planning process referred to as Micro-Action-Planning. A whole range of social and economic questions are now being asked about benefit sharing and are under investigation in Nepal and other countries (Mayers and Bass 1999).

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only marginally, in the Terai. This experience has largely been in the Siwalik belt rather than in the Terai proper.

[12] Soussan *et al.* (1995: 117 ff.) describe the impact of forest depletion on the landless and poor in their case study of Dhanusha, in the central Terai.

[13] A Nepal UKCommunity Forestry Project (n.d.) leaflet on `Community Forestry – Overseas Development and Nepal' (contained in NUKCFP [n.d.]) states `Virtually every rural household in Nepal is dependent on wood for cooking and heating, and on forest land for feeding their domestic animals […] the vast majority of the population is directly involved in managing a forest as part of everyday life. […] it follows that forestry intervention is a very effective way [for donors] to reach out to the mass population of Nepal'.

Questions also revolve around the sustainability of any livelihood improvements and the overall livelihood security of poorer groups once a change in management for one particular resource is implemented. DFID's Sustainable Livelihoods Framework points to the different assets that individuals, households and communities utilise in their livelihood-building activities. This helps to highlight the initmate linkage between natural resource use and the management of other household assets as well as the importance of the policy environment to livelihood outcomes. But this framework, along with other work on reciprocity and social exchange, demonstrates the interlocking nature of peoples' assets and the way in which inter-dependency between different groups of people is maintained and forms the basis for achieving overall livelihood security. The Terai in Nepal is, as has been noted above, very mixed socially, in terms of caste, class and ethnicity. We know that individuals and groups use interventions to maintain or improve their own livelihood circumstances (see Long and Long 1992) and unless sufficient attention is given to the needs and interests of different categories of people, it is unlikely that participatory approaches based on the need for consensus will be possible, let alone, sustainable.

1.4. Overview of the main findings

While the opening chapters of this report present the background and contextual location of our study and methods for data collection, Chapter Five presents a framework around which important questions about community forestry policy in the Terai may be discussed and analysed. This framework has the following key elements. Based on documentation of a relationship between resource value on the one hand and distributional bias and institutional instability, on the other, the framework assigns a key role to forest value as a driver of crucial outcomes in FUGs in the Terai. The framework also recognises the key role of the external environment in which FUGs operate and how this environment and its key players, i.e. the Department of Forest and District Forest Offices and their representatives, sets the parameters or the room for manoeuvre of FUGs. As will be carefully documented, current practice conflicts starkly with a balanced forest management regime and represents, we shall argue, a severe regulatory failure that prevents a more balanced utilisation of natural resources in the Terai, thereby depriving significant sections of local communities, including the poorest and most vulnerable, of potential and often substantial benefits.

The framework also recognises the roles of community characteristics and of autonomous policies adopted by FUGs. Such autonomous policies include price of membership, access restrictions and other FUG policies that have distributional effects. Existing work on the distributional impacts of community forestry has focused, we shall argue, mainly on subsistence collection of forest products. Applied to assessments of distributional outcomes of community forestry in the Terai, such a perspective is too narrow and misses the main point; the key sources to unequal distribution in FUGs in the Terai lie elsewhere.

To guide reasoning on distributional outcomes and to gain a better understanding of the institutional problems confronting Terai FUGs and their solutions, we introduce the concept of *the hidden economy* of a Forestry User Group. Francis (2000: 58) observes that for many rural households in Africa participation in the informal economy may be the only way they can maintain a toehold in the urban economy. `People, goods and money move between city and countryside in complex networks of markets and non-market exchange, much of it `hidden' from official gaze. But it is not only the poor and marginal who may benefit from `hidden livelihoods.' Francis goes on to note that `hidden livelihoods are central to the efforts of ordinary Africans to make a living. They are also the realm within which the privileged make use of the networks and cultural repertoires that allow them to accumulate wealth.' Francis's interpretation of `hidden' is too loose for our purposes. Moreover, Lacko (2000) suggests that the term has been used as synonymous with "underground", "informal", "black", "shadow" and more. Economists have typically been much concerned with estimating the size of the underground economy in transition and other countries (*op.cit*). Our definition is of a different order and has a much more precise content. In addition, not all aspects of FUG hidden economies are illegal. We shall define the FUG hidden economy as having two main constituents, hidden subsidies and hidden transactions. Hidden transactions typically involve a corrupt act such as illicit harvesting of timber, accepting bribes or other types of embezzlement. Hidden transactions provide an indication of the scope for using key FUG-office posts for private gains. The absence of effective mechanisms for controlling corruption among office holders (and others) leave FUGs vulnerable to the ulterior motives of candidates seeking leadership positions. The greater the scope for such illicit pecuniary gains, the more intense this selection problem is likely to be. Notice should be taken of the link between forest value, this aspect of the hidden economy and institutional instability. The link is indicated in the framework and discussed in more detail in Chapter Six.

Hidden subsidies form the second and the most important constituent of hidden economies in Terai FUGs. Hidden subsidies are legal, but are deeply problematic when large and when having a distinctly skewed distributional profile. As indicated by a numerical example given in Chapter Seven, roughly 64 percent of the net benefit generated by the annual cut of the most valuable forest product (timber) in one FUG was usurped by a hidden subsidy. Moreover, the mechanisms for allocating timber adopted by this FUG ensure that the subsidy has a highly skewed distributional profile.

This research focuses on the forest-based livelihoods of people dwelling in the study area. We have not explicitly used a livelihoods framework in our analysis, choosing to focus on the elements contained in the box in the DFID livelihoods framework `Policy, Institutions and Processes' [14] which play such an important part in influencing livelihood outcomes. But our findings do have implications for broader 'livelihood assessments'. Livelihoods frameworks are often used as an aid to analysis. Ellis (2000: 29) describes the purpose of such frameworks as `to organise ideas into manageable categories, identify entry points and critical processes, and assist with prioritising catalysts for change that can improve people's livelihood chances.' The sustainable livelihoods framework used by the DFID, for example, is intended `to provide a checklist of important issues and sketches out the way these link to each other; draws attention to core influences and processes; and emphasises the multiple interactions between the various factors which affect livelihoods.' (DFID 1999: Section 4.1). Much of the analysis using the framework focuses on identifying different assets that households have access to, such as land, housing, credit, social support networks and skills, examining the events or circumstances that make livelihoods vulnerable (drought, sickness, environmental degradation etc.), the policy environment and the livelihood strategies adopted to try to improve their livelihoods. The focus of livelihood analysis, using such frameworks, is usually on productive activities and the identification of material assets. The existence of the `hidden economy', which we describe below, could be missed if a livelihood assessment was done based on a household checklist and official records.

While livelihoods analysis in a community may be expected to reveal information on the status of the assets of different groups and how this changes over time it may fail to record some important aspects of individual household members livelihood contributions. A

participatory assessment should yield such data, but we would argue this will depend on whether those undertaking the exercise are sensitive to the cultural and social nuances of the livelihoods of those taking part in the assessment.

In the next Chapter we summarise the Project Purpose and Outputs, before moving on to detail the methods used in Chapter Three.

[14] See the Livelihood Guidance Sheets (DFID 1999) on www.livelihoods.org for an explanation of the livelihoods framework used by DFID.

2. Project purpose and expected outputs

This research aims to contribute to the design of participatory approaches to natural resource management that increase the opportunities for poor and marginal groups to achieve greater livelihood security. The research was undertaken in the Terai of Nepal in villages close to forested areas, where community members are involved in forest management activity as well as management of other common pool natural resources.

An aim of this project was to understand the management of the forest within wider processes of social exchange. The research explored whether changes in management, brought about by shifts in Government policy, in-migration, or other socio-economic and political events have increased the vulnerability of poorer and marginal groups that depend on others for their livelihood security.

This investigation of the links between social structure, patterns of resource access and use, and poverty in specific social contexts provides the information needed to examine more closely the implications of the structure and functioning of new common pool resource management regimes for particular social groups. Since common pool resources are widely seen to be vital for the livelihood building activities of poorer groups, and for women, the investigation contributes to enhancing the poverty focus initiatives already being undertaken in the Forest Agriculture Interface (NRSP) of Nepal, but also in other locations.

There are four outputs for this project. The first is a framework that elaborates the linkages between social processes and natural resource use and possible economic and other outcomes of change. The second output is the promotion of the understanding implicit in the framework and that gained during the research. The third output consists of examples of how the understanding gained can be integrated into plans or models for improved management. The final output is the strengthening of local capacity.

PROJECT LOGICAL FRAMEWORK

Narrative summary	Objectively Verifiable Indicators	Means of Verifications	Important Assumptions
Goal Planning Strategies to sustain livelihoods of poor people dependent on forests adjacent to croplands developed and promoted	By 2002 new approaches to the management of common pool resources and forest biodiversity validated in two targeted areas By 2003 these approaches incorporated into participatory management strategies to maintain forest integrity and adopted by target institutions in two targeted areas	Reviews by Programme Manager Reports of research teams and collaborating/ target institutions Reviews by programme manager	Enabling environment (policies and institutions) exist.
Purpose Participatory approaches to managing common pool resources (CPR) for sustaining the livelihoods of poor people in the Terai of Nepal assessed, strengthened and new understanding widely promoted	Framework for assessing new approaches developed and used by the project and at least one target institution for integrating into their participatory approaches for managing CPRs by project end. Understanding of the socially embedded nature of natural resource activities discussed and widely promoted within at least one target organisation by project end. Local capacity to research the link between social, economic and technical concerns enhanced in at least one organisation by the end of the project.	Project and target institution documentation Project reports Information provided by target institutions Research outputs of collaborating institutions	Continued Nepalese institutional commitment to supporting new planning strategies for increasing the livelihood security of poor people dependent on natural resources Political situation enables field research in the Middle Hills

Outputs 1. A framework elaborating the linkages between social and economic processes and natural resource access and use in specific locations developed and tested.	By month 5 draft framework developed, discussed by Working Group, distributed widely amongst stakeholders and presented at a seminar. Framework used for developing a detailed plan for data collection and analysis to begin in November 2001. Framework tested by stakeholders in project workshop by month 18 and case studies documented and circulated by month 24.	Project quarterly reports Framework document Workshop report Case reports	Existing institutional arrangements provide a basis for more participatory and sustainable approaches to CPR management New institutions and management regimes can be designed and implemented for the creation of additional individual and group room for manoeuvre in terms of livelihoods
2. Understanding of the implications of existing social and economic processes for proposed changes in natural resource management including benefit sharing increased and promoted amongst target institutions and more widely.	By month 5, first consultation with two stakeholder groups held, initial field visit undertaken and first seminar held and documented. By project end, at least 8 consultations with different stakeholder groups documented, 6 seminars held and papers distributed, and 1 paper submitted for publication	Consultation meeting papers Quarterly report Paper prepared for publication	
3. Ways to increase the opportunities for vulnerable groups to access benefits of common pool resources integrated into specific plans for their improved management.	By month 18, at a workshop, target institutions use the framework and the research results to plan changes in resource management that enhance access to CPR benefits by vulnerable groups and increase their livelihood security overall.	Workshop report	
4. Local capacity to link social, economic and technical concerns in developing and promoting changes in natural resource management enhanced.	Major field research planned and undertaken by joint local and international research team by end of February 2002 and first outcomes presented and discussed in a seminar by May 2002. Joint publication submitted	Project reports and papers Paper submitted for publication Booklet	

	for publication by month 24. Final outputs disseminated widely in booklet form by month 24.		
Project Activities 1. Finalise collaborative arrangements, establish Working Group and initiate first consultation meetings to discuss expected project outputs, possible research sites and interests of different target institutions. 2. Review literature, discuss with colleagues and undertake brief field visit to develop framework for distribution and discussion with Working Group and in seminar. 3. With collaborators, develop research approach using framework and design tools for data collection on social structure and local processes for resource access and use by different groups. 4. Collaborators and Working Group members engage in consultation meetings with targeted institutions to discuss sites, research approach and data to be collected. 5. Data collection undertaken in at least two locations. 6. Data analysis completed and understanding applied to participative management initiatives designed to increase livelihood security of poorer groups by research teams. 7. Understanding discussed and promoted through seminars and consultations. Paper	**Milestones** 1. End of Inception period August 2001 2. Draft framework developed, distributed and discussed by August 2001 3. Field research plan completed by November 2001 5. Main field data collection completed by March 2002 6. Data analysis completed by July 2002 7. Workshop to apply framework and understanding. September 2002 8. Case studies and booklet prepared and distributed. March 2003 9. Final report. March 2003	Project reports	Political instability does not prevent meetings and field work

prepared and submitted for publication. 8. Workshop to use research results along with framework to assess possible outcomes from specific management models and to plan required changes for meeting poverty considerations. 9. Workshop case studies (management models) documented and distributed widely and final project report prepared.			

3. Research Orientation, design and methods

3.1 Overall approach to research

The focus of our research is the relation between the management of common pool resources and the social and political systems in which these management systems are embedded. To explore these linkages, it was necessary to understand and document social and management processes in detail and at a local level. Such detailed research on the involvement of individuals, households and communities in natural resource management, and its impact on their livelihoods, remains surprisingly rare in Nepal. However, we consider the understandings that the approach can yield to be essential to improving the effectiveness and equity of natural resources management policy.

As Agrawal (2001) has noted in his plea for more careful research design and sample selection in relation to studies on common pool resource management regimes, most studies have tended to focus exclusively on the `local' and have neglected the context within which localities have been shaped. These studies have generated lists of problems or facilitating conditions for strong management regimes rather than looking at the interplay of different variables and the analysis of causality between these in explaining common property regime performance. Agrawal (*op. cit.* pp. 1661-1664) argues for a shift away from the single-case study analyses towards developing an understanding of causal mechanisms based on comparative and possibly statistical analysis.

The route for producing robust estimates of the relative strength of causal relations would be to undertake multivariate analysis based on a random (or stratified) sample of user groups where different types of outcomes (environmental, distributional etc) feature as alternative dependent variables and various resource and community characteristics as explanatory variables. This would, of course, require a survey covering a substantial number of user groups (rather than households). Despite concerted efforts by key players in this research area to produce data-sets that could accommodate this, no such analysis has so far been forthcoming. There are, of course, very good reasons for this absence and within the size of this project and the time limitations a statistical approach has also not been possible.

We therefore adopted a purposive sampling approach based on both common sense considerations and thought over likely significant causal mechanisms (e.g. resource value).

While recognising the importance of the locally specific, we were also concerned to capture the influence of wider social, administrative and political processes that influence action at the local level. In the case of community forestry, local aspirations have been shaped by many external conditions. Five key factors are: the influence of a model of community forestry developed in the hills; a growing level of environmental awareness; the creation of new decentralised local government institutions; a disillusionment with central government; and the catalytic role of NGOs and civil society institutions. Our research needed to document the ways in which these developments intersect with local concerns.

The Western Terai districts of Nawalparasi and Rupandehi[15] were selected as the research area for four reasons.

- First. the Department of Forest, the Livelihoods and Forestry Project and the UK Department for International Development (DFID) country office encouraged us to work in these districts, which are the ones in which LFP was initiating its Terai operations. The existence of users supportive of our research and interested in using our findings was naturally a persuasive factor in favour of these districts.
- Second, the Terai was, as it continues to be, the site of vigorous public debate regarding the respective roles of communities and the state in the management of natural resources. As we shall see, this debate is a reflection of important new forces emerging in Nepal's society and polity since the early 1990s.
- Third, in comparison with the hills, where the community forestry had given rise to a burgeoning literature, common natural resource management and other social issues in the Terai have been greatly under-researched.
- Finally, the political situation in the Terai, and in these districts in particular, was for the most part secure and stable.

Within the Western Terai, the management of forest and other resources by communities varies according to the ecology and type of forest, the degree of responsibility handed over to communities and the social composition of those communities. To capture this variation, research was undertaken through intensive investigations in five Village Development Committee areas (VDCs), selected so as to represent key social and natural resource

[15] See Appendix 1, pp. 1-139 to 1-142 for maps of the districts.

management issues in the study districts, and in the Terai more broadly. These include the management of forest and wetlands, and the management of resources in the buffer zone of Chitwan National Park.

In order to capture variation, local specificity, and the complexity of interaction between village, district and national level concerns, a flexible, qualitative research design was adopted. The main methods used in the research combined participatory research tools with key informant interviews. Critical actors in the community forestry movement and other key figures in the districts and communities provided us with information on the development of local management of the forests. This was combined with in-depth interviews with households purposively selected to represent different social and occupational groups so as to document the significance of forest resources in their livelihood strategies, and the impact of the new community forestry regimes on these. More formal inventory techniques were used to assess the composition and value of forest resources. Full advantage was also taken of official statistics and available documentation. In general, the research was guided by a thematic structure rather than detailed questionnaires or guidelines.

Note should be made of the fact that much of the information needed to build an understanding of the hidden economy was highly sensitive and care had to be taken to build sufficient rapport in order to encourage informants to be forthcoming. Moreover developing a coherent story required repeated and very careful triangulation and considerable effort and time input from the research team. This was not made any easier by the conditions under which the research was conducted.

3.2 Research under conditions of chronic political instability

From the operational point of view, the main challenge facing our research was the shadow of armed conflict hanging over the country. The insurrection against the government, first declared by the Communist Party of Nepal (Maoist) in February 1996, has continued in a series of waves since that date. It was estimated that by October 2001, around 1,800 people had been killed, hundreds reported missing and thousands displaced (Seddon and Hussain 2002). During the second half of 2001 and 2002, the struggle intensified, partly as a result of the June 2001 massacre of the Royal Family and the US-led ‘war against terrorism’. A state of emergency was declared in late 2001, and the political crisis was intensified when the new

king suspended parliament on May 22nd 2002. Attacks in rural areas have been accompanied by bombs in Kathmandu, and *bandhas* (general strikes) imposed nationally by the Maoists.

The gradually deteriorating political stability and security in Nepal gave rise to a number of dilemmas. Our first concern was whether researchers could be exposed to any danger in undertaking field research. Intensifying political violence could also threaten the viability of undertaking the research and the willingness of stakeholders, especially in rural communities, to work with us, as well as distorting or even paralysing some of the institutions which we hoped to investigate.

In view of these uncertainties, the start date for the research was delayed by six months from May/June to November 2001. The situation did not deteriorate significantly in that time, and in particular, the Terai zone of the country remained relatively calm and free of violence. Before beginning field research early in 2002, we took advice widely on the implications of the security situation. Although the situation was by its nature unpredictable, it was judged that no significant risks would be presented to researchers working in the area proposed as a result of the political situation. The decision was accordingly made to continue. The situation was kept under review, with safety and security the first priority. Two changes were also made to the research design to ensure safety. First, the parts of the districts in the Mahabarat hills, which were more insecure politically, were excluded. Since these areas are socially and ecologically similar to the relatively well-researched hills area, the research implications of this decision were relatively minor. Second, Kapilvastu district was dropped from the research area because of an increased threat of political violence in the District during 2002.

The security situation created a secondary problem for the research: inevitably, the country was wrapped in a climate of unease and suspicion, such that unfamiliar visitors asking questions about, amongst other things, local politics, could understandably not always expect to be warmly welcomed either by residents or local officialdom. This meant that research had to proceed with great caution and prudence in order to build the trust and confidence essential to participatory research. Fortunately, our research teams took this challenge, as they did so many others, in their stride, and through skilful diplomacy succeeded in building excellent relations with the research communities and with organisations working in these areas.

Consideration of the effects of chronic political instability on the implementation of research is one matter. However one cannot ignore or isolate the effects of political instability from the struggles over access and use of forest resources. Situations of chronic political instability share a number of characteristics of which the following elements are to be found in Nepal: [16] weakened or non-existent public institutions (executive, judicial, legislative); withheld or contested external legitimacy of the state; a strong parallel or extra-legal economy; existence of, or high susceptibility to, violence; livelihoods highly vulnerable to external shocks and widespread serious poverty. The contest for forest resources and the extra-legal economy that flourishes around them are intrinsic to rather than separate from wider context.

3.3 The research-dissemination process

The research programme can be divided into eight stages:

Activity 1: Collection and analysis of secondary data
Activity 2: Creation of research frame with data from activity one
Activity 3: Selection of field sites
Activity 4: Design of main field research
Activity 5: Selection and training of field researchers
Activity 6: Fieldwork
Activity 7: Synthesis, analysis of findings and framework development
Activity 8: Dissemination of findings

Activity 1: Collection and analysis of secondary data

A literature review on community forestry and common pool resources in Nepal was compiled during 2001 (Pant 2002).[17] District statistics and information relating to livelihoods, social indicators, migration, governance and institutions were collated and synthesised (NORMS 2002). Maps of the research districts showing land capability, land use, population distribution and location of community forests were also prepared using GIS data.

Activity 2: Creation of research frame with data from activity 1

Secondary data on VDCs were collated according to topography, the presence of forest, and the existence of FUGs, both registered and under formation. Data on registered Forest User Groups in the research districts from the existing national data base were also collated. This included information on name, location, date of registration, area controlled, and number of households. A ranking of VDCs in relation to area and households was prepared. Based on

[16] Adapted from Schafer 2001.
[17] This review focuses on Nepal in general and does not look specifically at the Terai because the bulk of this work was done when we still hoped to work in the mid-hills of Nepal.

district maps (prepared by the Geography Department) which located the VDC and the location of VDCs containing FUGs (Community Forest user groups) and the number of FUGs per VDC, a draft protocol for village selection for the research was prepared (Box 3.1).

Box 3.1 VDC and Village Selection Protocol in Rupandehi and Nawalparasi Procedure
(Source: Pain, Seeley & Kafle. Back to Office Report, March 2002).

1. We have the following information available on VDCs and FUGs

- the location of the VDCs (Village Development Committees.
- the location of FUGs within these VDCs and thus the location of VDCs without FUGs;
- the major landscape features associated with each FUG;
- the forest categories (Production, Protection and Potential Community Forest);
- the reported area and number of household per FUG from which the FUG area per household can be derived; the FUGs can be ranked on the basis of area, number of households and area/household the approximate location of wetland by VDCs;
- the location of buffer zone VDCs in Nawalparasi;
- from maps we know where the distribution of forest and landforms are;
- we also know where the major transport routes and urban centres are;

2. We should also note the information we do not have but which must be considered in our sample selection

- the location of FUGs in the process of formation
- the location of non-formal associations concerned with resource use
- the history or age of settlements
- the location of NGO activities
- the location of major ethnic groups if there are clear patterns of settlement

3. We are concerned in our sample selection to capture key contrasts. From our field evidence and other secondary material the key contrasts would appear to be the following:

- contrasting land forms (Mahabharat, Inner Terai, Churia, Terai)
- location of FUGs in Potential Community Forestry areas either on their own or surrounded either by Production or Protection forest
- areas where there <u>are</u> and <u>are not</u> FUGs – the FUGs map closely in association with forest that in the case of Rupandehi is located in the north of the district and in the case of Nawalparasi in the North-East and the South-West.
- From the above point one can hypothesise a gradient of decreasing access (or at least increasing distance from) to forest as one moves from north to south in Rupandehi and in the case of Nawalparasi moving north-east and south-west

Box 3.1 cont'd
Rupandehi Village Selection

The basic contrasts to be selected from Rupandehi are shown below. These are ranked in terms of priority (1 to 5) and it is clear from the VDC district map that there is a close association between these features e.g. northern location, Churia landscape, presence of a FUG, Forest and no wetland.

1	**2**	**3**	**4**	**5**
North	Churia	FUG	Forest	No wetland
Or	Or	Or	or	Or
Middle	Terai	No FUG	No Forest	Wetland
Or				
South				

The key contrasts to pick up in the village selection are probably as follows:

					*Possible Districts
North	Churia	FUG	Forest	No Wetland	2,3,4,5
Middle	Terai	No FUG?	Forest	No Wetland	19, 10, 8
South	Terai	No FUG	No Forest	Wetland?	29,30,33,34

- these districts are numbered on draft maps prepared by the Department of Geography

The following points should be noted from the ranking (from greatest to least) of FUGs by forest area, number of households and area/household:

- 80% of the FUGs in the Churia landscape are in the top 50% of FUGs by number of households; the modal value of number of households per FUG is about 352 while the average is about 750
- The modal area for FUGs is 50 ha - the average about 185 ha and most of the Churia landscape FUGs are in the top 50% by area
- In terms of area/hhold the modal value is about 0.12 ha per household - the average 0.20 and 60% of the Churia FUGs are in the top 50% of the ranking.

The implications of the above is that the Churia based FUGs tend to have larger areas, more households and greater forest area/ household than other FUGs. One of these should be sampled but be careful not to sample from the extreme end of the range.

Issues to be curious about:

- why have the FUGs on the Churia landscape ended up being better resourced than others – and presumably with better quality forest as well?
- Why do some VDCs – both in the Churia and Terai range have more FUGs than others: is it just availability of forest?

Box 3.1 cont'd

Nawalparasi Village Selection

The basic contrasts to be selected from Nawalparasi are:

1	**2**	**3**	**4**	**5**
North – East	Mahabharat	FUG	Protection Forest	No wetland
Or	Or	Or	Or	Or
Middle	Inner Terai	No FUG	Production Forest	Wetland
Or	Or	Or	Or	Or
South – West	Terai	Buffer Zone UG	No Forest	Buffer Zone

The key patterns to pick up are probably as follows

					Possible District
FUG	MB/IT	Forest	No Wetland	North-East	4,8,9,15,16,17,1
No FUG?	Terai	Forest	No Wetland	Middle	50-60
No FUG	Terai	No Forest	Buffer Zone	South	29,33,35

The following points should be noted from the ranking (from greatest to least) of FUGs by forest area, number of households and area/household:

- All the Mahabharat FUGS fall in the bottom half of the ranking by household size; inner Terai FUGs tend to have larger number of households. The modal value of number of households per FUG is about 200 while the average is about 353
- The modal area for FUGs is 30 ha - the average about 85 ha and most of the Mahabharat and Inner Terai FUGS are in the top 50% by area. The seven lowest placed FUGs by area are all in the Terai
- In terms of area/hhold the modal value is about 0.35 ha per household - the average 0.52 and all the Teria FUGs are in the bottom 50% of the ranking.

The implications of the above is that Terai based FUGs either because of small area or high number of households – (a Terai FUG has the greatest number of households) all fall below the district average FUG ha/ hhold. The relatively low number of households is the distinguishing feature of the Mahabharat FUGs.

It is worth noting that in comparison with the Rupandehi FUGs, the Nawalparasi FUGs have lower modal and average values for household numbers and area but higher (more than double) modal and average values for area per household.

Box 3.1 cont'd
Cross District Considerations

- Plan for different selections across districts – for example if two village with FUGs are sampled within one district, for the other try to select only one FUG
- In the two districts we probably need only one village with wetland CPRs – maybe chose this from Rupandehi and focus on the Buffer Zone in Nawalparasi.

A checklist of the range of features to capture in the total sample selection is given below:

Village Sample		**1**	**2**	**3**	**4**	**5**	**6**
Features	Target No						
Landscape							
- Mahabharat	1						
- Churia / Inner Terai	2						
- Terai	3						
Organisation							
- FUG	3						
- No FUG	3						
Proximity to forest							
- close to production/ protection forest	2						
- middle distant	2						
- far distant	2						
Wetland	1						
Buffer Zone	1						
Road							
- close (0 – 5 km?)	2						
- middle (5 – 10 km?	2						
- distant (> 10 km?)	2						

Activity 3: Selection of field sites

Five VDCs were selected as research sites using a combination of the research sample frame, local knowledge, and preliminary field trips. The selection procedure combined systematic and purposive sampling methods so as to select a set of VDCs with a combination of features that would include the main kinds of resources and situations in the two districts.[18] The most important of these were:

Community forestry: presence of functioning Forest User Groups (FUGs), at different stages of development and formalisation; differences in the value of forest resource and potential for commercialisation, in accessibility, and in size of user groups.

Buffer zone: 1 site (Rajahar) was selected in the buffer zone of the Royal Chitwan National Park in Nawalparasi district.

Southern Terai: one site (Harpur) was selected to illustrate the very different resource regimes and constraints in the southern parts of the district.

Wetlands: 2 sites were selected to include wetlands: a relatively small pond in Harpur, and a larger water body in Suryapura.

All potential sites were visited at least once to gauge their suitability and the feasibility of undertaking research there. Factors considered included the representativeness of the site and the willingness of the community to accept a research team. Table 3.1 lists the sites finally selected, as well as the main research issues that presented themselves in each.

Table 3.1: Study sites

No.	*Distr.*	*Village Development Committee (VDC)*	*Situation*	*Key community resources examined*	*Issues*
1	N-p	Makar, Jahada	Main road, market town	Unregistered Community Forests (CF)	CF boundaries, ward & ethnic inclusiveness; complex settlement
2	N-p	Harpur	Southern Terai, no forest	Wetlands, canal-side tree planting	political conflict in committee
3	N-p	Rajahar	Buffer zone for conservation area; high value forests	Community forests	diversity; complexity in CF management; institutional instability, rent-seeking
4	R-d	Suryapura	Southern Terai, interior	Wetlands; handed over forest, 'under process' forest	VDC politics, community-contractor conflict
5	R-d	Devdaha	Main Road, Market town	Handed over CF	High value forest, though heavily cleared, involvement of NGOs; participatory processes

N-p = Nawalparasi; R-d = Rupandehi

[18] See maps in Appendix 1, pp. 1-139 to 1-147.

Activity 4: Design of field research

Method

As noted, our data collection methods were predominantly qualitative. They included individual, household and group interviews and discussions, and participant observation, including attendance at meetings. Key informants included Department of Forest and other officials and field workers, community leaders and politicians, NGO workers, and user group members and non-members.

Areas of investigation

The main areas of investigation comprised, on the one hand the physical, social, and political setting, and on the other the use and control of common natural resources. Key areas of investigation included:

- resource endowments; history of settlement, including land tenure and ethnicities; socio-economic structures (ethnicity, caste, gender);
- role of common resources in livelihoods; access to common resources (incl. social and gender differentiation and trends in access);
- management and control of common resources (institutions for administration, governance, and their social and gender basis);
- links between common natural resource management institutions and other institutions (VDC, DDC, other NR sectors such as Water User groups, private sector etc.); and
- relations of institutions and processes to the state, political parties, NGOs, commercial organisations.

An extended checklist (see attachment 3.1, page 33) was developed to guide the investigators. Brief forest resources inventories (species, age, density, etc.) of community forests were also undertaken.

Consultations with potential research users

A wide range of stakeholders, including HMGN Department of Forest and other natural resource management agencies, NGOs, district administrators and politicians, LFP and other projects working in the Terai and DFID advisers in Kathmandu were consulted. A consultative workshop for potential research users was held before the start of the research to

discuss objectives, approach, and methods. Meetings were held regularly with potential research users particularly at the debriefing stage from each research phase.[19]

Activity 5: Selection and orientation of field researchers

The selection and training of field researchers was vital to the success of the research. A team of eight graduates was selected, four women and four men. They were trained though an intensive eight day course which covered the objectives of the research, the areas of investigation, and participatory methodologies.[20] The field investigators were provided with guidelines that listed the main areas of investigation. In addition the team worked together ('learning by doing') in the first two sites, Makar and Harpur, in order to strengthen teamwork and gain field experience

Activity 6: Fieldwork

Field research took place in three phases between April and December 2002, the bulk of the fieldwork being carried out by the field research team under the guidance of the Research Co-ordinator, Ghanendra Kafle.

Activity 7: Synthesis, analysis and development of the framework

Field researchers and NORMS/ODG researchers met for three to eight days after each phase of field research to debrief and synthesise findings, prepare a draft report, and draw out lessons for the subsequent phase of field research. Each of the synthesis stages was supported by a member of the ODG team and combined with a field visit to the site (See attachment 3.2, page 37, for project support visits by the ODG team). In November 2002 two of the field researchers, a woman and a man, were retained to work on the completion of the analysis of the data with Ghanendra Kafle and the ODG team, when the full field team of eight was disbanded.

The analytical framework (the final version of which is described in Chapter Five) was developed over the duration of the project. As the project RD1 notes 'the framework is intended to guide development practice and to enable those engaged in the development of new management regimes to first seek answers to a number of key questions'. The RDI

[19] The summary record of these consultations is contained in the Project internal reports (see Final Technical Report, Part 8 for a list of these reports). NORMS documented District level meetings in the form of internal memos in Nepali, translating salient points into English for ODG team members.
[20] The content of the training was documented by NORMS in `Training Topics' (an English summary of Nepali materials produced for ODG team members) March 2002.

proposed that by month 5 of the project a draft framework would have been developed and discussed and then used for developing a detailed plan of data collection and analysis. The framework would then be tested by stakeholders and case studies prepared.

The process did not proceed exactly as planned. Firstly the conditions of political instability both delayed the start of the project and because an extension of the project was not allowed beyond its original completion date, time periods for activities had to be collapsed and re-sequenced. In addition because of the insecurity, NORMS came to play a much greater role in the fieldwork than had been anticipated and this meant a rethink on the role of ODG and less of an involvement in the fieldwork. Secondly the emerging lessons from the fieldwork led to a radical rethink on the nature of the issues that were emerging, and a broader framework had to be elaborated to take account of the external context of the FUGs, if the internal processes were to be properly situated.

It should be clear that the concept of the framework was always seen as relating to key issues and questions and the development of hypotheses on causal relations rather than a rigid structure that would be applied in a formulaic manner. The lessons learnt through the duration of the research have led to a fairly radical evolution with respect to analytical focus.

The details of the original checklist (which it was anticipated at the time would then lead into the elaboration of the framework) are summarised in attachment 3.1. These were prepared in February 2002, subsequent to a review of the secondary data and agreement on the key issues. This checklist was basically a detailed list of key points around major headings, each of which had a specified purpose. This checklist was discussed in detail with both NORMS and the LFP, which was also in the process of designing a baseline survey of FUGs in its three districts in the Terai.

This checklist provided the basis for the fieldwork in the first set of sites. A subsequent review of the progress in its use (based on an assessment of the data and understanding that had been generated) led to its modification and refinement and to a focussing down on key issues. These refinements did not substantially change the structure of the checklist.

In the first comparative review of the site data undertaken in September 2002, it was clear from the discussions that a number of key issues were emerging that were crucial to an understanding of how FUGs were operating and how the outcomes were being determined.

On the basis of this review a completely new framework was drafted to take account of these issues (relating largely to the external institutional context) the details of which are summarised in attachment 3.3.

This draft was discussed extensively with interested parties, and in particular with the LFP project and ICIMOD, leading to further modifications. It was also used to identify key areas in which comparative analysis across the sites was required, leading to further data collection in the sites and the hunting down of crucial secondary information, particularly in relation to resource values, constitutions and operational plans of FUGs.

The emerging analysis of these secondary data and the further field work contributed to further development of the framework. Additional information particularly from Rajahar and appreciation of the fact that a hidden economy was in operation led to much greater attention being given to distributional consequences of FUG decisions and this new element was incorporated into the framework. Debate and discussions have led to further modifications in attempts to sharpen and clarify some of the concepts used in the framework. An original framing of outcomes between technical and governance were replaced with a focus on 'control' and the extent of control although these relate closely to the issues of governance (or not) identified in the first draft. This draft was presented in the Final Report and is attached (attachment 3.3). Comment from the Final Report NRSP referees and further thought has led to a further evolution[21] of the framework although its basic structure remains substantively the same.

This framework has been used to structure and link the evidence from the fieldwork in the final report. An earlier version of it was presented and discussed in some detail in the final workshop. Key issues that emerged from the discussion were questions of how it related to other frameworks, how it was developed and clarification of terms and ideas. In conceptual terms as Chapter Nine makes clear, the framework draws most strongly from the livelihood framework but focussing particularly on actual polices, institutions and processes and the links between these and village level institutions. Both these elements are fairly poorly specified in the livelihood framework and the framework here, which essentially has been evidence rather than theory driven, details how these work in practice for the very specific circumstances of community forestry in Nepal.

[21] This includes simplification, greater conceptual clarity over terms etc.

This is a framework in evolution and further field evidence should lead to its refinement. If it leads to a greater attention to actual processes and causalities and what really happens in FUGs (the private transcript), then it will have more than fulfilled its role. It is immensely encouraging the Terai forest adviser for the LFP project stated at the final workshop that he would be taking the evidence and analysis back to the field to apply it, something which LFP has since confirmed by email as they follow-up on the study findings.[22]

Activity 8: Dissemination of findings

Regular discussions were held with interested parties during the course of the fieldwork. The project gave a presentation on the research to a two-day workshop on 'Learning from Community Forestry' organised by CIFOR and the Department of Forestry on September 10-11 2001. NORMS held a debriefing workshop at the district level on completion of the fieldwork in November 2002.[23] A final workshop was held in Kathmandu in April 2003 to present the findings and representatives from a wide range of interest groups (projects, NGOs and donors) were invited.

A review of the capacity building processes during the course of the research are to be found in Appendix Seven, pp. 7-269 to 7-273.

[22] In the email of 20th June 2003 James Bampton, LFP Terai Forestry Adviser wrote of the study, ` At LFP it has contributed significantly to our understanding of the VDCs and CFs which you studied, as well as providing methodologies that can be applied to our research of all the other CFs in our districts. In particular we are attempting to make value estimations per household for all CFs and potential new CFs, something that has not been done in the past but should have'.

[23] See internal project document, Ghanendra Kafle (2002) `Report on District level Debriefing Workshop 20th November 2002'

Attachment 3.1 Initial Check List for Field Studies
(Source**:** Source: Pain, Seeley & Kafle. Back to Office Report, March 2002)

Check List for Terai/ District/VDC/Ward/Tol/village Household Level discussions & interviews on Social Structure, Livelihoods and the management of Common pool Resources in three districts in the Terai, Nepal

I: Background on Macro/Structural Political & Economic Factors

Purpose: descriptive questions to build a sufficient general understanding of relevant aspects of the wider political and economic context at different scales – Terai to district, district to VDC, VDC to ward, ward to tol to inform research at tol and village level on social structure, livelihoods and common property. Analysis of variability – what, where and why – to guide selection of VDC / Tol and village

Sources/Methods: Documentation, NGOs, Key Informants

1. Region/District Economy and variability
2. Internal (within district) trade and movement / markets/commodities/ traders/areas of surplus/ deficit
3. External trade and movement / traders/ external market linkages / district-Terai-region - national/ international (India)
4. State intervention, bureaucracy and public assets – infrastructure, health, education, forestry, irrigation etc
5. Social processes – migration and settlement/ phases/ location/ consequences; - democratic processes since 1990s factions, interests & agenda, locations; NGO action and interventions, politicisation; Maoist movement
6. Impacts on economy - asset creation and destruction public/village/private, shortages, surpluses, exports, imports, prices, terms of trade, markets (changed – increase and decline, destroyed, new);
7. Impact on society – alliances, solidarities, displacement, social structures/inter-ethnic tension/ violence, corruption, old & new grievances/fault lines.
8. Winners and losers –/ district/ VDC/ Ward/ Tol/ household and why
9. Current engagement with authorities / NGOs / where / when / what

II: Check List for Village Level Discussions on Rural Livelihoods and the role of common pool resources.

Purpose: to build up a general picture of household livelihoods (between & within households) and how & why these have changed over time and the role of common pool resources in these; for key livelihoods of different socio-economic groups the dynamics of access, vulnerability (threats, exposure and susceptibilities), accumulation and loss of essential assets (common pool resources, land, employment, markets, credit, social etc) will be investigated.

Sources/Methods: Focus group/ key informants / participatory activities/ social resource mapping/ relevant agency assessments

1. Village history:
- location and external linkages

- changes, key events, disasters/successes/ good times, key people,
- population structure, changes and reasons,
- emigration and immigration seasonal, long-term and permanent, who?, from where?, to where?
- village and district authority engagement
- village and NGO engagement

2. Village resources:
- Natural/ Common Property location, access and changes; key products for village use and export; who? changes? (caste, ethnic, gender differences?); conflicts over access, use
- Physical: private, public, distribution, location, access and changes
- Human – education, health
- Social: informal institutions & arrangements; village level positions; inheritance, tenancy & shareholding; sharing and credit; handling conflict, change;
- Political – external allegiances and alliances & changes; engagement with forest department

3. Village economy:
- household and family definitions; categories;
- livelihood sources by gender/ age/ household (production, market and non-market) and importance, variability between and within households and years, changes; relation to migration history? (old versus recent settlers/ migrants)
- major items of expenditure (food, schooling, weddings etc), amounts, timing, changes and differences between households; major sources of income
- seasonal calendar of livelihood activities, farm and non-farm based;
- household food security, degrees of deficit and surplus; commodities/ labour and terms of trade; household differences
- local and regional markets and changes; village imports and exports;

4. Village/ Household/ Family wealth groups
- key asset and asset combinations (natural, physical, financial, human, social and political) defining relative wealth and poverty
- distribution of wealth groups (proportion) and asset holdings; characteristics; changes and causes
- patterns of accumulation and loss of assets
- access to and control of resources

5. Household Strategies: Accumulation/ Adaptation/ Coping / Surviving.
- by wealth category, key livelihood activities and asset portfolio
- strategies of asset management and deployment
- patterns and sequencing of asset investment, accumulation, depletion, disposal and loss; asset inter-changeability
- opportunities (including aid, credit, borrowing), vulnerabilities and threats, strategies and tactics in accessing, maintaining and protecting assets and activities, avoiding exploitation/ asset-stripping; decision making processes and timing; legal and 'non-legal' (smuggling, force etc.)
- access and changes to patron-client relations, between social groups redistribution mechanisms
- lost or absent opportunities/ income sources/ markets
- destitution and recovery

III: Check List for Commodity / Asset / Social Group Analysis

Purpose: to explore in detail the particular economic / wealth and political/power relations that attach to key common property commodities (timber, fuel, non-timber forest products etc) / assets / by gender / socio-economic groups linking micro/meso/macro levels

* particular attention may need to be paid to women's' use of commodities for household consumption – may be quite hidden

Sources/Methods: Key informant interviews e.g. traders, occupational groups, socio-economic groups and relevant documentation

1. Structure of Production, Exchange and Consumption of Key Commodities consumed within village and traded

- Sources of product/commodity, location, availability, changes in quantity, quality, collection time, numbers of collectors, seasonality
- Collection for household use, by whom? changes in access and amounts, why?
- who collects/ extracts, from where, costs & times, (materials, credit, labour), volume/ quantities, competition, changes, opportunities, threats;
- points (location and time) of exchange and marketing; price setting/ price taking (by buyer or producer), price changes (terms of trade, fluctuations and stability) competition, changes, influences, linkages with other commodities;
- commodity chain: village to tol, tol to VDC, VDC to district and national markets; further exchange and trade relations, changes
- effects of institutional changes (Forest department and regulations, NGOs, Community Forest user Groups, infrastructure) on rights of use, changes in control/ access to product/ trading routes/ economic strategies; their roles and influence
- conflicts – within village, inter-village, external collectors etc; sanctions and enforcement;

2. Social Capital & Informal Safety Nets

- *Patron-client redistribution* (reciprocity not expected and made for reasons of affection, duty, patronage):
- Between whom and what basis?
- What is exchanged (commodities, cash, labour, quantities) and when?
- How often is this done and what are the costs, obligations/ duties of the exchange,
- At what scale does it take place? – what strategies are deployed, by whom in order to maintain relationships and how have these changed?

- *Horizontal redistribution* (made to spread risk or smooth consumption, with expectation of reciprocity when required):
- Who is it done with?
- What is exchanged? (commodities, cash, labour, quantities)
    - When does it happen and how is it arranged?
    - How often is this done and what are the costs, obligations/ duties of the exchange
    - At what scale does it take place? ; what strategies are deployed, by whom in order to maintain relationships and how have these changed?

IV Check list for the poorest/ most vulnerable households

Purpose: to explore in detail the role of common pool resource in the livelihoods of the poorest and most vulnerable

Sources/Methods: Key informant interviews from household identified through II and III above

- Draw selectively on the issues and topics covered earlier
- Focus on getting life histories

Attachment 3.2 Support Visits by ODG team to the Project.

Dates	Who	Places Visited
2001		
May 8-14	JS	Kathmandu visit establishing partnership arrangements
June-November		NO VISITS -- PROJECT ON HOLD BECAUSE OF POLITICAL INSTABILITY IN NEPAL
Dec 14 – 23	AP/PF	Kathmandu and field visit for initial site selection 3 days
2002		
Feb 21 – Mar 3	AP/JS	Kathmandu, final VDC Selection and Check List development
May 6 – 19	PF	Kathmandu, Butwal and field visit to Makar
July 19-27	VI/JS	Kathmandu, VI field visit to Rahajar and Suryapura
Sep 6 – 20	AP	Kathmandu and field visit to Devdaha
Nov 22-26	AP	Kathmandu Review of findings with NORMS
Dec 04—6	AP	Review of findings with NORMS
Dec 18 - Jan 9 2003	VI	Kathmandu and field visit to Rajahar (foreshortened because of insecurity in the area)
2003		
Mar 3-6	AP	Review with NORMS drafts and attendance at NRSP workshop
Apr 3-11	AP/VI	Final Workshop
May 24-27	JS	Kathmandu, meeting with partners on dissemination plans etc.

PF Paul Francis
VI Vegard Iversen
AP Adam Pain
JS Janet Seeley

Attachment 3.3. Framework for the analysis of linkages between social and economic processes and natural resource access and use presented in the Final Report (April 2003)

Institutional Drivers	**More Control**		**Less Control**
What is the Resource Market Value?	High	↔	Low
↓↑			
Where may communities Participate?	Restricted	↔	Unrestricted
↓↑			
Legal or Encroachment rights?	Encroachment	↔	Legal
↓↑			
Who is participated and how?	Consultation	↔	Community based forest
↓↑			
Product & Protection or livelihood oriented?	Protection → Product	↔	Livelihood
↓↑			
"Community" Drivers	**Exclusive**		**Inclusive**
↓↑			
Established or dynamic immigrant?	Established	↔	Dynamic Immigrant
↓↑			
Differentiated or undifferentiated communities?	Differentiated	↔	Undifferentiated
↓↑			
Price of Membership	High	↔	Low
↓↑			
Distributional Policies	Hidden	↔	Open
↓↑			
Outcomes			
↓↑			
Livelihood Benefits	Selective, less equal benefits	↔	Less – selective, more diverse benefits
↓↑			
Equity	Limited	↔	Expanded
↓↑			
Gender	Limited	↔	Expanded
↓↑			
Institutional	Non-transparent, unstable, exclusive	↔	Transparent, participatory, stable
↓↑			
Environment	Negative → Positive?	↔	Positive → Negative?

4. General Information on the Research Area

4.1 Introduction

The two research districts of Rupandehi and Nawalparasi include a wide range of land forms and environments:[24] the Mahabarat range of southern hills, the Churia hills (the fragile outermost foothills of the Himalaya known as the Siwaliks in India), the flat inner Terai between these ranges, and the outer Terai which extends to the border with India.[25]

Until the middle of the last century, the two study districts area, like the rest of the Terai, was forested and largely uninhabited. During the Rana regime, the Terai forests, whose inhabitants included Tharu, Danuwar and other groups, were exploited for timber exports to India. Under the institution of *birta,* senior officials in the Rana government and family members were granted tracts of Terai land. From the 1940s, land in the area was granted to *zamindars* (a kind of feudal landlord) in lots of up to 300 *bigha* (approximately 200 ha.) by the King. Two groups in the area often referred to as 'indigenous' inhabitants, Tharu and Mushahar, were in fact for the most part brought to the area from India as *haruwa* (bonded labourers) by the *zamindars*.

Haruwa were given an annual allowance of rice (said to be 16 maunds, or 640 kg), and allowed a small plot to till for themselves. With the land reform legislation of 1966, *haruwa* were able to claim tiller's rights. Today, as well as in agriculture, many Tharus work as carpenters, masons and drivers.

4.2. Settlement and land since the 1960s

The elimination of malaria from the 1960s and the construction of the East-West King Mahendra Highway in the early 1970s were to stimulate radical changes in the area, bringing in a number of waves of migrants of diverse origins. Those to the study areas came chiefly from the districts of the western zone directly to the north – Baglung, Gulmi, Kaski, Gorkha,

[24] See Appendix 1, for maps of the Districts.

[25] Bajracharya defines the Terai more precisely as follows: 'The Terai region is broadly divisible into the southern stretch of the alluvial plains (the Terai proper), and the northern colluvioal deposits (the Bhabar) along the southern foothills of the Siwalik Range (100 - 1500 metres). The Inner-Terai comprises a series of valleys and low hill regions between the Siwalik Range in the south and the Mahabharat range in the north.' Keshar Man Bajracharya, 'Intensive Management of the Terai and Inner Terai forests in Nepal', In *Management of Forests in Terai and Inner Terai of Nepal*, Papers presented at the National Workshop organised by the Nepal foresters Association, February 11-12, 2000, Kathmandu.

Syanja, Tanahu, Palpa, Parbat and Dhading. This was largely a spontaneous process, although government did attempt to influence and regulate it through the programmes of the Nepal Resettlement Company (NRC), the Resettlement Department and various commissions on the landless. The NRC, for example, implemented nine schemes in the Terai in the 1970s, two of them in Nawalparasi District. Outside such schemes, newcomers purchased land from the local population or *Zamindars* who had earlier been granted land, or simply squatted on unoccupied land. The process of settlement was accelerated by the land reform act of 1964, which set a ceiling on individual land ownership, reducing the possibilities of landlordism.

The first group of new settlers were the road construction workers themselves, some settled in the area with their families. Next were Nepalese returnees from Burma, who first settled informally, but in the early 1990s some were allowed to purchase land.

Subsequent incomers included households which obtained land on the recommendation of the then prime minister Tanka Prasad Acharya's commission in 1973-74 (2030-31) who were given plots of 3 *bigha* (2 ha.) each on payment of Rs. 600 tax per *bigha*.[26] These households were termed 'Political sufferers' though some are said to have in fact been active cadres in the multi-party democracy revolt. Tibetan refugee households were also granted land in the area in 1977-78 (2034-35) (Ghimire 1992).

During the period 1974-77 (2031-34), migrants were also continuing to arrive from hills districts and encroaching illegally on forest land. Migrants came from Palpa, Kaski, Lamjung and Parbat districts to the north. These squatters were evicted at various times by the Department of Forest – which destroyed their huts and grazed cattle in their paddy fields. But the evicted households returned with others, occupying smaller areas.[27]

The Resettlement Company, established in 1963 (2020), began distributing land to landless farmers from various districts. For example in Makar VDC, Nawalparasi, 800 households settled in the area in 1977 (2034) and were allocated 1.5 *bigha* per household.

[26] The term 'Political sufferers' generally refers to those allocated land in return for their support for the Panchayat referendum.

[27] The area currently covered by Deurali Community Forest in Suryapura VDC, Rupandehi, for example, was deforested and turned into a barren area between 1979 and 1989 and migrants moved in and settled on the deforested area, appendix 4)

Political crises in Nepal have often been associated with deforestation. During the referendum on Panchayat rule of 1979 (2036), the then Prime Minister used the allocation of forest land in the Terai as patronage to gain support. The flooding of the Tinau and Jharahi rivers in 1982 (2038) rendered many homeless. Displaced households were allocated land in the study area. Each was allotted between 10 *dhur* to 1.5 *kathha* depending on size of the household.

The resulting settlement pattern is one of indigenous 'Indian' groups in the south of the districts, including Brahmins, Yadhavs and a significant proportion of Muslims. Further north, nearer to the hills the descendants of the original Tharu inhabitants are now well outnumbered by migrants of hills origin known generally as 'Pahadiyas', whose ethnic composition is dominated by Brahmins, Magar, Chhetri, Kami, Gurung and Newar.

Internal migration has been increasing in Nepal. According to the Nepal Population Report 2002 (Ministry of Population and Environment) 929,585 migrants came to the Terai by 1981 and 1,228,356 by 1991 (6.6 percent of the total population). Nearly all these migrants were from the hills.[28] A survey conducted by the Central Department of Population Studies in 1996 indicated that out of the total population of Nepal, 22 percent were internal migrants (Nepal Population Report 2002).

Despite its more generous overall land endowment, landlessness is a greater problem in the Terai than the hills and affects a significant proportion of households in the study area, especially in its eastern parts.[29] Tharu and other indigenous groups are likely to be over-represented among the landless, and are often forced into debt peonage amounting to bonded labour which, although illegal, persists.

Some landless households, known as *sukumbasi*, who have encroached on forest areas, are technically in illegal occupation of land. Periodic lands commissions have granted land, generally also excised from forest areas, to the landless, although the more privileged ('*hukumbasi*') have sometimes usurped the entitlements of the poor through political patronage. Severe flooding in the recent years, especially of the Narayani river, has rendered

[28] See Conway and Shrestha (1981) for a discussion of rural to rural migration in Nepal.
[29] For a description of Terai settlement and landlessness and its political dimensions see : Shrestha, N.R. (1990) and Shrestha, N.R., R.P. Velu and D. Conway (1993)

large numbers of households landless and destitute. Some of these can be seen living in makeshift huts along the main roads.

4.3 Common Pool Resources.

The main common pool resources in the two districts are forests, wetlands and irrigation water sources. Community management is also an element in the management strategy of buffer zones around the Royal Chitwan National Park.

Most of the remaining forest in the study area is to be found in the northern part of the districts. Table 4.1 gives the land and forest endowments and how these relate to the human populations of the districts. The figures show a striking difference between the districts. Rupandehi, though having the smallest area, has two substantial urban centres, a high and growing population, and a relatively small forest base: pressure on forest resources is thus considerably higher here than in Nawalparasi (see maps Appendix 1). The district means for forest area per person do not, of course, capture the uneven and unmatched distribution of forest resources and population within each district, particularly between northern and southern areas.

Table 4.1: Land, forest and population in two study districts

	Rupandehi	Nawalparasi
Total district land area (ha)	141,417	219,510
Area of forest (ha)	30,484	104,942
Forest as percent land area	22 %	48 %
Human population (2001)	702,523	562,090
District population density (persons/ha)	5.0	2.6
Mean forest area per person (ha)	0.04	0.19
Change in forest area in plains area of districts between 1978-79 and 1990-91	-37 %	-24 %

Sources: Norms (2002) from Forest Resource Survey 2001 census.

The available data on deforestation indicates an average rate of forest loss in the plains of the Terai districts of 15 percent between 1978/79 and 1990/91, equivalent to 1.3 percent per year. During this period, Rupandehi showed the highest rate of deforestation of all Terai districts in Nepal, at 37 percent.

As noted in the introduction to this report, community forestry is a relatively new phenomenon in the Terai. The current Nepalese approach to community forestry evolved in the late 1980s and 1990s, growing out of experience in the hills, where relatively low commercial values and inaccessibility gave an emphasis to subsistence provisioning.[30] The model has become well established, with more than 10,000 community forest user groups , 98 percent of them in the hills.

The Terai forests, in contrast to those of the hills, are characterised by high commercial value, good transport infrastructure and ready markets over the nearby border. The Forest Act of 1993 makes no distinction between ecological zones: as long as forest is accessible, and communities are willing and able to manage it according to the user group's constitution and operational plan, the District Forest Officer can grant the right to do so. However, in the Master Plan for Forestry Sector (1989), the 1993 Environmental Action Plan, and the Agricultural Perspective Plan of 1995, community forestry is envisaged for the hills, no mention being made of community forestry in the Terai.[31] In the mid-1990s, the Department of Forest developed Operational Forestry Management Plans (OFMP) for each of the 17 Terai districts. These divided the national forest in each district into three categories: protection forest, production forest and potential community and leasehold forest.[32] The preponderance of the first two categories and their distribution signalled the government's intention to retain firm control of the Terai forests, especially the high value ones.

The limited scope envisaged for community forestry was restricted further when, in April 2000, the cabinet formulated policy guidelines on forestry in the Terai intended for incorporation into the Forest Act.[33] These propose that the large blocks of forest in the Terai and Siwaliks would be managed by the Government, with limited community involvement and benefit sharing through some adaptation of the Indian Joint Forest Management (JFM) model. Only barren forest land and shrub land was to be handed to local populations over as Community Forests. Communities would also be responsible for protecting the Siwaliks

[30] Some non-timber forest products, like the medicinal herb, *chiraito/chiraita* are commerically very valuable but, as Edwards (1996) documents, the ecological requirements of many of the high value species do not coincide with areas of community forest in the hills so the cash returns from NTFP's cannot compare with the money that can be made from the sale of high-value timber.
[31] B.K. Pokharel and D. Amatya. *Issues Specific to Community Forestry in the Terai*. Policy Review Task Force Joint Technical Review Committee MOFSC, Kathmandu. July, 2000.
[32] OFMPs for Rupandehi and Nawalparasi were prepared for the period 1995-2000. Although the OFMPs have expired, they continue to form the basis of management in all two districts.
[33] HMGN concept paper April 28, 2000.

through community-based soil conservation and watershed management programmes. Moreover, forty percent of the sale price (revenue from sale) of surplus timber from Community Forests was to be paid to the Government.[34]

While cabinet decisions do not have the force of law unless and until the act is amended by Parliament, government organisations nevertheless have to comply with them. As Pokharel and Amartya note, 'this situation of transition has created some confusion'. To their understatement, one might add controversy and conflict. According to informed sources, the DoF, under the leadership of a new Secretary, is now initiating a process of internal discussion in the department, to be followed by consultation with external stakeholders that would result in draft amendments to the Forest Act for consideration by parliament. However, the extent to which this process is to be allowed to diverge from the highly controversial April 2000 Cabinet guidelines remains to be seen.

Meanwhile, back at the district level, table 4.2 shows how forest resources were allocated by the Operational Forestry Management Plans of the mid-90s. We can see that the proportion of forest allocated to potential community forestry ranges from eight percent in Nawalparasi to twenty percent in Rupandehi.

Table 4.2: Forestry land allocation in the two study districts

	Rupandehi*		Nawalparasi	
	Ha	*%*	Ha	*%*
Protection Forest	18,533	*58*	80,950	*73*
Production Forest	7,014	*22*	20,846	*19*
Potential Community /Leasehold Forest	**6,459**	***20***	**8,962**	***8***
Total	32,006	*100*	110,758	*100*

* Note: These were the figures on the basis of which OFMPs were drafted for the two districts. However, according to a recent field verification in Rupandehi 22 percent of this forest area has been encroached, reducing Protection Forest to 13,922 ha (39% of forest) and Production Forest to 5,196 ha (14%). Meanwhile Potential Community Forest has been increased to 8,853 ha (25%) of which 7,210 ha has been handed over. Note from DFO, 21 December 2001. The area of RCNP, 11,607 ha. is not included in the above table.

Source: NORMS (2002).

[34] See above, page 8 and Pokharel and Amatya *op. cit.*

Several procedural steps have to be taken between an area being declared as potential community forest and communities' taking formal responsibility for its management. An FUG must first satisfy the DFO that its constitution meets the social and institutional requirements of the Forest Act. Next, a Forest Operational Plan for the area must be prepared. Only after this is approved by the DFO can the forest be formally handed over to the FUG.

Table 4.3 shows the number of Forest User Groups which are registered and to which forest has already been handed over and the bearing this process has on the districts' forest resources.[35] While the total number of FUGs in the two districts, at 59, may seem modest, many are large and between them control considerable resources. The average membership, at 581 households per group, is high, and these figures suggest that as much as 13 percent of the entire population of the districts (and more than one in five households in Rupandehi) are members of FUGs.[36] The areas controlled, averaging 150 ha per FUG, are also substantial.

Table 4.3: Forest User Groups in the two study districts: some key indicators

	Rupandehi	Nawalparasi
No. of FUGs registered	30	29
No. of Households in FUGs	24,228	10,261
Average FUG size (households)	808	354
Forest area controlled by FUGs	6,600	2,452
Average CF size (ha)	220	85
Average area CF per h/h (ha)	0.27	0.24
% Potential Community Forestry Land handed over to FUGs	81 %*	27 %
% district forest resource handed over to FUGs	21 %	2 %
No of FUGs in process of formation	9	14

* Note 2: Figure for Rupandehi based on recent field verification (see note to table 2).

Source: Analysis of data from NORMS (2002).

[35] As with all statistics, a degree of perspicacity is necessary in interpreting these figures. Inconsistencies and inaccuracies may be caused by differing baselines for the forest resource (which is continuously diminished by encroachment), changes in categorisations of forest, the counting of FUGs at different stages (e.g. registration vs. handover), different sources of data, measurement errors, and out of date information. The NORMS figures given in table 4.3 are based on information from FECOFUN and differ from those found in Department of Forest ' Community Forestry Database, especially for Nawalparasi. This reflects the fact that the DoF databases for that district have not been revised since May 1998, while that for Rupandehi was updated in January 2000. However, both data sets yield similar means for FUG membership and community forestry area. Pokharel's (2000) figures, apparently dating from April 2000, differ from both of these sources.

[36] The average household size is 6.04. Naturally, the proportion of population who are FUG members would be much higher in the northern parts of the districts than the southern.

It is apparent from table 4.3 that over a half of the area categorised as Potential Community Forest in the OFMPs has already been handed over to communities. This represents an average of six percent of the total forest resource of the two districts. However, the pace of hand-over has differed markedly between the districts. In Rupandehi most forest classified as Potential Community Forest, amounting to twenty percent of the forest resource, has already been handed over.[37] In Nawalparasi only two percent of the district's forests have been so transferred.

A particular feature of the Rupandehi landscape are large FUGs controlling extensive areas. Of the 25 FUGS on the DoF's Community Forestry Database for that district, seven have memberships exceeding a thousand households, with the largest, Lakshmi Nagar, having 4,750 households and over 20,000 individual members. Five of these Rupandehi groups control CFs larger than 500 ha. Charpala FUG, which we encountered in Butwal (Rupandehi district), was said to have 40,000 members in 6 rural VDCs and one ward of the town. It has a 132-member committee with seven sub-committees and an executive, and system of photo-identity cards for members.[38]

In addition to the registered FUGs to which forest has already been handed over, there are 23 additional FUGs that are being, or have been, formed and are seeking control over forest land (table 4.3 shows their distribution by district). In other cases, communities may be actively protecting forest, and have the aspiration to take it over formally, without having begun the formal process of applying.

Underlying these policy machinations and user group statistics is an increasingly polarised debate about the future of the forests of the Terai. The Department of Forest finds itself faced with increasingly confident and assertive communities, now allied with new political institutions created by the decentralisation legislation of 1998[39] and encouraged and supported by civil society organisations.

[37] And even some that has not: in Rupandehi, it seems that some additional areas have been reclassified as Potential Community Forest from other categories since the OFMP was prepared.
[38] Interview with Chairman, FECOFUN, Rupandehi district, 21 December 2001.
[39] The Local Self-Government Act of 1998 created Village Development Committees (VDCs) and District Development Committees (DDCs).

Confusion has been compounded by a series of serious contradictions in the laws and policies meant to guide land and forest management in Nepal. These occur within forest legislation itself, between legislation for different sectors (notably between the forest acts and decentralisation legislation), and between legislation and policy rulings.[40, 41]

Networks of user groups, lobby groups, NGOs, and other self-styled civil society institutions which have flourished since the liberalisation of Nepalese political life in the early 1990s, have been energetically promoting community forestry in the Terai. In the study area, the Federation of Community Forestry Users, Nepal (FECOFUN) is active in both study districts, with committees in Nawalparasi (established 1996, now with 18 FUGs) and Rupandehi (1999, 25 FUGs). The Terai Community Forest Action Team (TECOFAT), is a network of NGOs working on community forestry in the Terai. Women Acting Together for Change (WATCH) has been supporting the implementation of community forestry in Rupandehi district. In Nawalparasi, 'Community Development Organisation' has been working in partnership with TECOFAT. Other NGOs active in the study area include the Society of Environmental Journalists, Nepal (Rupandehi) which is a national NGO, the Himalayan Community Development Forum, Himawanti (working with women's forest user groups) KMNTC and the Himalayan Community Development Forum, HICODEF (Nawalparasi).

'Forest Concern Groups' (FOCOG) have been formed in both districts with the objective of strengthening community forestry processes. VDC chairmen and other elected leaders are prominent in their membership, and they have been influential in colouring district assemblies' perception of the community forestry issues. There is also a Forest Concern Group at the regional level.

The FUGs and their champions claim that communities' management of forest has promoted its recovery from a degraded condition and resulted in environmental benefits, improved provision of products to members, the generation of funds for community development, and

[40] A systematic (and slightly more measured) treatment of these issues is offered in: Devendra Chapagain, Keshav Kanel and Dhrubesh Regmi, *Current Policy and Legal Context of the Forestry Sector with Reference to the Community Forestry Programme in Nepal: A Working Overview*. Consultancy report submitted to Nepal-UK Community Forestry Project, Kathmandu, December 1999.

[41] Conflicts over administrative boundaries with the adjacent districts to the north of the study area are a further source of uncertainty and conflict.

the empowerment of communities.[42] This situation they compare favourably with the corruption and resource degradation alleged to characterise the government's management of the forests.

As communities' demands for the handing over of forests increase, DFOs' responses have oscillated between bureaucratic resistance and tactical capitulation.[43] Denying their own stewardship of the forest resource to be negligent, district forest officials charge that FUGs are politicised, unaccountable, and subject to elite domination. They accuse them of showing excessive interest in timber extraction, misusing income, and distributing forest products inequitably.

As regards the management of forest user groups, it does indeed seem questionable how influential the voices of women and the landless and marginal households will be in the management of large FUGs dominated by local political elites.

The outcome of the struggle for the Terai forests remains uncertain, and will be determined both by the conclusion of the policy process at the centre, which is unpredictable, and the balance of political forces at the district and local levels.

Buffer zones

Part of the Royal Chitwan National Park (11,607 ha) falls within Nawalparasi district Park (the main part of the park is to the south and east of the Narayani river in Chitwan district).

[42] Casual enquiry and visual evidence does suggest that tree cover has improved under community control, at least in some places.

[43] An illuminating example from Rupandehi district of the pressures to which District Forest Officers are subject, and the perverse outcomes which may result, is given by Baral and Subedi. It is worth quoting in full:

> 'In some instances, it was reported that forests have been handed over to a group of forest encroachers. Example might be cited from Rudrapur Community Forest User Group from Rupandehi district. While trying to dig out the underlying reasons for the handover, a strange picture appeared. It was evident the DFO in the past had actually tried to evict the concerned illegal settlers for several times, but without success. He had instead found that the encroachment rate was ever expanding in the area. In his desperate attempt to check the further encroachment, he decided to handover forests to the same group of encroachers. His mission was partly successful in that forest encroachment had been effectively checked and that the people in the executive committee put restriction into the forest thus causing the forest to regenerate itself. But it may be noted that the supposedly law-breacher were not only supported by giving a consent to live on but also that they were handed over with vast amount of rich forest. This obviously has a serious philosophical implication. Besides, the act is sure to set a precedence that would help encouraging similar encroachments elsewhere.'

Jagadish Chandra Baral and Bodh Raj Subedi, 'Is community forestry of Nepal's Terai in the right direction?, p. 26, in *Management of Forests in Terai and Inner Terai of Nepal*, Papers presented at the National Workshop organised by the Nepal Foresters Association, February 11-12, 2000, Kathmandu.

That segment of Nawalparasi district between the East-West Highway to the north and the river to the south has been declared a buffer zone for the Park. As a buffer zone, the area comes under the management of the Department of National Parks and Wildlife Conservation (also in the MFSC). It has been one of the zones included in the Park Peoples Programme (PPP), supported by UNDP since 1994 and due to be handed over to HMGN at the end of 2001. PPP has sought to integrate socio-economic development with conservation in its approach intending to decrease dependence on natural resources in buffer zones, improve relations between park protection staff and communities, and enhance the environmental conditions of the protected areas and buffer zones. Under its buffer zone component, the programme established a rather elaborate local institutional system of User Groups (generally separate for men and women), User Committees, specialised Functional Organisations (including community forestry groups), and savings systems, along with other grants and credit facilities. Through this, it has mobilised and delivered credit and other benefits to the communities of the buffer zones, including irrigation facilities, wildlife preventive structures and training. PPP has been working in the 13 VDCs of the buffer zone in southern Nawalparasi district, where 409 user groups have been established.[44]

Communities within the buffer zone have began to demand from government separate local development funds, compensation for wildlife damage, and the same arrangements for income sharing as apply to communities within the park (1999 Public Hearing Program: see NORMS 2002). Some user groups in these communities have requested membership of FECOFUN pending an amendment in FECOFUN's constitution to allow them to do so. However, indigenous groups such as the Majhi, Bote, Musahars and Tharus who greatly depend on the National Park areas for their livelihoods, have not benefited from the buffer zone programme despite the stated goals and objectives of these.

In this Chapter we have described the history of settlement in the Terai to provide the social context for this study and have set out the socio-political environment in which community forestry has developed in the study districts. We now turn in the next Chapter to our Framework for analysis and, using the Framework, begin to look in detail at FUG formation.

[44] Mr. Prabhu Buddhatoki, the current National Programme Manager of PPP is studying for a PhD at the University of Greenwich concerning PPP's work with communities.

5. Community Forestry Processes: outside the FUG

5.1 Introduction

This chapter introduces a general framework for analysing and interpreting linkages between social and economic processes and common pool resource and use. While Agrawal (2002) in reviewing the literature on effective collective action identified no fewer than 36 community and resource characteristics conducive to the effective common pool resource management, our framework is constructed around a more narrow set of issues. This simplification is motivated by two overriding concerns, firstly the evident need to focus on key factors and their inter-relations and secondly the need to identify drivers that in the Terai context are particularly important.

A crucial aspect of our analysis will be the investigation of those processes related to FUG formation and action that are external to the community. A clear divide cannot of course be made between 'the external' and 'the internal' – they are not mutually exclusive and as we shall see in Chapter Six, it is clear that internal community and FUG processes are well able to interact with and shape some of the external factors that impact on them. What we are concerned to show in this chapter is the way in which the broader external context determines in various ways the room for manoeuvre of FUGs. It would be surprising if it did not – indeed the policy and bureaucratic environment is often described as the enabling environment. But these external processes have the potential to constrain and direct what is possible within FUGs and thereby limit the extent to which the poor can derive livelihood benefits from common pool resources, at least within the context of the Terai. Community forestry in the Terai is different from the hills and in significant ways as Table 5.1, below, makes clear.

Of the 11586 FUGs recorded in the Community and Private Forestry Division database as of September 11th 2002, the majority (98%) are identified as being the mid or upper hills of Nepal (Table 5.1). The average area and size of Terai based FUGs is at least twice that of hill based FUGs but the substantial differences are to be found in the overall income figures. The average income of Terai based FUGs is over 50 times that of hill based FUGs. These differences are carried through to income and expenditure levels per FUG household.

Table 5.1 Contrasts between FUGs in the Hills and the Terai of Nepal

Key descriptors	**Hills**	**Terai**	**Total**
No. of FUGs	11341	245	11586
Total Area (ha)	871845	38525	910370
Total No households	1184497	91936	1276433
Average No households /FUG	104	375	110
Average area/FUG	76.88	157.24	
Average area/ households	0.74	0.42	
Total income (Nepal Rs.)	4115171 (n = 7676)	5602140 (n = 196)	9717311
Total expenditure (Nepal Rs)	733879	2687289	3421168
Average income/ FUG	536	28582	
Average expenditure	95	13710	
Average income / hhld	5.2 (n = 793439)	68.3 (n = 82066)	
Average expenditure / hhld	0.92	32.75	

Source: FUG database of the Community Forestry Division, Department of Forestry, Kathmandu, September 11, 2002.

These figures tell two stories. The first and obvious one is that the growth of FUGs has been largely confined to the hills. The second and less apparent one is the reasons why FUGs have not developed to nearly the same extent in the Terai. The Forest Act of 1993 makes no distinction between the Terai and the hills in terms of its permissive framework for the establishment of community forestry. However the Terai has been for many decades the major zone of commercial forestry by a combining natural richness with relative accessibility. As Britt, (2002: 278) puts it:

'[It is] the place where landlords and agents of the government extracted resources to make their fortunes. It is also the region where devolving community forestry control to local forest users has been the most sporadic and least successful'

This chapter explores the key external or contextual processes that explain (i) the slow progress of community forestry in the Terai and (ii) shed light on the contrasts between rhetoric and *de facto* decentralisation in terms of granting communities actual control over management of forests and forest produce off-take.

5.2 A Framework for Analysis

We develop here a more generalised framework to distil some of the key underlying issues in relation to analysing the linkages between social and economic processes and natural

resource access and use. By employing the term 'framework' we do not suggest, from a deterministic or engineering viewpoint, that this is a rigid structure that mechanically will explain all and can be used as a decision making framework. Rather we follow the emerging work on 'drivers of change' within Dfid, which draws on the work of Oxford Policy Management (2003). Here 'frameworks' are used 'to provide a basis for a clear definition of concepts and relationships, without imposing particular empirical assumptions.. and as a means of interpreting the empirical and theoretical literature' (Oxford Policy Management 2003, p2). The 'drivers of change' framework centres around three interactive core components – structural features (natural, economic and social structure), institutions (the rules of the game and central to the framework) and agents (individuals and organisations). 'Drivers' are changes that can be influences of processes, that may take place in any one of these components and which have spillover effects. A significant emphasis of the 'drivers of change' framework is that it focuses on understanding how things actually are (rather than what needs to be done) and using this for the starting point to consider how change can be brought about.

Our framework has similar objectives, is schematic and draws on the key components of structure, institutions and agents. It serves to identify some of the key ways in which livelihood opportunities (which can be seen as outcomes) from common pool resources for the poor are being effectively limited by processes external and internal to a community. A key lesson from the research that starkly contrasts with the emphasis on the rules and practice of governance within FUGs that is found in much research on community forestry (see Blair 1996; Dahal 1994; Pokharel 1997) is that attention must be paid to processes external to the FUG (and this harks back to earlier comments by Fox and Fisher 1990). These processes may restrict the extent to which FUGs are able to become genuine community based organisations that present opportunities and deliver benefits to all their members. At the same time they may offer openings, which as can be seen from the Dhuseri case, can be readily captured by a community elite. This analysis indicates an agenda in relation to increasing opportunities and this is returned to in Chapter Eight.

Figure 5.1 summarises the framework. This framework is structured around what are seen to be the key 'drivers' operating external to the community and within it and how these condition outcomes. There is an explicit hierarchy in the drivers (particularly in the top row) – we believe for example that questions of resource value or decisions and processes which

determine where communities may participate are first order and establish a FUG's room for manoeuvre. Once these higher and exogenous drivers have been configured, it may become difficult for drivers lower down the hierarchy, for example effective participatory processes, to substantially alter agendas and outcomes. There is therefore an implicit hierarchy at the vertical (column) level, particularly for the external drivers and outcomes. There are for instance intimate links between resource value, attributes of FUG hidden economies and outcomes such as institutional instability and distributional equity. These links will be explored in detail in Chapters Six and Seven. The willingness of the District Forest Office to cede control over forests is also, of course, closely linked to forest value as we will see below

Figure 5.1. Framework for the analysis of linkages between processes external and internal to communities and outcomes, with respect to common pool resource access and use.

'Drivers' external to the community	⇔	**'Drivers' internal to the community**	⇔	**Outcomes**
↓↑		↓↑		↓↑
Resource Market Value		Established or dynamic immigrant?		Attributes of FUG hidden economy
↓↑		↓↑		↓↑
Area for Community Forestry		Socio-economic heterogeneity		Distributional equity
↓↑		↓↑		↓↑
Legal or Encroachment rights		Access Restrictions (a) Price of membership (b) Access rules		Institutional stability
↓↑		↓↑		↓↑
Degree of participation in FUG formation process		Other FUG Policies		Environmental change
↓↑				
Product & Protection or livelihood oriented				

For this reason the external drivers are positioned to the left and before what are seen to be the community level drivers; in tandem these determine outcomes. The framework should not be seen as entirely deterministic. The external environment is not omnipotent, all drivers may not necessarily work in the same direction and communities are far from helpless. It is for instance quite possible for communities (and individuals) to circumvent various aspects of

official regulations (see Chapters Six and Seven). But it is argued, looking from the perspective of the existing configuration of external drivers, that there are a number of factors that make it extremely challenging for community forest to generate significant pro-poor benefits.

Each of the external drivers can be considered with respect to the way in which they contribute to reinforcing objectives within community forestry that tend to emphasise more control by external authorities or less control. With more control community forestry in practice is limited to the sharing of a restricted number of benefits and products, shared access and limited roles for the communities in decision making; technical objectives (protection, production, control) set the scene.

In contrast, and following the distinction made by Alden Wily (2002) less control implies less concern with the detailed technical management and more emphasis on the sharing of authority, giving communities a greater role as forest managers, less concern with 'user' definitions and an overall focus on governance objectives. High resource values are more likely to reinforce control and a community forestry strategy that favours technical rather than governance issues. Greater and less control lie at the opposite ends of a spectrum and the balance between giving communities a licence to use the forest and sharing access, and allowing communities jurisdiction over areas that they manage, is contested with the Department of Forest, NGOs and communities all heavily engaged in the scramble for control.

This chapter will focus on a discussion of the external drivers – Chapter Six looks at the community level processes and Chapter Seven considers the outcomes of these processes.

5.3 Drivers External to the Community

(a) Resource market value

The contrast between the commercial value (for which expenditure and income is a proxy measure, see table 5.1) of hill FUG resources in contrast to those of the Terai is *prima facie* evidence of the importance of resource value as an important driver. Detailed calculations of

the resource value[45] of the community forestry areas under study were made, and the summary data presented in attachment 5.1 (page 69) should be read as a best estimate.[46]

Given the importance attached to the preparation of the operational plan (a precondition for handover by the Department of Forest) it is interesting to note the practical difficulties in calculating standing volumes, an issue to be discussed in more detail below.[47]

Table 5.2 summarises the comparative status of the FUGs with respect to size and current resource value. It must be remembered that given the effective conservation measures that have been implemented in many community forests, resource market values are generally set to increase over time. Resource values clearly vary considerably between the FUGs depending both on area, the nature of the forest (density, species composition and proportion of high value species and agroecology). Chautari CF for example has a high proportion of *Shorea robusta*, a high value species in its stand. Parijat CF,[48] even though it is nearly double the size of Chautari, has a relatively low resource value because of the predominance of shrubby species.

Why should resource market values matter and feature as an important driver? As noted earlier the Department of Forest and Government are well aware of the revenue potential from Terai forestry and have thus been reluctant to endorse a greater role for community forestry in the Terai. Moreover under processes of decentralisation new bodies such as the village development committees (VDCs) have also been keen to realise potential income

[45] We do not include in these calculations wider issue of 'value' in relation to the importance of forest areas in relation to water catchments, flood protection etc.
[46] See attachment 5.1 to this chapter for an explanation of how these factors were calculated and a brief discussion of limitations of the method deployed.
[47] Moreover as attachment 5.1 notes, inconsistencies between recorded height and diameter measurements and species data in standard tables indicate attempts by Department of Forest officials to reduce estimates of standing volume in order to restrict allowable cuts.
[48] Note should be made that we refer here to the effective area of community jurisdiction in Parijat that is 600 ha in contrast to the registered area, which is only 100 ha.

from high value common pool resources. In Pipaharwar in Harpur, and also in Suryapura the VDC has effectively taken over a number of common pool resources of ponds for fish and auctioned these off to the highest bidder in order to generate revenue for the VDC, thereby denying access to this resource by traditional users.

Table 5.2: **Comparison of sample FUGs by area, area per household, resource value & resource value per household.**

Name of CF	**Area (ha)**	**Rank**	***No of households***	**Area (ha.) per household & rank**		**Resource Value (M. NRS)**	**Resource Value per household (M. NRS / hhld) & rank**	
Chautari CF	355	**2**	665	0.54	**3**	1084	1.63	**1**
Dhuseri	205	**3**	613	0.33	**4**	880	1.44	**3**
Parijat	600[1]	**1**	1324	0.45	**2**	493	0.37	**4**
Bartandi	46.3	**6**	101	0.46	**1**	152	1.50	**2**
Kalika (BZ)	22.5	**10**	207	0.11	**6**	74	0.36	**5**
HJAB	14.42	**11**	460	0.03	**14**	70	0.15	**7**
Aichawal Thakurpur	54	**5**	336	0.16	**8**	59	0.17	**6**
Deurali	67.12	**4**	1221	0.06	**13**	53	0.04	**10**
Jharahi	30	**8**	241	0.12	**5**	32	0.13	**8**
Buddha Mawali	40.5	**7**	600	0.06	**12**	15	0.03	**11**
Sisuwar (BZ)	24.3	**9**	135	0.18	**7**	14	0.10	**9**
Srijana	11.3	**13**	158	0.07	**11**	3.5	0.02	**12**
Bhu – Smarakshan (BZ)	14	**12**	150	0.09	**9**	1.8	0.01	**13**
Gaurab (BZ)	3.5	**14**	41	0.09	**9**	0.17	0.004	**14**

Source: Compiled from various sources including operational plans, field measurements and market prices (see Attachment 5.1).

[1] Note that the 600 ha refers to the area that the community effectively controls and uses; the official figure is only 100 ha.

As the study in Rajahar made clear (see Appendix 5), high resource values increases the prospect for substantial hidden economies to emerge. The beneficiaries of these hidden economies, as Chapter Seven will spell out in more detail are usually members of the local elite. With increased value the incentives for trading and rent-seeking increase. Current Forest Department procedures encourage the emergence of a hidden economy. Policies designed to restrict the use of timber through bureaucratic control (timber may only be used only for construction and other domestic purposes, an official forestry policy adopted by many of the user groups) coupled with a difference in the internal CF price and the open market price have promoted illegal use. Potential remedies to this are discussed in later chapters.

(b) Area of community forestry

Closely linked to the issue of resource value is the matter of where community forestry can be established. Three constituent elements of 'where' need to be unpacked and include the following: the OFMP categories of land where community forestry is allowed, what area of community forestry is allowed and how 'community' is defined. A fourth issue of how 'communities' themselves define users is discussed in Chapter Six.

Categories of land for the location of community forestry.

The 1993 Forest Act is clear that any part of the forest may be handed over.

'The District Forest Officer may handover any part of a National Forest to a Users' Group in the Form of a Community Forest (Forest Act 1993, Chapter 5, article 25)

Preceding this Forest Act there had, in the Terai, been a long running World Bank supported community forest programme (1983 to 1992) restricted to the establishment of community plantations on degraded lands, roadways or irrigations canals (Britt 2002: 278). This notion of restricting community forestry to particular categories of land[49] was followed through in the Operational Forestry Management Plans (OFMP) prepared by the Department of Forest for the Terai. It appears that much of the poorer or degraded forestland has, under this classification, been allocated to community and leasehold forest. For Rupandehi and Nawalparasi some 20% and 8% respectively of the forest area was originally allocated to

[49] Protected forest, production forest and potential community forest – see Chapter Four.

potential community forestry. These distinctions have also given rise to what have been called the 'red' (containing protection and production forest) and 'green' lines (potential community forestry) of demarcation which DFOs have used to determine whether or not they are will to hand over the forest to potential user groups (Britt 2002: 304). From the Department of Forest[50] then there are clear opinions and interests attached to where community forestry may be established. Decision making with respect to which ponds are to be taken over by VDCs for auction and which may be retained by communities are not clear but one suspects that potential revenue generation is probably the key criterion.

However even though the Department of Forest may attempt to limit community forest to areas designated by the OFMP as community forest areas, matters have not always worked in their favour. Table 5.3 summarises by site the OFMP forest category within which the community forest has been established. At first sight it suggests that the Department of Forest has been rather successful in keeping social forestry within their green lines. However in the case of Rajahar, community forests were established before the OFMP and the OFMP classification had to accept a *de facto* delineation of the community forest area by the communities. But the state of the forest, to follow the OFMP criteria is very clearly production forest so the application of the OFMP classification criteria has not been systematic. In the case of the Devadaha forests CF seems to have been established in both designated community forest areas and in production forest.

Table 5.3 The location of community forest in relation to the OFMP categories.

Site	**Landscape Position**	**Forest category (OFMP)**
Parijat CF, Makar	Terai- Churia	Social Forestry
HJAB CF, Harpur	Terai	Social Forestry
Dhuseri CF, Rajahar	Churia- Mahabharat	Social Forestry
Chautari CF, Rajahar	Churia- Mahabharat	Social Forestry
Sisuwar CF,Rajahar	Terai	Social Forestry
Deurali CF, Suryapura	Terai	Social Forestry
Sirjana CF, Devadaha	Terai	Social Forestry / Production Forest
Buddhamawali CF, Devadaha	Terai	Social Forestry / Production Forest

Note should be made that the sites under discussion are those that have been officially established as community forests. Data on the number of requests under process with the

[50] In theory the Department of Forest formulates policy and strategy and the DFO are the field offices for implementation. While the DFO hold the rights for the hand over of community forests they often find themselves under local pressure, which they cannot always resist, to act contrary to Departmental policy.

Department of Forest indicate that there may be at least 4000 applications in progress (Britt 2002: 282). While no formal data is available anecdotal evidence and the history of FUG formation from the research sites indicate that the process of getting official recognition can be long drawn out. In Rupandehi 13 FUGS have been in the process of attempting to get legal recognition for more than two years: - 1 since 1998, 1 since 1999, 5 since 2000 and 6 since 2001. It would thus appear that the Department of Forest can use the OFMP categories to effectively resist – or prevaricate – on allowing the formal registration of user groups. The location of the community forest is one matter, the determination of its area is another.

The area of land allocated for community forestry

As is clear from table 5.2 from the data on community forest area per household, there are distinct contrasts between areas on which different communities have established community forestry. The three big CFs in Rajahar have between five to eight times the area of forest per household than those of the Devdaha community forests.

In 1977 with the first amendment of the Forestry Act (1961), village *panchayats* were allowed to apply for up to 125 hectares of degraded land for community forestry (Britt 2002: .130). However the 1990 Forest Master Plan removed all ceilings on the area of forest handed over and the 1993 Forest Act makes no reference to the area that could be handed over – indeed it is remarkably permissive in stating that 'any area' (Forest Act 1993, Chapter 5, article 5) may be handed over. In part the OFMP categories could be regarded as a rearguard action by the Department of Forest in that by defining where community forest might be established, the available area was effectively set.

The ambiguity over rules and regulations has clearly fuelled tensions between the Department of Forest and communities attempting to establish community forests. Table 5.4 summarises by FUG and by source the various statements on community forest area. The key inconsistencies appear again in the large FUGs in Parijat CF, with significant differences between areas claimed by the community and area recognised by the official sources.

What the communities claim with respect to community protection forest is at odds with what the forestry officials recognise. In the case of Dhuseri the constitution states an area of 532.5 ha. under community forestry while the operational plan refers to 160 ha, reflecting an ongoing dispute between the FUG and the DFO over the area to be managed. There are

several others cases e.g. Chautari and Parijat FUG where there are discrepancies in the stated figures on area between the original constitution of the FUG, the area demarcated in the operational plan and the information recorded on the Department of Forestry database.

Table 5.4 Contradictions in stated FUG area by source

Site Name of FUG	1st const. area ha	1st OP	Revised OP area	Comments	DFO record (Nov. 2001)	Dept. Record (09.2002)
Parijat CF, Makar	100	OP- not prepared	-------	About 600 ha. area in total is being protected and used by group as reported by the committee but not mentioned in the constitution.	------	------
HJAB CF, Harpur	14.42	14.42	15.40	Not mentioned.	14.42	15.40
Dhuseri CF, Rajahar	67.5	67.5	205.15	There is contradictory figure in the first constitution and first OP regarding the protection area. (In the constitution the area is 532.5 ha. while the figure is 160 ha. in first OP)	205.15	67.50
Chautari CF, Rajahar	410.55 (app.)	354.7	Not revised	Not mentioned	354.7	354.7
Sisuwar CF,Rajahar	20.5 (app.)	24.30	Not revised	Not mentioned	24.30 (RCNP)	24.30
Deurali CF, Suryapura	67.12	67.12	Not revised	Not mentioned.	67.12	67.12
Sirjana CF, Devadaha	11.31	11.31	11.31	The group wanted to expand by merging with Mahamaya FUG (4.48 ha forest & 44 hh. users of ward no. 5 Mahamaya (FUG women group) did not agree. The group also tried to include the area of Illaka Forest compound (adjoining to the CF) but the VDC did not allow it for using this area as 'haat' (weekly market) place.	11.31	11.31
Buddhama wali CF, Devadaha	40.5	40.5	Not revised	Not mentioned	40.5	Not in the DoF database .

Whatever the disputes at play, it is clear there are already major inequities between FUGs over the resources that they potentially have access to. This does not appear to have been addressed in any way by the Department of Forest. For Srijana FUG with 11.3 ha of community forestry and 0.07 per member household, the potential benefits are inevitably going to be substantially less than for members of Dhuseri or Parijat FUGs.

Defining community

Area and location is one matter. Another consideration is the way 'community' or 'user' is defined. Indeed there is disjuncture between the use of the term 'community' in community forestry and the rapid skip into the term 'user group'. There are various dimensions to this. As the regulations put it (Ministry of Forests and Soil Conservation 1995: .10)

'the district forest officer shall have to take into account the distance between the Forest and the village and the wishes as well as the management capacity of local users'.

How 'account' is to be taken is of course not specified, but by raising the issue of 'distance' it is clear that more distant 'users' are at a disadvantage with respect to potential membership than residents in the vicinity of the forest. Categories of users based on differential use of the forest by product and time appear not to be officially recognised. This has meant that, for example the Tharu (the oldest inhabitants of the Terai), who tend to live further south from the FUGs and who had historically made seasonal but than regular use of forest products (for house construction) have effectively been disenfranchised from access although informal arrangements with some FUG committees have been established.

The buffer zone management around the Royal Chitwan National Park under the Parks Department is clear – community is defined in terms of residence. This has had the effect of disbarring households from wards in Rajahar VDC outside the buffer zone who had traditionally used products within the park boundaries from any access to products from the buffer zone. However Department of Forest regulations allow households from within the park buffer zone to use the community forests of Dhuseri, Chautari and Bartandi. This asymmetry in rights of access appears to be leading to restrictions on residents from the buffer zone having access to the community forestry outside the park boundaries.

The story is however even more complicated. Many households hold multiple membership of FUGs – for example many of the Buddha Mawali FUG members also have membership in another FUG. It was not possible to assess which household these were,[51] , but analysis of the households that were not members of the FUG – and most FUGs have households living around the forest who are not members (in Srijana over 40% of households are not FUG

[51] We did not pursue this line of enquiry directly because of the sensitive nature of the topic and the size of the task, which would have required a detailed survey of a large number of households. It was more manageable to find out infromation from households who were not members.

members) tended to show that these were the poorer households, often the original residents of the Terai. There are at least two reasons why such households are not members.

The first hinges around the definition of what constitutes a legitimate 'use' of the forest. This has been largely determined by Forest Regulations, and adopted by most of the FUG constitutions, which refer almost exclusively to a restricted list of forest products. This does not include for example the right to make charcoal or graze goats in the forest. Thus the *Lodh*[52] who have often engaged in ironwork and are dependent on charcoal from the forest have officially lost access to this resource although whether this consistently happens in practice is less clear. Those households in Bartandi who had established an important income source through goat rearing had been using the forest area of Chautari and Bartandi before the FUGs were established. Once the FUGs were established they lost their grazing rights and had to dispose of part of their herds. They have shifted into boulder collection from the nearby river.

The divide in access to forest resources between those who live in the north of the Terai and those who live in the south is likely to become a major distributional and equity issue in the future.

There are therefore a number of complex issues in relation to how communities are defined and the determination of what area and where community forestry may be established. It is unlikely that the inequalities that have now been established can be resolved through reallocation of resources and the only possible route is a fiscal one, whereby communities that have gained control of valuable resources are appropriately taxed and the distribution of VDC expenditure deployed to address the existing inequities between communities with and without community forest resources and between communities that do have community forest. As matters stand in Nepal, this is likely to be a long and difficult route.

(c) Legal or encroachment rights

This issue clearly matters more in the Terai than the hills and in closely related to (b). One's status as a 'user' at least in the view of the Department of Forest, clearly depends on whether you have legal rights to the land on which you are settled. In one case (in Devdaha) resistance

[52] The Terai equivalent of the hill *Kami* caste who are specialist iron workers

by the District Forest Officer (DFO) to the establishment of a FUG was expressed in terms that it could not be done because it would give legal status to illegal encroachment[53]. The committee of FUGs do not appear to have adopted such a restrictive approach, although it must be recognised that encroachers and landless may well be amongst the poorest of households and the most dependent on forest resources for income, most notably through the collection and sale of firewood.

(d) Degree of participation in FUG formation processes by external authorities

The processes by which FUGs come to be formed and established indicate a wide range in approach and participative mechanisms; these may have causal effects on the ways in which FUGs operate and deliver benefits although this is difficult to determine. There is a strong contrast in the way in which community forest users group were established in Devdaha with heavy involvement of the NGO WATCH in the process of group formation and consultative processes and that of the Harpur Jain Amanigunj Bhaksipur (HJAB) FUG in Harpur which was essentially set up by the District Forest Office. Whatever the participative processes in bringing a CF group into being (and these are discussed in more detail in Chapter Seven), there are at least two bureaucratic hoops through which all potential CF groups must go – the preparation and drafting of a constitution and the preparation and approval of an operational plan. The influence of these on the nature of the FUG is unclear, but the requirement that these documentary processes should be gone through put the DFO in a strong position to regulate or control if and how the group is established.

There is not space here for a detailed textual analysis of the constitutions of the registered FUGs but a number of general points can be made. First is that they tend to be formulaic and have often been copied from other established FUGs. In Harpur the original name of the FUG from which the constitution (Hariyali CF in Rupandehi) had not been removed from a later section of the document. Second and related, the content of the constitutions largely address functions and structures following the listing of matters given in the 1995 Forest Regulations (Annex 11 in Ministry of Forests and Soil Conservation 1995). Table 6.5 summarises in italics the main headings required by the Forest regulations for User group constitutions and selectively illustrates these with extracts from the Dhuseri FUG constitution.

[53] However Baral and Subedi (2000a) cite the case of Rudrapur FUG in Rupandehi where the expanding rate of encroachment led the DFO to hand over the forest to the encroachers in order to effectively turn the poachers into gamekeepers.

The extracts from Dhuseri, which do not differ substantially from other forest user group constitutions, are clear with respect to the stated objectives of the user group – the scientific management of the forest is the first amongst these, with meeting the demand for forest products by users the second. Dhuseri has established on paper three membership categories, which relate to the way in which benefits are distributed but these are not at present applied in practice. The rest of the constitution largely deals with rules, committee structure and responsibility. This includes a five-member board of directors that includes a Chief of Board, with four councillors each with responsibility for one of the divisions of protection, plantation, management and utilisation. In other words the constitution proposes a village level version of the Department of Forest. In the case of Dhuseri, the strictures on crimes and punishment are held over to the Operational plan rules.

Table 5.5: Key headings for the constitutions of User Groups (in italics) followed by selected relevant extracts (edited) from the Dhuseri Community Forest User Group Constitution

Matters to be included in the constitution of the User's Group **Abstracts from the Dhuseri Community Forest User Group Constitution.**
Name & address of the User's Group
The name of this user group shall be called the 'Dhuseri Community Forest Users' Group'.
Objectives of the User's Group To promote the scientific management of the forest as prescribed in the existing Act and Laws. To fulfill the forest product demand of the users by increasing the production of the forest. To conduct local development activities through the income generated by implementing multi-dimensional management in the forest. To provide possible support for the forest management in other areas. To develop coordination and mutual understanding among various organizations, groups and individuals to achieve the above objectives by developing an effective role of the users on the management activities.
Seal of the User's group
Names, Surnames & addresses of the users Eligibility for the membership: The persons who lives near the Dhuseri FUG, use forest products from this forest, participates in the management activities and accepts the terms of this constitution shall be the household member. Type of Membership: For the first year, each member will be consider as grade 'C' and gradually promote to second and first class according to the contribution provided by the member for FUG. An Evaluation Committee will be formed by the Executive Body for this purpose. The forest products/benefit sharing will be distributed equally under general condition and in the case of special conditions it will done according to the category of the users. The high priority will be given to the active users and low priority to the less active. Other necessary provision for this purpose will be according to the decision made by the Committee.
Number of houses within the area of the User group
Estimated population of the User Group
Functions, duties and powers of the user group
Constitution procedure of the users committee

Name and list of the officials of the users committees
Working procedures of the Users Committees
Methods to be adopted to control Forest crimes
Punishment to be imposed on members of the User Group who operates functions contrary to the Operational plan
Procedures to be fulfilled while imposing punishment to the members of the User Group
Methods for the operation of funds
Methods of auditing the accounts
Miscellaneous

The Forest regulations (Ministry of Forests and Soil Conservation 1995) also establish what should be included within the workplan and the key headings are summarised in Table 5.6. These regulations have since been backed up by Guidelines for the Inventory of Community Forests (Ministry of Forests and Soil Conservation 2000). These guidelines, which it is claimed have been developed to assist users and District Forest field staff in assessing the condition of the forests, can best be described as classic forest inventory. They are concerned with sampling design, stratification, sampling intensity, plot size and number, plot-layout, data capture, growing stock culminating in the estimations of annual increment and allowable cut.

Table 5.6 : **Guidelines for the content of FUG operational plans.**

(a) Details of the Forest Name, boundaries, areas, condition of the Forest and types of Forest (b) Map of the Forest (c)Block division and their details – name, boundaries, areas, aspects, slope, soil type of the Forest, main species, useful species, age and situation in respect of natural generation (d)Objectives of forest management (e) Methods of forest protection (f) Forest promotion activities – thinning, pruning, cleaning and other Forest promotion activities (g) Nursery, tree plantation, income generation programme and time schedule (h) Details of areas suitable for cultivation of the herbs, types and species of such herbs, cultivation programmes and time schedule (i) Provision relating to use of income accruing from the sale of Forest Products and other sources (j) Provisions made for the penalities which may be inflicted on users pursuant to Section 29 of the Act (k) Provisions relating to the protection of the wildlife (l) others matters prescribed by the Department

But the exercise of estimating the annual increment and allowable cut is fictional since a 1999 Government Order forbids the cutting of green wood, even though a later Government Order of May 2000 requires the calculation of annual allowable cut to be based on detailed calculations and estimates of annual increment (Britt 2002: 310). More to the point, and as Dhital *et al.* (2003) have recently pointed out, even the Department of Forest has limited capacity to implement these guidelines so how users groups can be expected to apply them is

unclear. They found that of the 7048 community forests handed over only about 21% of these (1518) had an inventory.

It is also evident from the details on the methods cited above that this information is simply not relevant or usable by those who are meant to be managing the forest – namely the FUGs. In short, the requirement for an operational plan[54], and the stipulation that a new one needs to be approved every five years has, as again Dhital *et al*. (*op.cit*. p. 64) have noted, 'created a significant delay in forest handover and the renewal of [operational plans]'

As matters stand at present given the requirement and design specifications for constitutions and operational plans, the scope for participatory processes and genuine authority sharing remains very limited. These bureaucratic devices, in the name of scientific forestry, can only be seen as serious impediments to promoting livelihood opportunities. Indeed, the gap between a balanced, sustainable and actual offtakes will be calculated in Chapter Eight to illustrate the gravity of this regulatory failure.

(e) Product & protection or livelihood oriented?

As will be clear from the discussion on the content of the operational plans (see Attachment 5.2) and constitution, the plans and objectives of these community forests combine a mixture of product and protection objectives and do not systematically address livelihood needs, effective mechanisms for benefit sharing or recognise employment or income generation objectives for different social groups. If anything with recent government orders, forest protection is taking precedence even over production objectives. It could be argued that because the Department of Forest of disciplinary necessity takes a single sector view of planning and development, foresters cannot be expected to explore areas of convergence between forest management and livelihood needs. They are unable to address the `joined up livelihoods' of people, particularly poor people, and the trade-offs they make in the management of their own and communal resources.

5.5 Conclusion

The message from this chapter is clear: all the evidence on external processes over which the Department of Forest has jurisdiction points to attempts to gain greater control rather than

devolving authority for community forestry in the Terai. The higher value of the forests in the Terai means that there are greater stakes and through various mechanisms – control over land areas (how much, where etc.) and procedural strategies (constitutions, operational plans) – attempts to set limits to community authority and governance outcomes have been made. However field level processes, involving both DFO-staff and communities and NGOs, are another level of engagement and it is to these that we now turn.

[54] See attachment 5.2 of this chapter for a summary of the narrative component of the Dhuseri FUG operational plan.

Attachment 5.1. Estimation of Resource Value

Methods used:

The resource values of all the CFs were calculated as follows.

1. **Data taken directly from the inventory details of the Operational Plan (OP).**

- 4 CFs of 14 fall into this category. They are Srijana, Buddha Mawali, Deurali and Sisuwar CF. Their inventories were done in B.S 2054, 2058, 2054 and 2057 respectively by the Department of Forest officials.
- Of the 4 CFs, detailed measurement of the height, diameter and calculation of the volume was done only in 2 CFs i.e. Srijana and Buddha Mawali so estimated volumes of timber could be taken directly from the OP. So the volumes of the standing trees were already calculated in the OP. Each tree, its height, diameter and volume were recorded in the OP and the mean data were taken to calculate the average total volume by multiplying the average volume of each species by the number of standing trees.
- In the case of the OPs for Sisuwar and Deurali, only the numbers of the standing trees are mentioned. The standing trees of Sisuwar is divided into 2 categories, mature and pole. The height and the diameter of the standing trees were measured for a few trees visiting the site. In the case of Suryapura CF, the diameters of the standing trees are tabulated so the height of the tree was estimated while visiting the forest.
- Volume tables published by Ministry of Forests and soil Conservation, Forest Survey and Statistics Division, Publication 48 entitled "Volume tables for forest trees of Nepal" by E.R. Sharma and T. Pukkala was used to calculate the volume of the standing trees of all species except *Acacia catechu* whose biomass was calculated by using Biomass and volume tables published by Natural Resource Management Sector Assistance Program (NARMSAP), HMG/N, MoFSC, Department of forest.

2. **Data estimated by the researchers during the forest visit and by taking some assistance from the committee members and from the OP.**

The resource values of the rest of the CFs were calculated by using the second method

- The CFs falling in these categories are Parijat, HJAB, Aichawal Thakurpur, Chautari, Bartandi, Dhuseri, Jharahi, Kalika, Bhu-Sarakshan and Gaurab.
- Direct measurement of the height and the diameter of a sample of species were made during site visit. The OP (which had limited information on standing volume of timber) was also referred to.
- Diameters of some selected trees were measured and their heights were estimated with relation to ocular estimation and the age of the tree.
- Estimation of the numbers of the trees by ocular estimation of the number of trees per hectare and the assumption were made accordingly.
- Volumes of the trees were calculated by taking the average of all standing trees using the above mentioned volume table.

3. Other data was sourced from the following materials.

- Price of the timber for members, the number of the members and area of the CF was extracted from the OP whereas the price of the timber in the market was taken from each study sites.
- The Royalty rate for the timber was sourced from Forest regulations 1995.

4. Issues emerged during data calculation:

- It was also often difficult to determine the method by which timber volume calculations were done. The procedures were often not written in the OP.
- The height and diameter of the tree of the CF where a detailed inventory was done often seemed quite inconsistent. The recorded height and diameter of the individual tree were inconsistent with the tabulated data in the tables e.g. for a given height of a tree a certain diameter would have been expected but the recorded data was often less than the diameter one might have expected.
- Some of the foresters reported that the height and diameter of the standing trees was reduced while doing the inventory in order to reduce the estimate of allowable cut for the CF. We compare below the data on tree diameter, height and volume recorded in the OP of Buddha Mawali FUG, Devdaha and compare it with the official volume tables. It is clear that given the reported diameters there is a systematic underestimation of tree height by at least 50%.

Selected Data by species on tree dimensions from the Buddha Mawala FUG Operational Plan.

Spp.	Girth in ft.	Diameter in inch	Height in ft	Volume in cft (m^3)
Shorea robusta	7.9	29.61	35	50.18 (1.42)
Shorea robusta	6.6	24.84	35	35.31 (1.0)
Shorea robusta	6.11	26.43	40	45.70 (1.29)
Terminalia alata	8	30.57	50	76.41 (2.16)
Terminalia alata	9	34.39	70	135.39 3.83)

Volume from the Volume table for the given height and diameter:

		OP data converted to metric			
Spp.	Girth in ft.	Diameter in cm	Height in m	Volume in m^3	Volume from the volume table Remarks
Shorea robusta	7.9	75.20	10.67	1.42	Not available. The volume table indicates that a tree of 75 cm diameter should attain a height of at least 22m, achieving a volume of 4.3m^3
Shorea robusta	6.6	63.09	10.67	1.0	Not available. The volume table indicates that a tree of 63cm diameter should attain a height of at least 20m, achieving a volume of 2.9m^3
Shorea robusta	6.11	67.13	12.19	1.29	Not available. The volume table indicates that a tree of 67 cm diameter should attain a height of at least20m, achieving a volume of 3.2m^3

Terminalia alata	8	77.64	15.24	2.16	Not available. The volume table indicates that a tree of 77 cm diameter should attain a height of at least 24m, achieving a volume of 4.4m^3
Terminalia alata	9	87.35	21.34	3.83	Not available. The volume table indicates that a tree of 87 cm diameter should attain a height of at least 26m, achieving a volume of 5.9m^3

Site	Name of the CF	Total area in Hac	No. of HHs	Main species	Height in m	Diameter in cm	Volume in cu.m	No. of standing trees	Total volume in cu.m	Volume / hectare	Average age in year	Price per cu.m in NRS			Resource value in NRS.				Remarks
												For member	*in the market	Royalty rate	Value according to member's price	Value according to market price	value of the forest according to royalty rate	Total Value of the forest in NRS	* Price in the market is the price to non members
Makar	Parijat	600	1324	Shorea robusta	20	54	2.1	25000	51750	86.25	100			7056			365148000	492726125	FUG is urging for 600 hac while DFO rejected and agreed to 100 hac saying the rest falls on the redline area.
				Terminalia alata	22	56	2.2	8000	17760	29.60				3528			62657280		
				Lagerstroemia parviflora	20	58	7.3	5000	36700	61.17				1764			64738800		
					10	14	0.1	400		0.06	7			5292			182045		
Harpur	HJAB	14.4	460	Dalbergia sissoo	16	36	0.7	20000	13200	915.40	15	6174		5292	81496800		69854400	69854400	
Suryapura	Deurali	67.1	1221	Shorea robusta	10	18	0.1	50727	7305	108.83	10	7056	14112	7056	51541879	103083757	51541879	52855209	
				Terminalia alata	10	20	0.2	1661	274	4.08		2822	7056	3528	773411	1933803	966901		
				Melia azaderach	10	14	0.1	802	72	1.08		5292		1411	381977	509302	101846		
				Dudhi	10	12	0.1	2889	173	2.58		1764		1411	305772	1223087	244582.74		
	Aichawal Thakurpur	54	336	Shorea robusta	26	72	4.5	35	156	2.89	> 70		14112	7056		2202883	1101442	59113312	No information about the timber's price set by the FUG to members
				Adina cardifolia	24	76	3.2	15	48	0.89			7056	3528		340805	170402		
				Schloechera oleosa	24	80	4.7	8	37.44	0.69				1411		264177	52828		
				Dalbergia sissoo	12	18	0.2	70000	10920	202.22	11			5292		77051520	57788640		
Rajahar	Chautari	355	665	Shorea robusta	26	78	5.2	20000	103800	292.39	> 100	10584	10584	7056	1098619200	1098619200	732412800	1083772464	Acacia catechu is measured in Biomass and in kg. It is restricted to sell by the DFO.
				Terminalia alata	26	76	4.5	15000	67800	190.99		7056	7056	3528	478396800	478396800	239198400		
				Michelia champaca	24	70	4	5000	19950	56.20				5292	140767200	140767200	105575400		
				Acacia catechu	8	12	77	600	46320	130.48	9			10			463200		
				Melia azaderach	10	12	0.1	2850	196.65	0.55		7056	7056	1411	1387562.4	1387562	277473		
				Dalbergia sissoo	10	16	0.1	7600	813.2	2.29				5292	5737939.2	5737939	4303454		
				Dalbergia latifolia	10	16	0.1	1520	174.8	0.49				8820	1233388.8	1233389	1541736		
	Bartandi	46.3	101	Shorea robusta	26	82	5.7	3000	17130	369.98	> 100	7056	10584	7056	120869280	181303920	120869280	151712182	The market price is high because of the inclusion of the transportation cost, the forest is 1 hr walk from the highway.
				Terminalia alata	24	82	4.9	1200	5820	125.70		1764	7056	3528	10266480	41065920	20532960		
				Syzygium cumini	20	68	2.9	800	2352	50.80				3528	4148928	16595712	8297856		
				Bombax ceiba	10	20	0.2	1000	172	3.71	9			2822	303408	1213632	485384		
				Eucalyptus spp.	10	18	0.1	3000	426	9.20				2822	751464	3005856	1202172		
				Leuceana leucocephala	10	16	0.1	2000	230	4.97				1411	405720	1622880	324530		

Rajahar (Contd..)	Dhuseri	205	613	Shorea robusta	24	82	5.3	20000	106800	520.98	> 100	10584	21168	7056	1130371200	2260742400	753580800	879606456	Acacia catechu is measured in Biomass and in kg. It is restricted to sell by the DFO.
				Lagerstroemia parviflora	22	76	3.4	7000	23660	115.41		3528	7056	1764	83472480	166944960	41736240		
				Terminalia alata	22	76	3.2	6000	19200	93.66				3528	330427	135475200	67737600		
				Syzygium cumini	18	60	2.1	2000	4260	20.78				3528	73314	30058560	15029280		
				Acacia catechu	10	15	135	300	40620	198.15	13			10			406200		
				Eucalyptus spp.	12	24	0.3	500	141	0.69		3528	7056	2822	497448	994896	397902		
				Dalbergia sissoo	12	18	0.2	800	124.8	0.61				5292	440294.4	880589	660442		
				Leuceana leucocephala	12	16	0.1	300	41.1	0.20				1411	145000.8	290002	57992		
Rajahar	Jharahi	30	241	Terminalia alata	24	76	4.2	60	252.6	8.42	> 100			3528			891173	32035813	No information about the timber's price
				Acacia catechu	8	10	49	1200	58800	1960.00	8			10			588000		
				Bombax ceiba	12	14	0.1	2000	184	6.13	3 to 13			2822			519248		
				Dalbergia sissoo	12	16	0.1	44000	5676	189.20				5292			30037392		
	Kalika	22.5	207	Shorea robusta	24	80	5.1	2000	10200	453.33	> 100			7056			71971200	73791648	
				Dalbergia sissoo	10	14	0.1	4000	344	15.29	7			5292			1820448		
	Sisuwar	24.3	135	Dalbergia sissoo, Mature	30	50	2.1	250	525	21.60	40	7056	10584	5292	3704400	5556600	2778300	14602123	Acacia catechu is measured in Biomass and in kg. It is restricted to sell by the DFO
				Acacia catechu, mature	20	20	286	6	1718.4	70.72				10			17184		
				Dalbergia sissoo, pole	10	12	0.1	31000	2077	85.47	7	7056	10584	5292	14655312	21982968	10991484		
				Acacia catechu, pole	8	10	49	1600	78400	3226.34				10			784000		
				Bombax ceiba, pole	10	14	0.1	120	11.04	0.45		7056	10584	2822	77898.24	116847	31155		
	Bhu-Samrakshan	14	150	Dalbergia sissoo	10	12	0.1	5000	335	24	7			5292			1772820	1772820	
	Gaurab	3.5	41	Dalbergia sissoo	12	12	0.1	400	32	9	9			5292			169344	169344	No information about the timber's price

Devdaha	Srijana	11.3	158	Shorea robusta	16	48	1.4	251	343.87	30.431	70	7056		7056	2426346.72		2426347	3436343	
				Terminalia alata	16	54	2	141	279.18	24.71		3528		3528	984947.04		984947		
				Syzygium cumini	14	44	1	5	4.8	0.42		3528		3528	16934.4		16934		
				Lannea coromandelica	16	46	1	8	8.32	0.74		3528			29352.96				
				Lagerstroemia parviflora	14	46	0.9	5	4.6	0.41		3528		1764	16228.8		8114		
				Dalbergia sissoo	small trees with 4/5 m height and 10 cm diameter of 5/6 years														
	Buddha Mawali	40.5	600	Shorea robusta	20	54	2.1	854	1767.8	43.65	100	7056		7056	12473455.7		12473456	15327960	
				Terminalia alata	18	56	1.7	465	809.1	19.98		3528		3528	2854504.8		2854505		
				Dalbergia sissoo	30000 small trees with 2/3 m height and 5/6 cm diameter														

Attachment 5.2. Dhuseri FUG : Contents of OP (extracted from the first OP)

1. Area and ownership of the forest:

The total area of the CF is divided into 2 blocks i.e. protection and community forest with the area of 160 hac and 67.5 hac respectively. The protection block will be protected and promoted whereas the community forest area will be used to serve the forest products needs of the users.

2. Objectives of forest management:

- Making the community aware about the importance, protection and development of the forest for the reduction of natural calamities (flooding, erosion, loss of soil fertility) and improving the livelihood of the poor and resource dependent community by increasing the availability of the forest products in a sustainable manner.
- Protection and promotion of the forest and equal distribution of the forest products in a disciplined manner according to the capacity of the forest.
- Plantation campaign in the illegally settlement area as soon as the government clear the settlers from the area.
- Plantation of the species according to the land type and interest of the FUG. Scientific management of the plantation forest and cutting, utilization and selling of the products and collection of the FUG funds and utilizing it.
- Shared collection from each HHs to collect money to use on wire fencing, seedling collection, weeding, cleaning etc. Equal distribution of the forest products (fuel wood, grass, timber) according to the share.

3. Forest promotion Activities:

- Division of the forest into blocks
- Plantation of various fodder and tree fast growing species and maintenance activities in each block
- Following the below mentioned conservation plan in each block according to the permission and technical assistance of the DFO:
    1. Pruning
    2. Thinning
    3. Selection felling
    4. Singling

4. Collection and distribution of the forest product:

- The chairman of the FUG should show the details of amount and quantity of the forest products and collect it according to the supervision of the DFO representative.
- Grasses are distributed free of cost to the users in a managed way while the surplus grasses can be sold by the FUC.
- The livestock farmers are given the opportunity to cut the fodder as per the guidance of FUC by paying amount fixed by the FUC.

Contents of OP (extracted from the second OP)

1.Area and ownership of the forest:

- Area of the forest is 205.15 hac

2. Objectives of forest management:

- Protection, promotion, management and utilization of the forest.
- Forest development activities to increase the productivity of the forest.
- Control landslides, flooding and protect the environment.
- Plantation in the vacant area to increase the status of the forest.
- Availability of the forest products to users in a simple and managed way.
- Intercropping development in the vacant area of the forest.
- Community development activities.
- Bio-diversity conservation in the northern side protection forest

3. Forest promotion Activities:

- Division of the forest into blocks
- Follow forest promotion activities with the compulsion attendance and supervision of forest technicians every year in each block during Paush, Magh and Falgun
    1. Cleaning
    2. Thinning
    3. Prunning
    4. Singling
    5. Plantation
    6. Utilization of dead and fallen branches
- Establishment of nursery
- Conservation of the existing NTFP species and launching of NTFP cropping program
- Involvement of the economically poor HHs in Income Generating Activities by involving them in planting broom grass, cane, bamboo etc. in vacant and barren sloped land with the technical assistance of the forest technicians.
- Plantation in the vacant land

4. Collection and distribution of the forest product:

- Distribution and selling of forest products in Paush, Magh and Falgun extracted during forest promotion activities, according to the suggestion and assistance of the forest staffs.
- The price of the forest product is fixed from Rs 1/kg of fuel wood to Rs 300/cft of sawn timber
- Availability of the forest products only to the users. Surplus products to be sold by the order of DFO by fixing the price according to the revised guideline and forest regulation 2051.

6. Inside the User Group: Community Forestry and the Community

6.1 Introduction

The previous chapter described the wider institutional context within which user groups were formed and operated, and the constraints which external actors, notably the Department of Forest and the DFO placed on the autonomy of the groups and their attempts to assert control over local forests. The Forest authorities were responding to a new, but insistent demand from members of local communities for more control over their forest lands. The histories of FUG formation collated from across our Terai study sites suggest that in most cases the protagonists of these demands were a small group of often well-educated individuals with local political clout that were often confronted by formidable opposition and a fair dose of scepticism. This chapter explores the origins of these demands in Terai communities, but also the ways that they were articulated and promoted by outside actors as illustrated by the case of Devdaha VDC. It then turns to the local institutional forms that developed as user groups claimed the still constrained opportunities and spaces ceded to them by the DFO.[55] This will be achieved by exploring not only the formal constitutions and rules of user groups, but also the actual social and political processes that emerged as divergent groups sought to advance or at least maintain their interests. The new regime seemed to offer unprecedented local autonomy, but one that was threatened on the one hand by the long shadow cast by the precedents and contradictions of the past, and on the other by the fractious nature of local political culture.

6.2 Community Level Drivers.

The analytical framework (see Fig 5.1, page 53) proposed that four key drivers operate at the community level and influence the extent to which community forestry is likely to display exclusive or more egalitarian outcomes. As will be clear from this chapter, while the effects of these drivers are subordinate in many respects to the effects of the external institutional drivers and the dynamics prompted by high forest value, nevertheless community level processes, at times aided by external interventions are capable of challenging their effects.

[55] The discussion of the framework in Chapter Five illustrates the various dimensions of the scramble for control between the DFO and FUGs.

Four community level drivers were proposed. The first relates to the history of community formation and whether or not the community has been long established or is a dynamic immigrant community. Chapter Fourbriefly documents the history of settlement in the Terai and the site reports provide detailed descriptions of settlement history (see Appendices 2-6). While we are able to describe certain aspects of the extremely heterogeneous nature of the communities in our study sites, consistent with the observations of Subedi *et al.* (1993), we have been unable to pin down the specific implications of the various facets of heterogeneity for community level processes. In fact both the theoretical and empirical literature on community based natural resource management has been preoccupied with the impacts of heterogeneity on environmental outcomes (Baland and Platteau 1999; Varughese and Ostrom 2001). Note should be made of the view by Varughese and Ostrom (2001) that the challenges posed by wealth inequality, heterogeneous interests or sociocultural traits may be overcome by careful institutional design. We would argue that where social relations have not become so deeply structured and embedded, there is the chance that this is more likely to favour inclusive outcomes. Thus more dynamic and recent immigrant communities are more likely to produce inclusive outcomes, at least for the immigrants if not for the original inhabitants. The Surypaura-site report illustrates the apparent harmony in Deurali FUG and the ability of the local community of hill migrants to effectively resolve other types of collective action problems, such as road building.[56] The following discussion on FUG formation processes gives some substance to these assertions.

The second community level driver captures the degree of social and economic differentiation. Again while we have described this differentiation this has not been a systematic or deep part of the analysis. However, the framework argues that where the degree of differentiation is least, there are more chances of equitable and inclusive processes.

The third driver, discussed in detail in this and the following chapter relates to access restrictions. Access restrictions may be direct, e.g. a narrowing of the time period for collecting forest produce or indirect, by placing a high price on membership. This chapter considers the price of membership as a mechanism for exclusion while Chapter Seven looks at the impacts formal restrictions have on the forest access for vulnerable households. The fourth driver reflects other FUG policies that impact on the distribution of benefits and will be discussed at length in Chapter Seven, section 7.5.

[56] Studying milk producing cooperatives in Tamil Nadu, Seabright (1997) argues that cooperation in one sphere often spills over to other spheres of social life.

6.3 Origins of Community Resource Management Organisations in the Terai

The restoration of democracy in 1990 led to an upsurge of political and civic aspirations, and of civil society organisations to articulate them. Subsequent legislation, in particular the 1993 Forest Act, and the Local Self-Government Act 1998 which created the decentralised structure of Village and District Development Committees (VDCs and DDCs), laid the framework for the decentralised control of local resources. These two decrees also, through their inconsistency, added to the uncertainty of the new situation.

Most of the user groups covered by our research in the Terai emerged in the early 1990s. Generally, the campaign for forest user group formation was championed by the new local elites that benefited from the post-*panchayat* dispensation. To begin with, these activists and their alliances were often closely tied to the revitalised political parties which dominated political life. However, the association with party politics, while far from disappearing, appears to have declined over the decade, as the micro-politics of caste, influence and location took over.

Local interest in taking over the forest was influenced not only by the general liberalisation of Nepalese political life, but in some instances also by national, or at least supra-local organisations or NGOs described in Chapter Four. Such groups promoted national awareness of community forestry policy, for example through debates on the radio and in the press (the radio has been particularly effective in reaching women). They also intervened in specific communities. In our study area, the process of external facilitation and advocacy is most clearly exemplified at Devdaha (Box 6.1)

Box 6.1: State, forest and civil society in Devdaha VDC

Community forestry activities began in Devdaha VDC in 1994. Prior to that, the forest was under the control of the forest office, which maintained a post there with 4-5 rangers. Despite that, the illegal export of forest produce was rife, with 50-60 bullock cart-loads of forest produce a day allegedly being extracted by local elites with the complicity of the rangers.

The stimulus for CF came from the establishment of FUGs in the neighbouring municipality of Butwal, and the activities of the NGO, WATCH. WATCH formed small groups of women who initiated the demand for community forestry. A forest protection committee was established in ward 6 and part of the forest fenced, and planted with seedlings provided by the DFO. In September 1995, WATCH facilitated a meeting to discuss the formation of a formal FUG, and as a result a constitutional drafting committee was formed. The constitution was passed a few weeks later and submitted to the DFO by an ad hoc committee. The District Forest Officer refused registration on the grounds that only 18 of the 149 households had registered land, the others being encroachers who, he alleged, were responsible for the degraded state of the forest resource.

The pressure continued with WATCH's bringing in a journalist to report on the situation, and their asking the District Forest Officer to record in writing his reasons for refusing registration. He now agreed that an application could be made, but this met with delays. Matters came to a head when a local man accused of illegally felling wood died in custody, apparently after a severe beating. The community stormed the district forest office, and the District Forest Officer narrowly escaped with his own life. He was then transferred out, and his successor proved more amenable to community forestry. Srijana FUG was registered in 1996, and the handover effected in the presence of the new District Forest Officer ten months later. Seeing this success, neighbouring communities were encouraged to form user groups: three such groups in the VDC have since been registered and received forests, and 11 more are underway.

Devdaha VDC has become an important focus for community forestry. In 1997, the incoming VDC chairman sought to reverse an earlier decision that Devdaha's forests be classified as Reserve Forest. With support from FECOFUN, a strategy was developed of surrounding OFMP-classified production areas by community forests in order to force their eventual hand-over to communities. WATCH helped to promote, a cross-VDC action committee established in 1998 with the Devdaha VDC chair as coordinator. This group is playing a major role in the establishment of community forestry in the area.

Occasionally, rather than responding to local pressure, the DFO itself took the initiative of encouraging the formation of user groups, in order to devolve the management of the resource and reduce protection costs. The one case encountered in our research was the canal side plantation at Harpur. In this case, a forest ranger convinced the community of the benefits of community forestry, and provided a model constitution as a guideline.

Of course the formal and informal interests of the various branches of the Forest authorities were not unique in perceiving a threat from the prospect of a community-managed forest regime, and the formation of user groups generally met with some opposition, the level

varying from place to place (see Malla 2002). The most powerful opponents were the illegal timber exploiters and their allies, the local politicians of the *panchayat* regime, who had been, along with the DFO, the main beneficiaries of the state-led forestry system. Sometimes, such interests were able to play on the fears of specific groups of users to foment dissent against the community's attempts to impose protection. This happened in Dhuseri FUG, for example, where timber smugglers are said to have instigated firewood sellers to thwart the formation of the user group after an informal and self-appointed protection committee had begun to confiscate timber and firewood from those found collecting in the forest. Abuse, allegations of corrupt profiteering from the proceeds of confiscation, threats of violence, and even an assault, followed. An Assistant Forest Officer and other DFO staff tried to negotiate in the dispute, and provided protection to the protection committee, but were themselves assaulted by the anti-FUG faction. Peace was only restored when leading members of the faction were temporarily placed in custody.

6.4 Formalisation, membership and office

The procedures for FUG formation are prescribed in the FUG guidelines of 1995, which defines a series of stages to be followed. The preliminary consultative process is meant to include discussions with the community as a whole about CF policy and their needs, the identification of users and the forest to be handed over, and discussion of the proposed forest management system. Discrete interest groups, such as grazers, firewood sellers, charcoal makers and fodder collectors, are meant to be identified, and consulted separately in small group meetings to discuss their needs and management rules. Subsequently, the formation of the FUG, the registration of the constitution, and the preparation of the operational plan precede the hand-over of the forest itself. A protracted process of approval on the official side often compounds the period of time taken for the FUG to go through the necessary steps, and from start to finish, this process will often take a long time. Lengthy delays have often led to an erosion of trust as communities began to question the seriousness of the DFO's intention to hand over local resources.

In practice, the path to FUG formation, while resembling these guidelines in some respects, varied from group to group. As we have seen, the initiative for FUG formation generally came from particular sections of the community itself, often preceded by the formation of an informal protection committee. Intentions and assumptions were usually shaped by this group's interests rather than a community-wide debate, let alone the separate consultation of

stakeholder groups defined by socio-economic status and needs. In our sample, systematic *tole* (hamlet), household, and interest group meetings were in most cases not held. The two exceptions were the formation of Deurali FUG in Suryapura where consultations were held down to the tole level and user groups in Devdaha VDC where formation was facilitated by an NGO particularly skilled in this field. In other cases (for example Dhuseri and Chautari FUGs in Rajahar), local discussions were simply not held, and the constitutions and operational plans prepared by small groups. It is also worth pointing out that the formation process also met with local scepticism. Manipulation of numbers and offering of incentives to signatories was necessary to cajole sufficient local support to obtain DFO-endorsement for the formation of Dhuseri FUG. In other instances, the institutional weaknesses of DFOs are to blame. While the promotion of general awareness about community forestry is a responsibility of government, the number, capacity, training and motivation of forestry staff is not up to the task.

Hence constitutions and operational plans, drafted by small groups of educated members, often with the assistance of the DFO, took place without the forest's users or their needs being identified systematically. Issues of participation, social equity and gender figured scarcely, if at all, in the priorities outlined by this group. It is easy to perceive this as a conspiracy against the interests of the less well to do, but it is also a reflection of a lack of experience with formal paperwork. Indeed, constitutions and operational plans often copy directly from those of other FUGs in the same area. Even so, this has left less privileged groups, such as indigenous households, or those dependent on firewood collection, to adapt to, rather than shape, the new 'community' management regime. Even where a process of external facilitation was implemented, it nevertheless proved very difficult to integrate indigenous elements meaningfully into community management (as in Devdaha).

The bias towards the privileged is reflected at several levels: given their largely self-selecting nature, FUGs are likely to arise in the better off (or at least better connected) parts of better-off communities.[57] Then, as they are the first to stake such claims, they have some flexibility in defining the area of the forest in which they have an interest (actual patterns of use are very fluid, but to a degree concretised by the registration process). Third, access restrictions and high user fees may exclude or neglect the interests of the poor. Fourth and finally, higher

[57] This is, again, subject to some variation. The final initiative for FUG-formation in Deurali FUG in Suryapura VDC was taken by a group of women who had learnt about community forestry from the local radio and from CF initiatives nearby.

socio-economic and caste groups tend to dominate FUG committees, are in a privileged position to extract illicit pecuniary gains and have in addition been able to design policies that display a stark distributional bias.

The underlying processes are often subtle, and it would be difficult to determine rigorously the extent to which FUG memberships fail to represent the diversity of their communities. However, it is certainly the case where groups are excluded within eligible populations, they tend to be from the lower socio-economic strata, and particularly from indigenous Terai groups. Further, these assertions are consistent with the relatively privileged socio-economic composition characteristic of user groups. Over two-thirds of the membership of Dhuseri FUG is drawn from the high caste Brahmin and Chhetri groups, for example. A more detailed social breakdown for another FUG, Srijana, is shown in Table 6.1.

Table 6.1: Srijana FUG membership (number of households) by caste and economic status

Wealth Group	**Rich**	**Medium**	**Poor**	**Total**
Caste/ ethnicity				
High: Brahman, Chhetri	26	55	17	98 (62.0)
Medium: Magar, Gurung, Kumal, Tharu		19	26	45 (28.5)
Low: Damai, Kami, Sharki		3	12	15 (9.5)
Total	26	77	55	158
Percent	16.5	48.7	34.8	100

FUG constitutions generally follow a similar format, outlining the objectives, membership, functions, rights and duties of the user group, the procedures for establishing the committee, the powers and responsibilities of the committee and its members, and rules governing meetings, user group finances and sanctions. The other key official document, the CF Operational Plan, is likewise a fairly standardised document. Operational plans record the name, area, and boundary of the forest, and the agreed protection and management systems for each block. Some also detail fines and other penalties, as well as financial procedures. This standardisation stems both from the use of earlier constitutions and plans from other sources by nascent user groups and their NGO advisors, from the provision of the 1995 Forest Regulations and Guidelines, and from the influence of the DFO.

Some variation was noted, however, in FUG organisational structure, with Dhuseri, Chautari and Parijat having a more complex arrangement with an executive committee, board of council and board of directors, together with directors and subcommittees for each block. This arrangement was first developed for Dhuseri before the publication of the Forest Regulations, and subsequently taken up by other large user groups in Rajahar VDC. The complex structure is partly a reflection of the many challenges posed by transparent management of a high value resource. In spite of this complex structure, however, FUGs controlling high value forests in West Central Terai remain distinctly vulnerable to elite capture. This is discussed further in Chapter Seven.[58]

User groups in the area typically consist of three to six hundred households (although Parijat CF in Makar VDC has a membership of over 1,300 households). Eligibility for membership is usually defined in terms of place of permanent residence, dependence on the forest and interest in its management. Generally membership is drawn from the residents of one or several wards in the same VDC, although sometimes parts of a neighbouring VDC may be included. In the case of Parijat, again, membership was open to residents of parts of Jahada VDC to the south (which had negligible forest resources of its own), and one member of the committee was from this area. However, misunderstandings have arisen between the membership from the two VDCs over a number of matters. The names of Jahada members were not written into the FUG constitution, allegedly on the advice of a forestry official who considered that the large size of the households' characteristic of the main ethnic group in this area would give rise to problems. There has also been some dispute over whether fees have actually been paid and passed on by the collector from Jahada. However, cross-VDC boundary conflicts are not inevitable. A good working relationship between residents in Suryapura and neighbouring Gajedi VDC facilitated the smooth formation of Deurali FUG. In Suryapura, most of the Terai castes resident in the southern parts of the VDC and thus at some distance from the forest do not consider membership worthwhile for the one-day's access per year which this would give them. They have instead turned towards plantation forestry and the use of cow dung cakes to meet their fuel needs.

These tensions are illustrative of more general relationships between place of residence, forest use and participation. Users who are more distant from the forest often have few alternative sources of forest products and thus a pressing need. Yet they have a weaker claim

[58] See also the Rajahar site-report.

as 'traditional' users, have further to walk in collecting produce, and can play a less active role in the day-today protection of the forest. For these reasons, they tend to be gradually marginalised as the FUG is run for the benefit of those closer to the resource.

6.5 The Price of Membership

Above and in the framework, the price of membership was classified as an indirect access restriction. Membership of all FUGs is contingent upon the payment of dues. These generally consist of a single membership fee and subsequent annual fees. The level of fees is often one of the main causes of contention among forest users and would-be users. Fees are set by the FUG, and vary greatly from group to group, ranging, even in our relatively small sample, from as little as Rs 5 to as much as Rs. 2,500. The latter would be the equivalent of earnings from 35 days of female agricultural labour. While a clear relationship between the level of fee and the value of the forest resource might have been anticipated, this is by no means the case. The lowest fee was that for Parijat CF, at Rs. 5. The higher rates (and half of the groups examined had charges above Rs. 500) are certainly substantial enough to effectively exclude the less well-off from membership. In the higher value forests of Dhuseri and Chautari, in Rajahar VDC, for example, where membership dues have been set for new members at Rs.1,500 and Rs. 500 respectively, many poorer households who live quite near have not taken membership (although some appear to continue to depend on the forest). In Sisuwar CF, also in Rajahar, poor Musahar households were given the option of paying the Rs. 150 membership in three instalments. However, some households who meet their firewood needs from the river only look to the forest to provide thatching grass, and did not consider the membership a worthwhile investment just for that purpose.

In the high value forests of Rajahar VDC, the access to timber (effectively highly subsidised – see Chapter Seven) provides a strong incentive for membership for those who can afford to purchase timber quotas from the FUG. However, poorer households are generally unable to avail themselves of this advantage as they cannot mobilise the advance payment of Rs.300 per cft required to obtain timber. Even so, fuelwood can be collected for free when the forest is open. The capacity to take advantage of this window of opportunity is governed, in part, by place of residence (proximity to the forest) and access to labour. Dhuseri has also allocated private land plots to members and may, in the near future allot more. However, poor households benefit from FUG investments in social infrastructure and poverty alleviation directly from the welfare support system, which provides timber to victims of misfortune

such as floods. In Chapter Seven we present a more detailed assessment of the resources allocated by FUGs to uplift poor members.

High entry fees are justified by the investment made by existing members in forest improvement, protection and management. While this argument has some justice, nevertheless, some established groups appear to use a high membership fee to, so to speak, pull up the ladder behind them. In Srijana CF, Devdaha VDC, there are over a hundred eligible households who are non-members, largely because they are newcomers, or older established residents who had not joined the FUG because of differences over the restriction of grazing. These households now face a membership fee of Rs. 1,500 if they want to join, a level beyond most of their means.

In Dhuseri FUG, another recent and interesting development is the proposal to introduce a new principle for categorising members (A, B or C) which could impose restrictions on voting and introduce differentiation of the pricing of forest products. This stratification is justified by the claim of residents of ward 7, who are predominantly farmers (and Brahmin/Chhetri) that they have a stronger attachment to the forest and are more involved in its protection and management, and so should be entitled to greater benefits. The argument put forward, therefore, is that contributions rather than needs should form the basis for prices charged for forest products. This conflict also has a party political dimension in that this area is strongly Nepali Congress, while the bazaar area supports UML.

A system of graduated membership already exists in several other user groups (Makar, Harpur), although it in fact seems to remain largely unimplemented. In Buddhamawali CF (Devdaha VDC), the assembly has given the committee the mandate to evaluate and classify households according to their ward of residence and involvement in forest management activities. In this case, all members have the same use rights, but their grading determines the membership due, which ranges from Rs.100 to Rs. 1,500.

All FUGs are managed by committees elected from their membership at general assemblies of the groups and with a similar composition and formal powers. The extent to which committees consult their members in exercising their delegated powers varies from group to group according to their social composition and history. An authoritarian approach is typical in larger groups dominated by one social fraction of the community in which an informal forest protection committee preceded the formation of the wider group itself. Where a wide

process of consultation preceded the establishment of the committee, as has sometimes been the case where outside NGOs have facilitated the process, it would be reasonable to expect the general membership to hold the committee to account to a greater degree However, the effectiveness of 'transparency' and 'participation' in ensuring the popular will does presuppose a knowledge of community forestry law and regulations and an understanding of often complex issues that arise in relation to transparent management of large organisations managing valuable resources, which will be beyond most members, especially the less privileged.

The extent to which committees are representative of their groups' membership is difficult to gauge systematically. However, it is certainly the case that higher castes and socio-economic groups tend to predominate in office. The educated members are also favoured. As regards gender, some group constitutions do specify that a proportion of the committee be women (49 percent in the case of Srijana FUG). In Rajahar, a requirement was introduced that each hamlet be represented by both a man and a woman: however, the executive committee has remained all male. It is notable that with the exception of Devdaha and Deurali FUG in Suryapura, the participation of women was minimal. Where women are active on committees, they tend to be of a high social status. However, women generally tend to be less vocal and assertive in meetings.

A seemingly unique case of the feminisation of conflict was recorded in Buddhamawali CF, Devdaha. A number of households in one of the hamlets who had been encroaching on the forest apparently encouraged a protest against the plans for community forestry on the part of their women-folk. The women objected that that they would be subject to theft or even rape if they were allowed to enter the dense parts of the forest. In doing so, they were masking the underlying interest that encroachment would be threatened under a regime of community management. Male committee members were subject to abuse and even assaulted. So as to be able to respond more effectively and to avoid any allegation that a male-dominated committee was harassing the women protesters, the user group committee transformed itself into an all-women group, the male members resigning and being nominated to an advisory board. The tactic proved effective.

6.6 Management: plan and reality

The management of community forests, while varying from place to place with the character and condition of the resource and the effectiveness of the FUG, did have common elements. The original and core function was generally the protection of the forest, undertaken by members, paid guards, or a combination of these. Other activities include the planting of trees, construction of offices, cutting of firelines, and various kinds of training. Box 6.2 gives examples from two FUGs.

Box 6.2: Forest management activities in two FUGs

In **Parijat FUG** (Makar VDC), users have planted 12 *bigha* of teak in a degraded part of the forest. The management plan defines ten official entrances. These are controlled by twenty guards, paid at the rate of Rs. 30-40 per day. The collection of fuelwood is restricted to 6 a.m. to 5 p.m. on Saturdays, and regulated through the issue of tickets at the entry points, which have to be returned to the issuing point on leaving. As regards timber, the committee distributes fallen and dead trees at the rate of 200 to 250 Rs. per cft. This remains an informal arrangement with the DFO, as the forest has not yet been officially handed over. The forest is open for grass collection all year round.

In **Dhuseri FUG**, considerable investment has been made: silvicultural operations have been undertaken, a patrolling forest watcher appointed, a nursery established, 67 ha. has been planted with *sissoo* , *masala*, *badahar*, broom, thatch, and bamboo. Three ponds have been dug, and a storage shed constructed. Six km of fire lines have been cleared. Training in forest management has also been implemented for the user group, and a programme for the identification of non-timber forest products initiated with a herbal company in Rajahar.

One of the most important functions of user groups is to oversee the distribution of those forest products whose harvest has been agreed in the plan. Different methods are used for each product. Timber is usually distributed once a year, after FUG members have been given the opportunity to express their needs to the committee. The user group has control over cutting of timber, incurs harvesting costs and sells timber quotas to members at a price determined by the Assembly. As demand almost always exceed supply at this price, some kind of rationing is necessary. Frequently the method of distribution used results in discord due to a perceived unfairness or lack of transparency.

Firewood is usually collected during the dry season. Sometimes this is by individual permit for collection on a particular day. In other groups, the firewood is collected together and divided into equal shares. Grass is collected or distributed on similar principles. Sometimes (e.g. at Srijana), grassland is divided into small plots and allocated to households at random

through a lottery system. A fee of Rs. 50 to 150 is charged per plot, depending on the quality of the grass.

All user groups have schedules defining the prices charged for timber, fuelwood, and poles, as well as of penalties and sanctions. Table 6.2 lists prices for Srijana FUG. It shows that a price differential operates for some, but not all products between members and non-members, as well as substantial price inflation between the first and second operational plan.

Table 6.2: **Schedule of prices for Srijana Community Forest (Rs.)**

	First Operational plan (members)	First Operational plan (non-members)	Second operational plan
Shorea Robusta	150	350	200
Delbergia sissoo	100	100	150
Terminalia alata	50	50	100
Syzgium cumini	50	50	100
Firewood (per *bhari*)	10		10
Stumps (per foot)	5		5

Table 6.3 below lists the sanctions applying in three user groups. However, despite this appearance of a systematic policy towards offenders, enforcement is certainly an issue in some user groups. In Srijana CF, for example, only one fine has ever been levied! This was in 1997 for grazing buffalo.

Annual income for the year 2000-01 in the eight groups examined ranged from Rs. 57,000 to over a million. The ranking of income levels, as would be expected, was closely related to the ranking of forest values. Allowing for expenditures, all of the groups showed a surplus for this year, most of them quite a substantial one. The main sources of income were the sale of fuelwood and timber, while allowances and salaries were the main expense. Most user groups had not defined any poverty focused activity: two mentioned facilities for support to the disabled and cash crop farming groups, but little information was available about these activities.

Table 6.3: **Schedule of fines for three Community Forests (Rs.)**

	Dhuseri	Sisuwar	Deurali
Grazing goat	1,000	5; 10 for subsequent cases	25
Grazing buffalo	1,000	25	75
Grazing cow/ox	1,000	15	55
Timber smuggling	300/cft	*According to scale*	
Firewood smuggling	100/*bhari*	*According to scale*	
Cutting of trees for poles	20-100/piece	*According to scale*	50-5,000
Slashing tree bark	5,000	*According to scale*	50-5,000
Damaging saplings/seedlings	50/piece	100	2,000-8,000
Cutting agricultural tools	100/piece		
Setting fire	Up to 1,000	Up to 1,000	6,000
Destroying fence	1,000	Double amount of damage	100 - 500
Encroaching on CF	up to 5,000	Up to 1,000 and expulsion	6,000
Destroying boundary			50-5,000
Hunting			100-5,000

6.7 Institutional strengths and weaknesses of FUGs

As the previous section showed, many user groups have been able in a relatively few years to establish systems capable of implementing a range of forest management activities. These achievements have been, as Chapter Five indicated, implemented in spite of an external environment that was less than receptive, and should not be underestimated. We turn now to look at aspects of institutional performance and while the analytical framework (Fig 5.1) places institutional performance (in relation to stability) as an outcome, for narrative purposes it is addressed here because of its fit with the detail on community processes.

One of the most striking and inhibiting institutional characteristics of certain FUGs is the high turnover of their leadership and committees. While constitutions in most cases specify a

five-year period of service, committees sometimes last for less than a year. Such instability has been particularly rampant in Dhuseri and Chautari in Rajahar VDC, both FUGs controlling high value forests. Box 6.3 records changes in the leadership of Dhuseri FUG since its foundation and synthesises the underlying behind each change, elaborated in more detail in the Rajahar-site report.

Box 6.3: Turnover of Chairmen in Dhuseri CF, Rajahar

The chairmanship of Dhuseri has changed eight times in as many years. The first chairman was elected in 1993. Complaints were made to the DFO about this chairman that users were being denied access to the forest. The DFO dismissed this claim, but recurring allegations that the user group accounts contained inflated expenditures forced the chairman to resign. His successor was widely regarded as incompetent and stepped down on his own initiative. By this time, the user group had accumulated substantial debts, and it proved hard to find a third chairman; eventually, a teacher widely regarded as above factionalism was elected. However, he found that he had insufficient time to do the job and quit. The next chairman was the owner of a local factory, who took up the post with some reluctance: he already had a complex relationship with the forest authorities, because his vehicle had been seized by the DFO while being used to collect fuelwood illegally. Fearing further reprisals, this chairman stepped down after just six days. The fifth chairman of Dhuseri FUG was successful in clearing its debts, and several improvements, including the establishment of a nursery were accomplished during his chairmanship. However, a small group of members submitted a petition to the DFO claiming that he had illegally cut a tree. Since the tree was a dry and hollow one, and thus not of high value, the DFO chose to issue a warning . But the complainants, dissatisfied with this reaction, brought the case before user group assembly, and forced the resignation of the chair. The sixth chairman was not in fact a member of the user group, a situation that gave rise to some embarrassment. However, he continued the initiatives begun by the fifth, though his style was considered autocratic, until complaint that he had misused 11 quintals of firewood forced him, too to resign. The seventh chair introduced several improvements, and sought to improve the financial transparency of the FUG by having the accounts presented at each meeting. The assembly also agreed that 20 percent of the FUG income would go towards poverty alleviation measures, although this was never implemented. It was his attempt to reactivate the board and replace certain members responsible for harvesting that led to his downfall: in response, allegations about the misuse of funds were made, and he was humiliated in public. His successor, the eighth chairman borrowed cash to cover a shortfall for harvesting expenditures. However, this money was apparently lent to the FUG secretary, and a false receipt submitted to the FUG for its expenditure. The chairman resigned. The story came full circle with the re-election of the first chairman as the ninth. Users were expressing concern about substantial illegal timber harvesting and the absence of accounts, and it seemed that it would not be long before a tenth chair will have to be elected.

The case of Dhuseri illustrates an important theme in our findings: Chairmen and committees are often ousted from office because of an allegation of corruption, sometimes of a relatively petty nature. The veracity of such assertions and counter-assertions is, of course, difficult to assess. Indeed the Rajahar site report (Appendix 5) demonstrates that the verification of wrongdoings, even by appointed auditors, may be a steep task. However, the site report also demonstrates that illegal harvesting involving the FUG Chairman and members of the Committee members appears to have increased in recent years. This indicates that the complex organisational structure of Dhuseri FUG has been unable to effectively redress the group's vulnerability to elite capture, by failing to institutionalise effective mechanisms for controlling such hidden transactions.

In other instances, the welter of allegations and counter-allegations suggests that corruption may be as much an idiom for political conflict as an indication of singular misdeeds. Both DFO- staff and members of FUG executive bodies are well aware that the hint of an anonymous complaint of corruption against him or her can be a useful means of discouraging an office holder from challenging the status quo. This risk explains why, despite the political and financial opportunities that they may offer, there is sometimes reluctance to take up committee positions.

Another characteristic of these forms of conflict is the way in which parties to these conflicts also use the full range of institutional resources available to them – the Department of Forest, the police, the party political apparatus, and any government patrons in the capital – to advance their cause. These frequent changes in leadership and the rampant institutional instability in user groups controlling high value forests inevitably create an atmosphere of uncertainty, suspicion and recrimination; while also a reflection of the quality of local political life this has serious implications for the group. Chairs in place for only a brief period do not have the time, or the motivation, to familiarise themselves with the details of the constitution and operational plan, and either inertia or too frequent changes of direction lead to inconsistency, confusion and conflict regarding forest management. It might also be imagined that the expectation of being drummed out in short order for corruption whatever the legality of one's acts may be as much an incentive as a deterrent to rent seeking.
We have suggested that axes of conflict within the user group run along lines of residential location, social, occupational and caste group, and political party. User groups also find themselves at odds with other institutions and sections of the community. Of these, the VDC may be the most important. For example, the Srijana FUG is in conflict with the Devdaha

VDC over a hectare of land near the Ilaka (Divisonal)[59] Forest Office where they have planted some five thousand sissoo trees. The VDC intends to use this area to establish a market. In other cases, for example in Suryapura, the cohesion of a user group has proved sufficient for it to manage effectively a forest which transects two VDCs.

A unique institutional feature of Duseri Community Forest (Rajahar VDC) is the allotment of forest plots to individual households. This privatisation was introduced early in the history of the group, when it appeared that there may not insufficient interest in joining the group for it to meet DFO requirements for registration. To stimulate interest, those active in trying to get the FUG registered divided the relatively degraded area to the north of the settlement into 14 x 100 m plots for use by individual households on payment of 275 rupees. Although allocations were made in the names of 252 members, only sixty or seventy households actually benefited, most of these in ward 7, as multiple allocations were made to many of them.

While providing the initial incentive to join, this system of individual plot allocation, as well as being of dubious legality, is inequitable, and has given cause for resentment on the part of those who did not benefit from it. Nevertheless, it continues, and there are even plans to extend it, with a hundred further plots already having been demarcated. This has motivated other households to join the FUG. The demand for these plots far outstrips supply. They are traded at 'official' rates ranging from Rs 600 to Rs.1,400, although it would be reasonable to expect the actual rates to be higher. Some households complained of having been evicted from plots earlier allocated to them and in which they had invested time and resources.

6.8 Conclusion

The debate about the future of the forests of the Terai has become increasingly polarised, as the Department of Forest and DFOs find themselves faced with increasingly confident and assertive communities, now allied with new political institutions created by the decentralisation legislation of 1998 and in some instances encouraged and supported by civil society organisations. The outcome of the struggle for the Terai forests remains uncertain, and will be determined both by the conclusion of the policy process at the centre, which is unpredictable, and the balance of political forces at the district and local levels.

[59] There are usually nine Ilaka or divisions to a district covering about 11 VDCs.

We have seen that ‘communities’, or at least their self-appointed champions, have, over a relatively few years, been effective in asserting and extending control over increasing areas of forest in these Terai districts, and in implementing management regimes of more or less complexity. These institutional, productive and environmental advances have been achieved in spite of the ambivalent attitude of DFOs towards their aspirations, and the highly politicised environment in which they have grown up. The FUGs and their champions claim that communities’ management of forest has promoted its recovery from a degraded condition and resulted in environmental benefits, improved provision of products to members, the generation of funds for community development, and the empowerment of communities. This situation they compare favourably with the corruption and resource degradation alleged to characterise the government’s management of the forests. Their critics charge that FUGs are politicised, unaccountable, and subject to elite domination and accuse them of showing excessive interest in timber extraction, misusing income, and distributing forest products inequitably. As we have seen, the extent to which the voices of landless and marginal households influence the management of large FUGs dominated by local political elites is questionable.

Indeed the effect of these complex processes of social exclusion operating in FUGs which were documented here is to reinforce the biases identified in the last chapter: towards technical, production or conservation objectives rather than the broader livelihood objectives which would benefit the poor (see framework Figure 5.1, page 53). To what extent is it possible to assess systematically the social, economic and environmental impact of the community forestry regime? It is to this question that we turn our attention in the next chapter.

7. Outcomes: Livelihoods, hidden economy, equity and the state of common pool resources

7.1 Introduction

The proposed framework (Figure 5.1 page 53 above) provides a tool for analysis of the impacts of external and community characteristics and adopted FUG policies (price of membership, access restrictions and other policies) on institutional, livelihood and equity and environmental outcomes. While the notion of equity in benefit distribution is an often stated objective in academic discussions of community forestry in Nepal, little substantial evidence accompanies concerns over elite capture (Baral and Subedi 2000a; Chakraborty 2001; Pant 2002). Two recent studies appear to go some way towards remedying this shortfall. Bhattarai and Ojha (2000) examine the impact of community forestry on three socio-economic groups in two FUGs in the Koshi Hills. In related work Richards *et al*.(2003) argue that the time needed for collecting a bundle of subsistence products per unit of household demand is the most reasonable measure of inequality in FUGs. We shall have more to say about these studies below. Using the proposed framework as a point of departure, this chapter combines an analysis of the livelihood impacts of the access restrictions introduced by community forestry with an analysis of the distributional impacts of policies adopted by FUGs. The novel insights offered by our approach will be spelt out in detail below.

A variety of methods were deployed to collect and triangulate the primary data that inform this chapter. While data collection in the presence of insecurity has been discussed at length in Chapter Three, local politics involve sensitive questions prone to produce contradictory statements in need of thorough and iterative triangulation. A number of informal interviews and conversations guided this task. Purposive sampling was used to capture a diversity of household experiences, retaining a deliberate focus on potentially vulnerable households. In addition, a range of secondary data sources, including VDC-information, archive material from the user groups, user group constitutions, committee minutes and forest operational plans were consulted and analysed. Detailed inventories of forest resources were compiled from operational plans (where they existed) supplemented by Department of Forest records and observations in the field.

In assessing livelihood and equity outcomes, it is important to reiterate that *de facto* decentralisation in forest management and policy-making has been incomplete. As noted in

Chapter Five, the regulatory framework within which FUGs operate, grant user groups little by way of say in decisions about how much timber to cut. The allowable timber cut, which mirrors protection rather than balanced sustainable management objectives are by and large exogenously determined with some scope for collusive negotiation between the forest ranger and FUG-representatives as well as some scope for undetected cheating by overstepping the mandate of the allowable cut (see the Rajahar site report, in appendix 5, for more details). Through the lens of our framework, it is important to separate the effects on livelihood and well-being outcomes of a restrictive and exogenous regulatory environment on the one hand and the effects of autonomous policy decisions adopted by the user groups, on the other. The point is that beyond the allowable timber cut, user groups enjoy much autonomy in policy decision-making – access rules, forest product prices, mechanisms for allocation of forest products, user fees and other important policies are agreed by user assemblies or other corporate bodies. As noted in Chapter Six, Dhuseri FUG has privatised parts of the forest by distributing individual forest plots while investing parts of its revenue in community development projects. Each of these policies has an important impact on equity. It has been claimed that village elites successfully skim off more than their fair share of the annual benefits produced by the hardwood forests turned into community forests in the Terai (e.g. Baral and Subedi 2000a, Chakraborty 2001), but such claims remain anecdotal, and lacking an empirical foundation. Applying the framework requires a move beyond anecdotes towards a careful assessment of distributional outcomes.

While the data at our disposal do not provide sufficiently detailed information to present a *complete* breakdown of the impacts of the full range of FUG-policies on equity, there is sufficient information to illustrate the powerful messages that emerge from analysing policies that govern pricing, allocation mechanisms and the distribution of benefits from the most valuable forest product in the Terai. As will be seen, a conspicuous feature of a large chunk of the benefits generated by, in particular, the high value forests in Rajahar VDC, is their implicit or hidden nature: huge subsidies are hidden in the sense that they do not feature in any official accounts. These form a cornerstone of the hidden economy of the user groups. A key characteristic feature of these hidden subsidies is their skewed distributional profile.

7.2 Impact of access restrictions on livelihoods

We begin, however, by examining the impacts of access restrictions adopted by FUGs on the livelihoods of various socio-economic groups. A useful precursor to this discussion is a brief review of adaptation to change in the access to natural resources in the Terai. The following is a summary of adjustment strategies adopted by poor and relatively better off households to the rapid change in the forest frontier in Suryapura VDC in the 1980s. While descriptive, the evidence illustrates the importance of potential exit options from use of common pool resources.

In its most basic form, exit may be interpreted as the resort to a best alternative, such as a close substitute of some kind. A dramatic exit could, for instance, be to leave the community by migrating elsewhere. Less, but still dramatic, environmental change may compel households to shift their livelihoods from common property intensive activities and into a best alternative. The presence or absence of alternative employment opportunities would then largely determine the severity of the impact observed. However, adjustments may be distinctly less dramatic, such as the exit from an irrigation system by investing in a private borewell. In general, or so the argument goes, better-off households are typically better equipped to exercise exit options having a greater set of options at their disposal (Dayton Johnson and Bardhan 2002). For instance, exiting an irrigation system by investing in a private borewell is rarely within reach for a poor household.

The types and severity of livelihood adjustments prompted by changes in the access to common pool resources vary across the Terai study sites. For households collecting fuelwood for subsistence use, the severity of the impact of a policy change may be judged by (i) the impact on access and (ii) the availability of close substitutes. The evidence from Rajahar indicates that the access effect, triggered by the closure of the forest for most of the year can be overcome by households residing sufficiently close to the forest controlling adequate household labour. The prospects for substituting out of common pool resource use may, as noted, vary by socio-economic status, but also with type and intensity in forest product use. Among Terai castes in Suryapura VDC, various exit strategies have been deployed. Better-off households in the southern part of the VDC continue to rely on wood-based fuel after planting trees on private lands, but exit from CPR use to cover subsistence

needs are observed also among households at the lower end of the income distribution. Poorer households have substituted out of fuelwood use, resorting instead to cow dung as a fuel source. In Rajahar and Devdaha, in contrast, the closure of one fuelwood source has prompted the shift to another. Rather than resorting to cow dung, some households in the buffer zone collect fuelwood from other CFs (Rajahar), such as Sishuwar and Kalika BZCF or from the Government forest (Devdaha). For moderate fuelwood users a variety of local substitutes are therefore available. But what of households that had specialised in a more intensive use of forest or other common property? The impacts, in such cases, depend critically on the trajectory of alternative, local employment opportunities. Should the introduction of community forestry coincide with a local "recession", adverse and potentially severe impacts would be expected.

Observations across our study sites suggest that community forestry has led to an improvement in the state of the forests. This echoes more general assessments of the effects of community forestry in the Terai, e.g. Baral and Subedi (2000a and b) and others, as already noted above in Chapter One. In particular, it is evident that community forestry has contributed to curtailing more serious transgressions, such as forest encroachment. While serious illegal timber harvesting has been brought under reasonable control, it has not been eradicated (see the case study from Dhuseri FUG in the Rajahar site report [Appendix 5]).

7.3 Impact of access restrictions on the livelihoods of poor households

It is generally argued that common pool resources are of greater importance and relevance to the livelihoods of the poor than the non-poor and access to them has potentially a particular redistributive role to play (Beck and Nesmith 2001). The evidence from Buddha Mawali CF in Devdaha VDC provides valuable insights about the activity portfolios of poor households. Table 7.1 summarises the key assets of each household, their degree of self-sufficiency from farm production and their income sources. The three poor households (HH1, 2 and 6) are either landless (HH6) or have less than 2 kattha's (less than 0.01 ha) of land. They vary in grain self sufficiency from 1 to 6 months with wage labour, the sale of goats and in the case of HH6 some (possible) remittance income supporting household needs. The three medium wealth status households (HH3, 4 and 5) all have cattle as well as goats, larger land holdings (1 to 9 kattha) although HH4 with only 1 kattha share crops an additional bigha (0.7 ha) of paddy land. Food production meets 6 to 10 months of food requirements with milk sales, livestock sales, contract ploughing, skilled labour (carpentry) and contract ploughing

providing for cash needs. The two richest households (HH7 and 8) are grain self sufficient for 10 and 9 months respectively with off farm income sources from either remittance or transport services. Household 7 also sells grass and gains a regular income from alcohol sales.

Table 7.1: Household Assets and Income Sources by sample household for eight households in Budda Mawali FUG.

Hhld No	Year Settled	Land area	Livestock	Months self-sufficient	Income sources
HH1	2046	1 K	1 goat	1	Wage labour
HH2	2042	2 K	2 goats	4	Goat sales, wage labour, sewing
HH3	2026	12 K	5 bovine 5 goats	10	Carpentry, Milk, Sale of Buffalo Calves, Goat sales
HH4	2054	7/8 K; 1 B Sc	3 bovine 3 Goats	6?	Contract ploughing, milk, goat sales
HH5	2024	9 Kt	4 bovine 3 goats	9	Milk, Remittance
HH6	2042	2.5 B Sc	3 bovine 2 goats	6?	Milk, Ploughing, Goat sales, Son in garment factory
HH7	2029	10 K; 2 B Pasture	1 bovine	10	Grass sales, Milk, Chickens, Alcohol sales, remittance
HH8	Last year	5 K	0	9	Drives own bus

* K = katha; B = bigha; SC = share cropped.

A conclusion from this table is that the livelihoods of the poor are based on diverse sources, are not directly production based because they have few land assets and depend on employment. They are however largely rural based and do not generally benefit from remittance income. As will be documented below, new FUGs and other policy initiatives often disbar traditional income sources. Given the emphasis on products and biomass development in FUG operational plans, with no specific attention paid to examining the impacts of operational rules on livelihoods, there is a high risk that the establishment of FUGs have, in fact, disenfranchised vulnerable community members. Evidence with respect to livelihood benefits accruing to the poor from the establishment of community forestry institutions is therefore equivocal. Forest rules and regulations, processes of FUG formation, FUG constitutions and operational plans have all conspired to if anything reduce potential benefits to poor households. However, circumstances and context vary, corroborating the conclusions reached by Springate-Baginski *et al.* (2001) for the mid-hills. Springate-Baginski

et al. suggest that `tole-based' (hamlet level) micro-action planning, provides a means to involve the poorest and most marginalised groups in decision making. We would argue that for the Terai, given the socio-economic and ethnic diversity of the population and the size of the area covered by FUGs, `tole-level' decision-making would not guarantee that benefits for the poorest would necessarily increase. Key contextual factors include the ecology, the north-south distinction and FUG vulnerability to elite capture explained below. In the north (which also shows considerable internal heterogeneity with respect to forest composition close to the hills and further from it) forest areas have declined alongside increasing control by communities with FUGs regulating and restricting access.

While the above evidence sheds useful light on the activity portfolios of different household categories in Devdaha, it provides few incisive insights about the livelihood and well-being impacts of introducing community forestry. We now present a brief synthesis of empirical observations from Rajahar VDC and then proceed to look at household case study evidence from Devdaha. Further observations from Suryapura, Makar and Harpur complete this picture. The case study material from Rajahar focuses on households that in the recent past were intensive common property users. The notion of exits discussed above, would thus suggest a resort to quite dramatic exit strategies, e.g. a shift of livelihoods prompted by access rules insensitive to livelihood needs. The presence of viable local substitutes would as a result be paramount to outcomes. Five socio-economic groups in Rajahar were considered, namely fuelwood collectors, households with livestock-based livelihoods, traditional artisan groups such as blacksmiths (the Kami-community) who used to make their own charcoal, the Musahar/Bote community residing on the border of the Royal Chitwan National Park and the Tharus community. These groups are also typically poor. The following summary focuses on three of the groups while raising issues related to gender since the dominance of men, both in executive bodies and in the assembly meetings of user groups, is a stark and general feature across the study sites.

Previous fuelwood collectors concentrated in ward no 6, Dibyapuri VDC are *sukumbasis* from the hills who cultivate and reside on what continues to be public land. Twenty households from this ward have recently joined Dhuseri FUG. Before joining, these households were members of Amar FUG (Dibyapuri), but now hold dual memberships with men registered in Amar and women in Dhuseri. One motive for joining Dhuseri at this particular juncture, was the prospect of receiving a private forest plot. Other motives included the possibility of attracting local development infrastructure and of having a say in the

management of the forests adjacent to the settlement. Two important aspects of the policies adopted by Dhuseri hence feature: the fact that the FUG has granted privileges to certain members and that part of the annual revenue is earmarked for community development.[60]

Several interesting points about livelihood impacts follow. While restrictions have had little impact on collection of grass, access restrictions have prompted a complete exit from fuelwood collection and into a more balanced portfolio of household activities with a characteristic gender division of labour. In roughly 90 percent of these households, males have taken up employment as wage labourers in animal feed, brick stone and other local industry. Women, meanwhile, are responsible for cultivation and for household subsistence needs. One result, therefore, is that the collection of forest products has become distinctly gendered.

In the absence of close local substitutes (alternative livelihood portfolios) with favourable trajectories, one would expect the restrictions on forest access to have had a severe and adverse effect on this group of households. However, the general perception is that the forced change of livelihood has improved both material life conditions and social status. Since the trajectory of local alternatives has been fortuitous, adverse impacts have been avoided. In spite of the obvious vulnerability of this group, the potentially adverse effects of access restrictions had no discernable impact on policy formulation in Dhuseri FUG.

Another group of intensive forest users was the approximately 30 households involved in goat keeping in Bartandi. Supported by the Department of Women and Development and started 4 years before Chautari and Bartandi CFs were established, these households relied on local forests for grazing household holdings of between 50 and 160 animals throughout the year. Grazing restrictions imposed by user groups compelled the goat keepers to dispose of most of their herds at unfavourable prices. Whereas goat stocks of between two and 10 animals have been retained by the same households, fodder for these animals is now secured from own land or occasionally by illegal means from the CF. The closure of the forest for grazing has prompted three broad types of exit strategies: first, a change in the composition of livestock holdings away from goats and towards the goats and cows/buffaloes. Some

[60] Notice, also, that there was an explicit interest from Dhuseri FUG for the group of women to join, the implication being that Dhuseri now has a 22-member women's group in Dibyapuri. Since gender has not featured prominently in the thinking of the user group in the past, this *might be* an example of how the group accommodates external pressures: for potential donors, the existence of a women's group looks rather good on paper.

households have exercised more dramatic exits, shifting their livelihoods towards boulder collection from Jharahi river. Finally, others have taken up vegetable farming after receiving seeds assistance from the Agricultural Development Office. There is a distinct gender dimension to the problems of the goat keepers. Relating primarily to women's livelihood options, the low priority and attention accorded to women's and other vulnerable sections interests in the decision-making of the user groups in Rajahar are systematic: while women may attend general assemblies in Chautari and Bartandi, they rarely speak out. Efforts to lobby the Committee to adopt policies favourable to goat breeding have also been unsuccessful.

The Musahar/Bote community resides in the southernmost part of the VDC on the Narayani riverbank, adjacent to Sishuwar BZCF. Cultivating public land, fishing provides their traditional and main income source. Subsistence requirements are met by combining collection of thatch from Sishuwar BZCF with illicit collection of fuelwood and timber (quantity uncertain) from Royal Chitwan National Park. While access rules prohibit forest product collection from RCNP, the Musahars have been able to bend the rules through creative negotiation. In a case study household, the husband collects firewood from RCNP during the fishing season. Dependent on dry firewood in their day to day activities, needs are particularly intense during the winter (2 bhari per week) when they live around the fireplace in their basic and not very well insulated houses. The household has developed a symbiotic relationship to RCNP-staff. In exchange for transporting staff across the river and for constructing small check posts, they are allowed to collect firewood from the National Park. The general view is that the establishment of Sishuwar has made it easier to collect forest products – in the past it was risky to collect from RCNP. A general observation in this community is that although rules, in principle, are strict, illegal collection remains common.

For members in Dhuseri and Chautari FUG, the impacts of access rules on subsistence fuelwood collection depend on distance to the forest and endowments of household labour. Whereas households in the forest vicinity were able to fulfil their requirements even after access restrictions were introduced, households further south experienced difficulties and have adjusted accordingly. As noted above, the BZCFs provided a local substitute for buffer zone residents either through membership or by entering into an informal sharing "contract" with a member household. An elderly Tharu household reported that the combination of distance and weak bodily strength made the woman in the household unable to meet household subsistence fuelwood needs from Dhuseri and compelled her to switch out of high

value and into collection from nearby Kalika and Sishuwar BZCFs. In conclusion, the household case studies in Rajahar indicate that the needs and perspectives of vulnerable population groups have exercised little, if any, influence on the access policies adopted by FUGs.

Observations from Parijat FUG in Makar VDC provide further ammunition to this argument. A system of weekly collection is rigid and inflexible and for users living 2 hours walk from the forest, collection on one particular weekday is not always feasible. The Musahars in this group claimed that the committee had threatened and victimised them.

The household case study evidence from Devdaha VDC tells a slightly different story and is worth presenting at some length. Four households were interviewed in Srijana FUG, their basic characteristics are summarised in table 7.2 below. Households 1-3 are all FUG members. HH4 had been a member in the past but had left. HH3 (originally from Gulmi district) had been the longest settled, with the remaining households (HH1,2, and 4 respectively from Gorkha, Baglung and Gulmi Districts) all arriving between 1984 and 1991. However HH1 had originally left his district of origin in 1958/59 settling in Chitwan first and buying land which hardship had finally forced him to sell before moving into Rupandehi and settling as an encroacher. The other three households settled by purchasing unregistered land.

Table 7.2 Summary information on sample households.

Hhld No	Gender	Caste	Year Settled	Economic Status	Hhold Size	Children < 18 years	Literacy Head
HH1	M	Low	1984	Poor	5	3	No
HH2	F	High	1991	Medium	3	2	Yes
HH3	F	High	1968	Medium	9	5	No
HH4	M	High	1987	Medium	8	6	Yes

Table 7.3 summarises the key assets of each household, their degree of self-sufficiency from farm production and their income sources. Only HH4 derives income entirely from agriculture selling both surplus grain and milk from the livestock herd that he has built up. The small family size of HH2 enables it to make do with the production from its small area of land combined with income from milk production and help from a son's salary as the Peon in the Ilaka forest office. HH3 has recently started a small shop with capital derived from savings. This household also sharecrops in addition to the cultivation of their own land. HH1, the poorest of the households, has sufficient land just for his hut and derives most of his

income as a blacksmith with supplementary payment in kind (1 pathi of paddy from each household annually) as the Ward message carrier. His wife works as a farm labourer.

Table 7.3 Household Assets and Income Sources by sampled household

Hhld No	Year Settled	Land area	Livestock	Months self-sufficient	Income sources
HH1	2041	15 Dh	0	0	Blacksmith, message runner, farm labour
HH2	2048	3.5 K	2	3-4	Milk sales, Son's salary
HH3	2025	12 K	7	3-4	Farm labour, ploughing, small shop
HH4	2044	14-15 K	11	12	Grain sales, milk

Table 7.4 summarises the four household estimates of their annual requirements for forest products. All four households identified the need for timber for construction purposes, but these are not annual requirements. The nature and requirement for forest products varies by household. All households reported demands for both firewood and poles (creeper support) for supporting bean cultivation. These appear to be largely proportional to family size.

Table 7.4: Forest Products: Annual requirements by sample household

	HH1	HH2	HH3	HH4
Firewood (bhari)	50	72	90	100
Plough			2	3
Yoke			2	3
Wooden Plank (Henga)			1	1
Tools (no)	2 – 4	2 – 5	1	8-10
Fodder (bhari)				10-15
Grass (bhari)		200	30 – 40	200
Grazing				
Creeper Support (no)	2 – 5	5 – 10	8 – 10	20-25
Thatch				
Charcoal (bora)	7 – 8			
Fruits, veg				

HH3 and 4 have annual needs for timber for the construction of ploughs, yoke for the oxen and for the plank used for levelling in the paddy field. HH2 apparently did not have these requirements, although it is possible as a widow, she hires in ploughing and land preparation teams. The households with livestock (HH2-4) require grass (and fodder in the case of HH4). The apparent low demand for grass by HH3 relates to the fact that it only has local breeds of livestock which probably obtain much of their requirements from grazing while the livestock holdings of HH2 and 4 are stall fed hybrid livestock. HH1 is the only one that has a demand for charcoal, reflecting the male household members' work as blacksmiths.

From where do these households obtain their forest product needs? Table 7.5 summarises the key sources of products for the four households. For HH4 the key sources (as a non-FUG member) are forest products from private land (trees growing on private land although it is not clear whether this is registered or unregistered land) and from private sources. These include a contract (Rs 42,000 per year) for the rights to collect from the grounds of a school (Khaireni Higher Secondary School in Ward 2), dry hay purchased from other farmers or the collection of grass from barren land. The household members also cut grass from their own lands.

For the other three households forest products are either collected from the FUG or from government forest. What is clear is that most products do not come from the FUG but from the government forest.[61] Whether this is legal or not is unclear but one suspects that a considerable portion of it is not legal collection. In light of the above discussion an alternative close substitute is thus observed. While the access rules of community forestry may close down options and therefore prompt adjustments, the existence of a managerial regime for government forests soft on small-scale transgressions offers a viable substitute. In discussing the exclusion of non-members from rights of collection in the conserved area, HH4 specifically stated that 'non-members like us are collecting firewood, timber from the government forest illegally' (although there is informal agreement with the Ilaka office staff that people are allowed to collect dry branches, twigs and old grass from the government forest).

Similarly HH1 who has the only requirement for charcoal reported going to the government forest to collect charcoal at some distance form the settlement. This took the man a whole day for 1 bora of charcoal. He knows that government has restricted charcoal collection from the forest but he is obliged to do this in order to survive.

[61] This observation squares with Chakraborty's (2001) observation that less well to do in Terai user groups covered by his study resorted to government forest to meet their needs as a response to the access restrictions imposed by FUGs.

Table 7.5: Source of Forest Products by sample household..

Product	Hhld	Percent of supply by source			
		FUG	Private Forest	Government Forest	Other
Firewood	HH1	4		96	
	HH2	3		97	
	HH3			100	
	HH4		50		50
Plough & Yoke	HH3			100	
	HH4		33		66
Tools	HH1	50		50	
	HH2			100	
	HH3			100	
	HH4				100
Grass	HH2	20	35	5	40
	HH3			100	
	HH4		15		85
Creeper Support	HH1			100	
	HH2			100	
	HH3			100	
	HH4		100		
Charcoal	HH1			100	

How do these households view the effect of the formation and establishment of community forestry on their access to and availability of their forest product needs? Table 7.6 summarises their responses by product, comparing the situation before and after the establishment of the FUG. For HH1 – 3 it is fairly clear that with the exception of the availability of grass to HH2 (cut grass for stall fed livestock) these three households consider that the availability and quality of forest products had declined overall and that it took more time to collect them now within the CF compared to collection from government forest in the past. This presumably is a reflection of a combination of the relatively small area of the CF (compared to the forest area accessed in the past) as well as the relatively degraded state and conservation management practices implemented in forest areas taken over by the community. The fact that they still meet most requirements from the government forest is indicative of the relatively small resource base that the community forestry area provides.

Table 7.6: **Reported changes in access and availability of forest products by sample households**

	Before the CF (1993 to1997)	After the CF (from 1998)
Firewood		
HH1	Easy access, more quantity, women collect	Less quantity & poorer quality, both men and women collect
HH2	Close to settlement, less time to collect	Low production in CF
HH3		
HH4	More quantity	Less quantity and quality
Timber		
HH1	Easy, less time	Long process, long time
HH2	Sufficient and high quality for everyone	Low quality and low production
HH3		
HH4	Open in forest, available in private	Control in gov. forest; not available in CF
Plough & Yoke		
HH3		
HH4	Easily available in private	Bring from the school land
Tools		
HH1	Could collect at any time	Collect only when CF open for firewood collection
HH2	Easily available	Deficit compared to before
HH3		
HH4	Available in private	Collect from school
Grass		
HH2	No restriction for goat grazing	Control by the CF
HH2	Less quantity	More quantity in CF and own land, less time
HH3		
HH4	Less in quantity and quality	High quality in school area
Creeper Support		
HH1	Easily available	Control by CF
HH2	Easily available	Not available in CF
HH3		
HH4	Not available	Available
Charcoal		
HH1	Easy, could collect 2 bora per day of high quality	Control, can collect 1 bora per day, poorer quality

While the evidence on access to fuelwood for subsistence fulfilment in Rajahar was mixed and dependent on location and adequate labour resources, the general access in Devdaha is reported to have declined. Notice, also, the striking contrasts in exit options deployed by rural households. While households in Rajahar whose subsistence needs were jeopardised resorted to BZCFs, government forests provide a close local substitute in Devdaha. Moreover and explained, in part, by the small scale of community forestry in Devdaha, drastic exits in the shape of livelihood shifts were not observed. There are conspicuous similarities and contrasts

to observations from Suryapura. While the growing of trees on private land is observed among better off household in Devdaha and southern Suryapura, the substitution out of forest products observed in southern Suryapura has not occurred in Rajahar or Devdaha. Fuelwood remains the main fuel source even for poorer households.

Our evidence pinpoints the absence of effective policy mechanisms to ensure that forest user groups cater for the needs of vulnerable population segments both in terms of decisions about access rules and, more broadly, as will be seen below, in policies for allocating forest products.

7.4 Livelihood impacts and neglect of local government-citizen relations in VDC policies for wetlands management

The absence of concerns for the impacts of access restrictions on the poor extends beyond decisions on access to the forests made by FUGs. Another striking example of such insensitivity, in this case on the part of the VDC, relates to the revenue potential of wetlands in Suryapura as summarised in Box 7.1.

Box 7.1 Karmahawa and Tulsihawa Tal

Lake management for fish farming has become an important and contentious issue in Suryapura. The policy for lake management adopted by the VDC illustrate the potential gains from a sensible public policy, but also how such gains easily may be squandered by petty, local politics and neglect of attention to local government-citizen relations in implementing policy. The two lakes of interest, Karmahawa (6 *bigha*) and Tulsihawa (12 *bigha*) have in the past been used for fishing, cattle feeding and irrigation by the local communities residing in the vicinity of the lakes.[62] It is important to emphasise that the traditional management regime had failed to develop and utilise the productive potential of the two lakes. In general, a situation of open access would reduce incentives to invest in a fishery since the uncertainty associated with the distribution of benefits from the investment becomes too high and free-riding on others' efforts a persistent temptation. Local communities may, however, be in a particularly good position to control such free-riding and therefore enforce property rights. Such a right may be perceived or, alternatively, have a more formal or legal foundation. Even in the absence of formal authority, a semi-effective enforcement appears to have been in place. However, while being able to control free-riding, local communities may provide quite inefficient management of the resource in question. In short, even if following cultural traditions, local fishermen may lack the skills and technical know-how to be effective managers of fish-farming.[63] If we call the informal local management regime an institution, the problem of managerial shortfall exemplifies what we have called institutional failure type 1 elsewhere.[64] While a policy intervention to remedy the problem of semi-open access would focus on improving mechanisms for monitoring, resolving a type 1 failure would require policy mechanisms that allow locals to overcome credit-constraints and enhance their

[62] The term "lake" is a bit of an exaggeration. Tulsihawa is essentially an irrigation tank.
[63] By way of illustration, although fishermen by profession, efforts by the Musahar community to farm fish in Rajahar revealed serious problems in approach to pond development and management.
[64] See the passages on timber management in Rajahar below.

fishery-management skills, or the introduction of an altogether different policy regime. The VDC in Suryapura has opted for the latter.

Using a system of open auctions, the VDC has contracted out the rights to fish farming in the two lakes for periods of 5 years. The current contract for fish farming in Tulsihawa lake (the third five-year contract awarded for that lake) was sold for Rs. 630.000 (paid in annual instalments over a–five-year period) generating substantial revenue for the VDC.[65] This sum is probably beyond what local fishermen would be able to raise by pooling their resources and attempt to obtain credit through existing local channels.

Karmahawa has recently been contracted out for for fish farming for the first time. While contractors have used Karmahawa for farming of water chestnut in the past, chestnut farming has not threatened the fishing interests of the local community. This contracting system, which started in 1979 and ceased in 2001, allocated 60 % of the lake to chestnut farming.

The recent decision by the VDC to auction out Karmahawa Lake for fish farming for a contract of a minimum of Rs. 50.000 was announced to the public with a 15 days notice. The notice was spread through public distribution, notices in government and VDC-buildings etc. The new contract has an explicit clause which allows the local community to continue to use lake water for irrigation, cattle feeding and other domestic purposes. Till now, Karmahawa Tal has provided irrigation water for 250 HHS in the vicinity of the lake (Irrigated area: 150 *bigha*).

The people depending on Karmahawa for fisheries are typically members of indigenous and less well to do communities of the Terai, e.g. Tharus, Kumal and Musahar communities. The Musahars are traditionally fishermen and rank lowly on a number of well-being indicators; they are often poor and illiterate. The new contract disenfranchises these communities from their traditional use of the lake for fishing. The lack of a consultation or dialogue with representatives of these communities, on the part of the VDC, is extremely short-sighted. However, such behaviour on the part of local authorities are not uncommon; the eagerness to generate local revenue without accounting for the effects of the adopted policy on the likelihood of compliance and for broader local government-society relations can, prove costly also in the very short term. In fact the failure of the bidding for Karmahawa provides a compelling example to this effect.

Among potential bidders, it would be perfectly reasonable to expect the willingness to pay for a contract to depend on the likelihood that the contract can, in fact, be credibly enforced. When people from disadvantaged communities are disenfranchised from access to a resource which matters for their livelihoods, the contract could become very hard to enforce. The prospects for effective enforcement are made even bleaker by the absence of a dialogue or offer of compensation from the VDC to the disenfranchised communities. Without strict policing and reasonable compensation, violations could quickly become rampant. A rational bidder (and the current contractor has intimate knowledge of these communities) would evaluate the likelihood of community compliance, and adjust his bid accordingly. His knowledge of VDC-politics would also lead him to anticipate a zero compensation from the VDC to the affected community, sustained difficulties with the local community, and an erosion of expected profits. The 5-year contract for Karmahawa Lake was sold for Rs 52.000, a price depriving the VDC of considerable revenue and the local community of reasonable compensations from the VDC. While the wide gap in contract prices for fishing rights in Karmahawa and Tulsihawa may partly be attributable to anomalies in advertising the auctions, it also mirrors the different risk profiles of the two investments. While the case of Tulsihawa demonstrates that a change in natural resource management policy may prompt a dramatic rise in VDC revenue and therefore, if wisely implemented, further development including improvements in the lives of poor people, unwise public policy can be very costly indeed. A possible win-win scenario for Karmahawa Tal could involve a rational utilisation of the contractor's superior knowledge about fish farming and his access to financial resources. The productivity gain could then increase the revenue to the VDC and through compensatory transfers make the disenfranchised local community better off, and reduce the risks facing the contractor.

[65] The fact that the current contract is the third in a row implies that locals have had time to adjust to changes in their fishing rights in Tulsihawa, which, over time, may have reduced the potential tensions caused by the auctions. That the system remains contentious can be illustrated by an episode of poisoning of the lake 3 years ago after which the contractor submitted a police complaint. The police investigation failed to identify the culprit(s) and the contractor himself is uncertain about whether members of the local community or a competitive contractor were responsible.

There are contrasts across our study sites. The enactment of the Local Self Government Act vested the ownership, control and decision-making rights on the use of wetlands with the VDC. In Harpur, in southern Rupandehi, the VDC (Box 7.2) has taken over active administration of ponds since 1999, contracting them out through public tender to the highest bidder, generally to individuals for periods of two or more years. The account in Box 7.2 displays some similarities, but also conspicuous contrasts to the observations from Suryapura.

Box 7.2: Management of Piprahwa pond by the Dalit Utthan Mahila Samitee women's group

The pond is 16 *kathha* in area and 2-3 meters in depth, rising to 5 meters in the monsoon. It was originally constructed by the local landlord (a *dittha* or court official), and used by the family for three generations. The original owner made the pond for aesthetic purposes, and had planted flowers around it. When the family died out, the pond was bought by Gauri Baniya of Rajabari, who renovated it. Baniya sold his land in 1989 [2046] and moved away. In that year, the VDC took over management of the pond and began to contract it out by auction for fish farming. The first contractors were from Sugauli in India, who used the ponds for fish farming and the cultivation of *singada* (a kind of fruit). In 2000 [2057-58], the pond was contracted out to the Dalit Utthan Mahila Samitee women's group. This group had been founded in 1998 [2055] as a saving and credit group. It was contracted for five years at a rent of Rs. 30,000. They renovated the pond and began fish farming.

The group was formed by 17 women, and women from 10 more of the ward's 67 households have since joined. Its formal objectives are to promote the education of women and to increase their economic status through the creation of employment opportunities. In terms of caste composition, around one half of the community's middle- and lower- caste households are members, but less than one in five of the 18 higher caste households. Three of the members can write their names, while the others are illiterate. The then Pradhan Pancha (chairman of the *panchayat*, the predecessor to the VDC), encouraged the formation of the group and helped them to write its constitution and register it with the district administration office. The group did not discuss the constitution and most members remain quite unaware of its contents. At the beginning, the Pradhanpancha supported the group by conducting meetings and writing the minutes. However, following a disagreement between his wife and other group members, his participation ceased. Meetings are not held regularly, but only when an important issue arises. The group solicits help in record-keeping from literate community members.

Since the formation of the group, each member has been saving Rs.10 per month. Several donations have also been made to them: by the Superintendent of Police, the wife of the DP, the District Development Committee, and a local political leader have all donated sums in the thousands of rupees.

Loans between Rs. 500 and 1,000 are made to members at an interest rate of 3 percent, generally for agricultural work or for children's school fees.

There are no written rules for the management of the pond, but decisions about cleaning, renovation, protection and stocking with fingerlings are made after general discussion. Fingerlings are purchased from Thutepipal fish farm in Bairahawa and from India. The pond is stocked twice yearly, in January and July. Fish are harvested some five or six months after stocking, when they have attained a weight of up to 2 kg.

Fish are sold in the village, especially during festivals and ceremonies. Sales are also made in the local market at Parasi, and to visiting fish traders. Last year, Common Carp and Grass Carp fetched Rs. 80/kg and Silver Carp, and Rs. 55. The potential economic yield of the pond, assuming one quintal of fish production per *kathha* at a price of Rs. 80 per kg, would be Rs. 128,000. However, actual production appears to have been considerably less. An income of Rs. 19,500 from fish sales was obtained in the first year. This still leaves some margin for purchase of fingerlings, lime, feed, etc.
The pond is not used for any other commercial purpose, but serves the community for irrigation, watering livestock, bathing, water for house construction, the extraction of clay, etc.

Group members have received training in fish farming, poultry production, etc. from a number of sources. The JTAs of the Agricultural Service Centre at Kusma and the District Agricultural Office at Parasi regularly provide advice on technical matters. The Agricultural Service Centre provided 2 quintals of oil cakes and fingerlings to the group free of charge. The DAO has agreed to provide Rs. 5,000 to repair the pond. The VDC has given 2 kathha of land near the pond for the construction of an office for the group.
Problems faced by the group include fish diseases, which they have treated by adding three quintals of lime to the pond. During the monsoon, fish get washed away from the overflowing pond. The group also lacks a large net for harvesting. The financial benefits have been relatively limited and have not yet been distributed by the committee or invested it in other income-generating activities. Hence the pond has not to date had a significant impact on living standards. However, women have found that, having overcome initial resistance to the idea by their husbands, the project has increased their confidence and sense of autonomy.

7.5 User group policies – a vehicle for rising inequality? Evidence, concepts and tools for analysing distributional outcomes

We now turn to explore the distributional impacts of user group policies in a novel analytical approach. As illustrated in table 5.2, many of the forests in the Terai are high value resources. The table also suggests, rather clearly, that any hope that community forestry can make a significant difference to poor people's lives will depend on the value (or potential value) of the resource. The figures in table 5.2 suggest that while the potential for uplifting the poor is high in some sites, it is distinctly limited elsewhere.

As indicated above, FUG decisions determining access have been strikingly insensitive to the needs of vulnerable population groups. It was also noted that decentralisation had been incomplete since protection rather than sustainable utilisation characterises the current regulatory policy.[66] An equally important question is how the annual benefits generated by the resource are distributed among local community members. On both these accounts, the

[66] The gap between a balanced, potential and the actual outtake is an example of a regulatory failure.

existing literature offers little by way of conceptual and methodological clarity, often resorting to anecdotal claims and observations.

While the struggle for control over resources features prominently in the social science literature on the Terai, our site reports suggest that the intensity of rivalry within the user groups vary a great deal and quite systematically. While Deurali CF in Suryapura, which transects Gajedi and Suryapura VDCs, reports high participation, evolving female involvement, effective transboundary control and relative harmony, the high value forests in Rajahar convey a picture of intense rivalry where pioneer users have been awarded private forest plots, where a debate over user categorisation to ensure more extensive rights for some is ongoing, and where price and payment policies adopted by the user group support a highly skewed distribution of benefits from the most valuable forest product, timber. While a welfare scheme supportive of households that have suffered misfortune and investments in community infrastructure and poverty alleviation offers some remedy, a simple numerical example will help to illustrate that a vast chunk of the benefits generated from the forest is effectively usurped by better off households.

7.5.1 Regulatory and institutional failures

The Rajahar site report introduced two concepts of institutional failure.[67] The first focused on the capacity of the community to manage the resource in question. This capacity may be restricted by actual skills in forest management, or by a community structure that is not conducive to successful collective action. The convention in the literature on community based natural resource management is to focus on the characteristics of communities and resources that are conducive to effective collective action in managing common pool resources. Wade's (1988) analysis of systems of irrigation management in South-India, Ostrom's (1990) principles for designing effective local institutions and Baland and Platteau's (1996) overview are important contributions to this comprehensive body of work. When the above framework refers to different aspects of heterogeneity as community drivers (e.g. Bardhan 2000; Varughese and Ostrom 2001), the literature has discussed issues of group size (Olson 1965; Springate-Baginski et al 2001), leadership (Vedeld 2000) and the existence of cooperative experience at the community level (Seabright 1997). As noted in Chapter Five, Agrawal's (2001) recent review identified no fewer than 36 variables conducive to effective

We shall make a quantitative assessment of the gravity of this failure below.

[67] Dasgupta (2001) uses the term to capture the failure of markets and other institutions, such as forest user groups. Our use of the term refers distinctly to FUGs.

collective action in this sense. Notice, though, that in invoking the term collective action these studies focuse on the relationship between resource and community attributes and *environmental* outcomes.

The second type of institutional failure refers to user group performance in terms of securing an equitable distribution of benefits from the resource in question. It must be emphasised that it is possible to evaluate the performance of any FUG against an egalitarian ideal. The degree of this failure can then, provided that adequate information is available, be objectively ascertained. Evaluative efforts should therefore focus not only on whether community forestry has made the poor better off, but also be evaluated against an equity potential. Two recent efforts at making such assessments in the context of Nepal deserve a brief mention. Bhattarai and Ojha (2001) use a benefit-cost ratio to measure disparities in community forestry. In two FUGs in the Koshi Hills, households cover the costs of forestry operations (calculated from time spent valued at opportunity costs) and face transaction costs associated with attending meetings and so on. While the differences between three socio-economic groups in terms of the annual net benefits received from community forestry are found to be modest, so are the annual net benefits themselves. The highest annual net benefit received by any socio-economic group amounted to roughly US$ 5.80. In related work, Richards et al (2003) claim that time needed (average hours per day) for collecting a bundle of subsistence products per unit of household demand is the most reasonable measure of inequality in FUGs. According to this reasoning, it is evident that distance from resource (and quality of household labour) will be the principal determinants of disparities in outcomes in community forestry. While bringing the analysis of distributional outcomes a significant step forward, the focus on subsistence collection of forest products in these two studies is unable to capture disparities generated by alternative mechanisms for forest product allocation.
The empirical example below shows that distributional biases in Terai FUGs are deeply embedded in other mechanisms for forest product allocation. The following paragraphs demonstrate the shortfalls of existing studies, using the benefits from timber production in Dhuseri CF as an example. Notice that a complete assessment of the distributional impacts of FUG-policies will require the following exercise to be repeated for other forest products such as fuelwood, for other relevant policies such as the allocation of private forest plots, and for FUG investments in infrastructure and poverty alleviation.

As noted, the regulatory framework defining the FUGs room for manoeuvre in terms of the allowable timber harvest, is inefficient. Table 7.7 compares the rate of regeneration of the

forest, as assessed by the forest ranger with the permitted harvest (identified dead and fallen trees), indicating that a "sustainable" harvest, even by this conservative and back of the envelope calculation, would allow for a considerable increase in the current level of timber harvesting. In fact, an alternative calculation would put the regeneration rate for predominantly sal forests to 3-11 m^3 per hectare (Department of Forest, Rupandehi 1995). While this range may be controversial, even a lower end estimate of say, 4m^3/ha, would lead to an upwards revision of the mean annual increment for Dhuseri by 92 %.

The gap between the mean annual increment and the allowable cut would therefore widen further and fuel the argument that the terms handover and decentralisation are distinctly misleading and do not tally with a notion of balanced sustainable management of the high value timber resources in the Terai.

Table 7.7 Blockwise distribution of forest, annual increments and allowable harvest.

Block	Actual Area	Timber (stem value – m^3)	Mean annual Increment – m^3)	Annual allowable cut
Ganesh Mandir	37 ha	7711	76.96	23.1
Sansari	28.5 ha	5939	59.28	17.8
Mayur Kuna	28.7 ha	5991	59.8	17.9
Devi Than	36.5 ha	7606	75.9	22.8
Deurali Danda	36.0 ha	7502	74.88	22.5

The discrepancy between a sustainable and actual harvest illustrates a *regulatory failure*. What is the order of magnitude here? The forest ranger's calculation of the mean annual increment is highly conservative, but at the same time exceeds the annual allowable cut by a factor of around 3.4. The discrepancy between a balanced and actual outtake now becomes clear. After correcting for the forest ranger's conservatism, a balanced cut will exceed the allowable cut by a factor of 6.4. The severity of this regulatory failure cannot, therefore, be taken lightly.

Our assessment of the distribution of benefits from forest products in Dhuseri gives rise to a distinction between the covert and the overt, in terms of benefits and transactions and a return to the hidden economy of FUGs. The hidden economy provides a key to understanding distributional biases and the serious and persistent problems of institutional instability that

despite of maturity and organisational sophistication, continue to haunt both Dhuseri and Chautari FUGs in Rajahar.

Timber is used as an example to evaluate the distribution of benefits from forest products in Dhuseri against an egalitarian ideal. An important feature of the system for pricing and allocation of timber (*Shorea robusta*) in FUGs controlling high value forests is the presence of vast hidden subsidies generated by the wedge between the price paid by users and the local market price. Whereas the official story is that of a transparent and well-organised process where members (e.g. those who apply for timber) are allocated quotas as per their needs.[68]

Moreover, the official policy is to confine the use of timber to house construction and to other domestic purposes. While institutional control mechanisms monitoring the actual use of quotas are meant to prevent onward sales, the local market for sale of timber is thriving.

Moreover, the wedge between the user price for timber and the local market rates provides users with a strong incentive for circumventing the official policy. A local market price of between Rs 450 and Rs 600 effectively implies that by being awarded a timber quota of 50 cft, a user receives a handout from the FUG worth between Rs 7,500 and Rs 15,000. In the latter case, the value of the handout would equal the earnings from 214 workdays for a female, agricultural labourer.[69] Compared to the annual net benefits received by households that gain most from community forestry in the Koshi Hills (Bhattarai and Ojha 2000) the contrasts are staggering. A single full timber quota is worth around US$200 or 35 times the annual net benefits per household calculated for the Koshi Hills.

By being cash and credit-constrained, poorer households are in no position to pay the FUG the advance price (Rs 15,000 for a 50 cft quota) required to avail of these timber quotas and are de facto excluded from receiving these "handouts". Let us now attempt to shed some light on the distributional profile of the net benefits generated by the permitted timber cut in

[68] As noted in Chapter Six and in the Rajahar-site report, the organisational complexity of Dhuseri has not prevented a surge in illegal harvesting (hidden transactions) by prominent Committee members in recent years.
[69] It is worth pointing out that the sale of timber by FUGs to users is exempted from taxation. While a recent Supreme Court ruling established that a tax rate of 40 % of FUG sales outside the user group is unconstitutional, many groups have expected such a tax rate were they to sell timber outside the group. In Chisapani FUG in Makar, "*the group has to pay compulsorily an amount of ten per cent of the total income made by the sales and distribution of forest products to the VAT office and if the group supplies forest products outside the users; the group has to deposit 40 % of the amount received from the sale to the account of the government revenue through DFO and municipality* (Makar site report)"

Dhuseri using figures for the budget year 2001-2002. At local market prices,[70] the budgeted cut of 5,000 cft would be worth Rs 3,000,000. The user group is responsible for cutting and transporting timber from the forest to the FUG-office and incur costs of around Rs 90 per cft for cutting and transport. The FUG also incurs annual operational costs and if we assume that 50 % of administrative and other operational costs can be attributed to timber (the budgeted timber share of FUG revenue for the same year is 63 %), a further Rs 200,000 must be deducted to estimate net benefits. Net benefits are thus calculated as follows:

NET BENEFITS = **Gross value of allowable** (budgeted) **timber cut** (5000 cft at Rs 600/cft) – **Costs of harvesting and transport to FUG-office** (5000 cft at Rs 90/cft) – **50 % of administrative and other operational costs** (Rs 200,000) = Rs 2,350,000.

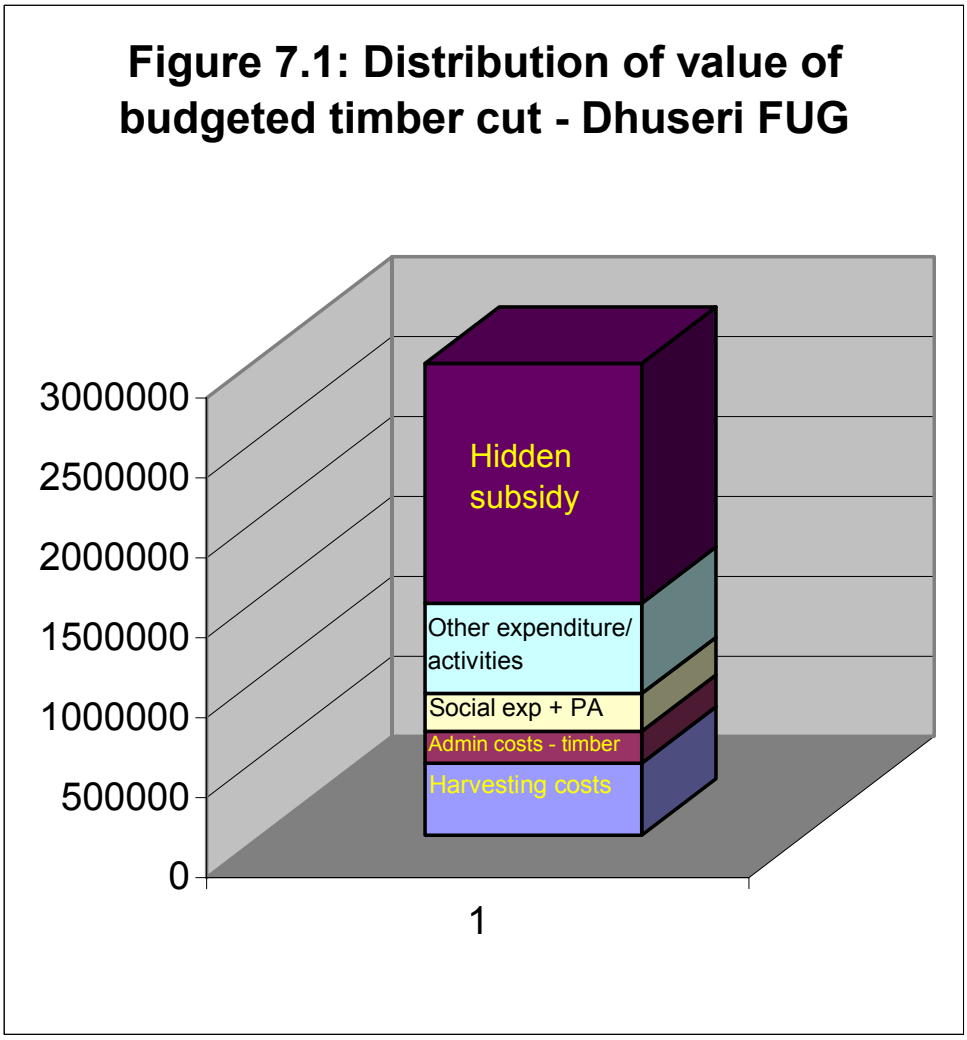
The net benefits from the budgeted timber harvest amount to Rs 3839 per member household. This equals earnings from 55 days of female agricultural wage labour and a considerable amount of cash, especially for a poor household. It is also equivalent to US$ 55. An FUG with strong egalitarian orientation could thus award each member household the equivalent of US$ 55 every year, just from the allowable timber cut. The contrast between this egalitarian ideal, on the one hand, and actual practice could hardly be more striking.

Notice that in this example the hidden subsidy will be worth Rs 1,500,000 (The difference between the local market price and the price paid by users) and eats up 63.8 % of the annual net benefit generated by the budgeted timber harvest in Dhuseri. As noted, and because of the policy for payment and quota allocation adopted by the user group, the distributional profile of this hidden subsidy will be strongly biased in favour of the better off. The adopted policy thus ensures that better off households skim off 63.8 % of the annual net benefit generated by the budgeted timber harvest.

The expenditure and other priorities of the FUG suggests that social welfare support to assist households who have been victims of misfortune and social infrastructure investments, including poverty alleviation are budgeted at around Rs 235,000. If timber revenue is the only source of income for the user group, Figure 7.1 displays the distribution of the net benefits

[70] A market price of Rs 600 per cft is used in this example.

from the budgeted timber cut in Dhuseri.[71] The total value of the harvest is Rs 3,000,000 with the net benefit equalling the difference between this total value, harvesting costs (including transport), and administrative costs attributable to timber. The value of social welfare support and investments in social infrastructure (social exp + PA in figure 7.1) amounts to Rs



235,000 or roughly 15 % of the value of the hidden subsidy. Moreover, Rs 235,000 is equivalent to 10 % of the annual net benefits from the budgeted timber harvest. The hidden subsidy, as noted, corresponds to around 64 % of the net annual benefit.

If we presume that 40 % of the member households in Dhuseri are poor, the *indirect* benefits accruing to this group from social welfare support and investments in social infrastructure would be worth roughly Rs 960 per household per year. If the timber allocation mechanism treats the non-poor users evenly, the average benefits per non-poor household just from the

[71] The idea that revenue from sales of timber amounts to close to 100 % of the income of the FUG is not borne

hidden subsidy would equal Rs 4100 per per year. This provides a cautious estimate of the degree of inequality in benefit distribution from the budgeted timber harvest in 2001-02.

This report has introduced the concept of *the hidden economy* of a Forestry User Group. We think of this FUG hidden economy as having two main constituents; hidden subsidies and hidden transactions. Hidden transactions typically involve a corrupt act such as illegal harvesting of timber, accepting bribes or other types of embezzlement. Hidden transactions are therefore typically illegal. Our evidence suggests that hidden transactions are common among FUG office holders (but also widespread among representatives of the forest authorities) but that the gravity of offences vary (see Chapter Six and the site reports Appendices 2-6). From a policy point of view, hidden transactions matter for the following two reasons. First, hidden transactions provide hints of the scope for using key FUG-office posts for private gains, and have a honeypot effect on potential office holders with ulterior motives. The absence of mechanisms for controlling corruption among office holders (and others) leave FUGs vulnerable to a problem of adverse selection of candidates for leadership positions. The greater the scope for illicit pecuniary gains, the more intense this problem is likely to become. The second point is that efforts to assess distributional outcomes of community forestry will be distorted whenever hidden transactions are left out. The gravity of this measurement error depends on both the scale and distributional bias of hidden transactions.[72]

Hidden subsidies, as illustrated above, form the second and the most important constituent of the hidden economy of FUGs in the Terai. In contrast to hidden transactions, hidden subsidies are perfectly legal and therefore not repugnant in the way that hidden transactions are.

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out by budgeted income sources in the 2001-2002 budget. This is because the FUG severely overestimated its income from sale of fuelwood.

Hidden subsidies should, however, evoke normative concerns for other reasons and are particularly problematic when large and when displaying a distinctly skewed distributional profile. As indicated by the numerical example above, roughly 64 % of the net benefit generated by the annual cut of the most valuable forest product in Dhuseri FUG in Rajahar VDC was usurped by a hidden subsidy. Moreover, the mechanisms for allocating this subsidy adopted by the FUG ensure a highly skewed distributional profile.

How does the concept of the hidden economy fit into our framework and to a policy agenda for community forestry in the Terai? We have emphasised that forest value is a key driver in the Terai. Moreover, forest value is directly linked to the potential size of the hidden economy. Under otherwise identical conditions, the more valuable the forest the greater the *potential* size of the FUG hidden economy. Both the *potential* hidden subsidy and the value of *potential* hidden transactions relate to forest value in this way. However, and this is an important distinction, the actual size of the hidden economy is not static and not immune to policy change or to indigenous or other mechanisms for arresting its perverse aspects. It is for instance clear, as noted in Chapter Six, that the scale of hidden transactions in Dhuseri FUG has increased in recent years. In spite of this increase, hidden subsidies account for by far the greater share of the actual hidden economy in Dhuseri.

Where do these observations leave our framework and the search for remedial policies? We have already claimed that there is a link between forest value and the potential size of the hidden economy. It is obvious that this link is amendable both by a well-informed external policy environment and by community attributes. In principle, it is distinctly possible (but not plausible), that an enlightened community will put in place mechanisms to ensure that the obnoxious aspects of hidden economies are brought under control. Desirable community

[72] For expositional ease, hidden transactions were deliberately omitted from the numerical example and thus

characteristics can thus, in principle, mediate the link between forest value and the size and distributional profile of the hidden economy. The more likely conjecture, strongly borne out by the evidence reported above suggests that Terai FUGs controlling high value forests remain distinctly vulnerable to elite capture via the hidden economy, despite as in the case of Dhuseri, their succinct organisational complexity. This means that mechanisms to create more equitable outcomes in FUGs in Terai controlling high value forests, lie squarely with policy makers. We return to the implications in the summary section in Chapter Eight.

7.6 Environmental outcomes

Information both from data on standing volume of timber, history of specific community forest action, group discussions, case study household interviews and field observations provide unconditional support to a picture of improvements in the state of the forests after FUG formation. The FUGs in our study sites have quite extensive programmes for forest promotion and protection, including tree planting and a number of other forest management and protection activities spelt out in more detail in the respective site reports. The combination of planting, management and protection of their forests has contributed to improved forest cover. Protection of the forests by the communities has stopped further encroachment of the forest area for settlement, as in Srijana and Buddha Mawali in Devdaha.

For many FUGs (for example Srijana in Devdaha) the availability of grass for livestock feed has been reported to have significantly increased with internal markets for the sale of grass emerging. However, attention must be drawn to details that qualify the general picture of improved environmental outcomes. First of all the measured data that is available refers to standing timber volumes. It does not refer to the amount of grass produced (which we do know has increased), non-timber forest products (for example medicinal plants) or the range of other products (charcoal, soil, leaves for plates etc.) that many households identified as important forest resources. Second the data only refers to the community forest area and one cannot assume that forest products are only collected from community forest areas. As observed by Chakraborty (2001), households excluded through lack of membership or the access rules adopted by the FUGs may resort to Government forests to meet their needs. It is clear from many household interviews, particularly in Devdaha FUGs that the major source of forest products comes from outside the community forest area e.g. in the state forest area,

figure 7.1 above.

partly because the FUG area is so small. Evidence for the availability of forest resources from the Government Forests is not available. One cannot, therefore, rule out that the processes of protection that have come with community forest have simply led to a displacement of extraction into areas that are not effectively protected, and this is done by both non-members and members of FUGs.

As in Rajahar, all households interviewed in Devdaha considered that the establishment of the FUG had led to positive environmental changes. The density of the forest had increased through natural regeneration, the grass production had improved through protection of the forest from grazing and plantation work had also been done. However in the eyes of HH1 FUG had not brought any positive changes in his economic circumstances. This was also true of HH3 and both noted that the biggest benefit had come for those who kept livestock (which was true of many of the committee members) since the improved supply of grass had helped them shift to stall-feeding of hybrid livestock. The household case study evidence and observations by the field team in Rajahar point towards a similar conclusion. The rate of natural regeneration is high, the density of the forest has improved and availability of forest products (during the windows of opportunity) has generally improved. Deurali CF in Suryapura, a regeneration forest is, if anything too dense, but otherwise in an excellent state, which contrasts very starkly with the situation prior to the introduction of community forestry.

8. Opportunities for improving pro-poor livelihood outcomes

Livelihood "outcomes" are the achievements of outputs of the strategies that individuals or households adopt in order to make a living. Such outcomes are often too narrowly viewed in terms of increased income or benefits. Livelihood "outcomes" for the poorest forest dependent people in the study areas in the Terai may include "more income" but may also include "increased well-being" which may come from increased social status, physical security, improved health or the recognition of and respect for certain cultural or religious heritage and values by a wider society.

Improved income and enhanced well-being are likely to contribute to a reduction in the vulnerability of the poor in the face of crises or disasters as well as improved food security. Such improved livelihood outcomes may be connected to the more sustainable use of natural resources such as the forest, but for many poor women and men security comes from the diversification of livelihoods, so that if one livelihood option fails all is not lost and factors beyond income, such as social status may be enhanced.

Drawing on household case study evidence, Chapters Six and Seven summarised the findings pertaining to the impacts of price of membership and access regulations implemented by FUGs on poorer households across our study sites. Regarding the latter, we concluded that widespread insensitivity on the part of FUGs and VDCs (wetlands management) to the access needs of the poor was observed. It was also noted that the livelihood impacts varied a great deal across the sites dependent on the presence of viable local alternatives, both with regard to employment (industrial wage labour) and the presence of substitutes for or sources of forest products. These observations coincided with the general finding of a serious discrepancy between actual FUG formation and handover processes, on the one hand and the formal process requirements spelt out in the guidelines for FUG-formation on the other. A potential instrument for addressing this anomaly could be to insist on the more effective implementation of these guidelines. Even so, there is currently no evidence to suggest that following the guidelines will be sufficient to rectify the serious distributional biases uncovered in Chapter Seven.

A second important point relates to the incompleteness of decentralisation in Terai forest management. The Department of Forests continues in a role as custodians of the forest rather than as supporters and facilitators of a participatory process with the forest dependent communities. Table 7.7 (page 114) illustrated the gap between potential and de facto amounts with regard to allowable cuts for timber and provided an important hint of unutilised potential and of a grave regulatory failure.

The question of whether adjustments to the internal processes for community forestry in the Terai provide a vehicle for uplifting the poor or not, must be seen through the lens of resource value. Table 5.1 (page 51) brought out the tremendous variation in forest values across our study sites, providing background information that allows policy makers and others to judge the potential for common pool resources in making a difference to the well-being of the poor. While this potential in some sites undoubtedly is considerable, it is very limited elsewhere. This variation needs to be clearly recognised in policy formulation.

A pressing question is how greater equity in benefit sharing can be accomplished.
While the literature on CPR-management provides valuable guidance about institutional mechanisms conducive to sustainable resource management, insights into how equitable outcomes may be achieved are harder to come by. While protagonists of the CF approach in Nepal might argue that this is a matter of right process, the notion of meaningful participation in complex user groups would pose a big challenge to such a view. In short, conventional training for participation and empowerment in some Terai sites may simply fall short of being an effective vehicle for securing *meaningful* participation. The interaction between human capital and more equitable outcomes is particularly strong in such groups because of the complexity involved in ensuring transparent and accountable management, monitoring and reporting systems.

With timber being by far the most valuable resource, policies for redistribution need to focus on how a fairer sharing of benefits from this product can be achieved. The identification of potential reforms can use the FUG hidden economy as a useful starting point. The perverse aspects of these hidden economiesprovide a powerful illustration of continuing FUG-vulnerability to elite capture. This is in spite of a surface impression of user groups as

complex and advanced organisations.[73] Informed efforts to rectify this vulnerability will be crucial for building viable and equitable user groups in the Terai.

The two facets of the hidden economy, transactions and subsidies, require different remedial measures. As the Rajahar report illustrates, the window of opportunity for illegal harvesting is limited and should be possible to address. The example also illustrates the need for very detailed local knowledge for designing effective remedies. Moreover, the Rajahar report shows that verification of embezzlement may be a hard task even for well-educated and specially selected auditors. This provides a timely reminder of the complexities involved in ensuring transparency. The problem of hidden subsidies must be addressed in other ways and the current mechanism for allocating timber requires a radical rethink. Enhancing awareness of the biases of the current system is one way to begin to address this challenge, but alternative mechanisms for allocating the rights to annual timber benefits will have to be identified.

Beyond the issue of greater benefit-sharing in sites with valuable resources, the generation of alternative opportunities must be explored. The idea that rural households have multiple livelihood portfolios that result in a diversity of sources of income is well-rehearsed in the literature (Ellis 1998 and 2000, Toufique and Turton 2002). The importance of diversified livelihood portfolios for the poorest as a means to reduce vulnerability is often forgotten as we focus on livelihoods within a particular sector. So it is with forestry. Often when we consider "pro-poor livelihood options" we begin with the resource and not the person, focusing on the "resource users" (defined by the resource, such as `Forest User Group') rather than upon the use of that resource by men, women and children as part of their livelihood strategy.

In this study, we view the existing diversification as the main area of opportunity for pro-poor livelihood outcomes. The case study material presented demonstrates this diversity. The following piece is taken from the site report for Devdaha (see Appendix 6).

> *VDC level statistics indicate that only 24 % of the population (assumed to be landowners) in agriculture with wage labour (on and off farm) being the major source of income. These categories of course make no allowance for multiple occupations and it is clear from the land ownership data that only 9 % of the*

[73] As noted, the scale of hidden transactions in Dhuseri has become more severe in recent years, undermining ideas of linear progress and evolving institutional maturity.

households are actually landless. A further 43 % of households own between 0.002 and 0.175 hectares so are likely to derive some income in kind from cultivation although clearly not enough to meet household needs. A wide variety of crops are grown including paddy, wheat, maize, vegetables, mustard and lentils. However the major agricultural enterprise that is reported to have grown over the last 10 years, stimulated by urban demand is dairying and 7 dairy cooperatives have been established with collection points in wards 3,4,5,7 and 9.

If we are to follow the SLA principle that we should "build on strengths", rather than seeking new opportunities to support, we should support existing practice and focus attention on the diversification of livelihoods. This means not only looking at the wider farming and non-farm economy of landed households but also, as noted above, understanding and accommodating the uses of the forest by poor landless households as a part of their overall subsistence strategy. Such approaches do not fit in with conventional approaches to "forest user" as articulated in the constitutions and operational plans of FUGs, a point underlined in the work of Subedi, Das and Messerschmidt (1993) on tree and land tenure in the Eastern Terai.

We talk rather glibly of "community forestry". As we have discussed elsewhere in this report, the concept of "the community" is not unproblematic in the Terai (or indeed elsewhere in Nepal). Because the population of the Terai is largely made up of migrants from the neighbouring hills and plains in Nepal and India, it is highly fragmented and the complex mixture of different ethnic and caste groups is reflected in competing interests and concerns. The value of the forest in the Terai, where a single tree can be worth a fortune to an individual, has certainly contributed to the heightened sense of competition over forest resources. Even where NGOs active in the Terai have engendered a sense of community among a group of people who have engaged in `community forestry', with an enhanced understanding of their rights and obligations, that `sense of community' is quickly dissipated when the rules and regulations of FUG management constrain the opportunities to be responsive to different household livelihood needs.

So livelihood opportunities for the poorest, the landless and for those without a voice/status, must be sought beyond the forest. Indeed, given the claim of growing population and the pressure on the forest resource (FAO 1999, Barraclough and Ghimire 1990), forest dependent livelihoods may not be sustained for the population of the Terai in general, let alone the poorest, so alternatives or additional sources of support are required.

Nepal has long been viewed as a rural, agriculture-based economy. The HMGN's own major rural policy strategy detailed in the 1995 Agricultural Perspective Plan regards agriculture as the central element for any rural economic development strategy. This view of Nepal's economy as largely dependent on agriculture has not gone unchallenged as the dependence of the economy on remittances from migrant labour has been recognised. Seddon, Adhikari and Gurung (2001) highlight the importance of migration to the economy of Nepal, and the particular importance of seasonal migration to the livelihoods of households in the Terai. They write `data from the recent National Livings Standard Survey (NLSS 1996) suggest that 23 percent of all households surveyed (760 out of 3,500) receive remittances […] in rural areas the proportion of households receiving remittances in the sample was 24 per cent.' (2001: 3). For poor households the income from a season as an agricultural labourer in northern India, or a spell on a construction site or crushing stones for road maintenance elsewhere in the Terai or in India, can make a significant difference to household survival, and be far more important in terms of income than the twigs and branches gleaned, perhaps in contravention of FUG rules, from the forest. This is not to say that forest produce, for those who can access it, is not important for the poor, but it constitutes only a part and increasingly more difficult to access part, of a wider livelihood strategy. Poor people have to make choices about where to put their effort, and if fuel wood available from the community forest is beyond their means, they will look for alternatives.

So, we contend that if community forestry in the Terai is to enhance the livelihood outcomes of poor people there would need to be a major restructuring of the approach to forest management that takes due account of the diverse uses of the forest, and does not focus on a few particular products (timber and some NTFPs, for example). Alternatively the forest could be handed over to the people (we hesitate to say `community') and managed to maximise revenue, which might be invested into the Terai for the benefit of the population. Both approaches imply the existence of a strong state, and thus cannot be put forward as viable options in present day Nepal.

We would suggest that it is better to start from the person, to focus on supporting the diversification of a person's livelihoods, perhaps promoting NGO and externally funded programmes that give support to migrants (through skill enhancement etc.) for example. This may provide a way forward. Certainly, looking at forestry within the context of a wider economy where people interact with a range of government and non-government agents is important, so that initiatives that promote convergence between the Department of Forests

and the women's department which bring together women's savings and credit groups which engage in forest management provide an opportunity both in terms of sustainable forest management (through not over-using the resource) and support for livelihood enhancement.

Pro-poor livelihood strategies do not exist that can depend exclusively or even largely on forestry. Nepali's have been telling us that for the last 200 years, as they `vote' with their feet for other livelihood opportunities.

In the final Chapter we draw together the lessons of this research.

9. Lessons learned and Conclusions.

We set out in this final chapter a number of general lessons in relation to what has been learnt from this research study on community forestry processes in the Terai. The previous chapter has focussed on what could be done to improve pro-poor livelihood outcomes from community forestry in the Terai. The perspective we focus on here is broader lessons for method and approach as well as policy and practice. We start by looking at the issue of regulation.

9.1 Community Forestry and its regulatory framework

In one sentence the key issue that all the field evidence points to is one of regulatory failure. Given the confusion and inconsistencies in the legal and policy framework to actual practice on the ground, it is not surprising that such contradictions and discrepancies between the *de jure* and *de facto* position are so stark. The regulations are simply not working and in many instances lead to perverse outcomes. It is of course a moot point as to whether this is accidental or a deliberate and consistent strategy designed to retain control of the Terai forests. The evidence of the recent Government Orders in relation to community forestry (no cutting of green wood, the requirement for detailed operational plans) show a logic and consistent intent. They serve clearly to limit community authority and livelihood benefits to the advantage of the classic public text for forestry and state authority – custodianship for the national good in the name of conservation.

It is worth spelling out what the failures of the regulatory framework amount to and these can be broken down into a number of distinct areas. First the attempts to regulate who can join FUGs, where community forestry can be located and what activities are permissable within them. The regulations are applied through the requirements for constitutions and operational plans and the rules associated with the content of these. New operational plans have to be prepared every five years, and even in their implementation, authority for the enactment of decisions should be sought from the forestry officials at every stage. The regulations are not achieving their stated intent. Those who have the greatest need to benefit from building livelihoods around forest resources are not gaining and many of the poor have effectively become excluded from membership both directly and indirectly. Direct exclusion has taken place through the disallowing of certain activities such as collecting firewood for sale or

charcoal collection or by narrowing down the window of opportunity for such collection. Indirect exclusion has taken place through price barriers to membership or by financial barriers posing a potent mechanism for exclusion from benefiting from the hidden subsidies of timber quotas.

Secondly there have been attempt to restrict and regulate how FUG income is actually used with a stipulation that some 25% is used for the development, conservation and management of the community forestry (Chapagain *et al.*, 1999: 32). What this has meant in practice, and this has been a FUG decision, is the building of infrastructure – often offices for the committee from which the social dividend is very limited. Procedures and processes for managing these substantial sources of revenues to the Terai FUGs offer little opportunity for the poor to have any effective say in how potential revenues can be used.

9.2 The Open and the Hidden

Much of what is written on community forestry in Nepal is embedded in the rhetoric of participation and in somewhat simplistic notions about "community." A key issue emanating from this research is the contrast between the open and the hidden. It is for instance evident that a proper understanding of distributional outcomes and inequities resulting from FUG-policies must acknowledge and account for the presence of hidden subsidies in the price and product allocation mechanisms adopted by FUGs. We have seen that such subsidies do in fact eat up a considerable share of the value of the most valuable forest product in the Terai, timber. We have also illustrated the distributional bias in favour of the better off of these hidden subsidies. A further example of the contrast between the open and the hidden relates to the dynamics and politics of user groups functionings. The evidence from Rajahar provides in-depth insights that not only challenges notions of stability and harmony but also provide very useful hints about the location of key institutional weaknesses. By way of illustration, pecuniary motives for seeking office are often related to the scope for taking part in hidden transactions (illegal harvesting, say) and insights into the hidden economy can inform attempts to reduce such motives among potential office-holders by identifying initiatives that makes it more difficult to gain from such behaviour.

9.3 Protection, Production and Livelihoods

The evidence with respect to forest regulations and practice strongly support an interpretation that the prime objective of the Department of Forests actually relates to protection, with a limited emphasis on production and almost no attention to livelihoods. The ban on the cutting of green timber, the restricted range of allowable forest products and the emphasis in the forest management plans on forest operations (planting, thinning and weeding) give little scope for building a forest management regime that maximises economic returns consistent with good resource management practices.

The evidence from the field sites show how various socio-economic groups potentially derive livelihood opportunities from forests. For the poor the most important offtake may well be employment opportunities built around the collection and sale of specific forest produce, for example, firewood. No operational plan has given any evidence of the generation of employment being a primary consideration in plan design or focussed on the production of products such as firewood from which particular groups might derive specific benefits. Blacksmiths, usually to be found amongst the poorer sections of the community, for example, who have a particular need for charcoal, have to resort to illegal activities in order to source their basic working material. Charcoal production and this is a product that clearly has an important market, is simply not seen to be a legitimate forest product and no consideration given to how production of it might be made consistent with sound long term resource management practices. The concept of forest user in the management plans needs to be rethought then to encompass a much wider range of 'uses' that are not simply limited to selected products for household use which tends to favour some at the expense of others.

But there is also a problem with the very notion of forest user which privileges economic use or income potential over other values that communities and households might hold with respect to the management of forests. The processes by which various groups established what they saw as custodial authority over the forest – and as we have seen village perceptions of where they exert custodial authority remain in conflict with those of the Department of Forests – indicates that income potential is not the only issue at stake. The rhetoric of environmental protection is as strong in the FUG committees as it is in the Department of Forests and the extent of action by local communities to exert some form of custodianship over their surrounding environment because of what they have seen as the failure of the Department of Forests to protect, argue for something more than narrow economic interest.

While the research did not specifically explore this issue, matters of exerting authority, identity and the social and environmental role of forests in the lives of local communities would all give greater attention to the community as manager rather than just user.

9.4 The Livelihoods Framework

We turn to the livelihoods framework itself. We have argued that prior research on community forestry has tended to emphasise processes internal to the FUG in relation to management and decision making as being crucial to participatory processes and equity. We consider that the evidence indicates that much greater attention needs to be paid to the external context and how it relates to local institutions. We have shown how by various devices and means the Department of Forest has continued, under a rhetoric of shifting from technical control to a social and governance focus, to exert even greater control by restricting where and how communities can engage in community forestry. The Policy, Institutions and Processes box in the DFID Sustainable Livelihood Framework shows every sign, in the case of social forestry in the Nepal Terai of being rather a significant factor in determining livelihood outcomes. Much greater attention to it is required in relation to understanding village level process and community forestry management.

9.5 Terai and The Hills

Are these findings from community forestry in the Terai context specific or do they have application to the hills as well? The key difference from the perspective of community forestry between the hills and Terai is the value of the resources although over time the resources under community forestry in the hills will also increase in value. The institutional context is the same for the hills as the Terai – the same sets of rules and regulations apply. There are clear interlinkages between the hills and the Terai and household strategies – diversification, multi-locational households combined with seasonal migration are a feature of households in both landscapes. The pension and remittance economy matter in both places, although the opportunities for land based livelihoods are probably greater in the Terai than in the hills. The differences then are a matter of degree rather than absolute differences.

The rules and regulations will continue to restrict livelihood opportunities being created from community forestry given their focus on protection and production at best and a limited view of benefit sharing. They do little to recognise that the livelihoods of the poor are not just, and

not necessarily even substantially, land or product based but depend on diversity and employment. Nor do they recognise sufficiently the other dimensions to well-being that are more than just economy and income. For these dimensions to be realised community forestry practice will have to move beyond the limited definition of ‘user’ that dominates current practice. This will require that fundamental issues of people’s rights as managers and the giving of custodial authority of forest land will be required. But that seems a long way from what is going to be possible under current institutional arrangements.

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Appendix 1. Maps

Land use of Nawalparasi

Land use of Rupandehi

Road Network of Nawalparasi

Road Network of Rupandehi

Makar -- Distribution of Community Forest and Ponds

Harpur -- Distribution of Community Forest and Ponds

Suryapura -- Distribution of Community Forest and Ponds

Rajahar -- Distribution of Community Forest and Ponds

Devdaha -- Distribution of Community Forest and Ponds

Appendix 2. *Site Report* --Makar VDC, Nawalparasi District

Makar Village Development Committee area

Makar VDC has an area of 56 sq. km. and is located in the central part of Nawalparasi district. It is transected by the East-West highway, on which the modest market town of Bardaghat has grown up. Makar's population comprises 21,150 persons in 4,041 households. The largest of its 9 wards, ward 4, which includes Bardaghat, contains half of the population.

Ethnicity
The population of Makar is diverse in ethnic and caste terms, and includes Brahmin, Chhetri, Magar, Gurung, Newar, Thakuri, Kami, Damais. 'Indigenous' groups include the Tharu and Mushahar.

History of settlement
Until the middle of the last century, this area, like the rest of the Terai, was forested and largely uninhabited. From the 1940s, land in the area was granted to *zamindars* (a kind of feudal landlord) in lots of up to 300 *bigha*[74] by the king. Some nine *zamindars* are remembered today as having held estates in the Makar area: most of them were from Palpa district in the hills to the north, though two are said to have been ethnic Tharu. The two groups in the area often referred to as 'indigenous' inhabitants, Tharu and Mushahar, were in fact for the most part brought to the area from India as *haruwa* (bonded labourers) by the *zamindars*. The Tharu came from Santapur.

Haruwa were given an annual allowance of rice (said to be 16 maunds, or 640 kg), and allowed a small plot to till for themselves. With the land reform legislation of 1966, *haruwa* were able to claim tiller's rights. Today, as well as in agriculture, many Tharus work as carpenters and masons, drivers.

The other 'indigenous' group, the Mushahar, have fared very poorly. They sold the land that they had obtained to migrants, and moved to a site near to the Bishahiya River. In 1998 [2055], they were displaced from this site by the river's flooding. 65 households were granted small housing plots (18 foot square) on public land by the VDC (though this was not registered in their names). This community is extremely poor and tends to be little involved in community activities. Few of their children attend school.

The elimination of malaria from the 1960s and the construction of the East-West King Mahendra Highway in the early 1970s were to stimulate radical changes in the area, bringing in a number of waves of migrants of diverse origins, who obtained land in a variety of ways.

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[74] **Area:** 20 *ropani* = 1 ha.
1 *bigha* = 13.8 *ropani*
1 *bigha* = 20 *kathha*
1 *kathha* = 20 *dhur*

i.e.: 1 *bigha* = 400 *dhur*
1 ha = 1.45 *bigha*
1 ha = 580 *dhur*

Weight: 1 *maund* = 40 kg
1 quintal = 100 kg.

The first group of new settlers were the road construction workers themselves, some 35 of which are said to have settled with their families. Next were Nepalese returnees from Burma, who first settled informally, but 65 households of which were in 1992 (2049) allowed to purchase land by the roadside in Ward 4 (on 6 *dhur* plots for Rs. 54,000).

Subsequent incomers included 111 households which obtained land on the recommendation of the then prime minister Tanka Prasad Acharya's commission in 1973-74 (2030-31) who were given plots of 3 *bigha* each on payment of Rs. 600 tax per *bigah* in wards 1,6,7, and 9.[75] These households were termed 'Political sufferers', though some are said to have in fact been active cadres in the multi-party democracy revolt. 333 hectares of the forest land were cleared to settle this group on the direction of King Mahendra himself. Tibetan refugee households were granted a total of 104 *bigha* in 1977-78 (2034-35). These two groups together added 113 households to the area's population.

During the period 1974-77 (2031-34), migrants were also arriving from hills districts and encroaching illegally on forest land, particularly in ward 4. The process began there when five households, from Kaski, Lamjung and Parbat districts to the north, each occupied about 6 *bigha* of forest land to the north of the road, establishing the hamlet of Marchaghola. They were later joined by others. These squatters were evicted in 1977 (2034) by the Forest Department – which destroyed their huts and grazed cattle in their paddy fields. But soon afterwards, the evicted households returned with others, occupying smaller areas. Some have since sold their land, although it is unregistered. Others, though not resident, have build farm huts in the hope of benefiting from the regularisation of status should this occur in the future. There are now 100 households in Marchaghola, each occupying between 3 *dhur* to 2 *kathha* of land. They originate from Gulmi, Parbat, Baglung, Lumjung, Kaski, Synaja, and Acham districts, eastern Nepal, and Assam.

The Resettlement Company, established in 1963 (2020), began distributing land to landless farmers from various districts. In 1977 (2034), 800 households settled in the area and were allocated 1.5 *bigha* per household.

Political crises in Nepal have often been associated with deforestation. During the referendum on Panchayat rule of 1979 (2036), the then Prime Minister used the allocation of forest land in the Terai as patronage to gain support.

The flooding of the Tinau and Jharahi rivers in 1982 (2038) rendered many homeless. Over eight hundred of these were settled in Makar ward 4. Each was allotted between 10 *dhur* to 1.5 *kathha* depending on size of the household.

Physical and social infrastructure

All wards in the VDC are connected by gravel roads, and have drinking water and electricity. Water supply and maintenance is arranged between groups of 16 or so households, each contributing Rs. 50 per month. Not all hamlets are connected to the electricity supply.

There are six primary schools, and three secondary, one lower-secondary school and a further education campus. There are also 11 boarding schools in the area, three of which are secondary. There was an attempt to increase enrolment of Mushahar children by awarding

[75] The term 'Political sufferers' generally refers to those allocated land in return for their support for the Panchayat referendum.

scholarships of 100 Rs per month for each student, funded by the VDC. However, funds ran out, and enrolment has fallen again.

A weekly market has existed at Bardaghat since 1970 (2027).

Livelihoods and changes

Agriculture

The main crops are rice, wheat, sugarcane, pulses, gram, peas, musur, aalas (an oil seed). Fruits include mango, pineapple, papaya, banana and lychees. Livestock and poultry husbandry and fish farming are practised.

Landlessness and agricultural labour

Those who own no agricultural land must obtain access to it through *hundi* (rent), or *andhiya* (sharecropping). The wage labour rate is Rs. 60/70 per day. Those who owe landowners money are often obliged to work for a reduced rate (typically 40 percent below the standard rate).

Other employment and enterprise

The inhabitants of Makar are relatively well educated, and some (mainly Brahmin, Chhetri or Newar) work in relatively senior government positions. Others have skills such as mechanics, stone masons, joiners, plumbers, rickshaw pullers. Some are in commerce.

Out-migration

Out-migration for employment is widespread. Men from Makar and neighbouring areas work as far afield as Bombay, Delhi, the Gulf, Korea, Malaysia and Hong Kong. The costs of travel and employment agency fees for international migration are often met by selling land and taking loans.

The forest resource at the VDC level

Forest land (i.e. land under the direction of the Forest Department, though not necessarily forested) occupies about 40 percent of the VDC. This includes most of the area to the north of the East-West Highway, along with a quadrant in the east of the district to the south of the East-West Highway

Most of the forested area is constituted by the hills of the southern part of Mahabharat and Churia ranges. Access is uneven between wards: most of the forest is in wards 4, 5 and 9; ward 2 has a small quantity, wards 1,3,6 and 7 have no public forest at all.

With the nationalisation of Nepal's forests in 1956 (2013), all access and use has been *de jure* illegal. However, the *de facto* situation, although it varied from area to area, was very different. In Makar, as elsewhere, though access to the forest was illegal, and users were liable to be harassed by forest rangers, forest was relatively open for the collection of firewood and other forest products by members of the community. As population and demand grew, degradation ensued. This perceived degradation has been one of the main factors behind communities' wish to establish Community Forests.

The Operational Forest Management Plan (OFMP) divided the national forest in each district of the Terai into three categories: protection forest, production forest and potential

community forest. [76] This has been done from the top down and in the abstract, and the actual demarcation of this land is not, it seems, known to the Ilaka forest office.[77]

There are three areas of forest in Makar VDC in the process of being established as Community Forests: Chisapani, Parijat and Sayapatri. Procedurally most advanced is Chisapani FUG, for which a constitution has been registered for control a plantation of 11.2 ha. The Parijat FUG has for many years been attempting to formalise its claim to a substantial area of forest (Chisapani and Parijat CFs are considered below as case studies). A third, as yet unformalised FUG, has been formed around Sayapatri, the area of forest serving the eastern wards of the VDC.

Chisapani Community Forest

The formation of Chisapani FUG
Chisapani CF is situated in the north of the VDC, in Makar ward 2. An association known as the Suryajyoti Youth Club played a key role in its establishment. This club was formed in 1977 (2034) with the purpose of bringing together youth to further social development. The club functioned until 1981 (2038), but became inactive following the sudden death of its founder and chairperson in a road accident. The club was revived in 1990 (2047) under the a new chairman and was formally registered in 1997 (2053).

The Suryajyoti Youth Club had an 'Environment Protection Wing' consisting of 11-12 members, which was protecting the forests in the area. The most active members of the wing were its chairperson, vice chair and the secretary. After the registration of the club they applied to the VDC for funding to support their activities. When this request was refused, they asked the VDC to pay them a share of royalties (as a fee) in return for their protecting the area's forests. The refusal of this demand caused tension between the community and the VDC. The club then shifted its energies to establishing a formal FUG in the area.

The first assembly of the user group was held in 1996 (2053). A committee of 21 members was formed, most of the executive members being members of the Suryajyoti Youth Club, as they remain today. The committee has been very active in protecting the forest and the rights of users.

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[76] Operational Forestry Management Plans (OFMP) were developed by the Forest Department in the mid-1990s for each of the 17 Terai districts. The basis for this division into categories of forest is not clear, although protection forests tend to be in the hills, and production forests on the flat. Potential Community Forests are generally degraded national forests adjoining settlements together with some scattered patches of national forests (Chapagain and others 1999). The OFMP categorisations were apparently based on the Land Resources Mapping Project data dating from 1978/70 and are widely considered to be in need of updating (statistics for the two district are given in [section] above).

[77] However, there is a map at the Ilaka Forest Office marking Production (high and low) Forest with a red line; Protected (largest) with a green line; and Potential CF a yellow line. It is not clear how these boundaries were drawn.

The following figures were recorded by researchers but it was not clear whether they relate to ilaka or VDC level (11 VDC = Ilaka)

VDC	5,600 ha (56 sq. km)?
Protection	12,000 ha.
Production	1,400 ha.
Production (low priority)	2,700 ha.
Potential Community Forestry:	1,000 ha
[total =	*17,100 ha]*

Though the process of preparing it began in 1997 (2054), the constitution was registered only in 2000 (2057). The committee was supported in seeking registration by the VDC, neighbouring CFUGs and the IFO. The Ilaka Forest Officer for Bardaghat proved particularly helpful. They used the constitutions of Tilakpur CF (Pokara) and Hariyali CF (Nawalparasi) as models. It took two years from the submission of the constitution by the community for it to be registered.

In the constitution, the users had sought the hand-over of over 500 ha of forest. In the event, though, the DFO granted them a mere 11.2 ha consisting of grassland and a *sissoo* plantation. Had it not been for the vociferous opposition of the community, the plan had been for the Housing Company to allocate this land for new settlement,

Membership of Chiapani FUG is open to those who had used the forest to meet their needs in the past, there are two levels of membership: formal and informal. Only formal members, which comprise 650 households in wards 2, 3 and 8 of Makar have been registered in the constitution. The committee also decided to allow informal membership to some 700-800 households in Jahada wards 1, 2, 5 and 8. The DFO had advised that the inclusion of all using households would not be practicable, given the small area of forest. The unofficial understanding between the DFO and the committee is now that, although informal members are not included in the constitution, they are to be permitted to participate in the groups. The committee plans to include the informal members in the constitution during the formulation of forest operational plan, if and when the remaining 300 ha of forest which the group has been protecting is handed over to it.

In 1999 (2056), the committee decided to prepare an operational plan and apply for the hand-over of the forest. Responsibility for leading this was given to a subcommittee consisting of five members of the committee including the chairperson, secretary and treasurer. The body has made its application to the DFO, whose staff has visited twice for discussions.

Both formal and informal members apparently have equal rights of access to forest products as well as equal rights to participate in management. The present membership fee is Rs. 10 per household and the entry fee when the forest is open for firewood collection is one rupee. Where a single family has more than two households, the membership fee is five rupees per h/h. Penalties vary from Rs. 20 to 1,000 or more, depending on the seriousness of the case.

Chisapani Forest Management System

The community employs two forest watchers to protect the area claimed pending its hoped-for hand over to the FUG. These watchers have frequently seized tools from illegal cutters, on whom the committee has imposed fines. The committee has also prohibited grazing into the forest. Firewood is distributed under the committee's supervision once a year with the permission of IFO. The committee has also constructed a fire line in the forest. It is also intended to construct roads so that the forest looks like a park. The management of Chisapani CF seems technically and administratively quite superior to that of the other FUGs in the VDC. Three committees have been established for group mobilisation: an executive body, an advisory committee and a support committee with 17, 8 and 8 members respectively. In all, there are 10 female representatives on these committees. Office management seems quite systematic. The committee has rented an office 500m south to the high way for Rs.1,000 per month. The officer-in-charge opens the office daily. It is equipped with a writing board,

photo board, microphone, and office supplies. The committee maintain full records. The committee meets monthly, and a general assembly of users is held twice a year.

Accounts are maintained systematically, with 14 heads under income and 13 under expenditure excluding bank account and cash. The average annual income of the committee is Rs. 50, 000 and the expenditure up to Rs. 30,000. The balance of the group at the time of fieldwork was is Rs. 180,000, with Rs. 1,000 held in cash. The main and regular expenditure heads are: office rent, remuneration, office supplies and miscellaneous. The largest amount spent so far has been on office furniture and equipment, while the largest single expenditure was a donation of Rs. 60, 000 to the local further education campus.

The group has good relations with neighbouring FUGs and other organisations, notably the Surya Jyoti Youth Club, which has provided institutional strengthening, and also with drinking water and sanitation user groups. Members of the forest user group committee are also on these committees. The mutual support and solidarity between the FUGC, the club and drinking water user group has played a vital role in the institutional strengthening of all of the organisations.

The eastern part of the boundary of the forest is with Parijat CF. A committee has been formed to coordinate between the two FUGs in protecting of the forest. Cooperation is also good with Banskoti CF in neighbouring VDC, which adjoins Chisapani to the west. The group coordinates with IFO, FECOFUN and other organisations in implementing its programmes.

Conflicts and Problems

Before the group was registered, the VDC had been claiming 75% of the income of the group, and even afteer registration continued to demand a proportion of the group's incomings. However, the users are reluctant to pay to the VDC any longer. It is alleged that the chair of Makar VDC is more supportive of Parijat, which is located in ward-4, where he lives, as he has made such demands from Chisapani and Sayapatri FUGs but not from his own user group.

The DFO is procrastinating over the question of handing over of remaining 300 ha claimed by the group, and this is holding up the preparation of the operational plan. The DFO staff shows reluctance to allow the claim. According to the office secretary the rangers have said that, 'handing over of the forest to communities is similar to giving cooking utensils to others and chopping off the right hand. If we go for it we will have to be transferred elsewhere.'

At the end of the typed FUG constitution there is a handwritten paragraph signed by three persons, including it seems, the ranger. This states that "the group has to pay compulsorily an amount of ten percent of the total income made by the sales and distribution of the forest products to VAT office and if the groups supplies forest products outside the users; the group has to deposit 40% of the amount received from the sale to the account of the government revenue through DFO and municipality. The above work will have to be done in close supervision of the DFO."

In general, DFO staff are not clear about the exact area and boundaries of the various categories of the forest in Makar VDC or the Ilaka as a whole, although these are demarcated by the OFMP. Few records about CF activities are kept in the Ilaka Forest Office.

Parijat Community Forest

Parijat is also located in the northern part of ward 4, the west of Chisapani CF. The main tree species are *Shorea robusta*, *Terminalia alata*, *Lagersroemia parviflora* and *Dalbergia sissoo* (the last in a plantation). The area is claimed and managed by the user group is some 600 hectares in extent, though the Forest Department has been unwilling to recognise a claim over more than a small proportion of this (100 ha). Before the advent of community forestry, the main users of this area of forest were Ward 4 residents. Their access used to be free in practice. Villages used the forest for firewood, fodder, and litter. Some collected firewood for sale.

The formation of Parijat FUG
The idea of the user group was initiated by the then Secretary of Ward 4. His father lived in Magdi district, and had been involved in forest protection there. Parijat FUG was formed in 1998 (2054) and registered in 2000 (2057). Chisapani Community Forest had been established previously and this provided a precedent.

An assembly of 200 people met in (January 1998) [2054 Paus 5], and decided to a decision to protect the forest. At a further meeting a week later, a committee of 42 members was established. These were the first people to pay membership dues. The large committee proved unwieldy, and its size was reduced to seventeen at the suggestion of the AFO. The new committee started to collect the Rs. 5 annual membership fee from others. At this point, it had still not been decided who would be eligible for membership.

The committee contacted the Ilaka Forest Office, and the Ilaka Forest Officer, who had worked on CF in Hills districts, began to initiate the participatory community forestry approach in 1997-98 (2054-55). His successor had worked in Parbart, another hills district.

The FUG had 1,324 members, whose names were included in a memorandum at the time of fieldwork (Feb 2002). These were residents of Makar wards 4 and 6, with a smaller number from Jahada, the neighbouring VDC to the south. However, some 2,000 households have apparently not paid their dues. These are mainly from the poorest groups. There was a certain resentment among Makar residents at being asked to pay for the access which they had previously enjoyed freely. Others claim to have paid, but their money has not been submitted to the committee (e.g in Jahada wards 5 and 6 – whose representative did not apparently pass it on).

All but one of the 17 committee members are from ward 4, with just one member from Jahada. There had been a Mushahar member in the previous committee, but he was said never to have attended, and was ousted. There are 5 women committee members.

Committee members tend to be from higher status groups, and not to be primarily farmers (the Chair owns a transport business, the secretary is a lower secondary school teacher, and the treasurer a VDC clerk).

An FUG constitution, signed by 800 people, was prepared of the FUG in 2057, and submitted to the DFO for registration. However, another group, led by present chairman of the CFUG, submitted a letter to the DFO qustioning this constitution, alleging that the committee was corrupt, and opposing the hand over of the forest.

The DFO subsequently circulated a letter to the community suggesting that they call meeting to discuss the alleged corruption. A general assembly was called, but no decision could be

made as there was no quorum. The Ranger reported this to the DFO, who wrote to the VDC suggesting they hold a further assembly. This was done, with the three main items on the agenda being the addition of founders' names in the constitution (only 11 of 17 had been included), financial corruption, and the registration of the constitution.

In response to these items, four further names were added to constitution, and a committee of three was formed to audit the accounts. Finally, it was decided that process of registration should be taken forward.

The Chair of the FUG presented his resignation to the VDC chair on health grounds a month after the general assembly, and an interim chairman was appointed. The VDC chair called a further meeting of the FUG and a new chairperson was appointed. He served for only 3 months. The accounts were updated and made systematic.

After 4 months, the audit committee reported to the general assembly (2058-3-11). It had found Rs. 2,800 unaccounted for, including Rs.1,600 for spent on carpets for the Ilaka Forest Office and Rs. 1,200 for purchasing a goat for Ilaka forest officer. These payments had been agreed by the Chair, Secretary and Treasurer. A conflict arose in the assembly. No one was initially ready to accept the responsibility for these expenditures. Eventually, the former chairman did so, and agreed to repay the money. A new committee was elected with a woman as the chair.

The new committee amended the draft constitution and forwarded to the DFO. It has now been signed by 1,324 members. The constitution is for an area of only 100 hectares, bounded in the north by the east-west highway, in the east by Makar VDC ward 9, and in the west by the Pradapur road. The whole of the allocated area is thus to the south of the road. **It is important to note that this is not the area where the members collect forest products, which is well to the north of the road.**

Jahada, the VDC immediately to the south of Makar, includes no natural forest of its own. Residents of the wards 4 and 5, in the northern part of Jahada VDC (153 households in all), are entitled to use Parijat Community forest for obtaining fuelwood, tool handles, ploughs, etc. Traditional users in Jahada wards 4 and 5 were included in the new constitution in 2058. They can access the forest for fuelwood on Saturdays for Rs. 2 per load. However, being some miles distant, their access to Parijat is limited. The new rules also reduce their access to the forest. (Over the preceding few months it had not proved possible to access the forest at all, because of the political situation.) It takes a full day to collect a load (*bhari*) of fuel wood. This task falls mainly to women. As a result of the shortage of fuelwood, residents of Jahada depend on cow dung and kerosene stoves for fuel. A few wealthier ones have started to use biogas.

Parijat FUG has not yet succeeded in obtaining registration, in part because of the frequent and confusing changes to the plan advised by different forest technicians, and in part due to the lack of a forceful committee to take it forward. Educated members of the group are said to be too busy with their own professions.

One member of the Parijat executive committee is from Jahada. Jahada residents do not seem familiar with the CF rules and rights, and say that they are not invited to meetings and therefore lack knowledge of decisions. They also feel that they do not benefit from funds FUG funds for community development works in the way that Makar ward 4 has. Initially, the rates for membership and collection for residents in Jahada were set at a higher rate than for Makar (10 vs 5 for joining, 3 vs. 2 for firewood collection), on the pretext that Jahada

members were not able to play an active role in forest protection. However, rates, have now been equalised. Having said that, there was some confusion as to whether membership dues collected for Jahada had actually been passed on to the group treasurer. 60% of the income of the FUG comes from fuelwood sales.

Main Management Rules of Parijat

- Members are allowed to collect one *bhari* of fuelwood every Saturday for a fee of Rs. 2.
- Rs 5 for the handle of a spade or plough
- Rs 15 for plough, yoke, etc.
- Can collect grass at any time.
- Grazing is free
- The forest is opened once a year for timber – dead wood; the cutting of green or larger trees is not permitted.

Patterns of conflict in the Management of Community Forests in Makar

There are several axes of conflict discernible: Forest office vs. community; committee vs. FUG members; members vs. non-members; ethnic exclusion; political party; and distance from resource.

The always uneasy relationship between the District /Ilaka Forest Office and the community has been altered by community forestry. Public opinion of forest staff seems to remain low. It would appear that DFOs are attempting to meet targets (perhaps for department to respond to political pressure) for forest handover, but to minimise the actual amount handed over (this is very clear from Chisapani), and a preference for handing over only barren and degraded land (which has some support in official policy).

Forest offices also divest themselves of responsibility for protection by doing this. It is less clear how handover affects the 'informal' market in timber, part of which DFOs have controlled in the Terai (Makar is not a high value timber site).

Some members expressed the view that the committee represented only the richer and middle-class households. They feel controlled by the committee. The system of weekly collection is restrictive and inflexible – the forest is two hours walk away, and they do not always have time to do this on Saturdays.

Caste and ethnic group certainly appear to affect not only the likelihood of being a committee member, but also the degree and way in which rights may be exercised (or infractions sanctioned). The Mushahars claimed that the committee threatened them and victimised them. Many other people steal wood from the forest with impunity, but when *they* do so, their wood is seized. Since the committee has been formed, access to the forest is more difficult. Before, they could collect bigger loads, even though the forest office would harass them if they were caught. They say that they know nothing about CF policy, rules and regulations and their legal rights, or how the committee was formed. One of them [RM] was apprehended bringing timber from the forest, and was put in jail for a month. The forest office also fined him Rs. 10,000. However, since he had no money, they let him go without paying.

Affiliation to political party is a key, but not necessarily determining, factor in alliances.[78] FUG politics seem to be closely woven into ward and VDC politics. Perhaps this is inevitable given the high value of the resources.

Distance from resource was a final access of conflict. There was mutual distrust between members in Makar and Jahada VDCs over access to the forest and payment and use of dues.

Recently the committee has banned all access to the forest because of the Maoist insurgency.

Environmental impact
The condition of the forest is generally said to have improved

Socio-economic impact
Many households have started using cow dung, reducing the amount of manure available, and forcing them to rely on chemical fertiliser for their fields, which they feel degrades the soil.

Collecting and selling firewood, though illegal, was an important source of income for poor households. They sold to teashops and more prosperous households. The new regime has had a negative impact on their welfare. While illegal collection persists, it is necessary to go further afield and to operate at night. For these reasons, men have often taken over the role from women. There has been relatively little impact on access to the forest for tools, fodder and grazing.

It is less clear what impact on the 'informal' timber trade has been.

[78] The main political parties active in Makar are the United Marxist-Leninist (UML), and Nepal Congress (NC) parties. The other main national parties are Rastriya Parjatrantra Party (RPP) [national democratic]), Nepal Sadbahbana Party (NSP ['equal thinking'] – especially with 'indigenous' Terai groups, e.g. in Harpur.)

Appendix 3. *Site Report* -- Harpur VDC, Nawalparasi District

Harpur VDC

Harpur VDC is located in the south of Nawalparasi district, adjacent to the border with India. The inhabitants are of local origin, there having been very little of the in-migration from the hills so characteristic of the northern part of the Terai. The area is socially and economically closely tied to India: there are extensive kinship links across the border, buying and selling of goods is an important source of income, and inhabitants of Harpur also avail themselves of educational and medical services in India.

With its close ties with India, and low in-migration, Harpur is representative of the southern parts of these two districts, and of the southern Terai more generally, in having no access to natural forest, and thus having to meet its fuelwood, timber and other needs from other souces.

Piparhawa village, which makes up ward 9 of Harpur VDC, is just 1 km from the Indian border. It has 448 inhabitants living in 67 households. The majority of the population, and almost all women, are illiterate (no woman has education beyond primary grade 5).

Caste composition

The population of Harpur is predominantly Hindu. Castes represented include Kewat, Gupta, Harijan, Terai Brahman, Kahar, Kusar, Patel, Yadav, Baniya, Shridvastav and Chhetri. There are two Muslim households from India and one Gurung ex-army pensioner from the hills.

Infrastructure

A primary school was established in the area at Palhi in 1948 [2005]. Today, there are two public primary and a lower secondary school in the VDC, as well as two private boarding schools. The nearest high school is in Kusma, the neighbouring VDC. Female participation in education is low, although now a scholarship programme for girls has helped to increase their enrolment rate somewhat.

While a sub-health post was established in 1993 [2050], many patients use private clinics or traditional medicine. For more serious illnesses, treatment is sought in Gorakhpur, Thutibari or Lucknow in India, or Parasi, Butwal or Bharatpur on the Nepalese side of the border.

In 1959 [2016], the community was joined by a road to Kusma. Gravel roads now link the other wards to this road. Soon afterwards, construction began of a branch irrigation canal of the Gandak Irrigation Scheme.

Since 1988 [2045], a VDC office, and a police post have been established in the area, and electricity supplied. Government agencies present in the VDC include the Rural Development Bank and the Agricultural Development Bank. Several NGOs are working in the area, including the Institute for Integrated Development Studies, (IIDS), Awareness for Behavioural Change, Nepal (ABC), Nirdahan Utthan Bank (the Poverty Reduction Bank), Mahila Jagrit Tatha Arjan Karyakram (Women Income Generation Project), and Gorakhas Yuwa Club (a youth club). These organisations are active in a range of fields, including group-based micro-finance, informal education for children and adults, and community development. These agencies are considered locally to have had an impact on women's

empowerment, poverty and social solidarity. However, co-ordination between them is weak, resulting in some duplication.

Livelihoods and changes

Livelihoods in Harpur are predominantly agricultural. It was said that eighty percent of the population produces sufficient food from their own farms, while the remainder depend upon wage labour. Labour contracts may be agreed a daily basis, but in some cases, labourers and their families are subject to annual contracts in return for a fixed amount of crops. This amount is in fact usually insufficient for subsistence, forcing labourers to borrow money from the landlord that they can never repay in order to survive. Hence the system amounts in effect to a kind of bonded labour. Other households are subject to tenancy or share-cropping arrangements with landowners.

Before the construction of the Gandak canal, agriculture was rain-fed. Paddy was the only crop produced. Since the availability of irrigation, paddy yields are said to have risen from 6-10 up to 25 quintals per *bigha*. Wheat, lentils (*masuro*), *alas*, potato, mustard, cauliflower and onion are also produced now, some of them for sale. A gravity canal irrigation is complemented by pump sets and deep tubewells. Tractors are now sometimes hired for cultivation.

Permanent out-migration from Harpur, like in-migration, is relatively rare, but seasonal migration is widespread. Those who can afford the agency fees for arranging it, migrate to the Gulf or Malaysia as labourers. The less well-off spend periods of several months, or sometimes a few years, as labourers in India, either immediately across the border at Thutibari or Gorakhpur, or further afield in Delhi or the Punjab, typically in factory work, agricultural labour, or construction.

Arbitrage across the border is a source of income for many: Chinese products and locally produced alcohol are traded at Thutibari market for food, clothing and other items cheaper in India.

Water-borne diseases such as diahorrea, dysentery, cholera, and typhoid are common during the hot and rainy seasons, while pneumonia is frequent in winter. There are no sanitation facilities at all.

Physical security has been a major preoccupation in Harpur in the past. Attacks by *dacoits* from across the border used to be frequent and severe, resulting in death, injury, and the loss of property. The community lobbied for years a police post, donating land and cash, and this was eventually created in 1979 [2036] and upgraded to an Ilaka Police Office in 1989 [2046].

A decade or more ago, fuelwood used to be available from the forest of Mankapur to the north at the cost of 3 rupees per cart. Now the forest margin had receded, and access is no longer permitted. Households therefore rely for fuel largely on cow dung mixed with crop residues. Prunings are also obtained from private and community forest. Wood is generally only now used as fuel at weddings and funerals.

The natural/common resource at the VDC level

There are three main kinds of collectively controlled natural resources in the district. These are canals, water bodies and community forest (the last in the form of canal-side plantings).

Canals

The canal is poorly managed and maintained, being damaged in many places, and water flow is limited and seasonal. The canal serves for irrigation only in wards 1 to 4, only about a half

of the potentially irrigable land. Responsibility for canal management was handed over to the community by the government ten years ago. One reason for poor maintenance is that water tax is collected irregularly.

Ponds
There are 21 ponds in the area, 18 of them publicly owned. Ponds are managed mainly for fish farming and the production of water chestnut, in addition to providing water for livestock and the irrigation of vegetable plots.

With the enactment of the Local Self Government Act, the ownership, control and decision-making rights on the use of wetlands has been vested in VDCs. The VDC has taken over active administration of ponds since the 1999, contracting them out through public tender to the highest bidder, generally to individuals for periods of two to five years.

Local communities claim that their traditional use rights have been curtailed by the VDC's control of the ponds. Men used to fish, while women and children collected mud, as well as roots, leaves (*semuwa*), and flowers. Further, the wetland resource is deteriorating due to siltation, overgrazing, and vegetation succession.

One pond in Ward 9, at Piparhawa, has been contracted out to a disadvantaged women's group Dalit Utthan Mahila Samitee (see box 2:1). When the VDC attempted to take control of a second, smaller pond at Piparhawa, of 3 *kathha*, the community resisted and were able to maintain it as a community pond. This is a seasonal pond, which had been infested with weeds and used only for watering livestock. The community were able to rent out the pond from 1996-2001 [2053-2058] for Rs. 3,000, which they used to maintain the police post and temple. A third water body at Pirparhawa, a seasonal pond of 2 *kathha* is been allocated by the community at no charge to the staff of the police post, who use it for fish farming.

Box 2.1: Management of Piprahwa pond by the Dalit Utthan Mahila Samitee women's group

The pond is 16 *kathha* in area and 2-3 meters in depth, rising to 5 meters in the monsoon. It was originally constructed by the local landlord (a *dittha* or court official), and used by the family for three generations. The original owner made the pond for aesthetic purposes, and had planted flowers around it. When the family died out, the pond was bought by Gauri Baniya of Rajabari, who renovated it. Baniya sold his land in 1989 [2046] and moved away.

In that year, the VDC took over management of the pond and began to contract it out by auction for fish farming. The first contractors were from Sugauli in India, who used the ponds for fish farming and the cultivation of *singada* (a kind of fruit).

In 2000 [2057-58], the pond was contracted out to the Dalit Utthan Mahila Samitee women's group. This group had been founded in 1998 [2055] as a saving and credit group. It was contracted for five years at a rent of Rs. 30,000. They renovated the pond and began fish farming.

The group was formed by 17 women, and women from 10 more of the ward's 67 households have since joined. Its formal objectives are to promote the education of women and to increase their economic status through the creation of employment opportunities. In terms of caste composition, around one half of the community's middle- and lower- caste households are members, but less than one in five of the 18 higher caste households. Three of the members can write their names, while the others are illiterate. The then Pradhan Pancha (chairman of the *panchayat*, the predecessor to the VDC), encouraged the formation of the group and helped them to write its constitution and register it with the district administration office. The group did not discuss the constitution and most members remain quite unaware of its contents. At the beginning, the Pradhanpancha supported the group by conducting meetings and writing the minutes. However, following a disagreement between his wife and other group members, his participation ceased. Meetings are not held regularly, but only when an important issue arises. The group solicits help in record-keeping from literate community members.

Since the formation of the group, each member has been saving Rs.10 per month. Several donations have also been made to them: by the Superintendent of Police, the wife of the DP, the District Development Committee, and a local political leader have all donated sums in the thousands of rupees.

Loans between Rs. 500 and 1,000 are made to members at an interest rate of 3 percent, generally for agricultural work or for children's school fees.

There are no written rules for the management of the pond, but decisions about cleaning, renovation, protection and stocking with fingerlings are made after general discussion.

Fingerlings are purchased from Thutepipal fish farm in Bairahawa and from India. The pond is stocked twice yearly, in January and July. Fish are harvested some five or six months after stocking, when they have attained a weight of up to 2 kg.

Fish are sold in the village, especially during festivals and ceremonies. Sales are also made in the local market at Parasi, and to visiting fish traders. Last year, Common Carp and Grass Carp fetched Rs. 80/kg and Silver Carp, and Rs. 55. The potential economic yield of the pond, assuming one quintal of fish production per *kathha* at a price of Rs. 80 per kg, would be Rs. 128,000. However, actual production appears to have been considerably less. An income of Rs. 19,500 from fish sales was obtained in the first year. This still leaves some margin for purchase of fingerlings, lime, feed, etc.

The pond is not used for any other commercial purpose, but serves the community for irrigation, watering livestock, bathing, water for house construction, the extraction of clay, etc.

Box 2.1: ***(continued)***

Group members have received training in fish farming, poultry production, etc. from a number of sources. The JTAs of the Agricultural Service Centre at Kusma and the District Agricultural Office at Parasi regularly provide advice on technical matters. The Agricultural Service Centre provided 2 quintals of oil cakes and fingerlings to the group free of charge. The DAO has agreed to provide Rs. 5,000 to repair the pond. The VDC has given 2 *kathha* of land near the pond for the construction of an office for the group.

Problems faced by the group include fish diseases, which they have treated by adding three quintals of lime to the pond. During the monsoon, fish get washed away from the overflowing pond. The group also lacks a large net for harvesting. The financial benefits have been relatively limited and have not yet been distributed by the committee or invested it in other income-generating activities. Hence the pond has not to date had a significant impact on living standards. However, women have found that, having overcome initial resistance to the idea by their husbands, the project has increased their confidence and sense of autonomy.

Community Forestry in Harpur

There is only one registered Community Forest User Group in Harpur VDC, called Harpur Jain Amanigury Baksipur CFUG. It consists of the sissoo (*Delbergia sissoo)* plantation along both sides of the Gandak canal, which passes through wards 1 to 6, and covers about 14 ha. in area.

This plantation was established by the forest department in 1987 [2044] on land granted by the canal project. The forest department initially employed two guards to protect it. Although there had been no community participation in planting, in 1990 [2047] the plantation was handed over to the community, to a group formed by the forest ranger. A committee of 9 was established. At that time the group was known as the Jharahi CFUG. The DFO's office provided a pro-forma constitution and advised the community members to establish a user group and draw up a similar constitution. The area was handed over as a community forest later that year.

The 460 households in wards 1 to 6 are eligible to be members of the CFUG, which has a committee of 11 members. Members pay a fee of Rs. 100. 238 of these 460 households joined at the time of formation. The remainder did not join as the price of fuelwood offered by the group was no lower that that on the open market, and they would only have access to dead wood.

Management rules include the following:

- Trees of under 36" in circumference are sold by the committee for fuelwood and timber at Rs 100 per quintal.
- Trees or logs of greater size are sold at Rs. 175 per cu ft.
- Only dead or dry trees and branches may be cut, the felling of green trees is not permitted.
- Forest products may only be taken with the approval of the DFO.
- Fuelwood is distributed in [Paush-Falgun] each year

The committee has sold 125 trees since 2000 [2057]. The present committee holds Rs. 40,689 in funds. Rs. 23,800 of this drives from membership dues, and Rs. 16,000 from the sale of forest products.

The committee has changed three times since 1990 – in 1996, 2000 and 2001 [2053, 2057 and 2058]. The first committee served for 7 years, from 1990. As the trees grew bigger, the committee started distributing prunings to households in turn. As the amount of prunings was limited, at times there were conflicts over their distribution. The first chair resigned when he became chair of the VDC. According to the former chairperson, the remaining members of the committee were showed little commitment to the group's work and were eventually obliged to resign.

Fuelwood is distributed from a collection point on a first-come first-served basis. There was also a facility for distributing fuelwood to users on special occasions such as weddings and funerals.

Although the first committee was not formed by wide consultation in the community, it used to hold meetings regularly and made decisions through discussion and consensus. The committee used to get permission of DFO for cutting down trees. During the tenure of the first committee, the committee held funds of Rs. 25, 000 to 30,000. This money was used to support local schools, for drinking water provision and for forest protection.

After the first committee was dissolved, a new committee comprised of 11 members was formed in 1997 [2054 BS]. Like the last one, this committee formed was formed on the initiative of a small subsection of the group rather that a discussion with all the users. According to a member of the DDC member this committee was formed largely under the influence of the political Sadvabhana party and in particular the then forest minister of the time, who belonged to that political party.

This second chairperson and his treasurer were powerful members of the community and were allegedly in the habit of making decisions contrary to the wishes of the rest of the committee. The chairperson apparently used to provide fuelwood to his relatives and friends in advance of the official distribution and sometimes not even charge them. For example, if members had been officially notified that the distribution would be begin at 8 a.m., the chairman would be there giving out wood to his chronies from 7 a.m. Those who came late would get nothing. It was alleged that on one occasion the chairman, claiming he was transporting an ox-cart load of fuelwood cart to the collection centre had taken it to his own his home. When a member raised this issue with him, an argument ensued, and the wood was returned brought to the collection centre from his home.

An audit of the user groups accounts identified a number of apparent irregularities, which force a numbers to repay money owing to the group. The former committee formed in the chairmanship has not handed over the bank account and the clearance of the dues and other account to the committee of the third chairman. The present committee has put applications to the DFO office to resolve the case. The DFO office has not taken any action in this regard. At present, the second chairman and some of the former committee members are staying in India. The present committee has opened a separate bank account.

Because of financial irregularities in the distribution of forest products, and the tendency for dealings to be personalised and irregular, the committee was subject to a vote of no-confidence, by the majority of the users in the DFO office. The DFO then ordered the suspension of the committee and formation of a new temporary committee. The new committee identified 460 households in 1 to 6, and urged them to become members of the FUG at a fee of 100 rupees. However, only 238 households joined. The remaining 222 households did not join – either because they did not have money or because the former chairperson had assured that they could have access to the fuelwood even if the did not pay

their membership dues. The temporary committee also made an amendment to the operational plan to restrict access to tree products to members.

No general assembly of the FUG has ever been held. However, the committee holds its meetings about once a month. Their minute book seems up to date with all the agenda and decisions.

There is a system of submitting the accounts of money received from the sales of forest products in the monthly meeting of the committee by the person in charge of their distribution. The income deposited monthly in a bank account operated by the signatures of the chairperson and the secretary. The total income of the fiscal year 1990 is Rs.61, 958.00, the total expenditure is Rs.21, 269.00 and bank balance is Rs. 40,689.00.

The main headings and amounts of CFUG income and expenditure are given below:

Details of the account

S.No.	Heads of the income	Amount	Heads of expenditure	Amount/ Remarks
1.	Membership fee	23,800.00	Plantation (labour charge)	Since the expenditure has been occurred at different times and is noted down at different places, we have not taken the detail here.
2.	Dues payment	800.00	Transportation of fuel wood	
3.	Fidel wood sale	37,358.00	Check dam construction and maintenance	
4.			Hospitality	
5			Stationary	
6.			Miscellaneous	

Women have low social status in this community, and all committee members are men. Asked why, committee members stated that women lacked awareness, and were not free to attend meetings like male members, or to speak freely on social issues. Women are also not knowledgeable on political and organisational matters. However, others felt that little effort had been taken to involve women in the management of the FUG, and that women played other public roles in the community such as ward representatives.

At present, the committee assess the number of fallen and dead trees and a meeting of the committee decides to apply to the DFO for approval for their collection and distribution. Once this is obtained, the committee meets again to prepare a detailed plan for the distribution of fuelwood, fixing the date and place for distribution and appointing someone to oversee it.

Alhough the operational plan states that firewood is to be distributed at the rate of 100 rupees per quintal, in actual practice the dead and fallen timber were sold at an estimated weight. In selling fuelwood, the needs of users are considered as the priority. Fuelwood is allocated to member households in turn. The committee also distributes fuel wood free of charge to households (mainly Harijans and Chamars) who cannot afford to buy.

Non member households also often come to claim fuelwood, and since the current rules do not allow this, disagreement often follows and in the past, fuelwood has been taken by force.

One such non-member, whose land was taken by the project for the construction of a check dam, considers that he should be allowed fuel wood even if he has not paid the membership dues. He holds that, since he has been using wood even before the first committee was formed, he does not see why he should not continue to obtain it.

Those who have paid their membership, however, feel that these payments are pointless if non-members are also eligible. However, even members feel that distribution is not fair and favours the most powerful. One member gave the example of an incident that had occurred only the previous week, when over 30 trees had been felled by a storm, one of them right outside his house. He watched the tree for the whole night with an intention of getting the wood. People gathered during the night hoping to obtain the trees and there was a violent argument as to who would get them. Some tried to take wood away by force and three people had been beaten up. When the committee members arrived, they proposed that they sell the trees next morning. But the committee sold the tree in front of the informant's house to someone else early the next morning for 160 rupees. Many people stole wood during the night before the committee could sell it the next morning.

Box 2.2 shows how the management of the FUG became politicised.

Box 2.2: Conflict within the Harpur Jain Amanigury Baksipur CFUG

In 1997 [2054], during the tenure of the second chairman of the CFUG, the then committee was granted permission by the District Forest Office FO to cut 180 dry sissoo trees.

However, allegedly 570 trees were actually felled. When several local residents reported this to the DFO, he dismissed their concerns. When the complainants sought to file a case against the chairman at the DFO's office, they were unable to register it, as a case had already been brought against them by the chairman for assault and the theft of Rs. 12,000. The complaintants went to the District Police Office to file a case there, but both the inspector and the Superintendent refused to accept it, allegedly because of pressure from the MP for the area [also a Minister of State]. Eventually, the complainant was able to press the police into registering the case, but within 15 days this was transferred. The complainant along with six others now found themselves warranted for 21 days [a warrant was issued for their arrest?]. Some went to Kathmandu where they lobbied the forest minister, and others fled to India. The Minister referred the case back to the DFO. After 21 days, the complainant and others returned and deposited Rs. 1,500 as bail, and the case continued in court for two further years.

The District Police Office judged that the chairman and other had been assaulted, but that no theft had taken place. The original complainants were fined Rs. 500 each for this. They appealed against this to the court of appeal in Butwal, which found them innocent. However, they remained dissatisfied with the outcome, as they wanted the Chief District Officer, who is responsible for the district police office, to be legally punished, and to be awarded compensation.

[The old committee has not handed over the accounts to the new one, on the pretext that they have lost the bank account number.]

The current VDC chairperson claims that the committee had not actually felled the 560 trees claimed, but only 50 –60 trees more than approved. Similarly, according to Mr. Bijay Kumar Kewat the committee did not fell 560 trees. It took 2-3 months to get the approval from the DFO to fell the trees, and by that time 20 to 25 more trees had died. So, these trees were also felled in addition to the approved number. According to one witness, while he was uncertain of the exact number of trees that were felled, hew as certain that there were more than 180.

The dispute had a party political dimension, the adversaries being members of Harpur's two main political parties: the NC and the NSP. It was alleged that original committee consisted only of Nepali Congress members, and that financial corruption ensued.

Since the dispute, the new chairman has reorganised the committee so as to include 1-3 members of each ward and involve members of all political parties (NC had 5, Sadvabhana 4, and RPP 2 members). While accounting and record keeping appears to have improved, disagreements remain over the distribution of forest products.

Private/ farm plantations

In addition to the canal-side community forest, there are also a few private forests in the area. Private plantations have increased as forests have disappeared from the southern part of the district, and transportation has improved, creating markets for both fuelwood and timber. These are being established along road-sides, around ponds, and on barren land.

The early local tree planters were motivated by the example of private forestry in India, from where they obtained technical skills and seedlings. Some planted on common land. Fruit trees, timber (sissoo and [lahari papal]), and bamboo. They prune in October each year, harvesting timber after ten years. Wood is sold within the village, or to the brick factory at Belaspur.

The white variety of sissoo tree has proved subject to infection. In order toreplace them, 2,500 seedlings provided by the forest office have been planted. Other problems include theft

of timber and damage to young trees by cattle. The DFO's approval, through the VDC, is required to trees on private land.

Appendix 4. *Site Report* -- Suryapura VDC, Rupandehi District

Located in the interior plains of western Rupandehi District Suryapura VDC has a total population of 17525 and covers an area of 29.9 km^2. As seen in the map below, the VDC borders Bishnupura and Ekalla VDCs to the west, Manmateria, Manpakadi, Dhamauli, Kamhariya and Dayanagar VDCs to the east, Gajedi and Mankapadi VDCs to the north and Ekalla, Khuda Baagar and Kamhariya VDCs to the south. Among Suryapura's nine wards, ward 2 in the north is the most populous comprising 24.2 % of the population. Wards 1 and 2 also cover almost 40 % of the total land area of the VDC.

Ethnicity

Compared to other sample points and even by general Terai standards, Suryapura has an extraordinarily diverse ethnic composition, especially in terms of the population of immigrants of Indian origin. The ward-wise residential patterns of some of the main population groups display very distinct clustering, as seen in table 1:

Table 1 Ward-wise residential patterns by ethnicity

Ward No	Ethnic group (Total no of HHs)	Brahman/Chettri (1855)	Magar (1639)	Damai/Kami (1229)	Tharu	Kumal (393)
Ward 1		33.0 %	35.2 %	48.5 %	32.9 %	73.3 %
Ward 2		33.4 %	57.2 %	27.9 %		26.7 %
Ward 3						
Ward 4		24.4 %			20.3 %	
Ward 5				19.1 %		
Ward 6					42.9 %	

Table 1 displays the settlement patterns of the key groups of hill migrants, namely Brahman/Chettris, the Magars and the artisan castes Damai/Kamis. Being natives of Gulmi, Arghakanchi, Pyuthan and Baglung districts, these hill migrants reside almost exclusively in wards 1,2 and 5. The two indigenous groups, on which separate data are available, the Tharus and Kumals (potters) are also distinctly clustered. The Kumal community is concentrated in wards 1 and 2 while the Tharus mainly reside in wards 1 and 6. People of Indian origin, in particular Kahar, Muslim, Mallaha, Barai, Murau, Gupta, Kurma and Harijan, are much more dispersed across the VDC. Notice, though, that among the most numerous groups of Indian origin, 39 % of the Kewats and 26 % of the Yadavs reside in ward no 5. Moreover, largest among all ethnic groups in Suryapura, the Lodhs (comprising 14 % of the total population), 48 % have settled in wards 1 and 2. The ward-wise distribution of land-holdings suggests that disparities are particularly severe in ward 5, where almost 32 % of the households are landless.

History of settlement

The history of land policy and agrarian relations in Nepal revolves around dramatic disparities in landownership. Despite of some land redistribution acts being passed in the 1960s (Ghimire 1992), effective land reform programs were not in operation before 1964 (op.cit). This land reform program introduced new caps on land holdings, the intention being to redistribute land among the poor and landless and allow previous tenants to purchase

surplus land from the government. The ceilings for landowners in the Terai were, however, set at 17 has which partly undermined the objectives of the reform. The first flow of migrants from Baglung and Pyuthan districts, altogether 37 households, settled in ward number 5 in 1965. At about the same time, agricultural labourers from Bihar migrated to Suryapura searching for employment. At this juncture, there was no formal resettlement scheme in place and the new migrants often encroached upon forest land.

The 1970 cadastral land survey divided land holdings into four types and introduced new land revenue rates, prompting land sales from former Haruwas to hill migrants. At the same time, other former Haruwas were awarded certificates of land ownership. The subsequent combination of the eradication of malaria in 1977 and the clearing of forested land prompted by the incumbent government's attempt to woo the electorate as a part of the 1979 election campaign, induced a steep increase in immigration from the hills with settlements concentrated in wards no 1,2 and 5. Whereas people arriving before 1970 have received land ownership certificates, the more recent arrivals have yet to have their claims for land titles formally approved. The resulting diversity in cultural backgrounds among residents in Suryapura has inspired cultural exchanges in food habits, clothing and language. The indigenous Terai people have reduced the system of child marriage and dowry. Other changes are being observed in marriage systems such as 'gauna' (engagement at an early age, long before the actual marriage). People of Terai origin have also been influenced by the hill people resulting in more awareness and interest in girls' education, health, sanitation and family planning. On the negative side, indigenous people have also emulated the drinking habits of the migrants. The hill migrants have emulated the hard working nature and the improved farming systems of the Terai people, especially vegetable and crop farming. They have also learnt Bhojpuri language. Terai and hill migrants that living together in a settlement exchange food, money and labour during deficiency period. Mutual help at marriage ceremony and festivals are also common. However, people of Terai origin tend to show solidarity, regardless of whether they are wrong or right, in any dispute between hill migrants and themselves.

Physical and social infrastructure

Suryapura has six primary schools which are located in wards 1, 2, 4, 5, 6 and 9. In addition, there are two private madrasas in wards 3 and 6 and two secondary schools in wards 2 and 3. While gender differentials in enrolment are modest at the primary level where 50.7 % of the pupils are boys, 75 % of secondary level students are male. The latter is caused, in part, by the low marital age of girls. Annual scholarships of Rs 250 have been introduced to stimulate schooling for children from poor and low-caste backgrounds, but there are too few scholarships to strongly impact on attendance. Suryapura has one sub-health post, established in ward 3 in 1994. The health post is staffed by one assistant health worker, one village health worker, one maternal and child health worker and one peon. The sub-health post has been operating a mobile clinic in wards 1, 5 and 9 the aims being to distribute contraceptives, iron capsules to pregnant women and provide antenatal check-ups and child immunisation (Diphtheria, BCG, Polio, and Measles) and so on. The VDC also has 3 trained traditional birth attendants and 33 health workers. The total literacy rate is 39.25 %.[79] Notice also that the female/male ratio is below one in all wards and 0.91 at the VDC-level.

Livelihoods and changes

A majority of the households in Suryapura are engaged in agricultural cultivation. The following table reports the ward wise percentage of households involved in (at least some) wage labour:

1	2	3	4	5	6	7	8	9
50.2 %	46.4%	33.2%	4.4%	41.5%	53.9%	48.4%	41.7%	12.2%

Wage differentials between men and women are reported to reflect differences in productivity, with no gender differentials in wage rates in tasks like harvesting and planting. Sharecropping is quite common among hill migrants and Terai-castes. It is also common to rent out land. Paddy and wheat are the principal food grains cultivated in Suryapura. Sugarcane is a common cash crop. Grains are sold in Bhairahawa, Butwal and Kathmandu. Vegetable farming, for which the VDC has earned a good reputation, is concentrated in wards two and five. Vegetables produced for "export" includes okra, pumpkins, bitter gird and tomato. Potato and onion, while cultivated in the VDC, are also imported. Local farmers prefer to travel to city markets to sell their produce directly rather than to rely on the services of middlemen. The adoption of vegetable cultivation has been gradual and by imitation and learning by doing rather than via agricultural extension services. Vegetable production is generally perceived to have improved living conditions in Suryapura. The rapid movement of the forest frontier and the substantial distance from Deurali CF to wards in the south have prompted development of private fruit plantations and substitution away from forest products harvested from common property. These fruit trees cover the fuel wood needs for households residing far from the community forests and provide a source of income through "export" sales of mango, banana, jackfruit and guava.

[79] There is problem in the ward-wise distribution of literacy reported in the table in the Suryapura-report – (i) it is difficult to read the number of male literates in ward 2 – (ii) the total male and female population of literates and illiterates in the same ward seem to make little sense.

Management of wetlands in Suryapura

The rivers Kanchan, Dano and Inguria intersect Suryapura VDC. Kanchan flows through wards 2, 3 and 5, Dano wards 1 to 4 with Inguria flowing through ward 1. The rivers provide water for irrigation, drinking water for livestock and opportunities to extract sand and stones for building material. Suryapura has altogether 16 public lakes/ponds ranging in size from 1 kathha to 12 bigha.[80] Tulsihawa Lake, the largest among these, covers an area of 12 bigha. These ponds and lakes have multiple uses. The larger lakes meet local irrigation needs and have been used for seasonal fishing by local communities. Since 1979, Suryapura VDC has contracted out rights to water-chestnut farming in Karmahawa lake. Farming of water-chestnut did not interfere with the fishing-interests of the local communities. With a view to increase local revenues, most of these public lakes and ponds have now been contracted out to individual entrepreneurs for fish-farming. The typical policy of the VDC is to auction out the right to the use of local water bodies, while showing little concern for the interests of and the effects of such a policy on local people and the feedback effects of deteriorating local government-citizen relations on this potential revenue.

A case study of Karmahawa and Tulsihawa Tal

Lake management for fish farming has become an important and contentious issue in Suryapura. The policy for lake management adopted by the VDC illustrate the potential gains from a sensible public policy, but also how such gains easily may be squandered by petty, local politics and neglect of attention to local government-citizen relations in policy implementation. The two lakes of interest, Karmahawa (6 *bigha*) and Tulsihawa (12 *bigha*) are located in ward 2 and have in the past been used for fishing, cattle feeding and irrigation by local communities residing in the immediate vicinity of the lakes.[81] It is important to emphasise that the traditional management regime, which perhaps most accurately may be described as semi-open access had failed to develop and utilise the productive potential of the two lakes. In general, a situation of open access reduces incentives to invest in a fishery because of the uncertainty associated with the distribution of the benefits from the investment becomes too high and free-riding on the efforts of others a constant temptation. Two types of questions now require clarification. Local communities may be in a particularly good position to control such free-riding and therefore enforce property rights. Such a right may be perceived or, alternatively, have a formal or legal foundation. Even in the absence of formal authority, a semi-effective enforcement appears to have been in place. However, and this is an important neglect in the literature on decentralisation and CPR-management, local communities, while controlling free-riding may provide quite inefficient management. In short, even if following cultural traditions, local fishermen may lack the skills and technical know-how to manage fish-farming efficiently.[82] If we call the informal local management regime an institution, the problem of managerial shortfall exemplifies what we have called institutional failure type 1 elsewhere. While a policy intervention to remedy the problem of semi-open access would typically focus on improving mechanisms for monitoring, institutional failure type 1 would either require policy mechanisms that allow locals to overcome credit-constraints and enhance their fishery-management skills, or to introduce an altogether different policy regime. The VDC in Suryapura has opted for the latter.

Using a system of open auctions, the VDC has contracted out the rights to fish farming in the two lakes for periods of 5 years. The current contract for fish farming in Tulsihawa lake (the

[80] The size range is thus from 0.0345 ha to 8.28 ha.
[81] The phrase "lake" is a bit of an exaggeration. Tulsihawa is essentially an irrigation tank.
[82] By way of illustration, although fishermen by profession, efforts by the Musahar community to farm fish in Rajahar revealed serious problems in approach to pond development and management.

third five-year contract awarded for that lake) was sold for Rs. 630.000 (paid in annual instalments over a–five-year period) generating a substantial revenue for the VDC.[83] This sum is probably beyond what local fishermen would be able to raise by pooling their resources and attempt to obtain credit through existing local channels. Notice that this is the first time Karmahawa has been contracted for fish farming. While contractors have used Karmahawa for farming of water chestnut in the past, chestnut farming has not jeopardised the fishing interests of the local community. This contracting system, which started in 1979 and ceased in 2001, allocated 60 % of the lake to chestnut farming.

The recent decision by the VDC to auction out Karmahawa Lake for fish farming for a contract of a minimum of Rs. 50.000 was announced to the public on 15 days notice. The notice was spread through public distribution, notices in government and VDC-buildings etc. The new contract has an explicit clause, entitling the local community to continue to use lake water for irrigation, cattle feeding and other domestic purposes. Till now, Karmahawa Tal has provided irrigation water for 250 HHS in the vicinity of the lake (Irrigated area: 150 *bigha*).

The people depending on Karmahawa for fisheries are typically members of indigenous and less well to do communities of the Terai, e.g. the Tharus as well as the Kumal and Musahar communities. The Musahars are traditionally fishermen and rank lowly on a number of well-being indicators; they are often poor and illiterate. The new contract disenfranchises these communities from their traditional use of the lake for fishing. The lack of a consultation or dialogue with representatives of these communities, on the part of the VDC, would appear to extremely short-sighted. However, such behaviour on the part of local authorities are not uncommon; the eagerness to generate local revenue without accounting for the effects of the adopted policy on the likelihood of compliance and broader local government-society relations can, however, prove costly also in the very short term. In fact the failure of the bidding for Karmahawa provides a compelling example to this effect.

Among potential bidders, it would now be perfectly reasonable to expect the willingness to pay for a contract to depend on the likelihood that the contract can, in fact, be credibly enforced. When people from disadvantaged communities are disenfranchised from access to a resource which matters for their livelihoods, the contract could become very hard to enforce. The prospects for effective enforcement are made even bleaker by the absence of a dialogue or offer of compensation from the VDC to the disenfranchised communities. Without strict policing and reasonable compensation, violations would therefore be expected to become rampant. A rational bidder (and the current contractor has intimate knowledge about these communities) would evaluate the likelihood of community compliance, and adjust his bid accordingly. His knowledge of VDC-politics would also lead him to anticipate a zero compensation from the VDC to the affected community, sustained difficulties with the local community, and an erosion of expected profits. The 5-year contract for Karmahawa Lake was sold for Rs 52.000, a price depriving the VDC of considerable revenue and the local community of compensation from the VDC. While the wide gap in contract prices for fishing rights in Karmahawa and Tulsihawa may partly be attributable to anomalies in the advertising of the auctions, also mirror the different risk profiles the two investments involve. The contractor who won the contracts for both lakes is knowledgeable about the sites. While the case of Tulsihawa demonstrates that a change in natural resource management policy may prompt a dramatic rise in VDC revenue and therefore, if wisely implemented, further development including improvements in the lives of poor people, unwise public policy can be very costly indeed. A possible win-win scenario for Karmahawa Tal could involve a rational

[83] The fact that the current contract is the third in a row implies that locals have had time to adjust to changes in their fishing rights in Tulsihawa, which, over time, may have reduced the potential tensions caused by the auctions. That the system remains contentious can be illustrated by an episode of poisoning of the lake 3 years ago which prompted the contractor to submit a police complaint. The police investigation failed to identify the culprit (s) and the contractor himself is uncertain about whether members of the local community or a competitive contractor were responsible.

utilisation of the contractor's superior knowledge about fish farming and his access to financial resources. The productivity gain could then increase the revenue to the VDC and through compensatory transfers make the disenfranchised local community better off, and reduce the risks facing the contractor.

VDC-representatives allege that local politics are to blame for these problems, while the communities claim that development expenditures are biased against wards 1 and 2 since these are UML-strongholds. The narrative from the field may be summarised as (i) there is likely to be a considerable increase in fish production in the two lakes, (ii) and that additional and potentially considerable increases in VDC-revenues may be generated through credible dialogues and compensation offers to affected local communities. However, at the moment the additional revenue remains far below the potential due to a failure on the part of the VDC to resolve local conflicts of interest. If the claim that wards 1 and 2 are discriminated in development expenditures (as reported by the chairperson and other respondents of ward 1) the introduction of auctions provides a mechanism for the VDC to conduct pure transfers from north to south. The communities also feel that the VDC has misinformed them and that if they were aware of the auction process they would have put in a bid for Karmahawa themselves.

Forests at the VDC level

Suryapura VDC has two handed-over community forests, namely Deurali CF and Ychawal-Thakurpur CF. The users of Deurali are residents of wards 1 and 2 in Suryapura and wards 2, 7, and 8 of Gajedi VDC. The users of Aichawal Thakurpur CF are from ward 5 of Suryapura where the CF is also located. Aichawal consists of 6 has of natural sal forest and 48 has is a sissoo plantation. The latter has been managed as a protection forest since 1991. The following discussion focuses on Deurali CF.

Deurali CFUG

Description and state of the resource

Deurali CF covers 67.12 hectares of land and transects north-western Suryapura and the north-eastern part of Gajedi VDC (see map below). The forest consists of Sal (Shorea robusta), Saj (Terminalia alata), Sattisal (melia azaderach), Bijai Sal (Duchi) and other varieties. The forest is currently dense (1-1.5 meters between each tree) and the age of trees around 8-9 years (height variation in the range 6-10 meters). The forest condition is good and even throughout. The total volume of the forest is estimated to 7824 m^3 and the gross value about Rs 78.3 million.[84] The height and diameters are guesstimates based on observations from the field.

Protection and FUG-formation

Over a relatively short period of time, forested (jungle) areas in northern Suryapura disappeared. The area currently covered by Deurali CF was deforested and turned into a barren area between 1979 and 1989. An incumbent government in pursuit of election victory, actions by community members and timber smugglers must share the responsibility for this

[84] The number of standing trees was obtained from the Operational Plan. The volume table published by Ministry of Forests and soil Conservation, Forest Survey and Statistics Division, Publication 48 entitled "Volume tables for forest trees of Nepal" by E.R. Sharma and T. Pukkala was used to calculate the volume of the standing trees. The area of the CF was extracted from the OP whereas the price of the timber was calculated from the royalty rate set in the Forest By-laws 1995.

rapid deterioration. *Sukumbasis* from the hill subsequently encroached on the increasingly deforested area. Following an initiative from the DFO and local people, the *sukumbasis* were transferred to the surrounding area, the leftover forest fenced by the DFO and named Deurali forest. Two forest guards were then employed by the DFO to patrol the forest.

This initiative to protect the forest was not free of local tensions and previous leaders of the Panchayat system, who had gained disproportionately from the degradation of the forest, strongly opposed this move. One of these leaders, Mr. A encroached on the protected forest and built a new private house. The protection committee, now responsible for looking after the forest, responded by destroying the house. Mr. A and his accomplices sought to build political alliances to undermine the protection initiative, instigating the poor and landless to destroy the wire-fencing and colluding with the forest guards, who later were caught cutting trees illegally. The discovery of these misdeeds culminated in the imprisonment of one forest guard and imprisonment of the other.

In 1993, Mr. B, Mr. C and Mr. D of Gajedi VDC initiated regular forest patrols. These patrols were not without risks and hostile and threatening behaviour encountered. Following a confrontation between a woman of Gajedi and a forest encroacher, a women's group from Gajedi decided to request a formal handover of the forest to the local community. The women had learnt about the system of community forestry from radio broadcasts and similar initiatives in nearby CFs. The next day the women held a meeting, and decided to go to Baasghari rangepost to ask the government to either implement a more effective system of forest production or to hand over the responsibility for the forest to them. Under the guidance and assistance of the forest authorities, the FUG was formed and the Constitution prepared with Mr. B as the first Chairman. The user group was formally registered in 1994 and the forest formally handed over in 1995.

The initial identification of users centred around criteria for proximity to the forest, long-standing use of the forest, involvement in management and protection of the forest, and dependence on forest products. The residents of Gajedi were uncertain about how to deal with the transecting nature of the forest and whether to ask for a division of the forest along VDC boundaries, or to invite people of neighbouring Suryapura to join as users. The people of Suryapura opted for the second solution and joined the newly formed group. The following table provides a summary of and comparison of the actual process of FUG formation for Deurali CF with the formal guidelines for establishment of FUGs.

Table 2 FUG formation process in principle and practice

Provisions according to CF guidelines	Actual practice
Discussion with local community on CF ▪ Discussion with local leaders about CF policy and possibilities of CF development, ▪ Discussion on the roles of the users and assessment of their needs, ▪ Collection of socioeconomic information ▪ Identification of forest area to be handed over as CF ▪ Participatory resource sketch mapping ▪ Prioritising communities needs and identification of external support, ▪ Discussion with members of community about agro forestry and its potential.	1. The DFO fenced the forest area in 1991-92 in support of local people and to curtail heavy clear felling and uncontrolled encroachment. Users in Gajedi VDC were supportive of this initiative. 2. The DFO appointed two local people as forest watchers for 2 years at salary Rs. 1000/month. 3. The protection through watchers was ineffective and deforestation and encroachment continued. Local users began to patrol the forest from 1996 following an initiative from the founder chairperson Mr. B. Ms E. played an important role in protecting the forest by organising a woman's group. The women's group asked the Range Post to hand over the forest to them. 4. The range post played a constructive role and provided technical support to the group in preparing the constitution. 5. The users' identification process took almost one month. 3-4 tole meetings were held for this. The people were using the forest ever since their settlement and were ready to participate in protection. 6. Initially, only residents of Gajedi 2, 7, and 8 received membership. The households of Suryapura 1 and 2 were also using the forest and joined the group after being asked to agree to either partitioning the forest or joining the newly formed group. 7. The operational plan was prepared following a similar process as constitution preparation after the group was registered. Preparation of OP took longer than the constitution due to more technical process in survey, mapping and inventory requirements. 8. The forest was handed over to the group in 1998 (10).
Identification of users and forest to be handed over ▪ Discussion on the use of forest and preparing tentative name list of users ▪ Confirmation of users through discussions and by walking around the forest/ settlement (Finalisation of users only by the assembly,	
Discussion on forest management system ▪ Existing system ▪ Other possible systems The system should include boundary, users, rules and regulations, protection and contribution of the users, decision-making process, committee etc. ▪ Identification of problems in the existing system (if any) and discussion for resolving such problems	
Identification of interest groups and discussions identifying their interests and needs ▪ Identify users of the same interests' viz. Grazers, fire wood sellers, charcoal makers, fodder collectors etc. ▪ Conduct small group meetings of these interest groups (discussion should include their needs, management rules and informing them of government policies, rules and regulations). Empower these users to use their rights ▪ Hold discussions with users of all categories and identify differences if any among or between different groups ▪ Discussion on the draft constitution	

Provisions according to CF guidelines	Actual practice
Assessment of the proposed CF ▪ Identification of forest boundary ▪ Preparation of sketch map by walking into the forest with the representatives of users (the sketch map should include forest condition, density, regeneration, species and area for plantation etc. Prescription of management options (as per the capacity of the forests and the needs of the users)	
Formation of FUG ▪ Discuss and get the draft constitution finalized from the users assembly	
Registration of the constitution ▪ Prepare the final draft by incorporating the decisions of the assembly ▪ Type and submit constitution to the DFO ▪ Get the document signed by DFO and chairperson of the committee Registered the group with DFO and obtain registration certificate	
Preparation of operational plan ▪ Forest survey (Resource inventory, block division) ▪ Formulation of draft operational plan (based on the information received during forest inventory**)** at tole levels Finalisation of operational plan from the assembly	
Forest hand over ▪ Submit operational plan to the DFO ▪ Final confirmation by the DFO on the OP ▪ Registration of OP and hand over certificate to the group	

While there are substantial discrepancies between the official guidelines and the actual process, it is evident that the users were involved in the preparation of constitution and operational plan. Although the extension process did not reach as far as down to the household level, tole level meetings were widely consulted in the preparation of the documents and for the identification of users.

Deurali FUG has 1221 user households of which 400 belong to wards 2,7 and 8 in Gajedi VDC. 821 of the altogether 1180 households in wards 1 and 2 in northern Suryapura have taken membership in the group. Membership thus largely reflects settlement patterns in the VDC where Terai castes occupy the south and hill migrants the north. This does not provide evidence of exclusion along ethnic lines, since the distance from southern Suryapura to Deurali CF is considerable and private plantations in southern wards have mushroomed as a response to this distance. There is, however, an interesting north-south divide in party-political allegiances which as a result is correlated with origins. As noted, being a UML-stronghold, residents in the northern part of the VDC claim that VDC-priorities in development expenditure have been systematically biased in favour of the south, where party-political loyalties favour the Nepali Congress and NSP. It is claimed that the Committee in Deurali has sought to neutralise the imbalances created by local politics and build bridges across local political divides.

Further issues

The Committee has two female representatives, members from all castes and was founded on a community consensus. The two VDCs, Gajedi and Suryapura, have balanced representations in the Committee. The current activities of the user group are varied and

could, in principle, support a diversity of interests. The group has established a nursery, is engaged in planting of fruit and bamboo trees, and farms medicinal plants under the guidance of and with technical assistance from the Ilaka Forest Office.

The simple observation that Deurali is a regeneration forest could mean that conflicts of interests between representatives of the forest authorities and local communities are less intense.[85] A widely held view is that representatives of the forest authorities have played a constructive and supportive role prior to and after the establishment of the user group. The relationship both to the DFO and the rangeposts is therefore generally perceived as constructive and helpful. The representative composition of the Committee, the high levels of participation in meetings (about 90 %) and the claim that the Committee attempts to build bridges across local political divides would appear to indicate that Deurali is a harmonious FUG. What are the factors responsible for this outcome? A possibly decisive determinant of the successful collaboration across VDC-boundaries is the predominance of hill migrants on both sides of the forest. While ethnically heterogeneous, a broad commonality of origins may be important in practice and contribute to explain the absence of boundary disputes between Gajedi and Suryapura over Deurali CF. Another interesting point relates to the political UML-allegiance in northern Suryapura. The resulting shortage of VDC-funds, motivated by political patronage on the part of the VDC has inspired collective action around crucial development activities such as road construction. Whether this is due to a generally stronger social cohesion in hill-migrant communities or a response prompted by the aforementioned VDC-neglect cannot easily be established. It could, however, be an example of spillover-effects in cooperative ventures at the community level (Seabright 1997).

The FUG has introduced a so-called principle of "equity in benefit distribution". The forest is young in age and only firewood, leaves and grasses from grassland are currently available for extraction. Fuelwood collection is restricted to once every year when silvicultural operations like pruning, thinning etc are carried out. The Committee collects Rs 30 from interested parties and allocates forest patches on an equitable basis to households indicating an interest. For thatch collection, users have to pay Rs. 50/hh and for leave collection, there's an entry fee of Rs 2. In addition, members have to pay an annual renewal fee of Rs 10. Most households come and collect fuelwood, while thatch collectors are fewer in numbers. Musahar and Tharu women collect leaves to make leafplates for sales in the local market. Since last year, the fee for new members has risen from Rs. 301 to Rs 400, a considerable amount of money for a poor household.

A final observation feeding directly into the discourse on community forestry in the Terai concerns the relative harmony in Deurali. Evidence from other field sites, notably the high value forest sites in Rajahar, suggest that user groups suffer from serious internal disruptions and intense rivalries. A pertinent question, therefore, concerns the trajectory of Deurali as the value of the forest gradually increases. Will the group have developed an institutional climate sufficiently robust to cater for the intensification of rivalry an appreciation of the value of the forest otherwise might induce? Critics of the forest authorities in the Terai often argue that a hand-over of degraded lands remains an inadequate forest management policy. While this may well be true, it is also possible that outlooks in terms of conflict avoidance is greatly improved by an institution starting from scratch and at relatively low resource values. This would provide for an initiation phase with scope for institutional development where conflicts, if any, typically would be expected to be low-intensity and more conducive to broader participatory objectives. While the user groups in Rajahar are male-dominated, women are more involved in the day to day affairs in Deurali. A possible explanation is the low intensity of gendered conflicts of interest in the start-up phase of a

[85] It is distinctly possible that selection mechanisms lead to biases in the characteristics of the representatives of forest authorities across different sites. Postings with a high potential for money laundering attract certain candidates more than others, which over time might lead to a concentration of CF-protagonists in other sites, Suryapura included.

forest regeneration project. Once a pattern of broader participation has been established, it may also be more difficult to overrule or simply set aside.

Other aspects of institutional management

Record keeping and accounts

The FUG maintains the following files and registers:

***Minute register**:* The register contains minutes of meetings, kept in satisfactory form.

Income and expenditure register: The register contains two different headings for income and expenditure, which are kept separately and divided into subheadings. Accounting system is kept in a simpler form rather than following double accounting system.

Audit: Auditing is done at the end of fiscal year and the users are informed about the account in the general assembly.

Others: Others include incoming letters, copies of outgoing letters, audit reports, payment bills, and income receipts.

Not all these records are kept in a systematic order as they are kept inside the register and not in separate files.

Resource management activities- products and distribution process

Table 3 provides an overview of the forest management activities and rules governing the distribution of forest products in Deurali.

Table 3 Management rules as per the constitution/ operational plan and actual practice

1. Method of forest protection: ▪ By appointing forest watcher ▪ Fencing as per need ▪ Control of grazing ▪ By constructing forest path and fire line ▪ Timely inspection by committee in group ▪ By charging fine and penalty ▪ By providing incentives to the informer, abut the offender. ▪ By operating other advantageous activities in the CF. **2. Forest promotion activities:** Bakullaghat Clearing of the climbers and low quality wood. Nursery establishment having the capability for 5000 seedlings, bamboo plantation Thinning, pruning, cleaning, production of 5000 seedling Thinning, pruning, cleaning, production of 5000 seedlings Beldanda Thinning, pruning, cleaning ----- ----- ----- DeuraliDanda ----- Thinning, pruning, cleaning ------	Protection: **The FUG has employed two forest watchers to protect the forest from illegal activities from users and outsiders. Besides, committee members keep their eyes open and supervise watchers** Benefit sharing and distribution • The group has adopted a principle of equality in benefit sharing. The forest is young in age so only firewood, leaves and grasses from grassland can be collected. The collection/extraction is done only once a year during Magh while applying silvicultural operations like thinning, pruning to get the good vigour of the tree in order to get quality timber. Only one hour is allocated for users to cut down trees. • All users from the two VDCs are informed 15 days prior to the collection day by giving notice through message runners, committee members and ward chairpersons. They have to pay Rs 30/hh to get a receipt. Only members with ID cards are allowed to enter the forest. This is done to control unauthorised entry at the time of forest product collection and to identify real users. The committee collects receipts and divides forest

------ Dhusuwa Thinning, pruning, cleaning ----- ------- Plantation 3. **Income generating activities:** Plantation of fruit in block no. 4 in 1998/99. Plantation of bamboo in block no. 1 and farming of aromatic/medicinal plants in block no. 3 in 1999/2000. 4. The users group shall not take any of the following activities in the community forest. These are prohibited activities according to the work plan: - ▪ To destroy the forest or mortgage or otherwise transfer the ownership of the land covered by the community forest. ▪ To clear forest areas for agricultural purpose ▪ To build huts and houses ▪ To take any action which may cause soil erosion ▪ To capture or kill wildlife in violation of prevailing laws ▪ To extract or transport rocks, soil, boulders, pebbles, sand etc. ▪ To carry out the activities which may create conflagration ▪ Any other activities prohibited by the committee. 5. Other restricted activities in the CF: ➢ To enter cattle in restricted areas ➢ To collect forest product without the permission of the committee and slashing, loping, damaging of the bark, branches, seedling, saplings, boundary mark etc. 6. Any of these offences will be punished as prescribed by constitution and the OP.	patches on equal basis to all users with receipts. For thatch collection, the users should pay Rs 50/hh whereas leaves can be collected anytime by paying Rs 2/entry/person. • The committee has introduced a rule that members should renew their cards every year by paying Rs 10. If not renewed for 3 years, membership will expire and s/he should pay Rs 400 to reopen the membership. To avoid this problem the committee renews the cards at the time of collecting fee for forest products. Most of the users come to collect firewood whereas thatch collectors are fewer in number since most people have tile roofing. Musahars and Tharu women collect leaves to make leaf plates and sell in the local market. **Silviculture Operation/ Forest Promotion** ▪ To avoid conflict during cutting and to maintain the condition of the forest, the committee has adopted a rule of painting trees that should not be felled. This is done mainly to avoid cutting good quality trees. After collecting the receipts, the committee divides the forest patches equally to all users and then selects unwanted trees, which are not painted with lime. This has made things easier for the users while felling trees. To begin with, technical advice from the rangers to ensure adequate spacing and better forest growth.

The forest user group is protecting the forest from illegal cutting by appointing watchers and by controlling grazing. However, the group has not constructed a fire line for the protection by fire. The user group has done thinning, pruning and clearing to some extent. However, the forest is rather dense and the silvicultural operation does not look like adequately done.

Table 4 Account keeping and transparency

Provision	Practices
• The bank account will be operated by the chairperson and treasurer/secretary. • Income is deposit in the bank within 5 days. • Internal audit is carried out on a regular basis. • Annual audit is done by a registered auditor. • Audit report will be submitted to the DFO within the first week of the FY. • Rs. 2000/ is put aside for the chairperson to cover contingencies.	**Income and expenditure register:** The register contains two different headings for income and expenditure, which are kept separately and divided into subheadings. The accounting system is simple and does not follow a double accounting system. Secretary maintains this register. Auditing is done towards the end of the fiscal year and users are informed about the income and expenditure at the general assembly. Not all the records have been maintained separately as per the heads. The secretary is responsible person for record keeping including the account. The account is held in the National Commercial Bank, Bhairahawa.

Income and expenditure – the broad picture

The annual income, expenditure and the balance of the group are Rs. 63,000/- (app Rs 36,000/- (app.) and Rs. 27,000/- respectively. The main income source, thatch selling accounts for 39.7% of total income. The main expenditures relate to the salaries of the two watchers, accounting for 86.7% of total expenditure. The group has not allocated any budget for poverty-focussed activities.

Patterns of conflict and committee turn over-

The user group has had two committees since its formation. The current committee was elected after the expiry of the tenure of the first, as spelt out in the constitution. The leadership in key posts has remained the same since the formation of the user group.

Features of Constitution

1. Preamble	*8. Function, right and duties of the user group*	15. Fine and penalties to those users who work against the OP
2. Definition	*9. User committee formation process*	16. Procedure to fine the users who work against the OP
3. Objectives of the user group	*10.. Name list of the user committee*	17. Fund mobilization
4. Stamp	*11. Function, right and duties of the committee members:*	18. Auditing

	– *Chairman* – *Vice chairman* – *Secretary* – *Vice – secretary* – *Treasurer* – *Other members*	
5. Name list of the members	*12. Procedure of the user committee*	19.Miscellaneous
6. Number of users household	*13. Quorum*	
7. Approximate number of users	14. Methods to control forest offences	

Forest depletion and adaptive strategies

Following the depletion of local forests, accelerating after 1979, residents in southern wards switched to dung cake as an energy replacement for fuel wood while bamboo was used as a substitute for timber. There is a local preference for cow dung since the ashes can be used in agriculture crops as a source of potassium. Moreover, the food is tastier than when cooked on firewood. The practice of using bamboo and dung cake for roofing, partition and fuel is also an adaptation to the decline in the access to forest products. This use of dung cake is argued to have led to a decrease in land productivity. Hill migrants, in contrast, typically use firewood as energy source for cooking purposes. Some Terai castes with fruit gardens and access to private plantation forest can also access fuelwood quite readily, while others purchase from fuelwood sellers.[86] Whenever flooding occurs, fuelwood is also collected from the river.

Some hill migrants' communities use husk stoves, again as a response to emerging scarcity of firewood. Only a small amount of firewood is then required. Medium class hill migrants are constructing 2-3 biogas plants. Most of the people are unaware of the biogas system despite of their involvement in livestock/farming production systems. One explanation could be the high initial construction cost. Better off households, mainly the community of Suryapura-3, i.e. the market area, use LPG gas, while use of kerosene stoves also occurs.

Indigenous Terai Castes like Tharu, and Musahar collect mainly sal leaves from the forest for sale in the local market. Women from various age groups i.e. children (7-8 yrs) to adult (50-60 yrs) collect 2-3 piles of leaves/day from the forest. One pile contains 100 pieces of leaf plates, valued at Rs 25. The collection of 2-3 piles of leaf plates takes the full day, from early morning to sunset. In Deurali CF they have to pay Rs 5/entry/person with the collected leaves turned into leaf plates at home. It takes 2 days to prepare one pile of leaf plates, a leisure time activity. The women sell the leaf plates in a nearby local market. The plates are in high demand during marriage and festival seasons. The income is used for fulfilling small household needs like spices, salts, kerosene etc.

Suryapura has three sawmills and one furniture industry established between six and seven years ago. In the recent past, the VDC had enough forest and timber could be collected free of cost and/or illegally. The high human pressure degraded the forest and timber scarcity gradually intensifying. After the installation of electricity in 1996/97, the sawmills were established. The sawmill owners procure timber from private individuals, the forest office and supply locally as timber or furniture. Mostly sissoo, mango, jackfruit, babul are bought

[86] Notice, also, that some households continue to have timber and fuelwood reserves dating back to 1989.

from private forests while sal is purchased from the forest office at Rs 400 to 450/cft. Other spps cost Rs 200 to 250/cft as determined by negotiation between seller and buyer.

Private Forests:

Private forests are found in all wards of the VDC's especially among the Terai community who generally have larger land holdings than the migrants. More private forests were established after the deforestation of the natural forest (1979-1989) as there were few alternatives to dung cakes for meeting basic fuelwood needs. Sissoo, Khair, Teak, Badahar, Bakaino, Neem etc are the preferred species.

Livelihood and environmental outcomes - case study evidence

Ms B is not a member of the FUG; however, her grand daughter collects dry, fallen small branches from the CF which covers annual family needs. She is pessimistic about the prospects for developing a system that will work to relief the poor. This is among the reasons why she has not taken membership in the FUG. According to her, the forest was almost naked before, but substantial improvements have occurred after the hand over to the community.

Altogether 5/6 households have pottery as traditional and main occupations. Pottery making for sale in local markets is primarily a male activity, as women look after the households, children and fetch dung. These Kumal households own small land plots (2 to 4 kattha) which cover 2-3 months of household food requirements in a year. Pottery is therefore necessary to complement agricultural production. Before the forest handover, the potters used to bring fuel wood from the near forest to dry up the pots. Their income was higher than now and demand for their products also comparatively high. Now they use dung cake to dry up the pots as the forest area has been degraded and the remaining forest area is managed mainly for protection. They also use firewood swept away by river flooding, or buy firewood from sawmills at Rs 300/quintal. An important recent trend is that portable and more durable steel and plastic utensils have replaced clay pots. This has reduced the income of the pottery makers. 10 years ago they didn't have to buy fuel wood to dry up the pots and sales were also high enough to finance land purchases of up to 10 k. Nowadays with a slump in the market they depend on alternative works like wage labour to run their households. Due to the decreasing rate of income from this occupation, some of them think of not encouraging their sons into this occupation

From ancient times Musahars have been fishing in lakes, river/streams and water gholas and used for household consumption. After 1979 the VDC contracted out the nearby Tulsihawa to the contractor for fish farming, and the contractor prohibited fishing in the lake. Karmahawa Lake has been provided to the contractor by the VDC office since 2001. The Musahar and other communities opposed this move by the VDC." We did not utter a word when the VDC contracted out Tulsihawa Lake; if Karmahawa is also given to the contractor where shall we go for fishing? This lake should therefore not be given to the contractor, according to representatives of the Musahar community. Moreover, they added, "we are unable to purchase fish and meat to eat; we depend on the lake for fish. VDC has done injustice to us, who will listen to what we have to say?" In the past Musahars used to collect fuel wood from the forest. There was a dense forest near the settlement before 1979. After deforestation started, the forests near their settlement disappeared. Nowadays they use dung cakes for fuel and collect wood from the Dano River during the rainy season. The branches of mango, jackfruit, sissoo that are planted in their private field are also used as fuel wood.
Suryapura site report

Conclusion

Suryapura VDC was included in the purposive sample primarily to shed light on potential contrasts in the experiences with decentralised management of wetlands and forests. The case study of Karmahawa and Tulsihawa tal provide a compelling example of how the VDC essentially has confiscated and auctioned out the rights to fish farming where in the past vulnerable members of local communities depended on the lakes for basic livelihood needs. This could, if a more careful approach had been adopted by the VDC, provided a win-win scenario where both local communities and a VDC hungry for alternative revenue sources would stand to gain. Instead the price received for the fish farming rights was pressed far below its potential by the uncertainty associated with community compliance, an uncertainty that could effectively have been dissolved by the VDC more sensitively addressing local interests. A detailed narrative and analysis of these events is provided in this site report as well as in Chapter Seven in the main report. The study of Suryapura VDC has also shed useful light on the adaptation to the decline in forest cover in the 1980s and the strategies adopted by various household categories in the southern and northern part of the VDC. Other valuable insights emanate from the study of the formation and day to day operation of Deurali FUG. Compared to other user groups, Deurali is comparatively harmonious and also provides an interesting example of households from two VDC successfully managing a forest that transects VDC-boundaries. Moreover, unlike most formation processes recorded, a group of women played a pivotal role in the formation of the user group.

Appendix 5. *Site report* -- Rajahar VDC, Nawalparasi District.

Located in Eastern Nawalparasi District in the west Central Terai, Rajahar VDC has a total population of 10,250 and covers an area of 35.7 sq. kms. The VDC has nine wards of which three (7-9) are located north of the East-West Highway with the remaining six in the Bufferzone of the Royal Chitwan National Park (see map below). 57.7 % of the population reside in this buffer zone, while the major land area, consisting mainly of forests, is located to the north of the highway. As can also be seen from the map, Rajahar borders Dibyapuri, Dewachuli and Bulintar VDCs to the west, Dadajhari and Kothar VDCs to the north and Ratanpu and Amarapuri VDCs to the east.

Ethnicity

Like other VDCs in the central Terai, Rajahar has a complex recent settlement history. The population is a mixture of indigenous groups (Tharus), migrants from adjacent hill districts and other migrants of Indian origin. Table 1 provides a distribution of the population by ward and ethnicity/caste.

Table 1 Population structure

Ward No.	Male	Female	Total	Caste / Ethnicity by ratio
1.	1065	1060	2125	1.Chhetri / Brahman 2.Damai / Kami
2.	316	314	630	1.Tharu 2. Chhetri / Brahman
3.	406	482	888	1.Brahman / Chhetri 2. Tharu
4.	401	318	719	1.Tamang / Gurung 2.Tharu
5.	389	406	795	1.Tharu 2. Brahman / Chhetri
6.	393	361	754	1. Brahman / Chhetri
7.	787	707	1494	1.Brahman / Chhetri
8.	847	858	1705	1.Tamang 2.Magar / Gurung 3.Brahman / Chhetri
9.	546	594	1140	1.Magar / Gurung
Total	5151	5100	10250	

History of settlement

The recent history of settlement in Rajahar involves numerous waves of in-migration. At the district level, the population of Nawalparasi grew by the unprecedented rate of 6.9 % per year in the period 1971-1986 (Ghimire 1992). Combined with increasing hardship in the hills, the proximate eradication of malaria, new roads and infrastructure and the promise of agricultural

land were key pull factors attracting new settlers to Nawalparasi and other districts of the Central Terai. The end product in Rajahar, as elsewhere in the Terai, are rural communities that are ethnic conglomerates. Indigenous Tharus have been settled in Rajahar at least since 1921 when fertile forestland near the Narayani riverbank was cleared for settlement. The Nepal Resettlement Company (NRC), was set up by the government in 1965 to accommodate new arrivals to the Terai. Mainly *sukumbasis* from Central Hill Districts, early arrivals were preferentially treated in Rajahar and elsewhere. The first main wave of migrants settled in wards 1,3,5,6,7 and 8 received between 1 and 8 bigha of land. Ghimire (1992) notes that whereas settlers arriving before 1970 typically received 2.7 ha of land, later arrivals were given less. Over the next few years and particularly in 1972-73, migration from the hills intensified. This particular wave were natives of Syanja, Palpa, Tanahau, Lamjung and Parbat Districts and mainly from poor backgrounds. Each of these migrant households received between 1.5 and 4 bigha of land. Persistent rumours of programmes of land distribution retained the pressure from people from the surrounding hills and the last major wave of hill migrants arrived in Rajahar in 1984/85, settling in wards 4 and 6. As elsewhere in Nawaparasi, the inflow of migrants created its own problems with the struggle for land titles and resulting encroachment of forests. The issue of land titles has not yet been fully resolved. While Ghimire (1992) estimates that the number of illegal settlers in Rajahar in the late 1980s was around 205 households, agricultural cultivation and construction of houses for residence on public land remains common in pockets of Rajahar. Despite of a long settlement history, the residents of ward no. 6, Dibyapuri, adjacent to Dhuseri and Amar CFs have yet to receive land titles. As in other case study areas, the geography of caste and community in Rajahar is quite striking. Reflecting preferences for a fisheries-based livelihood, the Musahar/Bote community is settled in ward no. 3 on the Narayani riverbank, bordering Sishuwar Community Forest and the Royal Chitwan National Park. The two settlements of the indigenous Tharu community are also located in the southern part of the VDC – one close to the Narayani river, the other a small resettlement colony consisting of flood victims.

Livelihoods

Rajahar covers temperate and tropical weather zones with the forests in the north stretching from the Churia hills to the Mahabarata range. The altitude of the plains varies from 500 to 1000 ft while villages in the hills are located at altitudes of up to 5,000 ft. The political geographical division of 1981 defined the current borders of the VDC determined by Jharahi River in the east, Mukunde River in the west, the Mahabharata range in the north and the Narayani River in the south. While total cultivated land covers 2,675 bigha of land, the forests and rivers cover about 2,500 bigha. The rivers support irrigation and thereby food and cash crop cultivation in the lowlands. The Jharahi River is permanent and farmers in the eastern part of the VDC produce food and cash crops such as paddy in the summer and wheat, mustard and vegetables in the winter. With the exception of ward 9, the Jharahi rives provides irrigation water to all wards in Rajahar. The Mukunde River, which is seasonal, irrigates cultivated land in wards 7 and 2. The Mukunde river irrigates 90% of the cultivated area of Dibyapuri VDC during the summer and 10% during the winter.

Table 2 Agriculture and cultivated land

S.N.	Crops	Percentage of land
1.	Cultivated land for paddy, wheat production	60%
2.	Terraced land for maize, mustard production	20%
3.	Forest area (Sissoo , Sal)	15%
4.	Land deserted by the river	5%
	Total	100%

Apart from abundant forests, the VDC is richly endowed with grazing and barren lands. Livestock is grazed regularly on barren and grazing land near the settlements, riverbanks and inside the forests. Around 40 % of the people in the VDC keep livestock, and among these 75 % graze their livestock while the remaining 25 % stall-feed. While people in the plains typically keep buffaloes and cows, goat keeping predominates in the hills.

Forest Resources

Rajahar is a particularly complex site because of the asymmetric rights to forest resources enjoyed by residents in and outside the bufferzone of the Royal Chitwan National Park, the history of settlement and the co-existence of no fewer than 8 Forestry User Groups. 5 CFs are located in the buffer zone, while the three high value forests, Dhuseri CF, Chautari CF and Bartandi CF are located north of the East-West Highway (see map). The latter forests consist of high quality Sal, Satisal, Sissoo, Khayar, Saj and other mixed hardwood species of considerable economic value, as indicated in table 3 below. A total of 596 hectares been handed over to these three groups. The density of Sal (Shorea robusta) varies across the three forests, with volumes per hectare in the three FUGs estimated at 521 m^3 in Dhuseri (97 % sal) and 370 and 292 m^3 per hectare in Bartandi and Chautari, respectively. Notice that a large chunk of forest is also under the protection of two protection committees in ward no 9 of Rajahar (see map). In contrast, the area of forestland in the bufferzone is modest, amounting to a mere 71.8 hectares. These areas currently comprise 5 BZCFs with a total of 775 households registered as members. So far only 2 BZCF have been formally handed over. The main species in the bufferzone forests are Sissoo (plantation), Khayar and shrubs, thatches and some natural growths.

Table 3 Summary information FUGs in Rajahar VDC

FUG	Membership (no of households)	Forest area	Dominant **Species**	Gross forest value/ **member hh**
Dhuseri	613	205.0	Shorea robusta, Lagerstromia Parviflora	Rs 1.43 million
Chautari	665	355.0	Shorea robusta, Terminalia alata	Rs 1.63 million
Bartandi	101	46.3	Shorea robusta, eucalyptus	Rs 1.5 million[87]
Jharahi	241	30.0	Delbergia sissoo	Rs 132.928
Kalika	207	22.5	Shorea robusta, Delbergia sissoo	Rs 356.481
Sishuwar	135	24.3	Delbergia sissoo, pole	Rs 108.163
Bhu Samrakshan	150	14.0	Delbergia sissoo	Rs. 11.818
Gaura	41	3.5	Delbergia sissoo	Rs 4.130

While the literature on community forestry has been much concerned with the impacts of socio-economic and various forms of ethnic hetereogeneity on the prospects for successful community-based management of common pool resources, little attention has been paid to the impacts of high in- or out-migration on these prospects (Baland and Platteau 1996). Likewise, much attention has been paid to how particular characteristics of the resource influence the odds for successful collective action (e.g. Ostrom 1990; Wade 1988). A striking and interesting feature of Rajahar as a study site is the provision of a rare opportunity to take a closer look at the multidimensional and, we shall argue, unique challenges decentralised management of high value forests raises. The estimates of gross values of the forest stock per member household, reported in table 3, demonstrate the stark contrasts within and across our study sites. While the estimated value in Chautari is Rs 1.63 million per user household, the corresponding value for Bhu Samrakshan is Rs. 11,818. Similarly, the gross value of forest resources in Srijana FUG in Devadaha is Rs 24,030. The case study evidence provided in this report should therefore, hopefully, cast new and valuable light on a dimension that so far has received remarkably limited attention in the existing literature addressing community forestry, e.g. the value of the common pool resource. The contrasts highlighted above also indicate that the institutional challenges that face policy makers striving to extend the outreach of community forestry in the Terai are likely to be extremely diverse and very demanding.

[87] The notion gross value is particularly important when comparing Bartandi with Dhuseri and Chautari. The former has a transportational disadvantage (the absence of a forest road) which makes transportation of the timber more costly.

Dhuseri Community Forest

The formation of Dhuseri FUG

Control of high forest degradation started in 1989 and was prompted by the extraction of timber and the intensive fuelwood demands of a brick kiln established in ward no. 1. Residents of wards 7 and 8 (in the vicinity of the forest, see map) felt that their daily needs were being threatened by these activities, and under the leadership of Mr. A (Nepali Congress) began to raise their voice over these developments. A protection committee, under the leadership of Mr. A was set up.

There was considerable opposition to the protection committee and a group including among a powerful former VDC-chairman of Amarapuri and two former VDC chairmen (one timber smuggler) launched a strong protest. Tensions mounted further when the protection committee began to confiscate collected firewood and timber from people caught red handed in the forest area and on the footpath to the market. The seized products were sold, officially to provide financial support to it's work. This sale of seized forest products prompted inhabitants of ward no 7 to accuse the protection committee of corruption. Over a period of 18 days tensions escalated. DFOs Santosh Mani Nepal and AFOs Rajendra Neupane negotiated a settlement, but before reaching an agreement, were physically assaulted by people supportive of the opposition group. To calm tensions, some members of the opposition group were temporarily retained in custody while Mr. A was granted special protection from the DFO. The protest group was thus, in the end, effectively contained and the CF process brought forward under the leadership of Mr. A. Because of the corruption claims, the present VDC chairman, one of the founding members in the protection committee and Mr. A were defamed to the extent that it became difficult for them to show their faces in public.

In spite of these initial challenges the control program went ahead. Subsequently, many of the early opponents have been co-opted in committees and sub-committees in the user group. This has curtailed the protests and gradually strengthened the group. However, instability and conflict remains a prominent feature of the user group even now.

From 1990 the committee has been protecting and managing activities in a formal way. A constitution drafting committee consisting of three activists led by Mr. A and supported by the then District Forest Officer was formed and the user group formally registered in 1995.[88] Notice that the same working group drafted the operational plan with a consultative process involving some key individuals from each tole invited to take part in discussions on the proposed OP. After a debriefing and discussion the OP was passed by the group and passed on to the DFO for formal approval.[89] Five months after the registration of the constitution the OP was also registered.[90] Dhuseri CF, thus, became the foundation stone of the CF campaign in Nawalparasi district.[91] Notice that the process for the preparation of the constitution and the operational plan did not tally with operational guidelines (i.e a broader social process involving all users in the decision-making process. Instead, the process was controlled by a

[88] The first chairman of Dhuseri, Mr. Bam Bahadur Adhikari became a central committee member of FECOFUN representing the Lumbini Zone after his contributions to the initiation and establishment of CF in Rajahar.

[89] As noted in section on the allocation of private forest plots as a sign-up incentive in the establishment phase below, the DFO was initially concerned about the lack of outreach of this first initiative. To increase the number of members to an acceptable level, several individuals per households were registered, and strong incentives to join the group deployed.

[90] The CF formation process in Rajahar was thus comparatively rapid. From the start Dhuseri FUG protected about 800 ha of forest. Protecting such a big area proved difficult in practice, and the area was subsequently divided into Chautari and Bartandi CF based on a mutual understanding with users over the institutional growth process.

[91] Dhuseri provided support in the preparation of constitutions for Bartandi and Chautari community forests. Similar support was provided to Kalika BCF, Piprahar BCF, Sisuwar BCF and Sundari CF (Amarapuri) in the buffer zone area.

few individuals. The local activists did not have a clear notion of a participatory approach and the DFO exerted no pressure to secure more representative participation).

The Institutional set-up

The FUG-office is currently located in a two-room building provided by the Women Development Office and is open daily. The group plans to purchase land for office building construction this year. The group has developed a sophisticated recording systems with a view to maintain checks and balances of responsibilities and tasks undertaken by members of the committee, sub committee, the board of directors and the regular staff. An office record is maintained separately. The user group has developed rather elaborate systems for reporting and reviews. The communication and decision structure has 5 layers, i.e. household, tole, block, division and committee levels. The following records are regularly maintained:

Table 4: FUG records Dhuseri

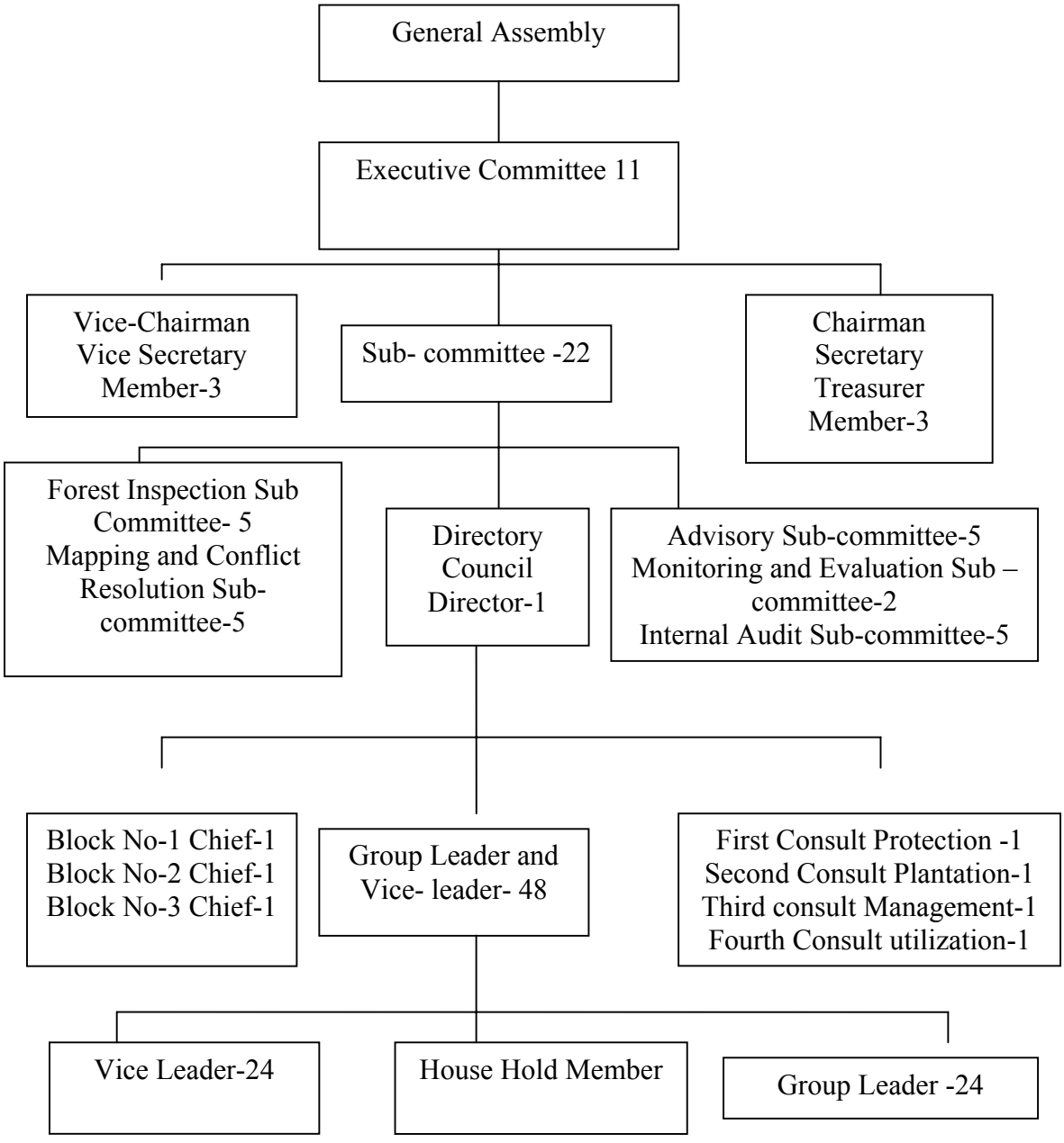
Administration	Account
1. Assembly and Meeting Minute	1. Main Ledger
2. Letter Dispatch Files and Register	2. Sub-Ledger
3. Letter Registration File and Register	3. Stock and Capital
4. Attendance Register	4. Liabilities
5. Visiting Register	5. Commodities
6. Daily Plan	6. Forest Product Permission
7. Program Record	7. Voucher
8. Training/Seminar Manual and Record	8. Receipt
9. Registration Certificate-3	9. Membership Card
10. Constitution and Operational Plan	10. Comment and Order
11. Periodical and Annual Report	11. Bill
12. Membership Record	12. General Forest Product Selling
13. Photo Record	13. Order
14. Other Miscellaneous File	14. Bank Account
15. Letter Pad and Stamp	15. Audit Report
16. Socio economic survey form	16. Daily Cash Book

Organisation chart

Responsibilities have been divided into five streams, the assembly of users, the Executive Committee, various Sub-committees, the Board of Directors and Office staff. The latter consist of the FUG secretary and a peon.

Table 5 Organisational tiers

S.N.	Tier	Organ	Total no.
1	First	General assembly	All membership HHs.
2	Second	Representative Assembly	81
3	Third	Executive committee	11
4	Fourth	Council of Directors	48
5	Fifth	Board of Directors	8



The above structure has evolved from needs and experiences arising during the phase of implementation, and also reflects an attempt to actively involve users in the day to day activities of the group. The various bodies hold regular meetings. The Committee meets every month while the sub committee meets as per needs and on the advice of the committee. Since registration, the committee has held 240 meetings and 17 general assemblies called.[92]

Serious institutional instability is one of the major challenges facing the user group. As will be seen below, exceptionally high turnover rates of Chairmen are prominent features of both Dhuseri and Chautari. These turnover rates would, at first glance, seem reasonable to attribute to the high value of the forests in Rajahar. The evidence reported below pays much attention to the local politics associated with the control over Chairmanship and the Executive Committee, but also suggests that the causes of instability has varied from case to case.

The forest has been divided into five blocks for management of biotype, silviculture and use purposes, while for protection responsibilities it is divided into three. The users are divided into 25 sub groups with the block chief mobilizing the users for the protection of their respective areas. The protection wing of the committee coordinates with these sub-groups and the protection sub-committees. An important and recent development emphasised by a woman from one of our case study households is that the group has made concerted efforts to involve women more actively in the management of the group. Apart from successful attempts to encourage membership among women in ward 6 in Dibyapuri VDC, recent initiatives have included the requirement of tole level division of responsibilities between women and men (One person of each sex from each tole). This involvement does not, however, go all the way to the top, since all members of the Executive Committee are men (Table AAA.1 in Attachment to this Appendix) displays the composition of the Committee).

While charges of elitism and Committee overrule are frequently encountered in our case study material, one could argue that such elitism has been reported repeatedly in evidence on community forestry in the hills too. While the latter is a valid point, the content and implications of such claims have been vague and quite imprecise. Basic statistics, such as the caste composition of the members of the user group, reported in table 7 below indicates a strong predominance of Brahmins and Chettris. However, such evidence does not provide enough information about concerns over equity in the distribution of benefits from forest products. After presenting some basic information on membership, section… below spells out a conceptual framework to indicate how this important lacuna can be resolved.

Membership

Dhuseri FUG has 613 member households from Rajahar and Dibyapuri VDC. The ward-wise distribution of membership is as follows:[93]

[92] Notice that neighboring FUGs have imitated Dhuseri's organisational set-up despite of dissimilar needs.
[93] The access to membership in Dhuseri and Chautari is governed, in part, by ward of residence.

Table 6 Distribution of membership by ward and VDC

Rajahar			*Dibyapuri*	
S.N	Ward No	HHs	Ward No.	HHs
1.	1 BZ	193	1 BZ	1
2.	2 BZ	57	3 BZ	3
3.	7	334	5	1
4.	-	-	6	4
5	-	-	7 BZ	20
Total	3	584	5	29

As can be seen, the predominance of Brahmins and Chhetris in Dhuseri is rather pronounced.

Table 7 Distribution of membership by caste

Brahmin	46.3 %
Chhetry	22.3 %
Tharu	13.8 %
Mongolian (Magar, Tamang)	6.8 %
Newar	2.4 %
Damai (SC)	1.1 %
BK (SC)	0.6 %
Sunar (SC)	0.5 %
Kumal	0.2 %
Sarki (SC)	1.5 %
Musahar	0.2 %

The FUG is responsible for the following forest management and other activities:

Management, protection and motivation

- The group undertakes regular silviculture activities such as pruning and singling following the operational plan in Attachment to this Appendix. Plantation, nursery management and agro-forestry activities have been carried out in the southern part of the forest, bordering the cultivated land
- The plantation area, which corresponds to the 67.5 ha initially handed over to the group also includes 35.2 ha of private plots distributed among members in the start-up phase. A small nursery was in operation until last year. Members of the community planted 2000 sissoo seedlings in 2046 and some fodder seedlings such as epil-epil, eucalyptus, dabdabe, broom grass, thatch, bamboo etc. The plantation is planted with species Sissoo , Masala, Badahar, Broom, Thatch and Bamboo. The group has also established a small NTFP's nursery and a trail demonstration plot of Rauwolfia Serpentina species (Sarpagandha). The seedling capacity is about 100. The group has constructed about 5-6 kms of fire line which is being maintained according to needs. Three ponds covering altogether 3 kattha have been constructed for biodiversity conservation and tourism purposes. At the top of

the forest a picnic spot with scenic view has been constructed to attract tourists. The FUG has also provided financial support on the construction of various temples.

Awareness programs have been conducted at various times for different level users from the grassroots to committee level. This has strengthened participatory protection. One of the women in our case study households found a forest management training programme for users very valuable. These programmes have also helped to clarify the concept of community forestry and developed ownership over the programme and the forest. In addition, joint and voluntary protection ideas have been shared. This has contributed to the institutional growth of the FUG and for human resource development. Forest management training has also been given for committee and sub-committee members on silviculture operations. Recently a NTFP identification programme was conducted. About 40-45 types of valuable NTFPs have been identified. The Agro Herbal Company in Rajahar initiated the programme.

Other environment and forest-related activities

The concept of "Community Forestry School" was developed by the group after an impact-assessment visit by central level officials. Encouraged by a growing number of visitors who come to learn about the group and study forest management, the group has started to conduct interaction and orientation programmes for the users. These programmes have also increased the level of awareness among users about CF and the institutional aspects of the group, the committee and sub-committees thereby enhancing confidence levels. The group has also developed a programme for Bio-Diversity conservation in their forest area and registered a separate organisation named 'Bio-Diversity and Natural Resource Management Committee' in B.S. 2057 (2000). A former treasurer and chairman of Dhuseri is the current chairman of this committee which is registered in DAO in Nawalparasi. The committee was founded with a view to counterbalance the environmental hazards created by local people. During B.S. 2055/56 (1998-99) people settled near the Mukunde river used pesticide for fishing, polluting the water and causing illness among domestic animals. Dead fish, frogs and snakes were a source of further pollution. The user group has provided the committee a grant of Rs 20,000 for FY B.S. 2058/59 for Bio-Diversity conservation. At present, the committee is working in 3 VDCs i.e. Rajahar, Divyapuri and Amarapuri. The committee of this group consists of committee members from FUGs from three VDCs, with former leaders in Dhuseri taking a leading role. There is a provision of 11-19 members in the committee including two women. The main activities carried out in this FY are office management, plantation of the NTFPs' species, awareness on environmental sanitation and protection of aquatic and terrestrial animals.

The above evidence on activities and the organisational set-up of Dhuseri FUG reinforces an impression of an advanced and complex institution which had a smooth birth in terms of its relationship to the forest authorities but experienced a rather painful subsequent history. While the predominance of high castes among the members may provide some hints about social exclusion and tales about institutional instability suggest that institutional problems prevail, the above provides an official account of Dhuseri FUG: A pioneer user group in the Terai which attracts visitors from outside and engages in a range of sensible forest management activities. In the following the focus of attention will be turned to the "hidden" aspects of the user group with a view to uncover the actual content of the policies adopted by the group. As noted, an effort will be made to articulate new concepts that allow us to answer key questions that have received less attention than they deserve and are crucial to bring debates and analysis of community forestry in the Terai forward..

Dhuseri – policies and the hidden economy

The rates of the main forest products, approved by the Assembly are listed in table 8.

Table 8 Forest product rates

S. No	Products	Unit	Rate in Rs
1.	Log –timber	Cft	200
2.	Timber-sawn	Cft	300
3.	Timber of low quality	Cft	100
4.	Poles	Ft	5
5.	Small wood used for roofing	Ft	1- 4 according to the diameter and use
6.	Outer portion –timber	Ft	3
7.	Plough	Ft.	5
8.	Yoke	Ft.	5
9.	Wooden plank	Ft	5
10.	Support of yoke and plough (haris)	Ft	5
11.	Fire wood	Quintal	75
12.	Thatch for making rope	Kg	2
13.	Broom grass	Kg	3
14.	Bamboo	Nos	100
15.	Others	According to the decision of the committee	

Private forest plots – a privatisation of the common

An idiosyncratic and important feature of Dhuseri is the allotment of private forest plots to individual user households. The history of this unique feature warrants attention. The plots were allotted during the phase of registration of the user group. At this time, most people lacked a basic understanding of the concept of Community Forestry and were concerned that registration of the group under the DFO meant that new restrictions would be placed on their access to the forest. When the local activists approached the DFO with the constitution for the registration of the group, the DFO argued that registration of a group with very few members would create problems later. The group of activists returned and attempted to convince people to support their initiative and sign up as members but were in the first instance unable to.[94] They had to get the group registered anyway and decided to divide the northern side of the settlement (which was comparatively degraded) into plots to convince individuals that they would avail of forest land for their own personal use. Moreover, to increase the number of users spelt out in the constitution, they distributed plots to more than one member per household. While a mere 60-70 households were actually involved in this process, the number of users was inflated by registering as members two or more individuals from the same household. This enabled the group to produce a list of altogether 252 members. After collecting 275 rupees from each of these members, the land plots were distributed. The current situation is that some members, who have moved outside the VDC have not been

[94] Our case studies indicate considerable initial skepticism among community members about the capacity of the community to manage forest resources.

removed from the member register and their plots are now used by relatives. For example, the daughter of an ex-chairperson has moved to Gaindakot after she got married. Her father is using her plot now and according to one account some households control as many as six plots. A total of 252 plots, each of size 14 X 100 m were allotted for private collection of grass and fodder. Subsequently the distribution of the plots (mainly to users in ward 7) has caused resentment among other and more recent members. One of our case study households, a low caste poor household from ward 6 in Dibyapuri has, after having invested time and resources in a plot on two subsequent occasions been evicted by the user group. The policy of private plot allocation, which effectively amounts to stealth privatisation of parts of the forest, would appear to flout the basic principles of community forestry. At the same time, while some households have managed to gain control over a considerable number of plots, others are left empty-handed. It is evident, therefore, that the pioneer members of the user group have benefited disproportionately from this de facto privatisation.

Notice, also, that the debate on forest plots is very much alive and mapping for the establishment of an additional 100 plots has already taken place. Since the number of users in Dhuseri remains much higher than the number of plots, the group is faced with a problem of rationing. 22 households in ward 6 in Dibyapuri recently joined Dhuseri, motivated in part by what appeared to be an emerging opportunity to gain control over a newly mapped plots. It is also worth mentioning that forest plots are tradable at "official" rates of Rs 600-1400. While it seems reasonable to expect the actual rates to be higher, given the general scarcity of land in Rajahar, our evidence does not provide information about the actual transaction rates.

Another recent and very interesting development is the proposal to introduce a new principle for categorisation of members (A, B or C) which could impose restrictions on voting and introduce differentiation of the pricing of forest products. The proposal advocates categorisation by contribution and reflects a farmer/bazaar divide rooted, among others, the claims by the people in ward 7 (farmers – Brahmin/Chhetry) that they have a stronger attachment to the forest, put in more effort to preserve and maintain the forest and should be rewarded accordingly. The argument put forward is that contributions rather than needs should be the foundation for the prices paid for forest products. The proposed categorisation is as follows:

The proposed criteria for the classification are:

Class	Criteria	HHs (estimate)
A	Fully active, participate in all works proximity near to the forest and utilise most of the products	250 to 350
B	Medium contribution in above activities.	150 to 250
C	Low Contribution.	50 to 100

The class A category overlaps with people in ward 7 who already are in possession of forest plots. Moreover, the price and payment structure for forest products does, as we shall see below, display very strong biases in favour of the interests of the more well to do. There might also be a more subtle and party-political side to the classification argument – an attempt by Nepali Congress supporters in ward 7 to diminish the influence of UML-supporters in the Bazaar area. It is worth pointing out that immediately after the restoration of democracy in 1990, public affairs were strongly influenced by party politics. This influence remained particularly strong upto the second election in 1998, but has subsequently receded. The user groups in Rajahar were therefore politicised along party lines in their early days, but this influence has now been reduced.

The pricing and distribution of benefits from forest products: timber

The distribution of the most valuable forest product, timber, is organised in the following way:

S. No	Activity	Time
1.	The committee members get information of fallen and dead trees in the forest (Inventory)	Nov. 2nd. Week
2.	The committee gets the trees blazed from the DFO staff as the process of getting approval from the DFO	Nov. 3rd.week
3	The committee gets the timber collected from and sawn in the forest and depots in front of the FUG office	Until the end of December
	Notification by the committee to the user to apply for quotas within 35 days	From last of Nov. 3rd week
4	The user submit applications to the respective tole leader and forms are forwarded to block leaders and finally from block leaders to the utilisation committee	From Nov.3rd. week until the end of December
5	The utilisation committee makes necessary assessment of the demand forms and makes adjustments based on assessment of actual needs and the approximate amount of timber that could be available.	1st. week of January
6.	The committee then fixes the time for the sale and distribution of timber.	1st. week of January
7.	The users are then provided timber from the depot as approved by the utilization committee after advance payment.	Whole January
8.	The committee may auction surplus timber, but such auctions have so far not been observed.	February onwards

It is important to note that the regulatory framework which defines the FUGs room for manovre with regard to the allowable harvest, is inefficient. Table 8 compares the rate of regeneration of the forest, as assessed by the forest ranger and the permitted harvest, suggests that a "sustainable" harvest, even by this very conservative and back of the envelope calculation, would allow for a trebling of the current level of timber harvesting. In fact a more realistic calculation would estimate the regeneration rate for predominantly sal forests to somewhere 3 and 11 m^3/ha (OFMP, Rupandehi 1995). The terms handover and decentralisation are therefore quite misleading and do not tally with a balanced notion of sustainable management of the high value timber resources of Dhuseri.

Table 9 Blockwise distribution of forest, annual increments and allowable harvest.

Block	*Actual Area*	Timber (stem value – m^3)	Mean annual Increment – m^3)	Annual allowable cut
Ganesh Mandir	37 ha	7711	76.96	23.1
Sansari	28.5 ha	5939	59.28	17.8
Mayur Kuna	28.7 ha	5991	59.8	17.9
Devi Than	36.5 ha	7606	75.9	22.8
Deurali Danda	36.0 ha	7502	74.88	22.5

Notice that this discrepancy between a sustainable and the actual harvest (dead and fallen trees) represents a policy failure on the part of the regulator, the forest authorities. This *regulatory failure* exemplifies a broader typology of problems. At the community level, as far as efficiency in forest management is concerned, our observations are broadly commensurate with the main findings in the existing literature on community forestry: there is a broad consensus among users and other community members that the forests managed by Dhuseri and Chautari user groups are in a better shape now than they were before community forestry was introduced. But what about the distribution of the benefits from the forest products across these high value sites? On this matter, the lessons from the existing literature are more sparse and in the following, we shall argue that it is useful to invoke the concept institutional failure to pin down various components of the relevant concerns.

The notion of institution can now be interpreted to refer specifically to a user group and the institutional failures can take two broad forms. First, it is distinctly possible that a user group fails to accomplish or deliver on resource management objectives. The existing literature abounds with examples of characteristics of resources and communities that are conducive to successful resolutions of collective action problems of this kind. The absence of such success will be coined institutional failure type 1 and as noted, there is a conspicuous absence of this type of failure across our study sites. [95]

The second issue, which has received much less attention will be coined institutional failure type 2 and refers to the distributional performance of the user group; e.g. the ability of the group to accomplish an equitable distribution of benefits from forest products. It is evident that the degree of type 2 failure may be readily verifiable provided that the underlying data are detailed enough. In fact it is distinctly possible (and indeed desirable) to be precise about distributional outcomes. By way of illustration, it is informative to attempt to break down and carefully examine the skewedness of the distribution of benefits from different types of forest products. Unsurprisingly, the distribution of the benefits from timber is particularly skewed. Another important point is that the assessment of the distribution of benefits from the forest products in Dhuseri gives rise to a distinction between the covert and the overt, and further to a focus on the "hidden" economies of FUGs. This "hidden" economy, or so it will be argued, provides a key to the understanding of the serious and persistent institutional problems which despite of an impression of maturity continues to haunt both Dhuseri and Chautari FUGs.

To illustrate how the distribution of benefits from forest products in Dhuseri, may be evaluated let us begin by focusing on timber. This requires an evaluation of hidden subsidies

[95] See Ostrom (1990) and Baland and Platteau (1996). Institutional failure type 1 would thus refer to a failure fulfill resource management objectives. Such a failure could arise from a lack of skills in resource management or, and this is the focus of the literature from a failure to resolve a collective action problem. Community characteristics that may reduce the scope for successful management may include various types of community heterogeneity, proximity to markets and so on.

and the scope for arbitrage in the adopted system for allocation of timber quotas. The official version has partly been provided in the above account and the official budgets which convey the impression of a transparent and well-organised process where members (e.g. those who apply for timber) are allocated quotas as per their needs. Notice that the official policy is that the permitted use of timber is confined to construction of houses and other domestic purposes. However, the wedge between the user price for timber and the local market rates provides a strong incentive to users to attempt to circumvent this regulation. A local market rate of between Rs 450 and Rs 600 effectively implies that the award of a timber quota of 50 cft, a user receives a handout from the FUG worth between Rs 7500 and Rs 15000. With female daily agricultural wages at Rs 70, the value of such a handout would thus be equivalent to the value of 214 workdays. While institutional control mechanisms monitoring the actual use of quotas are meant to prevent onward sales, the local market for sale of timber is very good. Apart from the sawmills (Rajahar, Dibyapura, Pragatinagar), timber brokers may access quotas from FUG-members after encouraging users to apply for quotas and offering a "commission". 3-4 of the Committee members in Dhuseri are themselves brokers.

While the official policy therefore is one of monitoring and control over timber use, this control is ineffective (Triangulated this info with a number of key individuals[96]). Moreover, whereas the local market rate in Rajahar is in the range Rs 450-600, the market prices in Narayanghat (20 kms east) are Rs 600-700 and Kathmandu Rs 825. There are, of course, costs associated with sales outside the VDC and transport of a truckload to Kathmandu (325 cft) would incur a cost of Rs 8000.[97] Officially, the committee identified one person doing this kind of dealing last year and this year also one person was caught. He bought wood costing 15,000 rupees from the FUG and sold all of it for 25,000, thus making a profit of Rs. 10,000.00.

The size of the annual hidden timber subsidy varies with the timber harvest and the wedge between the user price and market price. The above prices and annual harvests of 2500 cft and 5000 cft would produce an annual subsidy in the range Rs 375.000 and Rs 1.500.000. This amounts to a considerable share of the official budget of the user group, and needs to be compared with the social and development expenditures of the user group, the benefits generated by fuelwood collection and the distributional impact of other policies adopted by the group. As noted above, the skewedness of the distribution of the benefits from various forest products and user group may vary a great deal. Timber is the easiest product to analyse for the following reason: A user receiving a timber quota will have to pay Rs 300/cft up front. For poor users who struggle to pay membership fees of similar amounts the prospects for purchasing timber and therefore benefiting from the subsidy will be bleak unless quotas are generally tradable. Our evidence provides few clues as to how common such trading is: it is not unreasonable to assume that poor households, with the exception of those who receive timber as welfare support (see below) are completely excluded from accessing benefits from timber. That the problem of bending the allocation process for timber quotas is not unique to Dhuseri can be gauged from the multiple memberships of 10-12 influential individuals in Dhuseri, Chautari and Amar (of Dibyapuri VDC). Receiving a minimum of 50 cft from each of the user groups, these individuals are either owners of or closely connected to the owners of the local sawmills. This case has stimulated action to remove double or triple memberships (notice, however, the encouragement of double membership for residents of ward no. 6 Dibyapuri). Six FUGs (Amar, Dhuseri, Chautari, Bartandi, Jharahi and Sundari) have formed

[96] The weakness of the control mechanism and institutional stability (more below) were mentioned as crucial problems by former Chairmen and other key informants.

[97] There are other, "hidden" costs as well. There are seven Forestry Product Check Points on the road between Rajahar and Kathmandu where a stamp is needed and bribes are collected.

a joint committee (task force) to resolve this issue of overlapping of membership as well as other common issues.

Distribution of timber as welfare support:

The user group provides direct welfare support and supplies timber free of cost to a few households that have been the victims of misfortune. More conspicuously, support is also provided to local institutions for certain purposes as mentioned in the Operational Plan.

Table 10 Distribution of forest products as welfare support

Name of individual/orgn	Quantity	Purpose
Tek Bahadur Darjee (poor)	50 cft (sawn timber)	To construct house as the old one broke
RamChandra Adhikari (poor)	3 quintal outer part of the timber	To construct house to replace house damaged from fire
FUG self use	217 cft + 110	To construct shed (hut) inside the forest
Biodiversity Committee	75 cft.	For office construction
Illaka Police Office	125 cft	To construct waiting hall
Temple	45 cft	To build temple
Devchuli primary School	40 cft.	For making furniture
VDC	55 cft	For construction of local market place

Table 11 Timber and fuelwood extracted from the forest in FY 2058/59

S. N	Type	Demand	Supply	Stock	Rate NRs	No of hh benefited
1.	Sawn timber	2493 cft	2492.6	.4	300/ cft	110
2.	Outer part	191 quintal	182 quintal	9 quintal	300/quintal	98
3.	Fire wood	810 quintal	775 quintal	35 quintal	75/quintal	238

According to the present chairman, the allowable cut for 2002-03, as specified by the revised OP, is 3671.21 cft. However, in a circular to the group, dated 2058.11.17, the DFO instructed the group to harvest no more than 2819.5 cft. The Committee nevertheless harvested the amount specified in the OP and supplied the residual timber (e.g. 851 cft) as welfare support to individuals and organisations as suggested above. This statement from the chairman contradicts the following account, cross-checked with several sources. According to the latter, the Committee has extracted 5188 cft of high quality and 200 cft of low-quality timber which contrasts rather starkly with the 2819.5 cft approved by the DFO. There is also a conspicuous discrepancy between the timber harvest reported to the DFO (2292 cft) and the harvest reported to the Assembly (4333 cft). The claim is that the Committee has hidden the record of the remaining 855 + 200 cft and the value of this timber from official accounts and records. A conservative estimate of the local value of this "hidden" timber would be around Rs. 400.000, a sizeable amount compared to the official value of the transactions undertaken by the FUG as reported in the budgets in the Attachment to this Appendix. Together with the hidden subsidies, these hidden harvest revenues are constituents of a substantial hidden

economy in Dhuseri that must be accounted for in assessments of the distribution of benefits from forest products. Furthermore, the claim is that 11 Committee members have disposed of some of this timber (worth Rs 132.000) to the sawmill owner at Dibyapuri and shared the income among themselves. The question about this misuse of timber was raised in a meeting held in the first week of October 2002. The present chairman now claims that 425 cft was given free of cost to the forest ranger. The ranger claims that he received only 200 cft (which, of course, is serious enough).[98] The present Chairman admitted that he had kept 85 cft with him and will return this timber to the user group. It is evident that problems of monitoring, transparency and the enforcement of accountability emerge as crucial issues and will be discussed in more detail below.

In general, the committee prepares a budget which is presented to the Assembly for approval. In preparing the budget the Committee estimates revenues from timber sales without specifying the precise detail of the figures. The precise budget deficit will be known only when activities have been implemented. The latter is an important point since rather than cutting the expenditure side, the Committee appears to meet inflated expenditures and complete proposed work by harvesting more trees. According to some users, this is the time when the Committee members have the opportunity to manipulate numbers because of the lack of monitoring of this second timber harvest. The claim, thus, is that the Committee overharvests without producing reliable accounts. Such second rounds of harvesting have occurred twice recently: in 2057 and 2058 under the Chairmanship of Mr B and Mr A.

Leadership instability

Leadership instability has posed a serious challenge for the group since its foundation. The tenure of the committee is 5 years, but consecutive committees have been dissolved with conspicuous regularity during the brief period 1993-2002.

Table 12 The sequence of Chairmen in Dhuseri FUG

Name	Start	End
Mr A	2050 5/20	2052 8/2
Mr A	2052 8/2	2052 12/10
Mr C (Chhetry)	2052 12/10	2053 10/5
Mr D	2053 10/5	2054 6/16
Mr E	2054 6/16	2055 8/19
Mr F	2055 8/19	2056 9/3
Mr G	2056 9/3	2057 8/17
Mr B	2057 8/17	2058 8/4
Mr A	2058 8/4	Date

Rather than competition for the post of Chairman, the initial years were marred by problems of finding suitable candidates prepared to stay in the job. Being a pioneer user group in Nawalparasi, Dhuseri received a great deal of attention from regional forest authorities and relevant ministries in its early years. Mr A (Nepali Congress), who as noted above, played a prominent role in initiating forest protection become the first Chairman. A group of people

[98] In the national newspaper of the government (The Gorkhapatra, 2059.04.13), Dhuseri, Chautari, Bartandi, Sundari and Adan FUGs were accused of giving 400, 260, 1000, 300 and 300 cft to the ranger of Rajahar range post. The ranger is now suspended and an investigation by the DoF in process.

led by Mr I (CPN UML) and his supporter Mr G made accusations against the Chairman based on inflated expenditures. The duo had considerable support from a discontented group of Nepali Congress members, inlcuding Mr C (who had been opposed to the CF program because of the disruptions to large scale fuelwood supply). Allegations against Mr A came in other forms, too. Mr C mobilised users (no party-political dimensions) and submitted a complaint to the DFO arguing that users were being denied access to the forest. DFO knew that this was incorrect. However, the accusations of account irregularities persisted and finally, a committee was formed to screen the accounts. It took almost a year for the committee to complete this auditing task and when it finally delivered its verdict, the conclusions remained contentious. Hari Dhakal[99] had been appointed to conduct the audit. The audit report recommended that Rs 1,07,000 should be repaid to Mr A to cover expenditure on stationary, registration etc out of his own pocket since the formation of the protection committee. Opponents were not convinced by the report and demanded re auditing. A new auditor conducted this second audit. The second report also exonerated Mr A, advising an amount of Rs. 57, 000.00 to be repaid to him. Despite of this, the opponents retained the pressure on the Chairman. Political prejudices and whims before the forthcoming election contributed to force Mr A to resign.[100]

The central feature of Mr C's tenure was inactivity despite much work waiting to be done. He was widely regarded as quite incompetent and resigned on his own initiative. The next Chairman, Mr D was a teacher (and an intellectual) and widely regarded as a neutral candidate. He was also a default candidate since no one else were willing to stand at this juncture. The main reason behind this reluctance to come forward during these early days was that the user group had accumulated debts. Due to other commitments, Mr D felt that he didn't have enough time to do the job properly and therefore left office on his own initiative. The next Chairman (who does not feature on the above list), Mr J was pressured by the Assembly to accept the position as Chairman. As a Chimney Factory Owner, he already had a complicated relationship to the DFO because his vehicle had been caught by DFO during illicit fuelwood collection (prior to his record short Chairmanship of 6 days). Fearful of further reprisals from the DFO, he therefore decided to step down. The next Chairman, Mr E cleared the debts of the FUG. During his reign, the nursery was established and several other improvements made. However, Mr A and an accomplice submitted a petition stating that Mr E had illegally cut one dry (dead and hollow) tree. The DFO decided not to force any penalties but instead issued a warning to the Committee. Mr A and his accomplice threatened to bring this inaction on the part of DFO to the notice of higher offices and an Assembly was called where Mr E resigned. Mr F was elected the new Chairman and continued the work of his predecessor but was authoritarian in his style of leadership. He was also the first Chairman not to be a member of the FUG. The latter was a source of considerable embarrassment, and combined with a complaint that he had misused 11 quintals of firewood was enough to prompt his quiet resignation. Although there wasn't a formal election, there were two candidates for the Chairmanship following Mr F. Mr F himself and Mr G. Mr G had the support of a solid majority and during his leadership the forest road was constructed and several infrastructure/development projects initiated. He was also very keen to make the accounting system of the FUG more transparent arguing that accounts should be presented during monthly meetings. During his reign, the Assembly also agreed to allocate 20 % of annual income to poverty alleviation (projects focussing on medicinal plants, livestock (possibly favouring poor households closer to the forest), but this proposal was never

[99] Advisor member of FECOFUN Nawalparasi, CF promoter and auditor and resident of neighboring VDC- Mukundpur.
[100] To further complicate this picture, we have first-hand accounts suggesting that Adhikari did, in fact, inflate his expenditures.

implemented. The nails in his coffin were his initiatives to activate the Board which also involved a change in its composition and a removal of the Board's responsibilities in relation to harvesting. In return, allegations about misuse of funds were made, and followed by attempts to intimidate and humiliate Mr G in public. Finding the latter unacceptable, he decided to leave office. During Mr B's Chairmanship there was a shortage of cash to cover harvesting expenses. The FUG borrowed Rs 40.000 and Mr B handed this sum to the Office Secretary and later attempted to mislead the user group by submitting an expenses bill of Rs 40.000 which he claimed covered real expenditures. This became a source of dispute between the Office Secretary and the Chairman and a Committee meeting discussed the matter. It was found that the money had in fact not been spent and the Chairman was forced to resign.

The circle is complete when Mr A asks the Assembly for a third term, on the promise of accountability. As already documented in the previous report (and now triangulated using members of the same political party as Mr A), Mr A has conducted serious misdeeds during his latest tenure as Chairman. As verified during our field visit, users are increasingly agitated over the absence of the latest accounts which should have been presented in October. Our projection is thus that it won't take long before Dhuseri has a new Chairman.

Analysis and discussion – institutional issues:

The "official" description of Dhuseri suggests a highly advanced user group with a comprehensive and sophisticated system for accounting and controls. As the above observations indicate, however, the user group remains confronted with serious difficulties related to monitoring of the actions of office-holders, the actions of representatives of the forest authorities (e.g. the forest ranger) and collusion between the two groups. The above accounts indicate that a good working relationship is important and likely to involve a mutual understanding of what the interests of the representatives of the local forest authorities are. That the local leverage of the DFO is strong and may create problems for a recalcitrant user group is indicated by the 6-day tenure of one of Dhuseri's Chairmen, whose relationship with the DFO was troubled from the outset. A black and white account, even of these relationships and the powers involved are also overly simplistic. While the DFO stood up to one false claim about Mr. A (who had good personal relations with the DFO) and subsequently issued a warning rather than a call for the resignation of Mr. E, Mr. A's extensive networks in the latter case provided leverage vis-à-vis the DFO. During one of our field-visits it was argued that one of the strategies forest authorities representatives might invoke to exercise pressure on current office-holders was to indicate that they had received anonymous complaints which could then be the basis for future cases against the same representatives. It isn't too hard, therefore, to imagine how an individual or a group of individuals seeking to challenge the existing order might find themselves in much trouble rather soon. Having to deal with a counterpart of this nature might itself ensure that the pool of potential Chairmen becomes restricted. It is worth pointing out that such restrictions are imposed not only by the institutional culture of the DFO. The vested interests inside the user group are also strong, as indicated by the resignation of Mr. G. His attempts at reform met with much hostility which appears to be firmly rooted in the inequitable distribution of benefits from key products, e.g. timber. While calls for more accountability and openness are well and good and extremely important to arrest the prevailing institutional impasse, it is also necessary to recognise that such reforms would need to undermine an entrenched political reality. As such, the user group's de facto autonomy in its formulation of key policies has, in the case of Dhuseri, generated a web of interests that feed on what we have called the user group's hidden economy. Future policies will have to be designed and invoke mechanisms that prevent such a hidden economy from emerging in the first place. This suggests an urgent need for a radical

policy rethink involving, in particular, carefully considered policies on timber, since conflicts of interest over the high value of timber appears to be the key factor fuelling these difficulties.

Verified malpractice on the part of office holders include hidden actions related to inflated or exaggerated expenditures and the illegal harvesting of forest products, in particular, timber. As the narratives on the squabbles over auditing demonstrate, there are serious difficulties related to the actual verification of the accuracy and reliability of these account statements. The process of verification of claims and counter-claims is thus time-consuming and in addition subject to a great deal of uncertainty and confusion. Again, as indicated by Mr G's resignation, the call for more accountability is a difficult call to make, since reform-oriented individuals may have to pay a heavy personal price. Furthermore, as the issues involved are rather complex, it may also be hard for the average user to know precisely who to trust. In a context of this kind, a general call for empowerment and participation, the typical policy prescription in discussions on community forestry, would sound overly optimistic due, in part to the aforementioned difficulties involved in the monitoring and accounting for the management of resources that general substantial annual revenues. Indeed, the provision of the necessary checks and balances which a process of participation and empowerment would be intended to accomplish requires both an advanced level of awareness and a practical and effective mechanism and process of information flow. In the absence of such processes, opponents of a sitting committee will be in a good position to deploy tactics of defamation through accusations of corrupt practice even in cases where evidence may be conspicuously absent. One of our case studies of a Tharu household illustrates the problems rather vividly: Referring to her illiterate husband's participation in one of the Assembly meetings in Dhuseri, an adult woman argued that her husband was clueless about the procedures and ongoings of the meeting he was attending. She added that she herself was equally blank. This would seem to suggest that the level of knowledge required to meaningfully partake in user group meetings might well be much beyond the level provided by conventional training programmes and awareness raising exercises.

Efforts to resolve what can only be described as an acute crisis of leadership rooted in embezzlement and an inequitable distribution of benefits that serves some and leave vast numbers of users out can only be understood if the hidden economy of the user group is carefully deconstructed. That the conflict over distribution is alive and on-going is illustrated by the debate over the further categorisation of users provides further ammunition to this point. If unchecked, therefore, inequality in benefit distribution might easily become further aggravated. It should also be pointed out that a failure by policy makers to acknowledge the particular risks of serious local rivalry and inequities in the distribution of benefits in high value forest sites and to do so ex ante rather than with the benefit of hindsight might, over time, backfire and undermine the arguments of the movement for community forestry in the Terai.

Some observations on livelihood outcomes

What about the impacts of decentralisation on livelihood outcomes? Our household case studies provide useful guidance about the diversity of outcomes in Rajahar. It is instructive to first consider the impacts of households that in the past were intensive users of forest products and complement these observations with information on others expected to be vulnerable to change. Five such groups will therefore be considered here: households that relied on fuelwood collection for their livelihood, households with livestock-based livelihoods, traditional artisan groups such as blacksmiths (the Kami-community) who used to make their own charcoal, the Musahar/Bote community whose residential area borders the

Royal Chitwan National Park and the Tharus, the indigenous population of the Terai. We shall also consider issues related to gender since the dominance of men, both in executive bodies and Assembly meetings is strong in these groups. Information on former fuelwood collectors was based on visits to ward no. 6 Dibyapura (where prior to the establishment of Amar and Dhuseri CFs almost all households had fuelwood collection as their main source of income). The households in this ward remain landless (sukumbasis), with houses having been constructed and cultivation taking place on public land. Group discussions were complemented by two household case studies. 22 households from this ward have recently joined Dhuseri FUG. These households were already members of Amar, but now they have dual memberships with the men in the households registered in Amar and women in Dhuseri.[101] One of the motivations for joining Dhuseri at this particular juncture was the possibility of being awarded a private plot, since, as noted, 100 new plots have recently been mapped. Further local motives included the possibility of attracting local development infrastructure and of having a say in the management of the forests adjacent to their settlement. Notice, also, that there was an explicit interest from Dhuseri FUG for this group of women to join, the implication being that Dhuseri now has a 22-member women's group in Dibyapuri.[102] Apart from a pro-active role from Dhuseri, a recent adult literacy programme was also argued to have raised awareness and prompted interests in joining the FUG. While gender, in the recent past, has been taken somewhat lightly by the user group, this observation together with other steps to secure female representation suggest that change might be underway. Several interesting points can be made about the effects of community forestry on the livelihoods of this group of households. Essentially what has happened is that the restrictions in access to the forests have prompted males in about 90 % of the households in the ward to seek and take up employment elsewhere with the men currently working as wage labourers in the local Animal Feed Industry, Brick stone industry and elsewhere. At the same time the women have stayed behind and now look after agricultural production and household subsistence needs. As a result, the collection of forest products has also become distinctly gendered. Despite of the latter, the men have continued to represent the households in user group meetings (in Amar FUG). While the restricted access to the forest would be expected to have a short term adverse impact on this group of users, the general perception is that this forced change in livelihood which happened to coincide with favourable alternative employment opportunities has made life better than it used to be both materially and with regard to the social status of these households.

Another group with intensive use of forest products prior to the establishment of community forestry were the around 30 households involved in goat keeping in Bartandi. Supported by the Department of women and development and started 4 years before Chautari and Bartandi CFs were established, these households used the forests for grazing of between 50 and 160 animals each throughout the year. The restrictions on grazing imposed by community forestry compelled the goat keepers to dispose of most of their animals at unfavourable prices. Whereas remaining goat stocks of between 2 and 10 animals have been retained by the same households, fodder for these animals is currently being secured from own land and sometimes illegally from the CF. The closure of the forest for grazing has met with three broad types of responses: first, a change in the composition of livestock holdings away from goats and towards a combination of goats and cows/buffaloes. Other households have shifted their

[101] The systematic attempts to root out dual memberships, mentioned above, are focussing on preventing the better off access to high value forest products from different user groups.

[102] As noted, gender has not featured prominently in the thinking of the user group in the past. This *might be* an example of how the group accommodates external pressures: for potential donors, the existence of a women's group looks rather good on paper.

occupation towards wage labour collecting boulder from the Jharahi river. Finally, others have taken up vegetable farming receiving seeds assistance from the agricultural development office. There is a distinct gender dimension to these problems experienced by the goat keepers. Having been prompted by the department for women and development and focussing mainly on women's livelihood options, the low priority of women's interests in the decision-making of the user groups in Rajahar reflects a pattern: while women may attend general assemblies in Chautari and Bartandi, they rarely speak out and efforts to lobby the Committee to adopt policies favourable to goat breeding have so far been unsuccessful.

As migrants from Tanahun District, the Kami community in Rajahar initially settled near the Narayani riverbank but were attempted evicted (unsuccessfully) by the DFO. The flood of the Narayani river in 1999 and the current settlement is in ward 3. While traditional blacksmiths, livelihoods prior to the flood were mixed and involved vegetable farming and maize and paddy cultivation. Two households have retained their traditional occupation. While these households in the past produced their own charcoal, the two remaining blacksmith households are now compelled to collect fuelwood from leftovers of the cemetery and driftwood from the Narayani river.

The Musahar/Bote community reside in the southernmost part of the VDC on the Narayani riverbank, adjacent to Sishuwar BZCF. Cultivating public land, fishing provides the traditional and principal source of income. Livelihood requirements are met by a combination of collection of thatch from Sishuwar and illegal collection of fuelwood and timber (quantity uncertain) from Royal Chitwan National Park. In our case study household, the husband collects firewood from RCNP during the fishing season. Depending on dry firewood in their day to day activitives, their needs are particularly strong during the cold season (2 bhari per week) when they live around the fireplace in their basic and not well insulated houses. Interestingly, the household reported to have developed a symbiotic relationship to the RCNP-staff. In exchange for transporting the staff across the river and for constructing small check posts they are allowed to collect firewood from the RCNP. The establishment of Sishuwar has made it easier to collect forest products – in the past it was risky to collect from RCNP.

Chautari Community Forest

The second of the high value forests in Rajahar, Chautari CF is situated in ward no. 8, also north of the East-West Highway. Chautari CF covers a total area of 354.7 hectares and has boundaries towards the community forests of Dhuseri and Bartandi, the Jharahi River and private land in the west, north east and south. Predominantly sal forest, the density of sal per hectare is, as noted above, much below Dhuseri. Other major species include Saj, Harrow, Karam, Chanp, Sadhan, Khayar, Satisal.

Chautari grew out of Dhuseri and a formal protection group was formed in 1995. Prior to this date, Chautari had been under the informal protection of Dhuseri.[103] It was difficult for Dhuseri to continue to protect such a vast forest area and the intention behind the establishment of Chautari and Bartandi was to contribute to resolve the resulting management and monitoring problems. The user group prepared its constitution and the forest operational plan benefiting from advisory support of and the involvement of leaders in Dhuseri in formulating the constitution and in consultations with users. Both the formation and hand

[103] Notice that the area currently controlled by Chautari FUG was not located within Dhuseri's initial boundaries. Dhuseri nevertheless protected this area informally. The protection mechanism was not strict.

over process therefore progressed smoothly. The constitution was registered in 1995 and the forest handed over in 1997.

Institutional set-up

The institutional management and infrastructure is, as in Dhuseri advanced and well developed. The group has built a neat office building with a meeting room, a store and a conference hall. The records maintained and updated closely resemble those in Dhuseri as indicated in table AAA.2 in the Attachment to this Appendix. Initially, the organisational structure and implementation mechanisms were more or less exact replicas of Dhuseri, i.e. Committee and Subcommittee, Board of Directors and the office staff structure. An important motivation behind this organisational design was to mobilise users around participation in the program and thus develop a sense of ownership. However, the number of people in management is currently effectively limited to the committee, subcommittee, office staff and the forest watchers appointed by the committee. Users are also, of course, involved in decision-making through the Assembly and also take regular part in forest management activities. The executive body meets regularly on a monthly basis, while sub-committees meet according to needs and as on the advice of the committee. The office secretary, a college student, keeps the office open daily. The organisational structure is as follows:

Table 13 Institutional bodies – Chautari FUG

Sn.	Organs	Total Number	Male	Female
1.	Executive Body	13	11	2
2.	Advisory Board	9	9	-
3.	Internal Audit Committee	5	5	-
4.	Forest Utilization Sub Committee	6	6	-
5.	Forest Management and Training Sub	5	5	-
6	Committee	5	5	-
7.	Financial and Human Resources Sub Committee	3	3	-
8.	Monitoring and Recommendation Sub	5	5	-
9.	Committee	3	3	-
10.	Conflict Management Sub Committee	5	5	-
11.	Election Committee	1	1	-
12.	NTFP Study Sub Committee	3	3	-
	Office Secretary			
	Forest Watchers			

Membership

Table 14 Wardwise distribution of membership

S.N	Ward No.	No. of HH	Remarks
1	1	31	No. of member HHs north of the highway: 236 No. of bufferzone member HHs: 419
2	3	71	
3	4	94	
4	5	117	
5	6	106	
6	7	2	
7	8	234	
	Total	655	

A total of 655 households from ward 1 and wards 3-8 are members in Chautari. Among these, 419 households are buffer zone residents. The vice chairman, secretary and vice secretary are from the buffer zone. In the General Assembly 2001, it was decided that membership would no longer be open to households beyond the working area of the user group. Membership fees are currently differentiated between old settlers who pay Rs 325 per household, while more recent arrivals to Rajahar must pay Rs 500 to join.

As in Dhuseri, an initiative to categorise users has been forthcoming. A classification of users as rich, medium and poor based on criteria developed by the committee was proposed as a basis for introducing differentiated forest product rates. Consultations with tole leaders and a well-being ranking based on an ongoing socioeconomic survey would provide the informational input to the categorisation of users. While starkly contrasting the "perceived contribution" foundation for categorisation tabled in Dhuseri, this motion proposing needs-based rates was defeated by the General Assembly in Chautari in December 2002.[104]

Forest Management Activities:

To facilitate efficient management, the forest has been divided into three blocks which cover areas of 91, 124 and 129 hectares. The intention is to protect and provide a sustainable and equitable utilization of the forest. Users have been involved in planting of various species assisted by forest technicians and committee members. In 2052 (1992), the women's groups planted 11,000 Sissoo seedlings. The following year the users planted 8536 seedlings of bamboo, Bakaina and Sissoo. There are plans to establish a plantation for Eucalyptus, Sissoo, Khair, Botlle Brush, Gul Mahar, Asoka and other species in the near future. The group is also undertaking NTFP farming in suitable areas under the guidance of forest technicians and other organizations. In collaboration with the Agro Herbal Company, a private company promoting NTFPs which recently set-up a field office in Dipyapuri, around 100 types of NTFP have been identified. The group has also established a tree nursery. The general level of awareness about community forestry has been strengthened and the popularity of the FUG

[104] The VDC chairman is a member advisor of the user group. The group invites the VDC for meetings, assemblies etc asking for advisory support when needed. The group has good working relations with Sundari and Amar CFUGs of neighbouring VDCs and committee representatives attend each others joint discussions and assemblies. This is mainly because there is a local network of CFUGs in the area. This network was established on the initiative of Chautari CFUG. The group has a formal relation with IFO, Kawasoti and receives technical and legal advice from the IFO when needed. The former chairman of Chautari, Mr. Lok Nath Aryal is the chairman of FECOFUN in Nawalparasi and also the advisor member in Chautari. Since Jharai CF is a small area of plantation forest, not much forest products are available in Jharahi. So all user households of Jharahi are also members of Chautari.

increased. While people were afraid of DFO staff in the past, these relations have now improved.[105]

Protection

The protection wing has the overall responsibility for forest protection and has put in place rules and regulations to achieve this goal. Three user-managed protection posts have been set-up at strategic locations in the forest and three forest guards employed. Their job is to protect the forest against illegal felling, the use of fire and destruction of flora and fauna through grazing, poisoning, shooting and other harmful activities. Controls to regulate the collection of fuelwood, cutting of grass and pruning of fodder are in place and a graded penalty system where fines are calibrated according to the severity of violations is operative. There is a complete restriction on entrance into the forest from Chaitra 1st to end of Jestha as a precautionary measure to prevent forest fires. The group plans to construct a 5 m wide fire line in the north and west of the forest. Notice also that the forest is completely closed for grazing because of the high regeneration rate. The combined effect of these efforts is argued to effectively curtail illicit activities.

Forest Product Utilisation and Distribution

The Forest product distribution wing is responsible for the distribution of forest products and the process governing the allocation of timber is very similar to Dhuseri. Likewise, the forest product rates across the two groups are almost identical. Records are maintained for extracted and distributed forest products. To access timber quotas, users should submit an application along with Rs. 25 and state the reason behind the need for timber. After a recommendation (or rejection) of the application by the head of the sub committee, the committee will allocate timber as per the rules.

The role of the monitoring committee is to evaluate whether users have utilized forest products to fulfill their needs. The monitoring committee has a formal authority to penalise violations. It should be mentioned that while the mechanism for control of timber utilisation in Chautari is a replica of the process in Dhuseri, the above description provides the "official" account of the process of distribution of timber in Chautari. In contrast to Dhuseri, where we know that the control mechanism is ineffective, data limitations make it hard to establish precisely how well the mechanism operates in Chautari. While the incentive problems and scope for arbitrage are as strong as in Dhuseri, it is distinctly possible that the contrast between the official and the hidden economy is less pronounced in this case.

Branches and twigs damaged by the wind are distributed free of cost to users every year from 1st to end of Poush and in Jestha for 15 days but this is restricted to 2 people from each HH. The users can also collect the twigs and fallen small branches every Saturday during Shrawan and Bhadra. Users may also purchase fuelwood from the group for Rs. 100/quintal which exceeds the price of Rs 75 charged by Dhuseri. Grass cutting is allowed from Bhadra 15th to Ashoj 15th and Mangsir 15th to end of Poush for the growth of the tree species. The forest is also open for fodder from Magh 1st to end of Baishak.

[105] During the period of national forests, the role of DFO-staff was to charge harsh penalties for violations. After the formation of the user group, the role has changed to facilitation, monitoring and advising, which has improved the relationship. As the following evidence indicates, this doesn't rule out contrasts between official responsibilities and actual practice.

Special provisions and development expenditure

Free membership has been granted to schools in the users' area of the CF. Timber is mainly provided to schools against a fixed price. The temple can get up to 5 cubic feet timber free of cost but have to pay for further requirements. The user group has awarded construction grants to Barchuli Junior High School Rajahar for extensions of classrooms and roof support to Saraswati Primary School in ward no. 4. A construction grant of Rs 75.000 has also been given to the sub health post in Rajahar. Other financial and timber support has been provided to other schools, the police office, mothers groups and NGOs. Moreover, a grant for a biogas plant of Rs 75.000, aimed at reducing fuelwood consumption has also been granted. The group has also given support in the form of disaster relief, mainly in connection with Jharahi floods.

Problems, Issues and Conflicts

Dhuseri and Chautari are undoubtedly advanced forestry user groups both in infrastructure development and in their respective approaches to community forestry. The user groups share another common feature: female leadership and participation remains very limited.[106] Moreover, as noted, the motion for differentiation of users by socio-economic status was recently defeated in the General Assembly.

Based on a claim of being deceived by people living near the forest, e.g. residents in ward no 8, users from ward 5 have argued that a separate part of the forest should be allotted to them. Having much cultivated land and substantial livestock holdings, ward 5 has a high demand for forest resources to meet agriculture, domestic and livestock needs. The claim of deception was rooted in the observation that users in ward 8, adjacent to the forest, collect more forest products, legally and illegally.

In 1999/2000 an interesting conflict emerged over a plan for a ward-wise division of the forest into plots. A demarcation for this purpose was undertaken on the initiative of the then Chairman X. However, users in ward 8, resisted this initiative. Having used the barren areas of the forest for grazing, a ward-wise division of the forest would effectively restrain their grazing opportunities. These users now accused the former Chairman, Mr X of being responsible for conflict claiming that he had received money from people from other wards after encouraging and backing their demands for a ward-wise division.

The committee pays field allowance of Rs 12.-14.000 per year to DFO-staff during the utilization season. The role of the ranger during the harvesting period is to approve various steps in the harvesting process including estimates of felling, blazing and numbering of trees, to grant permissions for sawing in the sawmill as well as permissions to sell any surpluses outside the VDC. This provision of technical assistance falls within their official responsibilities and covered by regular salaries. Despite of this, the FUG is being charged for these services. There is much disagreement about the payment and the scale of payment to the forest officials.

The Nepal-German Ayurvedic society was prepared to enter into a 20-year agreement with the user group with a view to promote NTFP production and sales. An almost completed agreement was, however, undermined by strong opposition from the current chairperson Mr Y, and the proposal eventually scrapped.

[106] Female representation is distinctly low in Chautari, Dhuseri and Harpur. An interesting hypothesis, albeit one for future research, would be to examine the relationship between resource value and female representation.

His official claim was that the project could jeopardise the daily needs requirements of the users, due to a leasing clause in the proposed agreement. Mr X (the then chairperson) who had been supporting the initiative felt that this resistance threatened and undermined his leadership. There is a rather strong element of personal politics in this narrative. Mr Y's hidden agenda was to undermine Mr X's position to overtake the Chairmanship himself, a goal eventually accomplished, since the Ayurvedic society project compelled Mr X to resign.

Mr X now claims that he can prove that the present chairman, Mr Y has been involved in illegal activities, more specifically, that Mr Y has felled green trees in conflict with the Operational Plan. However, Mr X is reluctant to provide further details because he is concerned about the reputation of the FUG.

During the chairmanship of Mr Z in 2057/58, an allegation of financial misconduct was raised in the assembly. It was found that he had spent Rs. 11000 to buy alcohol for the DF staff and for employing laborers for the transportation of woods from the forest to the depot. Rs 11.000 was spent on food and travelling to the DFO in order to obtain the harvesting permit. A considerable sum of money was spent to persuade the ranger to approve a larger than previously agreed quota.

Another case, accusing Mr Z for misuse of Rs 9000 by giving favour to people already privileged through other FUG-activities, related to the loading of timber. The staff was given Rs 9000 for loading in addition to their regular payments. Poor users argued that they should have been given the loading job and Mr Z was accused of denying the poor employment opportunities.

During his tenure, Mr X provided Rs. 1500/- to a DF staff in the harvesting season , e.g. December 2056/57 in connection with a visit to the District Office to obtain the blazing order for felling of trees. Mr X and the then vice chairman requested the ranger to produce the blazing order. The ranger lingered and asked for money. He was given Rs. 1000/- on the spot. The ranger then requested the chairman to buy lunch and incurred further expenses of Rs 500. Two days later the blazing order was sent. After issuing the blazing order, DF staff marked 1700 cft for felling. While cutting it was discovered that some trees were hollow and the committee asked for permission to cut more trees to fill the allotted quota. The ranger accepted this request after extensive bargaining. Having been granted this second permission, the majority of the committee, who were aligned with the Chairman and with forest staff overstepped their mandate and felled old green trees as well. Inspecting the spot, the ranger gave the impression that the illegal felling had been reported to the district officer. He said that the committee should attend DFO for clarification without any further delays. The committee members were worried and asked the ranger to do whatever he could to minimize the offence. For this favour the ranger demanded 20 cubic feet of timber. The committee provided the timber immediately to save themselves from further trouble and embarassment.

Another interesting example concerns the sawing of timber. In July 2002, the ranger had given the committee permission to saw in Dibyapura Saw Mill at a rate of Rs. 38/cft.[107] Instead, the committee decided to process the timber at Pragatinagar saw mill (4 km west) which offered a rate of Rs. 30/cft, thereby permitting a saving of Rs. 8/cft. When informed the ranger sent a letter asking for clarification. He didn't approve of the answer thinking he

[107] The owner of this Saw Mill quoted the sawing rates as Rs. 20/cft.

had lost commission from the saw mill. The committee members involved in this incident are reluctant to provide further information about the matter.

Leadership crises

The FUG is undergoing a critical leadership crises manifested in high instability. While the committee tenure as in Dhuseri is 5 yrs, the committee turnover has been high, with 4 changes in 7 yrs (2052-59) with the latest Chairman stepping down in December 2002.

The following individuals have been Chairmen in Chautari:

Term	Duration	Chairman	Ward no.	Pol. Affiliation
1st	2052/56	○ Mr W	8	Nepali Congress
2nd	2056/57	○ Mr X	6	Nepali Congress
3rd	2057/58	○ Mr Z	3	Rastriya Prajatantra Party (RPP)
4th	2058/59	○ Mr Y		Nepali Congress

Analysis

The above situation illustrates that apart from political alliances, which both in Dhuseri and Chautari appear to reflect groupism more than party politics, a comparison of Dhuseri and Chautari raises several interesting questions. A striking similarity is the absence of female representation in the two groups. The contrast in the attempts to categorise users is also stark. Although defeated, the effort to make forest product pricing needs-based was aimed to accomplish more equity. Some uncertainty surrounds what appears to be scale-differences between the transgressions observed across the two sites. The allegations and claims of misconduct in Dhuseri are systematically more severe in their content, but it's not evident that this is a reflection of more severe underlying circumstances. The apparently more sharp contrast between the official and the hidden in Dhuseri might be a reflection of the field-team's ability to more decisively penetrate the information barriers that inevitably surround issues of this nature. Mr X's emphasis of the importance of protecting the reputation of the user group underscores the relevance of this point. The Chautari case study provides interesting insights into some of the tactics deployed by the forest ranger to extract services from the user group. While the Rs 1500 charged for the production of the blazing order is a petty amount compared to the figures from Dhuseri, it provides one among a number of "fees" users may have to pay.[108] By indicating that illegal felling had been reported to the DFO, the ranger generated a rather strong bargaining position for himself. The payment for not reporting the transgression by the committee (20 cft of timber) would seem to be comparatively modest. The final observation concerns the scope for collusion between the forest ranger and local saw mills which provides further illustration of the web of rent-seeking the regulatory framework for forest management in the Terai currently provides.

[108] To sell timber from private land, an individual is confronted by a formidable paper-mill: (i) Obtain a recommendation from the VDC (requires land certificate), (ii) A similar recommendation from Land Survey Office. (iii) Submission of application to the Illaka Office through the range post. (iv) Site inspection by Forest Ranger (who will report back to the DFO). (v) Must also obtain permission for transportation after the cutting (from each forest product check post, see above). The production of each of these permits is associated with a "fee".

Conclusion

This report has brought out a number of important findings. As in other sites, the formation of the pioneer FUG in Nawalparasi District, Dhuseri FUG, was rather conflictual. There was also considerable local scepticism about the scope for community based forest management and in order to cajole sufficient local support to meet DFO requirements for numbers of household members, private forest plots were offered as an incentive. Subsequently, Dhuseri FUG has in some ways matured and is responsible for a number of substantive forest management activities. Its establishment has paved the way for the formation of Chautari and Bartandi FUGs in the north of the VDC, and for other Buffer Zone Community Forests in the south. Much of the evidence presented in the report has nevertheless focussed on Dhuseri and Chautari, both FUGs controlling high value forests. The motive for this focus has been the particular relevance of understanding the unique challenges posed when the community forestry template, developed on the basis of experiences from the Hills, is applied to forest user groups characteristic of the Terai. A number of important lessons have been learnt about the shortfalls of sticking uncritically to this template. Apart from privatised forest plots, we have documented the current debate of attempting to categorise users and introduce a differentiated price system. More importantly, we have introduced the concept of hidden timber subsidies and illustrated their magnitude and distributional profile. The focus on hidden subsidies has provided an effective instrument for uncovering severe distributional biases in FUGs controlling high value forests. We have also documented, in great detail, the problem of institutional instability in the same user groups. A detailed and carefully triangulated account of the scramble for control and its variation over time demonstrates the need, in calling for transparency and accountability, to recognise that such a call for organisations with substantial annual revenue flow may pose a formidable task. By way of illustration, the verification of actual misdeeds has been shown to be tricky, raising the question as to how marginal and illiterate members of the local community can be in a position to arrive an informed opinion of misdemeanour by office holders. Finally, the study has also brought out a number of interesting aspects of the changing relationships between representatives of the forest authorities and FUG Chairs and members of executive committees.

Attachment for Annex 2, Appendix 5 – 1

Table AAA 1: Description of present Executive Committee Members[109]

S. No	Desig-nation	Address	Educa-tion	Occupation	Tenure in com-mittee	Designation
1.	Chairman	Dhuseri – 7	MA	Teaching	Two times-total of 2.5 yrs	Chairman
2.	Vice chairperson	Dhuseri – 7	General-Sanskrit	Farmer	3 yrs	Vice chairman
3.	Secretary	Dhuseri – 7	BA	VDC chairperson	1.5 yrs	Secretary
4.	Treasurer	Dhuseri – 7	8 class	Farmer and ex-army	3 yrs	Treasurer
5.	Joint secretary	Dhuseri – 7	BA	Saw mill owner	1 year	Secretary
6.	Member	Dhuseri – 7	8 class	Ex- army and ex-VDC chairman	1 yr	Member
7.	Member	Dhuseri – 7	6 class	Farmer	1 year	Member
8.	Member	Dhuseri – 7	6 class	Farmer	2 years	Member
9.	Member	Dhuseri – 1	8 class	Farmer	1 year	Member
10	Member	Dhuseri – 7	10 class	Farmer and teacher	2 years	Vice chair-person
11	Member	Dhuseri – 7	5 class	Farmer	1 year	Vice chair-person
12.	Office secretary	Dhuseri – 7	IA	Farmer + Employee of the group	3 year	Employee staff
13.	Forest watcher	Dhuseri – 7	Literate	Farmer + Employee of the group	1 year	Employee staff
14.	Forest watcher	Dhuseri – 7	Literate	Farmer + Employee of the group	1 year	Employee staff
15.	Peon	Dhuseri – 7	5 class	Farmer + Employee of the group	3 years	Employee staff

[109] All committee members are males.

Table AAA.2: The Annual Operational Plan

Year	Activities						
	Clearing	Thinning	Singling	Prunning	Using dead and fallen	Plantation	Adopting new technique for protection
2057/58	Block Ganesh	Block Ganesh		Block Ganesh	Block Ganesh	Block Ganesh	
2058/59	Sansari	Sansari	Block Ganesh	Sansari	Sansari	Sansari	
2059/60	Block-Mayurkuna	Block-Mayurkuna	Sansari and Ganesh	Block-Mayurkuna	Block-Mayurkuna	Block-Mayurkuna	
2060/61	Bandevi	Bandevi	Sansari and Mayurkuna	Bandevi	Bandevi	Bandevi	Ganesh Block
2061/62	Deurali danda	Deurali danda	Mayurkuna and Bandevi	Deurali danda	Deurali danda	Deurali danda	Ganesh and Sansari
2062/63	Plantation of cane and bamboo in open spaces of all the blocks						

Table AAA3: Estimated Budget for FY 2058/59

S.N	Income	Amount Rs	S.N.	Expenditure	Amount	Remarks
1.	Sawn Timber-5000 Cubic Feet.	1500,000	1.	Administration	10.36%	2,40,000
2.	Bakal Selling	75,000		Personnel Payment	80,000	
3.	Advance Returned	108,000		Delegation, Hospitality, Stationery, Repair, Telephone, Electricity, Fuel, Others	75,000	
4.	Membership	25,000		Training, Seminar	25,000	
5.	Renew, Membership Transfer, Duplicate Copy	3,000		Study tour	50,000	
6.	Fines	1,000		Forest Deity worship	10,000	
7.	Internal source	5,000	2.	Utilization	51.34%	11,89,500
8.	Fuel wood selling	600,000		Timber sawn	4,50,000	
				Fuel wood	5,50,000	
				Bakal	14,500	
				Cutting/ Logging	35,000	
				Labor Wages	1,40,000	
			3.	Forest Promotion	23.09%	5,35,000
				Building and Store House	4,20,000	
				Footpath and Fire Line	50,000	
				Fencing	15,000	
				Pond Construction	20,000	
				Forest deity Temple	25,000	
				Nursery Management	5,000	
			4.	Development/ Infrastructure	13.81%	3,10,000
				Education		
				Dhrubajyoti pry. School	26,000	
				Devachului college	1,00,000	
				Health	14,000	
				Drinking Water	20,000,	
				House For Funeral Rites	25,000	
				Poverty Reduction		
				Income Generative Program	30,000	
				Skill	20,000	

S.N	Income	Amount Rs	S.N.	Expenditure	Amount	Remarks
				Enhancement		
				Biogas Grant	25,000	
				Biodiversity Conservation Aid	20,000	
				Temple Construction		
				Sarweshwar Siwalaya (Hermitage)	30,000	
				Ganesh Temple	10,000	
			5.	Publication	1.39%	40,000
			6.	Last Balance	0.10%	2,500
	Total	**23,17,000**		**Total**		**23,17,000**

Appendix 6. ***Site report*** **-- Devdaha VDC, Rupandehi District.**

Devdaha VDC boundary lies some 8 km east of Butwal along the main highway in the eastern part of Rupandehi district. Butwal municipality is located on its western boundary and Palpa district covers its northern boundary. In the south lie the boundaries of Kerwani, Makrahar, Shankarnagar and Karahiya VDCs within Rupandehi and to the east lies the border with Nawalparasi district. There are nine wards within the VDC that according to the official statistics (VDC Profile, 2057) covers 10254 ha of which 85% is recorded as forest and 15% is cultivated land, river and settlement. Official data on land use by ward is not available but even if it were available it is questionable as to how useful it would be given the wide discrepancy between the official categories of land use and actual land use.

Three of the wards (3, 7 and 5) lie north of the Mahendra highway (see Fig 1) and these are the largest wards in terms of household numbers (table 1) and where the greatest proportion of the officially registered forest is located. Wards 1, 4, 5, 6 and 8 are located south of the road and ward 2 straddles the road. Five permanent rivers flow from north to south across the VDC and only ward 4 is not reached by this river system. While these rivers are used for irrigation (for all wards except 4) they are also cause considerable damage through riverbank erosion.

Table 1: Distribution of households by ward for Devdaha VDC.

Ward	1	2	3	4	5	6	7	8	9
No. Hhlds	232	643	504	179	506	628	251	246	751

History of Settlement and Ethnicity.

The original settlement of Devdaha dates back to 1813 – 1814 [1870-71 B.S] when Hikmat Bahadur Shakya, a landowner from Palpa district bought 12 – 1300 bigha (approximately 860 ha) of land in a government auction. Over the next 4-5 years (1815 – 20) he brought in Tharus from Gorakhpur[110] as tenants and to clear the land for cultivation and about 400 – 450 people settled during that time mainly in Mauja tole (ward 6). Subsequent to this (5-6 generations ago) Kumal[111] from Palpa district also moved down as tenants and Haruwas (bonded labour) to work on Hikmat Badadur Shakya's estate. These are reported to have intermarried with the Tharu so that they are now indistinguishable.

No further settlement into this area is reported for another 150 years. From 1961 [2018 B.S.] but from this date annual migrations took place (see table 2).

Table 2. History of land settlement in Devdaha VDC from 1961. [2018 B.S.]. Source: VDC Chairman

[110] A city in Uttah Pradesh, India about 100 km south of the Nepal India border

[111] Kumals are potters who migrated from the hills; although not 'untouchable' the Newars consider them to be lower in the caste hierarchy.

Ward No	Year Settled	Who?	From where?	No. hhlds	
1					
2	1971			127*	Purchase and encroachment
3					
	1971			127*	Purchase and encroachment
4					
5	1966		Burma, Gulmi	13	Purchased land from Hekmat's son
	1987	Chettri, Magar		212	Settlement of flood victims
6	1964		Burma	3	Bought land
	1966-68				Land title denied by survey team to original settlers as could not pay; increase to 16 hhlds without title deeds
	1973-76		Burma, Assam		
	1979-82	Magar Tharu			
7	1961		Gulmi	11	Purchased land from Hekmat's son
8	1962	Magar Chettri	Assam		
	1969-70		Parbat, Burma		Land purchase
9					

* 127 households in total across the 2 wards.

In 1966[112] migrants purchased land from Hekmat's son in Wards 5 and 7) and from the original Tharu and Kumal settlers who as a result of land reform in 1967 had been allowed to purchase land and gain land title deeds. These early 1960 migrants either came from the hills (Palpa and Gulmi districts) and were wealthier households with money who could afford to buy land or they were returning Nepalese settlers from Assam and Burma. Later migrants were much poorer and increasingly settled as encroachers in the official forest area.

Physical and Social Infrastructure.

The VDC as a whole is relatively well serviced with facilities, reflecting perhaps its closeness to Butwal, and the presence of the Mahendra highway. Some indicators of infrastructural assets and wellbeing are relatively equally distributed across the wards. For example there is little reported variation in literacy rates across the wards (between 65 and 73%) with male and female literacy rates respectively 63 and 75%. Roads (dirt or gravel) connect all wards.

However there do appear (table 3) to be a number of intriguing patterns of distribution of social and physical infrastructure that may be based on the effects of distance (from the road) confounded with settlement patterns by ethnic group. They are worth drawing attention to, not least to situate the two wards in which the FUGs were investigated (wards 5 and 6), although there is probably insufficient information to read too much into the patterns on the basis of the available evidence. First it is worth noting that particular ethnic groups appear to be concentrated in particular wards. For example Ward 2, which straddles the road, happens

[112] These migrants (16 households) had moved from Assam although they originally came from Palpa; they were reported to have purchased 72 bigha of land @ Rd2200/bigha

to have the highest proportion of Brahman/Chettri, Newar and Gurung populations of all the wards. Ward 1, which is the most southerly of the wards, has the highest concentration of Tharus of all the wards, and some 25% of the total Tharu population. Ward 2 contains 40% of the business enterprises recorded in the VDC, ward 1 only 14% of them. Of the 26 Social institutions (Clubs, groups, FUGs, Co-Ops) currently recorded in the VDC four of the wards (2,4,5,9) contain 19 of them. Six of the ten private schools are located in the same wards. However it should be noted that Ward 1 does contain the one government higher secondary school – the four private secondary schools are to be found in wards 2, 4 and 5.

Table 3: Selected social and infrastructural characteristics by ward, Devdaha VDC.

Ward	Pop.	Ward in which ethnic group (a) highest pop. (b) and % of total ethnic group pop. (c)			Social Org.	No. Schools		% VDC enter-prises	Percent of hholds with (a) electricity, (b) water	
		(a)	(b)	(c)					(a)	(b)
1	1402	Tharu	235	23%	2	2		14	74	63
2	3736	Brahman / Chettri	1637	18%	5	4	2	40	60	43
		Newar	133	14%						
		Gurung	510	39%						
3	2909				2	4	2	8	8	11
4	984	Kumal	123	18%	5	3	2	5	50	55
5	2839				5	3	1	11	60	51
6	3664				2	2		2	29	31
7	1442				1	1		4	53	58
8	1494				0	2	2	5	39	38
9	4331	Damai/ Kami	633	25%	4	4	1	10	15	16
		Magar	2326	36%						
								275		

Set against this it should be noted that ward 1 has the highest number of households with electricity and water supply. Patterns of resource distribution do not necessarily point in all the same direction.

Livelihoods.

VDC level statistics indicate that only 24% of the population is occupied (assumed to be landowners) in agriculture (table 4) with wage labour (on and off-farm) being the major source of income.

Table 4. Occupation of the economically active population

Percent of economically active population engaged in:						Total
Agriculture	Wage Labour	Employed	Migrant Labour	Pension	In Business	
24.3	38.2	9.7	15.8	5.8	6.0	5669

Source: VDC Statistics

These categories of course make no allowance for multiple occupations and it is clear from the land ownership data[113] (table 5) that only 9% of the households are actually landless. A further 43% of households own between 0.002 and 0.175 ha so are likely to derive some income in kind from cultivation although clearly not enough to meet all of household food needs.

Table 5 Number of households by ward and size of cultivated land (dh = dhur; k = kathha, b = bigha)

Land. Ward No.	0	1dh-5k	5-10 k	10 k - 1b	1-2 b	2-5 b	Above 5 b	Total hh
1	80	44	41	45	19	2	1	232
2	62	398	140	40	2	1	0	643
3	57	150	167	94	30	5	1	504
4.	14	63	49	32	17	4	0	179
5.	16	302	112	64	10	2	0	506
6.	13	207	223	158	21	6	0	628
7.	9	95	76	54	14	3	0	251
8.	47	97	64	25	12	1	0	246
9.	55	337	147	140	59	13	0	751
Total	**353**	**1693**	**1019**	**652**	**184**	**37**	**2**	**3940**

Source: VDC Statistics.

A wide variety of crops are grown including paddy, wheat, maize, vegetables, mustard and lentils. However the major agricultural enterprise that is reported to have grown over the last 10 years, stimulated by urban demand, is dairying and 7 dairy cooperatives have been established with collection points in wards 3,4,5,7 and 9.

Forest User Group Development in Devdaha VDC.

Prior to 1994 no steps had been taken to establish community protection of forests within Devdaha VDC. The whole forest was under the control of the Forest Office who maintained a range post with 4 to 5 staff for protection duty. This apparently did not stop the illegal export of forest produce (in which Forest Staff must have been complicit), mainly fuel – reportedly 50 to 60 bullock cart loads a day, run by the local elite.

However subsequent to the formation of two FUGs (Shankarnagar and Shiranagar) in neighbouring Butwal municipality, a national NGO, WATCH[114] , extended its field office to Devdaha. They began an awareness campaign on the protection and use of forest resources within the VDC. Two of the WATCH staff members, one on the Central Committee and one a field staff member in Devdaha in fact came from the family (sister and brother) of the current chairwoman of Srijana FUG (discussed below). During the initial activities WATCH formed small groups of mothers one of which initiated a demand for the formation of Community Forestry. A Forest Protection Committee for Bankitta Block of Ward 6 was formed and 300 seedlings of Sissoo (provided by the DFO) were planted. Other people from Bankitta, Bangala and Bhairab tole within the ward bought 2 roles of wire and fenced the plantation area.

[113] However we do not know the relative proportions of registered and unregistered land.
[114] 'Women Acting Together for Change'

In September of 1995 WATCH supported a meeting held to discuss the formation of a formal FUG and as a result of this a constitution drafting committee was formed. At a further general meeting held in November 2052 the constitution was passed and an Ad Hoc committee was formed. This committee then submitted their proposed constitution to the DFO for registration. The then DFO refused to register the FUG arguing that since only 18 of the 149 households had registered land, the rest of the households were technically landless and that there was no provision to hand land over to them since, the DFO argued, it was they who had made the land barren. Despite the refusal the committee made regular contact with the Ilaka Field Office in order to get registration but although the application was forward to the DFO he continued to refuse the registration, accusing WATCH of instigating the community against the DFO.

Pressure continued to be applied with WATCH bringing in a journalist to interview various stakeholders and obtaining contradictory views from different officials on the provisions for registration. A further application by the Committee for registration at the district level was met with refusal by the DFO even to meet the committee. They responded by forcing a meeting asking for a written 'refusal to accept the application'. The DFO then agreed that a formal application could be made through the Ilaka forest office. This process of application took time but the death in custody of a local inhabitant caught illegally felling wood brought matters to a head. The community concluded that the death had been due to severe beating and stormed and destroyed the DFOs office and he only narrowly escaped himself with his life.

The DFO was transferred and his replacement proved to be more receptive and provided support to the Committee for the submission of their registration proposal. Registration of the Srijana FUG was finally achieved in August 1996. After the registration it took almost a year to prepare and approve the operational plan and the forest was finally handover with the DFO in attendance in late June 1997.

As a result of the success in the formation of the FUG neighbouring communities within Devdaha VDC were encouraged to take action themselves and as a result a total of three CFUG have now been handed over and 11 are being processed by the VDC.

However debate and action with respect to the rights of use and control of the forest in Devdaha have continued. The incoming VDC Chairman was supportive of the CFUG and on taking office in 1997 he found that a decision to declare Devdaha's forest as 'Reserve Forest' had been made by the former VDC Committee. He opposed this and contacted FECOFUN who helped organise an introductory programme about CFUG in 1998, drawing on resource personnel from Nawalparasi and learning about the Operational Forest Management Plan. With encouragement a strategy for forming user committees and establishing community forest areas that encircled the production areas was elaborated with the intention that this would compel the government to hand over the production area to the community. With support from WATCH a cross VDC action committee (from 6 VDCs including Makrahar, Karaliya, Kerwani, Siktahan, Devdaha and Chhotri) was established in February 1999 with the Devdaha VDC chairman as coordinator.

In 1999 this action committee attended a seminar organised by FECOFUN in Benke district. As a result the action committee reorganised itself into a 'Forest Concern Group (FOCOG) AdHoc Committee in February 1999 and established a 21 member committee at a Butwal seminar in 2000. This committee has been formed with representation from environmentally

related organisation including journalists, DDC members, VDC members, FECOFUN and WATCH. The Devdaha VDC chairman is the coordinator and WATCH is the secretary. This committee is now playing a major role in developing Community Forestry in the area.

Conflicts. Issues and Challenges over FUG Management in Devdaha.

There are a number of general problems and conflicts that are evident in Devdaha and these are briefly outlined.

The rivers flowing through the areas are causing considerable river bank damage. The DFO has not allowed the user groups to collected the trees that have fallen as a result of the river bank damage stating that it needs 'a blazing order' . In some cases the trees have already been carried down the river and lost before the community has been allowed to collect them. The communities are also claiming the right to cut dry (dead) trees rather than have to seek permission from the DFO.

In Srijana, the FUG planted about 5000 sissoo trees on 1 ha of land near the Ilaka forest office area. However the Devdaha VDC has laid claim to the area for use as a weekly *haat* (market place). However neither the VDC or the FUG gained control of it as the Forest office has denied them both use. The Srijana FUG continues to demand that the area should be theirs on the grounds that they planted it.

There appears to be almost complete ignorance amongst the DFO field level staff on the Operational Forestry Management plan and its intentions for the area.

The Ilaka forestry staff are of the opinion that the 'Virdhan Uthan' Bank in Devdaha has indirectly contributed to deforestation because of its policy of loans to the poor. The bank works on a basis of weekly repayments encouraging debtors to go to the forest and sell produce in order to raise the money.

The Community Protected forest now lies in the production forest. The government has tried to develop it as demonstration plots and manage weeding but the communities have protested against this in Ward 8. As a result neither the community or the Forestry Department are managing it well.

There appears to be differences in opinion between WATCH and the LFP Project over the implementation of the new program for Forest Management. According to the LFP the government is thinking about implementing collaborative forest management in areas where there is no appropriate forest for community forest. This discussion is going on within the department and in the field a baseline survey is being implemented to collect village level information.

On the other hand WATCH takes the view that collaborative forest management is just rhetoric and there is a strong risk this it will lead to the curtailing of the existing rights of users. They see this as contravening the present rights of use laid down by Act and by By-Law.

Recently LFP began implementing the baseline survey in Devdaha, forest users stopped the survey and did not allow it to be implemented until they were clear on the objectives of the survey. LFP appears to feel that WATCH is politicising the issues about the rights of users,

and that WATCH itself would take the credit if Collaborative Forest Management in fact lead to benefits for the communities. WATCH's view on the other hand is that they (WATCH) have reduced the number of staff from three to one in Devdaha since LFP is coming to work in the area. The mission of WATCH is to empower the users to enable them to use their rights. WATCH has been working in the area before LFP launched its programme in the district. It has not been teaching the users on how to deal with LFP and they don't have enough staff to do so. There appears to be mutual suspicion between LFP and WATCH

In Devdaha only 3 CFUGs have been handed over, a further one has been registered and there are another 11 in process. The constitution of these has been prepared with assistance from WATCH. There appears to be a feeling in some prospective FUGs that the DFO is asking for the operational plans to be prepared according to the Collaborative Forest Management system so that registration can be easily done. The DFO staff on the other hand state that the Protection Committee has not submitted the constitution but agreed that they had asked for the Plan according to the collaborative management system. While other forestry officials (the IFO in Sitalagar, Butwal and LFP) argue that collaborative management is only in the conceptual stage, it appears as if the DFO is using this as a ploy to delay registration of the FUGs, possibly driven by the poor relations between WATCH and the DFO. However there is no information on whether the DFO has registered FUGs in other places where there is not WATCH support, without making delays, so it is an open question as to whether or not poor relations between WATCH and the DFO are a crucial factor.

Outcomes from Community Forestry Development.

Srijana Community Forest. (Ward 6 – Bankitta, Bangoli tol; Ward 5 – Madan gram tol) 143 hhlds with 11.31 ha (0.08 ha/hhld)

Summary Description.

Srijana Community Forest is located in Devdaha VDC, in a strip along the bank of the Ghodaha river. It occupies a total of 11.31 ha which has been divided into three blocks for management purposes but these are adjacent to each other. The forest is a mixture of natural and plantation species including *Shorea robusta*, *Delbergia sissoo*, *Syzygium cumini*, *Acacia catecho* and *Melia azaherach*. Protection of the forest was started in 2050/ 51 and the forest was handed over in 2054 (the third month).

History of the Forest and Settlement

Before 1971 [2028 B.S] the forest, a total of some 225 ha, was reported to be dense containing a range of tree species including sal, saj, jamun, rohini, and kusum. There was an abundant population of wild animals including leopard, tiger, bear and deer. There were about 13 households (Brahmins and Chhetris) settled on the western side of the ward (Old Shital Nagar) who had easy access to the forest products that they needed. A bhari of fuel wood could be collected in 15 minutes. Although the government controlled the forest there appeared to be few restrictions on the collection of forest products. The major problem was wild animal damage to their crops.

In 1971 additional households moved to Shital Nagar and with the construction of the Mahendra highway there was increased migration from the hills. With the road construction a large number of trees were clear felled and people started to settle along the roadside. In 1977

[2034 B.S] a further 14 household came from the hills (from Palpa, Gulmi, Tanahu district) and encroached into the forest clearing 2-5 bigha of land each. Between 1979 and 1982 the migration rate increased rapidly and during the panchayat referendum government allowed substantial clearance of the forest in order to win votes and the other tols (Bhairab, Bhagwati and Hile) were settled at this time. About 70 – 80% of the households that are now settled came at this time. In part this was fuelled by the development of Shital Nagar town (located in ward 5 of the VDC) and it was rumoured that a household would be allocated 1 kattha of land in the town planning areas. Those who had already settled started to sell land to the newcomers, who bought in the belief that land registration was possible.

By 1982 [2039 B.S] much of the forest land had been encroached on and used for settlement and cultivation. Only about 35 ha remained and this was insufficient for the fuel wood and timber needs. Households started to collect forest products from the northside of the ward.

From 1983 to 1993 the government acted to prevent further encroachment and prevented further felling on both the encroached land and the remaining forest area. New migrants who came settled on land purchased from older migrants. However during 1993 the NGO WATCH became active in the Devdaha VDC establishing awareness programmes on health and the environment and pushing the idea of community forests. As a result some of the elite of the area came together to organise a meeting and to discuss the protection of the forest. They started a door to door campaign to raise awareness about the protection of the forest and as a result of this people adjacent to the forest area made the decision to protect the forest.

Table 6. **Summary of Settlement Processes**

	Households	Forest		
1970	13 hhlds	Dense 225 ha		
1971	New hhlds		Highway	Collection north of forest starts
1975	14 hhlds			
1979	70% of hhlds arrived			
1982		Largely damaged 35 ha remain		
1983		No further encroachment		
1993				Watch activities
1994		Planting of Sissoo etc		Formation of FUG
1995		Planting of Seedlings		Approval of Constitution
1998		Establish Nursery		
1999				Replacement of chairman
2000		Planting of Bamboo		

The Establishment of the Forest User Group

The households living in the tol adjacent to the forest area (Madan gram, Bankitta and Bangala) had been using the forest area for grazing and by 1993 it consisted of a remnant but sparse (5 – 10 m spacing) population of mature Sal, Saj and Karam with no understory of

bushes or shrubs. When they decided to protect the forest they started to control the grazing and fuel wood collection was banned. In 1995, they planted some 10 – 12, 000 seedlings of Sissoo, Khair and Bakaino and these were supplied free by the DFO. A protection committee was formed two years later. This committee started the work of planning and constitution preparation and registration of the FUG with the DFO.

Constitution preparation, registration and Operational Plan preparation

In 1995 B.S a protection committee was formed under the chairmanship of Mr K. (founder chairman of Srijana CFUG) consisting of 13 members (7 men and 6 women) and this took the responsibility of preparing the constitution and the registration. Initially they did a household survey collecting demographic, socio-economic status and use of forest product information. A meeting was held in each *tole* and discussion held on the rule for forest management, the system for distribution of forest products, details on penalty and fines and the role and responsibilities of the committee. After these meetings a ward level meeting was held to discuss the constitution and a final draft was prepared through group consensus. WATCH was active in providing support for this process of discussion and constitution preparation.

Later in 1995 a constitution was submitted to the DFO, Rupandehi for registration of the FUG. However the DFO of that time refused to approve arguing that the Community Forest could not be handed over to the community as the community was basically landless (e.g. did not have registered title for their land) and this would allow them to legalise their status. However at the end of 1995 a new DFO who was more receptive to the idea of community forest suggested a few changes in the constitution (apparently slight changes in the structure of the constitution) and on that basis approved the constitution in August 1996.

After registration and again with support from WATCH an inventory of the forest was undertaken and a draft work plan for the forest prepared. This was discussed in a membership meeting and once finalised submitted to the DFO for approval. This was done in 1997 and with this the forest area was formally handed over to the FUG. The duration of the Operational Plan (OP) was for 5 years and in April 2002 it was revised and a second operational plan was approved by the DFO in August 2002. Relations with the current DFO are reported to be not so good. The committee submitted the new operational plan for revision since they wanted to develop income-generating activities and construct a park (as a picnic spot for residents from Butwal but this has not been approved.

FUG Membership

Users of the forest come from Ward no 6 (Bankitta and Bangali tol) and Ward no 5 (Madan gram). The membership is summarised by ward in table 7.

Table 7. Summary of CFUG membership by ward and tole.

Ward	Tole	No hhlds in Tole	No of hhlds that are FUG members (non-members	% tole hhlds that are FUG members
5	Madan gram	188	92 (96)	49%
6	Bankitta	28	23 (5)	82%
6	Bangala	50	43 (7)	86%
	Total	**266**	**158 (108)**	**59%**

It is clear that not all members living in the three toles surrounding the forest have joined the FUG. In the case of Madangram, which has the highest percent (and absolute number) of non-members there appear to be two reasons why households have not joined the FUG. First households more distant from the forest accessed different forest areas for their requirements and as a result and second, did not join in the forest protection activities or planting of species and so were not included in the FUG. Indeed they appear to have opposed the formation of the FUG arguing that ' the community should not protect the grazing land as it is government forest and why should we plant and protect it. We do not get any products (grass, timber, fuel wood from it)". Household from other neighbouring toles (e.g. Sitar nagar, Bhagwati) were also invited to join but none did.

In the case of the non-member households from Bangala and Bankita tols, the reason for not joining the FUG was reported to be that they had settled after the formation of the FUG and were unwilling to pay the membership fee, an issue that will be returned to later.

Based on information provided by group discussion several criteria (table 8) were used to distinguish between three wealth groups amongst the FUG members.

Table 8. Criteria used to distinguish different wealth groups

Rich	Government Service (Police Inspector, Officer), Pensioner or Business; RCC building; Children at boarding school; Food self sufficient, Improved livestock breeds, Owner of Bus, Motorbike or tractor
Medium	Government Service (Police, Army, Peon, Office Clerk), Private employment, 10-15 kattha of land, food-self sufficient for 6-9 months, thatched roof house, children at government school, a few improved livestock breeds
Poor	Wage labour major source of income, Large families, less than 5 kattha of land, food-self sufficient for 2-3 months, small thatch house, children at government school.

On this basis, FUG membership by caste and wealth status was distinguished (table 9)

Table 9. CFUG membership by caste and economic status

Caste/ ethnicity	Rich Household	Medium Household	Poor Household	Total
High: Brahman, Chhetri	26	55	17	98 (62.0)
Medium: Magar, Gurung, Kumal, Tharu		19	26	45 (28.5)
Low: Damai, Kami, Sharki		3	12	15 (9.5)
Total	26	77	55	158
Percent	16.5	48.7	34.8	100

The FUG Committee.

It was reported that the committee was elected by democratic means in a mass meeting and according to the CF constitution 51% of the committee should be men and 49% should be women. The current committee membership is summarised in table 10.

Table 10. Current Committee Membership for Srijana CFUG (M = male; F = female)

Position	Education	Rich	Medium	Poor
Chairperson		1 (M)		
Vice- Chairman	Literate		1 (F)	
Secretary	SLC		1 (M)	
Assi Secretary	SLC		1 (M)	
Treasurer	SLC		1 (M)	
Member	All literate	2 (M+F)	5 (2M + 3F)	1 (F)
Men = 7; Women = 6)				

Access to FUG membership and membership rules.

At the initial period of registration those who had joined at the start did not have to pay any membership fees. In 1995 however the ***ad hoc*** committee established an annual fee per household of Rs 10 per year. At the time of registration of the constitution in 1996 the users' assembly fixed membership at Rs500 for new members and this remained in place until 1999.

In 1999 the committee proposed an increase in the entry fee to Rs.2500. In the assembly the users challenged this on the grounds that it was too high and after heated debate no decision was taken. This was during the chairmanship of Chuda Chapagain and confusion continued for about eight months. No one took the membership during this period. The committee was dissolved in April 1999 on the issue of misuse of FUG funds. Later in 2000 the issue was again raised in the assembly. After a long discussion and debate the assembly fixed Rs 1500 as the reasonable membership fee. Some members of the committee including some users claimed that the cost of their contribution for protection and management activities worth more than 1500 rupees. About 8 hhs have taken the membership by paying this amount (Rs 1500).

The 5 households from Bangala tol and 7 households from Bankitta tol have not taken membership because they settled here after the formation of the CF and cannot afford the high price i.e. Rs 1500. The non-members of Madangram are both newcomer and old settlers (96hhs) and appear not to have taken membership for the same reasons.

Table 11summarised the fines or penalties were reported to have been agreed by the committee:

However the only fine that has been imposed was for a grazing offence when a fine of Rs 75 was levied for a buffalo grazing in the CF in 1997. However a former chairman was found to have taken income of about Rs 2000 from the sale of timber, which was not credited to the FUG funds. Members found out about this and protested and he was forced to refund the money to the committee within a three month period (and had to resign his chairmanship).

Table 11. Summary of fine and penalties agreed by Srijana CFUG.

Offence	Fine (Rs)	Comments
Setting Fire	6,000	
Grazing by livestock		
- goat	25	
- buffalo	75	
- cow/ ox	55	
Felling of trees, lopping of branches, cutting bark	100	For damage up to Rs 100
	400	For damage Rs 100 – 1000
	2000	For damage Rs 1000 – 5000
	50%	For damage > Rs 5,000
Damaging the CF boundary	2000	
Encroachment	8000	
Destruction of nursery, damage to seedlings	2 – 75	
Damage to wire fencing	100 – 500	

Forest Management Activities

Since the start of the forest protection, a wide range of activities have been carried out including the following:

Protection Activities

- protection of the forest since 1993
- appointing of a watchman for a year in 2052 for a salary of Rs 1200 per month. This was paid for by a levy of Rs 10 per household per month
- wire fencing the forest area in 1996 with support from the Ilaaka office which provided 2 rolls of wire; WATCH also provided some wire and the balance they purchased from their own funds
- from 1996 they have been using a stick relay system (passed from household to household) to guard the forest

Plantation

- in 1995 the DFO provided 10-12,000 seedlings of *Dalbergia sissoo*, *Acacia catechu*, *Melia azaderach* which were planted throughout the CF
- in 2053-54 they planted *Dalbergia sissoo, Mangifera indica* and *Syzgium cumini*; the seedlings were provided by the DFO and WATCH
- A nursery was established in 1998 and continued to 2000; in 1999 they planted their own seedlings of *Dalbergia sissoo* and *Meila azaderach* from this nursery which was closed after the completion of the planting;
- In 2000 1500 bamboo were planted on the bank of the Ghodaha river to protect against river erosion; the bamboo was produced in their own nursery with support from WATCH and staff from the Ilaaka office

Income Generating Activities

- Tumeric was planted in Block 2 of the plantation with seedlings provided by WATCH; About 1-2 katha of land was planted and a group of 12-15 people carried out the cultivation with the production being distributed to all the group members; this appears not to have been continued;
- The group also planted pineapple on 1.2 katha of land in Block 1 earning Rs 500 /year each by selling it
- The group has also been allowed to plant 10 katha of bananas in block 2 since 2001. Three groups have been formed (containing 12, 25 and 45 members respectively. 50% of the earnings will be paid to the CFUG;

Forest Products

Timber, firewood and grass have been distributed from the Community Forest according to the rules. The prices for the various products are listed in table 12.

Table 12. Summary of Srijana CFUG prices for forest produce.

	First Operational Plan (Rs)		Second Operational Plan
	Member	Non-member	
Timber			
Shorea robusta	150	350	200
Dalbergia sissoo	100	100	150
Terminalia alata	50	50	100
Syzygium cumini	50	50	100
Firewood / bhari	10		10
Stumps / ft	5		5

Distribution Process

Timber.

- the committee collects the demand from potential users and publishes a notice in a public place of the timber that is allocated
- FUG members have to apply to the User Committee stating their requirements within one months of the 1st date of notification
- Timber is usually collected and distributed during the dry season
- After collection the application from the members, the dry and fallen trees are collected from the forest with the approval of the forest office
- The collected timber is distributed equally to all applicants on an equal basis as there is insufficient production to meet the users requests
- Usually 10 – 15 users apply for timber

Firewood

- as with the timber the committee collects the demand from users and distributes in the same way;
- Firewood is collected during the winter months from dry wood, fallen branches and trees and waste products from the timber

- The collected quantity of firewood is divided into equal shares between the different users and allocated by a random lottery system;
- Generally all users apply on average for 5 – 15 but *bhari* they only get 2 *bhar*i per year.
- The Committee keeps a stock of 15 – 20 *bhari* of firewood per year to fulfil emergency needs for households with respect to death rituals and marriage ceremonies. For death ceremonies 5 *bhar*i of firewood is provided free of costs to a household but for other ceremonies Rs 15 is charged per bhari

Grass

- The procedures for the allocation of grass is as for timber and firewood; the division is done during spring
- The Committee divides the grassland into small plots (50 – 60 ft by 15 – 20 ft) and the plots are distributed through a lottery system. The charge rate per plot varies from Rs 50 – Rs 150 depending on the quality of the grass;
- Generally the users can cut grass from their plot throughout the year , and will collect 40 – 50 *r* of grass per year;
- The number of users for grass has been increasing every year; last year it was 65, this year it has increased to 72

Record Keeping and Accounts

Income and expenditure are recorded in an accounts book and the annual income and a certified auditor audits expenditure each year. The committee reports on the income and expenditure every 6 months to a general assembly. Table 13 summarises the income and expenditure record for a six month period from mid 2001.

Table 13. Summary of Srijana CFUG expenditure and income for six month in 2001

Income	**Quantity**	**Amount (Rs)**	**Expenditure**	**Amount (Rs)**
Opening Balance		7447.32	Training Expenses	800
Cash		1152.14	Advance for treatment	1000
Sale of Firewood	184 bhari	2760	Travelling expenses	155
Shorea robusta timber	53.80 cft	10760	Postal charges	30
Syzygium cumini timber	18.44 cft	1106.40	General assembly expenses	1050
Terminalia alata	267.17 cft	16030.20	Stationery	2505.5
Grass Plots	65 plots	7025.00	Labour charge for timber	5753.8
Pineapple	42 pieces	484	Donation to club	205
Donation for building construction		10488.40	Office building construction	22397
Bank Interest		218.08	Construction of temple	2373
			Hospitality expenses	2317
			Other	356
Total		*57471.54*	*Total*	*39382.30*
			Bank Balance	*11565.54*
			Cash Balance	*6463.70*
			Total	*57471.54*

Meetings are reported as being held every first Saturday of the month on a regular basis with usually more men than women attending, the explanation being given that women could not spare the time from housework.

External Relations.

The FUG does not have good relations with the VDC office. The group had planned to extend the CF area to the north side of the natural forest but the VDC office did not give it permission to do so. The response from the VDC chairperson was that since the FUG had a forest area, the north side of natural forest should be given to communities without CF.

The FUG however has close coordination with the Buddha Mawali and Hariyali CF. The committee members attend the general assembly of these CFs and share their experiences and ideas amongst each other. The coordination with Mahamaya CF is not so good. The users of Mahamaya complained that they were not invited to join Srijana CF although this is denied by the Srijana CF who argue that the option was there for them to join but they chose not to do so. In addition users of Srijana tried to extend the forest area in the northern side by merging Mahayama CF into Srijana CF but the users of Mahayama did not allow them to do this.

Problems and Issues.

- Ghodaha River has been cutting into the CF land in block no 3 since 1992/93 and about 2 ha of the forest area has been lost by the river cut;
- The production of firewood, timber and grass from the CF area is not sufficient to meet demand. This is causing households to limit their commitment to the CF by not attending meetings or sending children for protection duties;
- The turnover of the committee membership has been high and many have resigned before completing their term of service on grounds of the demand of household work. In the seven years since 1995 (1995 – 2002) the chairperson has changed 5 times;
- Due to the lack of funds the group has not completed the construction of the office building;
- The current DFO is refusing permission for the cultivation of banana, pineapple and turmeric in the CF. He has only given permission for the cultivation of NTFP broom grass. Bamboo and various tree species

Effects of community forestry on the forest condition.

A summary of views on the effect of community forestry on the forest conditions was obtained from various respondents is presented in table 14.

Table 14. Summary of Community views on changes since the CF was formed.

Criteria	Before CF	After CF
Forest area	The area of the forest was about 223 hac. During the year 1972 to 1982 forest area decreased due to the encroachment.	At the time of CF formation the forest area was 11.31 hac.
Density	The density of the forest scattered. The distance of the tree was about 15 to 20 meter.	The density of the forest has been increasing. The distance of the trees is about 2 to 5 m.
Species	Shorea robusta, Terminalia alata, Syzygium cumini,	Delbergia sissoo, Shorea robusta, Terminalia alata, Acacia catechu, Mangifera

Criteria	Before CF	After CF
	Wild animal like jackal were seen rarely	indica and regeneration of natural forest in dense condition. Rabbit, Jackals are found in the forest.
Forest products	Firewood, timber, fodder	Firewood, timber, grass, fodder, fruit etc.
Availability of forest product	The availability of firewood and timber was not sufficient according to their demand. It took one day to collect 1 *bhari* of firewood. They use to collect timber from the forest but the quantity was very minimum. No production of grass.	2 *bhari* of firewood to each member annually but collection is restricted It takes 15 to 20 minutes to collect firewood. Annual sale quantity of the amount is 338 cft. The forest is divided into 72 plots and 40/50 *bhari* of grass is produced per plot.
Distribution system	Open to all and there is no rule	Forest product is distributed according to the CF rule.
Management system	The forest was under the control of government	The committee manages the Forest.
Distance	They had to go to the northern side of the forest, far from the settlement to collect forest product.	Nowadays they can collect forest product from the CF that is adjoining with the settlement.
Smuggling	They used to collect timber from the forest illegally	No smuggling.
Quality	The quality of the forest product was good but in decreasing order. The thickness of the tree was about 5' to 7' and the height was 50 to 100 meter. The generation of the tree was same.	Now the quality of the plantation forest Dalbergia sissoo and Acacia catechu is in increasing. The quality of the plantation forest is in different generation ranging from seedling to pole size.
Grazing	The forest was open for grazing.	Grazing is totally restricted.
Awareness	Lack of awareness level on forest protection among the community. Lack of people participation in forest management.	Awareness level has been increasing in forest protection, which has increased the people's participation (both male and female) in forest management.
Forest encroachment	The old and new migrants used to encroach the forest area	Forest encroachment has totally stopped.

Evidence from household interviews.

(a) Household sample

Four households were interviewed in Srijana, the basic characteristics of each are summarised in Table 15. Households 1-3 are all CFUG members. HH4 had been a member in the past but had left. HH3 (originally from Gulmi district) had been the longest settled, with the remaining households (HH1,2, and 4 respectively from Gorkha, Baglung and Gulmi) all arriving between 1984 and 1991. However HH1 had originally left his district of origin in 1958/59 settling in Chitwan first and buying land which hardship had finally forced him to sell before moving into Rupandehi and settling as an encroacher. The other three households settled through the purchase of unregistered land.

Table 15: Summary information on sample households.

Hhld No	Gender	Caste	Year Settled	Economic Status	Hhold Size	Children < 18 years	Literacy Head
HH1	M	Low	1984	Poor	5	3	No
HH2	F	High	1991	Medium	3	2	Yes
HH3	F	High	1968	Medium	9	5	No
HH4	M	High	1987	Medium	8	6	Yes

(b) Household Assets

Table 16 summarises the key assets of each household, their degree of self-sufficiency from farm production and their income sources. Only HH4 derives his income entirely from agriculture selling both surplus grain and milk from the livestock herd that he has built up. The small family size of HH2 enables it to make do with the production from its small area of land combined with income from milk production and help from a son's salary as the Peon in the Ilaka forest office. HH3 has recently started a small shop with capital derived from savings. This household also sharecrops in addition to the cultivation of their own land. HH1, the poorest of the households has sufficient land just for his hut and derives most of his income as a blacksmith with supplementary payment in kind (1 pathi of paddy from each household annually) as the Ward message carrier. His wife works as a farm labourer.

Table 16: Household Assets and Income Sources by sampled household

Hhld No	Year Settled	Land area	Livestock	Months self-sufficient	Income sources
HH1	2041	15 Dh	0	0	Blacksmith, message runner, farm labour
HH2	2048	3.5 K	2	3-4	Milk sales, Son's salary
HH3	2025	12 K	7	3-4	Farm labour, ploughing, small shop
HH4	2044	14-15 K	11	12	Grain sales, milk

(c) Household demand for forest products

Table 17 summarises the four household estimates of their annual requirements for forest products. The need for timber for construction purposes were identified by all four but these are not annual requirements. The nature and requirement for forest products varies by household. All households reported demands for both firewood and poles (creeper support) for supporting bean cultivation. These appear to be largely proportional to family size. HH3 and 4 have annual needs for timber for the construction of ploughs, yoke for the oxen and for the plank used for levelling in the paddy field. HH2 apparently did not have these requirements, although it is possible as a widow, she hires in ploughing and land preparation teams. All those households with livestock (HH2-4) require grass (and fodder in the case of HH4). The apparent low demand for grass by HH3 relates to the fact that it only has local breeds of livestock which probably obtain much of their requirements from grazing while the livestock holdings of HH2 and 4 are stall fed hybrid livestock. HH1 is the only one that has a demand for charcoal, reflecting his employment as a blacksmith.

Table 17: Forest Products: Annual requirements by sample household

	HH1	HH2	HH3	HH4
Firewood (bhari)	50	72	90	100
Plough			2	3
Yoke			2	3
Wooden Plank (Henga)			1	1
Tools (no)	2 – 4	2 - 5	1	8-10
Fodder (bhari)				10-15
Grass (bhari)		200	30 – 40	200
Grazing				
Creeper Support (no)	2 – 5	5 - 10	8 – 10	20-25
Thatch				
Charcoal (bora)	7 – 8			
Fruits, veg				

(d) Sources of forest produce

From where do these four households obtain their forest product needs? Table 18 summarises the key sources of the products for the various households. For HH4 the key sources (as a non-FUG member) are forest products from private land (trees growing on private land although it is not clear whether this is registered or unregistered land) and from private sources. These include a contract (Rs 42,000 per year) for the rights to collect from the grounds of a school (Khaireni Higher Secondary School in Ward 2), dry hay which he purchases from other farmers or the collection of grass from barren land. He also cuts grass from his own lands.

For the other three households forest products are either collected from the CFUG or from Government forest. What is clear is that most products do not come from the CFUG but still come from the Government Forest. Whether this is legal or not is unclear but ones suspects that a considerable portion of it is not legal collection. HH4 in his discussion of the exclusion of non-members from rights of collection in the conserved area specifically stated that 'non-members like me are collecting firewood, timber from the Government forest illegally' (although there is informal agreement with the illaka office staff that people are allowed to collect dry branches, twigs and old grass from the government forest).

Table 18: Source of Forest Products by sample household..

Product	Hhld	Percent of supply by source			
		CFUG	Private Forest	Government Forest	Other
Firewood	HH1	4		96	
	HH2	3		97	
	HH3			100	
	HH4		50		50
Plough and Yoke	HH3			100	
	HH4		33		66
Tools	HH1	50		50	
	HH2			100	
	HH3			100	
	HH4				100
Grass	HH2	20	35	5	40
	HH3			100	
	HH4		15		85
Creeper Support	HH1			100	
	HH2			100	
	HH3			100	
	HH4		100		
Charcoal	HH1			100	

Similarly HH1 who has the only requirement for charcoal reported that he went to the government forest to collect his charcoal at some distance form the settlement. This took him a whole day for 1 bora of charcoal. He knows that government has restricted charcoal collection from the forest but he is obliged to do it in order to survive.

(e) Changes in access and availability of forest products since the formation of the FUG.

How do these households view the effect of the formation and establishment of the community forest on their access to and availability of their forest product needs? Table 19 summarises their responses by product, comparing before and after the establishment of the FUG. For HH1 – 3 it is fairly clear that with the exception of the availability of grass to HH2 (cut grass for stall fed livestock) these three households consider that the availability and quality of forest products had declined overall and that it took longer to collect them now within the CF compared to collection in the Government Forest before hand. This presumably is a reflection of a combination of the relatively small area of the CF (in comparison with the forest area which they accessed in the past) as well as the relatively degraded state and conservation management practices now implemented in the forest areas that were taken over by the community. The fact that they still collect the majority of their requirements from the government forest is indicative of the relatively small resource base that the community forestry area provides.

Table 19: Reported changes in access and availability of forest products by sample households

	Before the CF (1993 to1997)	After the CF (from 1998)
Firewood		
HH1	Easy access, more quantity, women collect	Less quantity and poorer quality, both men and women collect
HH2	Close to settlement, less time to collect	Low production in CF
HH3		
HH4	More quantity	Less quantity and quality
Timber		
HH1	Easy, less time	Long process, long time
HH2	Sufficient and high quality for everyone	Low quality and low production
HH3		
HH4	Open in forest, available in private	Control in gov. forest; not available in CF
Plough and Yoke		
HH3		
HH4	Easily available in private	Bring from the school land
Tools		
HH1	Could collect at any time	Collect only when CF open for firewood collection
HH2	Easily available	Deficit compared to before
HH3		
HH4	Available in private	Collect from school
Grass		
HH2	No restriction for goat grazing	Control by the CF
HH2	Less quantity	More quantity in CF and own land, less time
HH3		
HH4	Less in quantity and quality	High quality in school area
Creeper Support		
HH1	Easily available	Control by CF
HH2	Easily available	Not available in CF
HH3		
HH4	Not available	Available
Charcoal		
HH1	Easy, could collect 2 bora per day of high quality	Control, can collect 1 bora per day, poorer quality

(f) Perceptions about the Forestry User Group.

Given the requirements and use of the four households, what then are their perceptions about the FUG. Three of the households are members while HH4 had been a member from 1995 to 1997 but because of the expanding demands of his dairy business he could not provide the time and so left the FUG. HH3 is a member of both Srijana CFUG and Mahamaya CFUG.

Why did they join?

For all the activities of WATCH seem to have been an important consideration – as HH4 put it ‘ in the beginning due to lack of knowledge and CF many people did not join the Srijana FUG’. But now HH1 could talk of the importance of protecting the forest, meeting their forest product requirements but also noting that the government did not give permission for the collection of firewood and timber from the natural forest. HH3 was not exactly clear why she was a member of two CFUGs.

What did they think about the way that FUG worked?

HH1 was very positive about the way in which the FUG was managed. He commented positively on the way the committee conducted its business, and the openness of the accounts. He considered that the meetings allowed everyone to express their opinion and the mechanisms and procedures (a lottery system) by which forest products were distributed were clear, open and fair. Both HH2 and 3 expressed a similar opinion. HH1 also reported that the committee had given him interest free credit of Rs500 for emergency medical treatment.

The one matter on which they did not support the committee was what was felt to be the imposition of a high membership fee for new members. HH2 disagreed with this policy ' because it is very difficult to get FUG membership for newcomers whose economic condition is low'. The current entrance fee of Rs 1500 HH1 considered would support a poor household for six months. As HH4 (who had left the FUG) noted ' the production of the FUG is low and cannot fulfil the demand of the community'. However it should be noted that the assembly of users has the right to fix membership fees although undoubtedly the committee can be influential. In practice the term 'user group' and 'committee' is often used interchangeably suggesting perhaps that in many people's minds they are indistinguishable and in practice they are seen to operate in a way that is exclusive.

All households interviewed considered that the establishment of the CFUG had led to positive environmental changes. The density of the forest had increased through natural regeneration, the grass production had improved through protection of the forest from grazing and plantation work had also been done. However in the eyes of HH1 FUG had not brought any positive changes in his economic circumstances. This was also true of HH3 and both noted that the biggest benefit had come for those who kept livestock (which was true of many of the committee members) since the improved supply of grass had helped them shift to stall-feeding of hybrid livestock.

Buddha Mawali Community Forest User Group.

Summary Description.

Buddha Mawali community forest is located in Devdaha VDC set back a few kilometres from the main lateral road. The community forest officially occupies 40.5 ha that has been divided into three management blocks of 10, 21.5 and 9 has. respectively. The forest contains a mixture of mainly *Terminalai alata, Syzygium cumini, Toona ciliata, Ficus bengalensis, Mangifera indica* and *Bombax ceiba* with various other species. Protection of the forest started from 2055 and the forest was handed over in the third month of 2001. Households from wards Devdaha 6 and Kerwani 6 are members of the CFUG.

History of the Forest and Settlement.

Before 1979 [B.S. 2036] the forest was reported to be very dense and covered around 136 ha. of ward no. 6, Devdaha. It was a natural forest comprised of *Shorea robusta, Treminalia alata, Bombax ceiba, Mangifera indica, Ficus religiosa, Toona ciliata, Pterocarpus spp*. etc. and containing various wildlife spp. (leopard, monkey, rabbit, deer, wild hens and other birds). There were only 75 households in the ward, mainly Tharu and Chhetri / Brahman caste all with sufficient land (up to 3-4 Bigha) for household requirements. While use was

made of the forest, the intensity of use was low and the required forest products were readily available.

1979 – 1989 [B.S. 2036 to 2046]: The deforestation of the forest started from 1979. Hill people had started to migrate in small numbers from 1976/77 and encroach on the forest. Forest Department staff in 1977/78 tried to drive them out by burning their houses and physical harassment but without success. Then the 1979 referendum took place and as part of its strategy to win, and gain support for the Panchayat system, the government settled hill migrants and landless in the area, and restrained forest department attempts to evict settlers. About 100 hlds, mainly Magar and Kami caste, from the hill districts of Syangja moved in at this time. These were followed by an additional 40-50 hhlds per year, largely Brahman/ Chhetri and Magar caste. By 1989, 60 ha. of forest had been encroached in Taterachapi, 20 ha in Mukhiya tol and 15 ha by Bengali tol. Each household cleared from 10 kattha to 1.5 bigha of the forest.

1989 – 1998 [B.S.2046 to 2055]**:** From 1989 there was limited additional encroachment but deforestation outside the encroached area increased. An increasing number of hill migrants, mainly Magars, moved in buying the lands from the initial settlers leading to an increase in the population and demand for forest products. This included the felling and sale of wood for timber and fuel, linked into a local and regional level illicit timber trade. Groups of 40-50 people from the surrounding VDCs of Bhalwari, Simra, Chakchake used to come and fell trees. The Forest Department was unable to control their activities partly because it was very difficult to find out when and where the groups were active as being a large group they worked quickly, but also because the forest staff were afraid to face a potentially violent confrontation. In addition large groups of Tharus came from the south to fell trees for domestic use, and slashing the bark of standing trees to kill them.

The various waves of settlement have led to the following current caste composition in the community: Chhetri / Brahman 47%, Magar 30%, Kami/ Damai/ Sarki 10%, Tharu/Musahar:6%, Newar: 4%, Gurung: 4%, with an indicative break down by economic status as shown in table 20.

Table 20. Proportion of settled households by caste and economic status.

Caste	Economic status	Percentage
Brahman/Chhetri, Magar	Rich	8 to 10 %
Brahman/Chhetri, Magar, Gurung, Newar, BK	Medium	70 to 75%
Magar, Musahar, BK, Sarki, Damai	Poor	10 to 12%

The Establishment of the Forest User Group

By 1998 the combined pressure on the forest from outsiders and local users had left a limited stand of Sal and Saj leading to a scarcity of forest products. Villagers had to go to a nearby forest in ward no.7, west of Ghodaha River to collect fuel wood and grasses. The community began to feel it should take some action to preserve what was left of the forest area. A group of the community elite decided to organise a general meeting of all the villagers to discuss what steps to protect the remaining forest area should be taken. They had observed the formation and effects of other Community Forests, particularly that of Shrijana.

A meeting was held in September 1998 to discuss community action for forest conservation, and about 70 people gathered. An ***ad hoc*** committee of 21 people, including 2 women, was formed under the chairmanship of Mr P. and they named the forest as the "Buddha Mawali Forest". The meeting decided that it was now every persons responsibility to conserve the forest, and that the committee had be to informed if anyone was found doing illegal activities in the forest. Fines or other penalties, according to a set of rules, would punish culprits.

With support from the staff of WATCH, action was taken to increase peoples' interest in CF and community development through door-to-door meetings. The opportunity for community action to protect and manage the forest was emphasised. Given the increasing shortage of forest products, this mobilisation met with a receptive audience who saw that they could take action to ensure management of the forest to meet their needs in the future. Tol representatives were selected to assist in the program.

In the initial period, 5 active members in the ad hoc committee raised Rs 100 each and used that money on stationery. They circulated letters to all toles and to the forest office requesting their support in the protection of the forest. A meeting of the executive committee held in May 1999 applied to the DFO, Rupandehi for assistance in obtaining wire fencing. The DFO was supportive and released Rs 17,000 for this. He also provided 50,000 seedlings of Sissoo , which were planted in 1999. The AFO and the rangers from the forest office also assisted and were supportive in the preparation of the constitution and the operational plan. The support from the DFO to the group was based on his appreciation that if the forest area was not managed as a CF and handed over to the community, then there was a high chance of the remaining forest area being encroached by other households.

After the formation of the ad hoc committee and a forest protection group, opposition to the process emerged from 15 households settled around the forest of Taterachapi. These households claimed that the protection of the forest would make the forest dense and dangerous for them, and particularly for their daughters because it would allow shelter to potential wrongdoers. The underlying reason for their opposition however was more that these households had settled by encroaching on the forest and they wanted to encroaching on more lands, which would not be possible if the forest was conserved as CF. This opposition reportedly damaged the newly planted sissoo seedlings by pulling and cutting them at night.

This group also opposed the closure of a forest road. The CF ad hoc committee decided to close the road to restrict access to the forest but the people of Taterachapi opposed it saying that it was the quickest route for them to go to Shitalnagar. They also sought support from the people of Kerwani-6 who also used the road. Later, there was a compromise and the road was not closed.

Constitution Preparation, Registration and Operational Plan Preparation

From the authority given by the users meeting held in October 1998, an ad hoc committee prepared a draft constitution. They, with involvement from the VDC chairman formed a constitution preparation committee with representatives from all the tols. The members of the ad hoc committee with support from WATCH staff made household visits and these were followed by tole levels discussions. From these processes of consultation, a users' assembly in March 1999 finally approved the constitution. An executive committee of 17 people was formed and finalized the draft constitution approved from the assembly. The assembly also discussed the division of responsibilities between the committee members and general

members with respect to the protection and conservation of the forest. A system of penalties for illegal activities was also finalised. Procedures for raising funds were discussed first at tol meetings and then in a ward meeting before being finally passed by the committee and group meeting.

With support from the rangers of the Ilaaka forest office a final constitution was submitted to the DFO and approved and the group was registered on June 1999.

The Operational Plan preparation started from Taterachapi, Prem tol in September 1999. First all the committee members gathered information and suggestions regarding forest protection, utilization, distribution of produce and management from their respective toles. Then discussions on the management of the forest, preparation of the 5 years work plan and pricing of the forest products took place with the assistance of the Ilaaka forest office (particularly for the forest inventory) and were agreed by the community. WATCH helped the community to finalize the management system and gave information on appropriate management schemes. An assembly of 176 members and the executive committee passed the OP in March 2000. It was submitted to the DFO for approval and the forest was legally handed over to the community in July 2001.

FUG Membership

The forest area lies in ward no.6 so the users are from Devdaha-6. There are altogether 734 hhlds in ward no.6 but only around 600 hhlds (80%) are members of the CFUG. The remaining 20% of hhlds are members of either Shrijana or Shristi or Hariyali CF according to accessibility. Many of the Buddha Mawali CFUG members have membership in another CFUG. As the ward is large the households most distant from the community forest have taken membership of another CF that is more accessible to them.

Buddha Mawali identified its users by compiling the names of the households that are using the forest and contributing to conservation activities. This included 150 households from Kerwani-6 as the Buddha Mawali CF was the nearest forest for them and they had been using it before.

The following rules were adopted for identifying and adding new CF users.

- All households of Devdaha-6, who were involved in the conservation of the forest from the beginning and had contributed to all activities, were automatically members.
- 150 households of Kerwani-6 who joined in 1999 had to work for 3 full days as an entry fee and to continue contributions from that date.
- Individuals from households that separated but had previously been contributing to CF activities could pay Rs 5 to become an individual member.
- Households settled in the area from before 1999, that had not initially joined but had been contributing since then, could pay Rs 100 to become a member.
- Households who claimed they are users but had not contributed continuously to CF activities have to pay a maximum of Rs 1000 according to the investigation and the decision of the committee.
- Households who had settled since 2000 / 01 and had been involved in CF activities could become a member by paying Rs 1000. The committee would investigate and recommend on each case.

Newly settled households have to pay Rs 1500 to become a member.

The FUG Committee

The CFUG committee was initially nearly all male members but later this changed and the committee was transferred to the women in a general assembly on June 2001 when 223 members attended in order to form a new executive committee. The reasons behind handing over of the responsibility of committee to a women's group were as follows:

- The conflict between the CFUG and the Tatterachapi community had resulted in the latter employing their wives to face the committee member whenever there was a dispute. This made it difficult for the male committee members since they sometimes intended to use physical force. As a result they decided to form a female committee to cope with the opposition women as this would not constrain the committee in its choice of verbal or physical engagement.
- A group of women were also interested in managing the forest themselves. The former committee members in order to get better forest protection (and apparently neutralise some opposition) supported the appointing of active women to the executive committee.

The present female executive committee consists of 17 members. Economic status was judged as described in table 21.

Table 21. Economic status and household assets

Rich (3 committee members): having 2-3 bigha lands; sell surplus grains; registered land, concrete house; foreign employment and pensioners; children study in boarding school; political and social network; owns TV, radio, cycle; cooks food in LPG stove; owns hybrid cows, buffalo; sell milk; enough income to run the house even though the land holding size is small; private hand pumps for drinking water.
Medium (13 committee members); Land 4 to 12 kattha but unregistered; Food enough for 4 to 8 months; relies on pensions, service and other income (son work in India); Thatch roof or tin roof house; Sons study in the boarding school whereas daughters in government school; Livestock farming of goat, pig, buffalo, cow; Cooks food by using fuel wood; Owns cycle, radio.
Poor (1 committee member); land less than 4 kattha; food sufficiency only for 2-3 months; work as wage labour; no permanent job; thatch roof small hut; children go to government school; reared 1-2 pigs, chicken

Table 22 provides summary detail on the members of the current committee.

Table 22. Summary details on Buddha Mawali CFUG current committee

Position	Name	Age	Education	Location	Economic status
Chairperson	Nirmala Dhakal	24	SLC pass	Bangali tol	Rich
Vice chairperson	Sita Dhakal		Literate	Shanti Nagar	Medium
Secretary	Maya Parajuli	31	SLC pass	Prem tol	Medium
Vice secretary	Dhanmaya Sen		Literate	Mukhiya tol	Medium
Treasurer	Tulsa Bhandari	38	8 class pass	Kerwani-6	Medium
Member	Pabitra Shrestha	45	Literate	Taterachapi	Medium
Member	Phul maya Pun	38	Literate	Amar tol	Medium
Member	Balrupi Pun	35	Literate	School tol	Medium
Member	Gam kala Bhattarai	35	Literate	Kerwani-6	Rich
Member	Gita Khadka	29	8 class pass	Taterachapi	Rich
Member	Ran Maya Saru	28	8 class pass	Kerwani-6	Poor

Position	Name	Age	Education	Location	Economic status
Member	Shanta Karki	38	Literate	Bangali tol	Medium
Member	Yamuna Paudel		Literate	Bangali tol	Medium
Member	Sumitra Midhun		Literate	Mukhiya tol	Medium
Member	Dil Kumari Devkota		Literate	Shanti Nagar	Medium
Member	Sushila Thapa		Literate	Pragati tol	Medium
Member	Khum Kumari Darlami		Literate	Pragati tol	Medium

Forest Management Activities

The CFUG has divided its activities into protection and promotion with different rules and regulation for these and the distribution of forest products.

Forest Protection Activities

- Daily patrolling of the forest by the users for 7 months of the year; every tol has to patrol the 3 blocks. 6 households from every tol are deputed to look after the 3 blocks, 2 to each block. Each household after finishing duty leave the sticks to another house, which then has to continue the patrol. The Committee is responsible for managing this and patrols have to register their attendance in an attendance book.
- Guarding of the forest by the forest guards for the rest of the year i.e. around 5 months a year during Ashad to Kartik. These are the peak agricultural seasons of sowing, planting and harvesting of the crops so forest guards are hired during these months for a payment of Rs 1200 / month.
- Wire fencing of the perimeter of the forest area.
- An awareness raising program for creating "ownership of the forest to all users".
- Distribution of grass by creating plots. Users have to save 10 seedlings/saplings of natural/plantation spps. that fall on their plots.
- Construction of a fire line.
- The separation of around 3 ha. and a small portion of block no.2 for grazing animals while other areas are restricted for grazing.
- The imposition of penalties those who undertake illegal activities.
  - ✓ The group has fixed a penalty of up to Rs 6,000 for those who encroach the forest area, cultivate it, set fire or allow their cattle to graze.
  - ✓ Rs. 35, 25, 10and10 is fined for the entry of buffalo, cows, goats and pigs respectively. If the seedlings are damaged then Rs 100 is fined for each seedling.
  - Rewards are given to those who provide information about illegal activities. The informant is awarded the ¼ of the fined amount as the reward. Rules have also been made for the giving of special prizes to *toles* that work effectively in development activities for the conservation of the forest.

Forest Promotion Activities

- Planting fast growing tree spps. Seedlings of sissoo have been planted in 40 ha. in May 1999. 50,000 seedlings was planted but only half survived.
- Grazing is totally restricted in the plantation area to stop damage to seedlings.

- The extraction of dry, fallen trees to distribute the users.
- The planting of erosion and river cutting controlling spps. such as bamboo, amriso in the river bank areas.

The 5 years work plan for the promotion of the forest is summarised in table 23.

Table 23. Summary of Buddha Mawali CFUG 5 year work plan

Bk. No.	Activities			
		2002/03	2003/04	
1	Cleaning, weeding of the sissoo planted in 2056. Extraction of maximum 5 dry fallen trees.	Plantation in the blank areas. Sowing hybrid grasses.	Thinning, Pruning Cleaning, weeding of the planted spps.	Finish plantation in all blank areas. Extraction of dry fallen trees.
2	Cleaning, weeding of sissoo. Wire fencing to increase regeneration.	Extraction of maximum 7 dry fallen trees. Plantation in the blank areas.	Plantation in the blank areas. Cleaning, weeding of the planted spps.	Wire fencing Construction of fire line. Extraction of dry, fallen timber.
3	Plantation Management of other areas leaving grazing land.	Planting bamboo, Amriso to control river cutting problem. Cleaning, weeding	Extraction of maximum 6 dry fallen trees. Cleaning, weeding bamboo	Planting bamboo in other river side areas.

Distribution of forest produce.

Forest products such as fuel wood, grass and timber are extracted once a year and distributed to the members. The following procedures are followed in the case of grass and fuel wood:

- A 15 days notice is published and advising all members to submit their application for grass and fuel wood.
- For the grass the total area is divided by the numbers of applicants so that all the members get an equal share. The area of the plot may be different, 10' to 12' breadth and 100' to 120' length depending on the density of the grass. A lottery system has been adopted to allocate the plots and all the users are reported to be satisfied with this rule.
- The allottee can use his/her plot for any purpose e.g. for thatch or for grass. Grass cutting can be done from Jestha to Chaitra. The users have to pay Rs 45/plot/year.
- The CFUG has made the rule that every member should protect 10 seedlings/saplings that fall on their plot.
- For fuel wood, this has been extracted only once because of poor supply. Fallen, dry trees were stacked and distributed to the applicants on the basis of 4 bhari per applicant, each at Rs 15/bhari. The fuel wood was not chopped so some effectively gained 6-7 bharis depending on the quality of the wood. The deprived and the poorest households who were unable to pay the price were given fuel wood free of cost. In order to gain from this concession, they had to submit an application which was investigated and recommended by a committee member.
- The CFUG has also made a rule for free distribution of fuel wood for social and cultural activities like funeral, Puja etc.
- Timber is extracted by using wage labour. Last year 600 cft of both *Shorea robusta* and *Terminalia alata* priced at Rs 200 and 100 /cft respectively was extracted. The timber was stacked at a collection point and sold to the users who applied for it. Only the timber of

Terminali alata has been sold; the wood of *Shorea robusta* remains unsold. Only 14 hhlds bought timber last year from 17 cft to 60 cft. They use that timber for furniture, roofing etc.

- Strict investigation was reported to be followed while distributing the timber so that the user who actually needs it uses it for the approved purpose and does not sell it on. The actual market price is considerably higher than the CFUG price for timber. Apparently no reports of the sale of CFUG timber outside have been made.

Record Keeping

The CFUG committee has maintained a record of the following:

Source of income and expenditure: The records of sources of income are kept in the register. Income is derived from the sale of timber, grass fuel wood, fine/penalties and the grant from the forest office. The secretary and the chairperson who are the most educated of the committee member keep the records in a simple way without following the double accounting system. Table 24 provides details on income and expenditure of 1998/99 to 2000/01.

Table 24. Summary of Income and Expenditure for Buddha Mawali CFUG for 1998/99 to 2000/01

Income		Expenditure	
Activities	**Amount**	***Activities***	**Amount**
Donation	Rs 358	Salary of guards	Rs 7,500
Grant from DFO	Rs 45,000	*Allowance	Rs 855
Sale of grass	Rs 6,375	*Daily allowance	Rs 5,629
Sale of grass	Rs 28,600	Other services	Rs 3027
Fine/Penalty	Rs 1,050	Office equipment	Rs 968
		Printing charge	Rs 1050
		Wire fencing	Rs 8118
		Thatch cutting	Rs 2310
		Kanji house construction	Rs 2820.50
		Forest road	Rs 29090
		Felling charge	Rs 400
		Prizes/donations	Rs 152
		Casualty	Rs 590
Total	**Rs 86,383**	**Total**	**Rs 62, 510**

*Allowances are provided to the committee members while attending meetings and rallies on behalf of the FUG. A rule has been made of giving an allowance of Rs 150 and Rs 100 for Bhairahawa and Butwal respectively for lodging and food.

Minutes of every meeting are recorded in the minute book. Agendas and decisions of the meeting also appear to be recorded systematically. From the minute book, it is observed that people's attendance is high (see below). The secretary is responsible for keeping the minutes with support from the chairperson.

The following documents are on file:

- Applications received from the users for grass, fuel wood, and timber.
- Xerox copy of out going letters to DFO, DSCO.
- Xerox copy of monitoring and Evaluation sheet filled by DFO, Rupandehi.
- Original copies of audit sheet.

Meetings

There is a rule that a general assembly should be held every year but this has been held 9 times upto June 2002. These assemblies are called when problems arise such as the punishing of offenders involved in the destruction of the forest, resignation of committee members, the selection of new members etc. In the annual assembly the chairperson presents the income and expenditure of the fiscal year and the progress report. Auditing by a reputed auditor is done every year and presented in the assembly.

The group has opened an account in Rastriya Banijya Bank, Butwal in the name of the CFUG to deposit funds and for banking transactions. The secretary and the chairperson have been given the authority to do the banking activities. The CFUG now has around Rs 50,000 in the bank.

Meetings and Attendance

Committee meetings are held on the 15th of every month. There is a provision for calling emergency meetings in between this period. In the beginning, the committee used to call meetings very frequently, sometimes 4 times a month and the attendance of the member was very high. Table 25 gives the number of committee and general assembly meetings by year and the relative attendance of men and women.

Table 25. Attendance by men and women at committee meetings and general assemblies, Buddha Mawali CFUG.

Year	Total no of meetings	Committee members x no of meetings		Total attendance by gender		Percent (%). Attendance by gender		No of general assemblies	Total attendance	
		M	F	M	F	M	F		M	F
1998	5	95	10	80	3	84	30	1	48	18
1999	34	272	306	233	181	85	59	4	161	176
2000	18	216	162	124	70	57	43	1	80	
2001	12	--	204	--	114	--	55	2	405	223
2002	5	--	85	--	47	--	55	1	137	167

In the initial year, many more men than women attended. There were only 2 female members in the committee. In the second year, the number of women committee members increased significantly. In the third year the representation of men on the committee decreased.

Coordination / Relation with other organizations

The group has maintained relationship with the government and non-government organizations working in their areas. They are close to the organizations whose objectives are

related in the management of natural resource, i.e. WATCH, Ilanka Forest Office and Neighboring CFs.

- WATCH has helped the CFUG from the beginning in awareness raising and formation processes. WATCH did door to door awareness raising activities towards the CF, assisted in the preparation of constitution and OP. Even today WATCH's representatives are present in each meeting to suggest and guide them.
- The Ilaka Forest Office in ward no.5 is the nearest forest office. The CFUG has received all kinds of technical support while preparing the OP and in tree felling. The DFO provided financial assistance in wire fencing, sissoo seedlings.
- The CFUG has a good relationship with neighboring CFs of Srijana and Hariyali, (which is also managed by the users of Buddha Mawali). Three households of Buddha mawali are also members of Shristi CF.

Challenges.

As discussed earlier there were a number of problems faced at the outset between households settled in Taterachapi and the founding committee. These appear to have been largely resolved through the formation of a female committee, which also appears to have resolved other internal gender based conflicts.

There have been a few more specific conflicts identified. Two households from Bankitta encroached on the forest by extending their boundary of cultivation. The committee ordered the 2 households to restore the original boundary and this appears to have been enforced. Another example is that of the temple committee in block no. 3 which asked to divide up the temple area, presumably into private plots. However the CFUG committee resisted this saying that the temple was also public property like the CF and should be protected accordingly.

River bank erosion on the west side of the Ghodaha river remains a major problem during the rainy season. The committee plan to plant Amris bamboo this year as a preventive measure.

Evidence from household interviews.

(a) Household Sample.

Eight households were interviewed in Buddha Mawali and the summary characteristics of these are presented in table 26. Households 1-7 are all FUG members but household 8, who bought their house and land in the village last year has not so far joined the FUG. Four of the households are female headed (HH1,2,5 and 7); in the case of HH7 and 5 the husbands are away working in India. HH1 is a widow and HH2 has been deserted by her husband.

Table 26: Summary information on sample households, Buddha Mawali CFUG.

Hhld No	Gender Head of hhld	Caste	Economic	Household Size	Children < 18 years	Literacy Head
HH1	F	Low	Poor	3	1	No
HH2	F	Low	Poor	6	4	Yes
HH3	M	Low	Medium	6	0	No
HH4	M	High	Medium	7	5	Yes
HH5	F	High	Medium	6	3	Yes
HH6	M	High	Poor	5	1	Yes
HH7	F	High	Rich	4	2	Yes
HH8	M	High	Rich	7	7	Yes

Settlement in the village appears to have taken place in two phases. Households 3, 5 and 7 (or their parents) came from the hills (Palpa, Baglung and Gulmi districts) from 1967 to 1973. The other households came on or after 1985, three of them (HH 4,6 and 8) coming from hill districts while two households of low caste status originate from the Terai. All three of the poorest households had moved several times before settling in Devdaha loosing land in their previous residence either due to natural disaster (river erosion) or having to sell it to pay for household needs. Several of the households (mainly the more recent migrants) reported that although they had bought land it was still not registered even though they were paying land tax to the VDC.

(b) Household assets.

Table 27 summarises the key assets of each household, their degree of self-sufficiency from farm production and their income sources. The three poor households (HH1, 2 and 6) are either landless (HH6) or have less than 2 katha's (less than 0.01 ha) of land. They vary in grain self sufficiency from 1 to 6 months with wage labour, the sale of goats and in the case of HH6 some possible remittance income supporting household needs. The three medium wealth status households (HH3, 4 and 5) all have cattle as well as goats, larger land holdings (1 to 9 katha) although HH4 with only 1 katha share crops an additional bigha (0.7 ha) of paddy land. Food production provides 6 to 10 months of food requirements with milk sales, livestock sales, contract ploughing, skilled labour (carpentry) and contract ploughing providing cash needs. The two richest households (HH7 and 8) are grain self sufficient for 10 and 9 months respectively with off farm income sources from either remittance or from transport services. Household 7 also sells grass and gains a regular income from alcohol sales.

Table 27: Household Assets and Income Sources by sample household.

Hhld No	Year Settled	Land area	Livestock	Months self-sufficient	Income sources
HH1	1989	1 K	1 goat	1	Wage labour
HH2	1985	2 K	2 goats	4	Goat sales, wage labour, sewing
HH3	1969	12 K	5 bovine 5 goats	10	Carpentry, Milk, Sale of Buffalo Calves, Goat sales
HH4	1997	7/8 K; 1 B Sc	3 bovine 3 Goats	6?	Contract ploughing, milk, goat sales
HH5	1997	9 Kt	4 bovine 3 goats	9	Milk, Remittance
HH6	1985	2.5 B Sc	3 bovine 2 goats	6?	Milk, Ploughing, Goat sales, Son in garment factory
HH7	1972	10 K; 2 Bg Pst	1 bovine	10	Grass sales, Milk, Chickens, Alcohol sales, remittance
HH8	Last year	5 K	0	9	Drives own bus

(c) Household demand for forest products.

Table 28 summarises for the 8 households estimates of their annual requirements for forest products. Household 8, which is not a member of the CFUG does not collect forest products from either the CFUG or the government forest. It meets its fuel mainly through the purchase of LPG gas for cooking, with the collection of a small amount of sticks from their own land.

All other households have demands for forest products relating mainly to fuel wood, timber for construction and agricultural implements, straw and grass for feeding livestock (HH1 and HH3 also use the forest for grazing), thatching grass for their houses and soil (for house floors) Three households collect leaves (from Sal for places) and one household (HH3) collects wood for charcoal consistent with the fact that they also undertake a small amount of ironwork. Only households 3-6 however reported a demand for timber as well as wood for the construction of agricultural tools (plough and yoke).

Table 28: Annual requirements for forest products by sample households.

	HH1	HH2	HH3	HH4	HH5	HH6	HH7	HH8*
Firewood (bhari)	48	100	210	180	180	50	360	
Timber (cu.ft)		5	5-6	5-10	5	28		
Plough (ft)			1 set	1 set	2 sets	3		
Yoke (ft)						7.5		
Fodder (bhari) – straw			20	30-40	2 cart	30-40	20	
Grass (bhari)			360	480	1400	940	360	
Grazing (months)	12m		12 m					
Creeper Support (no)			5-6	5-6		2-4	2-4	
Thatch (Sorai)	12	12	16	12		20	15-16	
Charcoal (pathi)			24-30					
Fruits, veg								
Soil (sacks)	25kg	0.5 qt	2	2	1 qt	1 qt	10-12	
Leaves (doko)			3	3			3	

* Non FUG member

(d) Sources of forest produce.

As table 29 shows with the exception of grass used for thatching the majority of forest produce is obtained from private land, with the balance coming from either the government forest or purchase and other sources. The CF provides little of the fuel requirements and over half of the households also collect fuel wood from the government forest. Only two households obtain their timber from the CF, the others presumably obtaining it from their own or others land. HH4 reported that he had been fined Rs 4,000 in the past for felling a sal tree on his own land. All households with requirements for ploughs and yokes buy them from a plough maker (who apparently sources his timber illegally from government forest in the north) Soil is exclusively collected from private land and leaf collection is undertaken in the government forest. The one household that has a demand for wood for charcoal obtains half of his supply from private land and the balance from other sources, although he indicated that most people who wanted their tools sharpened (which appears to be the major work he undertook), brought their own charcoal with them. The source of this is unknown.

There appears to be little differentiation by gender with respect to who collects the produce although timber was either collected by men (or both husband and wife) and leaves were exclusively collected by the women in the three households that reported their collection. All other products including soil were either collected jointly or by either gender.

(d) Changes in access and availability of forest products since the formation of the FUG.

Views on access and availability of forest produce were uniform. Before the formation of the CFUG people felt that it was an illegal act to collect fuel from within

Table 29: Sources of Forest Products by household.

Product	Hhld	Percent of supply by source			
		CFUG	Private Land/ Forest	Government Forest	Other
Firewood	HH1		20	80	
	HH2	34	46	20	
	HH3		95	5	
	HH4	3	56	41	
	HH5		100		
	HH6	10	10	60	20
	HH7		100		
Timber	HH2		100		
	HH3	100			
	HH4		100		
	HH5		100		
	HH6	100			
Plough and Yoke	HH3				100
	HH4				100
	HH5?				
	HH6				100
Animal Feed	HH3	14	86		
	HH4	4	96		
	HH5	10	50		40
	HH6		95	5	
	HH7		100		
Grazing	HH1		100		
	HH3	17		83	
Thatch	HH1	100			
	HH2	100			
	HH3	100			
	HH4				100
	HH6	100			
	HH7	100			
Creeper Support	HH3		100		
	HH4		100		
	HH6		100		
	HH7		100		
Soil	HH1		100		
	HH2		100		
	HH3		100		
	HH4		100		
	HH5		100		
	HH6		100		
	HH7		100		
Leaf	HH3			100	
	HH4			100	
	HH7			100	
Charcoal	HH3		50		50

the forest and there was no grass or thatch available for collection. After the formation of the CFUG collection of firewood had become a legal activity in the community forest and people reported that access was easy and time saving. However the fact remains that for all of the interviewed households, the majority of their fuel came from outside the community forest area, either from private land or within state forest areas (presumably illegal).

The major change in availability of produce from the community forest undoubtedly has been in the case of thatching grass and six of the seven households collecting it, obtained all their supplies from this source. Although households also reported increased availability of fodder within the community forest, nevertheless most household collected their fodder from non CF sources, indicating that it was still not a major source of supply.

(f) Perceptions about the Forestry User Group

Three of the seven households that are members of the CFUG are also members of Harivali CF. The reasons for joining and attitudes towards the working of the CFUG committee showed some important similarities but also significant differences.

Why did they join?

For most the underlying reason given for the joining of the CFUG was the potential that it offered them to have greater control over their resources and the anticipated advantages of greater availability of forest produce, particularly fuel and grass. The role of WATCH in assisting the group's formation was evident from most responses and there was a general view that it was important for the community to work together and protect their own resources. As HH7 put it ' the idea of CF attracted her to become a member' even if she has only made limited use of its products so far. For most the observed positive environmental outcomes, particularly in the availability of grass, has reinforced the reasons for joining.

What did they think about the way that the FUG worked?

For those households (e.g. HH6, 7) there are fairly active there was a view that processes were open and understandable, For other households (HH3,4, and 5) that possible only attend the annual assembly they could describe roughly how the committee works but appeared to have little idea about the finance of the CFUG. For HH1 who depended on wage labour, she did not have time to attend the meetings and so knew little about what happened.

Most households were positive about the increased availability of products. However both HH1 and HH2 who had previously depended on the collection and sale of fuel wood as their major source of income noted the loss of this income source. The woman of HH1 reported that 'before the management of the forest as CF she used to sell fuel wood in Rs 70/Bhari (It took 2 days; 1 day to go to the forest to fetch and 1 day to go to the market to sell) but it was discontinued after the formation of the CF. So she switched her occupation to agriculture wage labor and earns Rs 60/day but it's a seasonal work. She can earn only during agricultural period. She thinks that her previous job was easier to solve her hand to mouth problem'. However she noted that after getting a grass plot in the forest she was in a position to sell surplus grass and last year she sold 2 sorai of thatch for Rs 200 which helped her.

The woman of HH2, who had been a committee member with her former husband (but had to leave the committee because there were objections to both her and her husband being on it)

also used to sell firewood as the major source of income and had to switch to agricultural wage labour and sewing. She noted that they were the ones who had had to switch their occupations while the livestock farmers had just benefited and the rich were the ones who gained most.

The major points of disagreement relate to membership and pricing policy. On the issues of charging new members to join there are those who support the policy on the grounds that new members should have to pay for the benefits arising from the work of existing members and those who thought it was too high for poor people. Household 8 who is not a member of the CFUG, had joined in the CF activities including the protection work but was then asked to pay his Rs 1500 membership fee which he felt was too much for a benefit of 4 bhari of fuel wood. A more general concern was that members were being charged too much for produce from the forest areas – the woman of HH1 could not afford to buy the fuel wood even thought it was available. On the other hand HH6 noted that before the management of the CF he had to buy thatch to roof the house for Rs 2400 but now just by paying Rs 45 per year for a plot in the CF, he can obtain all that he needs.

Appendix 7. A Review of the Capacity Building Processes between ODG and NORMS.

Background

As originally planned the project fieldwork would have been jointly carried out by both ODG and NORMS (see table 1). The increasing political instability and the suspension of project activities for six months on account of this, not only led to a shifting in the scheduling of the project activities but also a major change in the way the project was implemented. Security concerns meant that it was not possible for the ODG team to spend extensive periods in the field with the NORMS team and the balance of responsibility for undertaking the research shifted from joint implementation to one in which NORMS played the major role.

Table 1. Project output 4 and its objectively verifiable indicator.

Output 4 Local capacity to link social, economic and technical concerns in developing and promoting changes in natural resource management enhanced *Objectively Verifiable Indicators* Major field research planned and undertaken by joint local and international research team by end of February 2002 and first outcomes presented and discussed in a seminar by May 2002. Joint publication submitted for publication by month 24. Final outputs disseminated widely in booklet form by month 24.

This shift meant that the ODG team came to play much more of an advisory and support role to NORMS than had been originally envisaged and effectively output 4 became rewritten to relate to team capacity building specifically for some NORMS staff. As this had not been a specific design feature of the project, it follows that an ex-post attempt to assess the extent to which these processes have been successful or not has no clear ground rules or baseline understanding to work from. Accordingly a structured discussion was held between NORMS and the ODG team to review what each party saw as the strengths and weaknesses of the working relationship both in general and specific to each of the parties and to assess what lessons might be learnt from the process.

Organisational Partners

The original discussions at the project preparation phase centred around three organisations – the International Centre for Mountain Research (ICIMOD), the Centre for Development and Geography (CDG) at the University of Tribhuvan and NORMS. While close contact has been kept with all three organisations during the process of implementation, direct working relations and contractual agreements was established with the CDG and NORMS. Initial discussions were held with CDG in relation to the employment of their masters' students as the key field researchers but political instability and its effect on teaching and semester timing limited the extent to which this could be implemented. The substance of the working relationship with the CDG has centred on their capacity and skills to produce maps and in this they largely played a service role to the project. Note should be made however of the fact that one of their students did become a key part of the field research team and his cartographic

and mapping skills were extremely useful both in the field and in the preparation of the digitised maps.

As background to this, a brief outline of NORMS is presented. NORMS was established in 2000 by a group of professional in the fields of social and natural sciences with long field experience of community forestry, ecosystem management, community development, training, policy analysis and advocacy. Its professional interests lie in the interface between natural resources and social systems and organisational development around these. It is not a strictly for profit organisation and has a commitment to spending some 25% of its profits on community development[115] focussing particularly on the poor and 25% on institutional development. This includes giving experience and support to less experienced consultants. Since its foundation it has worked on a number of projects including (details to be added)

The research process

In order to situate the discussion on the evolution of the working relationship between Norms and ODG table 2 summarises a brief time line on the project.

Table 2. Timeline for the project

2001	Activity
Mar	
May	Visit by JS, working with CDG and NORMS to establish research team and steering group
Oct	Visit by JS continued as above
Dec	Visit by PF and AP (ODG); field visit with NORMS to Terai for site selection
2002	
Feb	Visit by JS and AP: Discussion on research methods
May	Visit by PF (ODG), site visit to Makar and Harpur, debriefing of field research team, review of materials and preparation of draft site report
July	Visit by JS and VI (ODG), VI site visit to Rajahar and Suryapura, debriefing of field research team, review of materials and preparation of draft site report
Sep	Visit by AP (ODG), site visit to Devdaha, debriefing of field research team, review of material, preparation of draft site report, first tabulation of cross site comparisons
Nov	Visit by AP (ODG), cross site analysis of natural resource status, FUG constitutions, operational plans etc
Dec	Visit by VI (ODG) further follow up on field work in Rajahar
2003	
Mar	Visit by AP (ODG) to review site reports, cross site comparisons, discussion on research process
April	Visit by VI and AP (ODG) for joint final workshop with NORMS.

[115] Details on the community development work undertaken by NORMS as a product of this research programme are attached as an annex to this paper.

Key points to note about the research support process were the series of visits by the ODG team at key stages of research – centred largely around the completion of field research at a set of sites. Thus on the completion of the first round of field research PF (ODG) spent time in Makar and Harpur reviewing field evidence, the material collected and identifying gaps in information. Further refinement of research methods and focussing of the research was undertaken. This was followed up by VI (ODG) on the completion of the Rajahar and Suryapura sites, again with field visits, review of materials and further refinement of research methods. The material from Rajahar proved so interesting that further research information needs were identified and these were followed up by the Norms team and supported by a further field visit by VI in December/ January 2002-03. The third set of research sites in Devdaha was supported by a visit from AP, combining both a field visit and review of materials.

Following each field visit and drawing on the materials prepared by NORMS , site reports were drafted by the ODG team, issues and gaps in information identified and circulated for comment and debate.

The completion of the site field research allowed AP to discuss in detail with the NORMS team comparative lessons and issues and identify key aspects on which more information was needed, particularly at the household level. A further follow up on these site comparisons led to a deeper discussion on an analytical framework and identified the need for detailed examination of FUG constitutions and operational plans as well as the need to undertake detailed calculations on the natural resource status of each sites.

During each visit by the ODG team, discussions were held with the DFID office, the DFID funded Livelihood Forest Project, key ICIMOD staff and other interested parties (e.g. SNV, SDC, Don Messerschmidt)

<u>The Review of the Capacity Building Process.</u>

Table 3 summarises the agreed understanding between NORMS and ODG on the relative strengths and constraints that each brought to the research project. Both parties agree that an extremely open and good working relationship has been maintained throughout the project, building partly on pre-existing personal relationships (Janet Seeley with Ghanendra Kafle and other NORMS members) but also supported by regular communication. Key points that NORMS noted was the flexibility that ODG allowed within the project framework and the joint participation in a national workshop on Social Forestry held in September 2002. Constraints or weaknesses in the process were recognised as the limited involvement of NORMS in the project preparation and design period, a partial reflection of the constraints of the NRSP project preparation process, the uncertainty of relations between the project and the CDG (in which the political instability played an important part) and the fact that capacity building was not a systematic part of project design and implementation.

The strengths that NORMS offered related to their background experience and good field relations, interest and commitment, the selection of key effective research personnel and their real interest in learning through implementation. The challenges that NORMs faced were the fact that it was a relatively new organisation with limited research experience and was still developing its own institutional processes in relation to project management and organisation. By its own admission these have been strengthened through the project period but greater systematic attention to these might have been desirable. It was agreed that greater attention to

the selection process might have led to a stronger research team from the start. However the recognition of the abilities of two key members of the field research team and their retention with the project was an extremely positive outcome. Although initially employed just for the duration of the project (and therefore this might have limited the capacity building processes within NORMS long term) it is understood these two individuals are likely to be retained with NORMS.

From NORMS perspective, the strengths that ODG had to offer related to comparative and relevant research experience, the way in which the team positively supported NORMS both through regular visits and visits to the field, the freedom given to NORMS on implementation details and approval of budget to NORMS which allowed NORMS to stick with its principles of providing direct client support (see Attachment to this Appendix for a brief discussion on this). Norms summarises its experience in terms of the sense of ownership that it feels it has had over the project. The weaknesses of the ODG support was seen to be the varied priority that the research team gave to capacity support, the fact that individual ODG members were not full time engaged in the project and that the advice given by the team was not always consistent (most particularly with respect to the checklists).

All the above of course are organisational opinions but none the less valid for that. A comparison of the earlier field site reports and reports on household interviews with later site report and household interviews however provide direct evidence of the extent to which the field research became less descriptive, more analytical and more focussed. The skill with which much of the cross-site comparative analysis was put together after initial outline discussions is supportive of an interpretation of an increased level of application of analytical skills. Finally note should be made of discussions now taking place on how in general a collaborative relationship can be continued both with respect to supporting capacity building processes in NORMS and building on existing research findings. The final proof of course will come after the end of this project and will be provide by the extent to which NORMS builds its portfolio of work and delivers quality outputs in the field of action research related to common pool resource management, institutional arrangements and the livelihoods of the poor.

And what did the ODG team learn from the process? Key challenges that it faced was not to treat the relationship with NORMS as simply a contractual one that it would seek to micromanage according to its perspective of intellectual rigour and its own contractual obligations. In part ODG was caught in a process itself that it felt did not allow it an awful lot of room for manoeuvre. But we would do well to remember Onora O'Neill's strictures – " We try to micro-manage complex institutions from the centre and wonder why we get over-complex, and inadequate rather than good and effective governance" (O'Neill, 2002, pviii), a motif perhaps for the whole social forestry experience. Did the ODG team sufficiently let go and allow a research process to evolve from which NORMS would have drawn its own lessons? In some ways, perhaps not and the ODG team may not have been sufficiently transparent about its own interests in the research process. These were not necessarily consistent with those of NORMS seeking to establish itself as a relatively new NGO but also with a very strong sense of obligation to its view of a client group – namely the poorer sections of forest users in the Terai.

Table 3. Review of Capacity Building Process between ODG and NORMS

Strengths	**Weaknesses**
General	
Open and good working relationship	Limited engagement of NORMS in project preparation and design
Transparency and good communication	Capacity building not systematic part of project design; lack of conscious and planned learning
Good pre-existing relationships	Uncertain context
Good contribution by Geography Department to field work and map preparation	Uncertain relations between project and Geography Department
Effective de-briefing processes	
Flexibility	
Joint participation in National Social Forestry workshop	
NORMS	
Relevant Nepal based experience and good field connections	Limited experience of research focus
Interest and commitment	Unclear processes for institutional learning
Flexibility	Limited experience of project management and organisation
Effective learning through implementation	Limited experience of analytical writing
Selection of key effective research personnel	Limited attention to research capabilities of field assistance team
Debriefing to District level staff	Key research staff initially project based contract (but now joined NORMS)
Support to local communities	
ODG	
Comparative and relevant research experience	Varied priorities of team to capacity support
Regular support visits	Not full time engagement in project
Field visit support	Conflicting advice offered (differing checklists)
Positive support to NORMS through de-briefing processes	
Flexible	
Approved budget for client support	

Appendix 8 Support given to Mushahars of Makar-4 and Bote, Majhi and Mushahars of Rajahar-3 of Nawalparasi district

1. Background

The main focus of NORMS is on providing services to development related organizations in matters related to renovating organizational processes to create conditions for sustainable, efficient and equitable management of natural resources. NORMS has also an objective to support the poor and the most vulnerable groups of people from the resources received from the client organizations for which NORMS has provided the services.

NORMS was involved in carrying out a research on ***"Social Structure, Livelihood and Common Pool Resource Management"*** with the Overseas Development Group, School of Development Studies, University of East Anglia, Norwich, UK .The project focused its work in Nawalparasi and Rupandehi districts of the Terai. The research aimed at investigating the linkages between the system of management of common pool resources and social and political relations around natural resource use.

2. Brief description of the groups that are being supported

Of the five sample sites for the research work, Makar and buffer zone area of Rajahar VDCs of Nawalparasi were the two sample research sites of the **research project 'Social Structure, Livelihood and Common Pool Resource Management'.** During the course of the field research work NORMS has identified Mushahar community of Makar- 4 and Bote, Majhi and Mushahars of Rajahar- 3, Piprahar of Nawalparasi district the most vulnerable and the poorest community. The description of the communities is presented below separately:

2.1. Majhi, Bote and Mushahar community of Rajahar-3, Piprahar

Historical Background of Majhi- Majhis are the Mongols origins and are diversified to different classes and castes according to their occupation. They are the decedents of 'Jalari' meaning watermen, who used nets in the rivers, streams and lakes for fishing purpose, Majhi used to do fishing and Bote used to take people across the river. The main area of the Majhi used to be the bank of Kali Gandaki River. According to an old Majhi man they might have shifted to the bank of Narayani River while roaming for fishing in the Kali Gandaki and they came to this area in course of fishing in the river.

General introduction to the community of Bote tole-In Bote tole of Piprahar, there are 58 hhs and the settlement is scattered in two toles. 11 hhs are situated in the upper side near Kumabarti Primary School and other 47 hhs are in the bank of Narayani River. They have the small thatch roofed huts constructed closely to each other.

The settlement, Demography and land holding situation-The Majhi, Bote have been settling here for more than two generations (for about 25 years) in this cluster. At first they migrated from Binaya River to Baskhor of Arghauli VDC. Binaya River is about 1 hour and Arghauli about 20 to 25 minutes west of Rajahar along the highway by bus. They again shifted from there and began to settle in Rajahar – 2, Kujauli. The reason for migration from the two places as reported was the high death rate from cholera. They have the belief of not staying continuously in one place where group death occurs. Floods in Narayani River and land cutting by the river gradually displaced them. So they began to shift in the near by places wherever public land was available for their settlement. In course of seeking such land they settled in Rajahar – 3, Bhogtaghari which is 20 to 25 minutes northwest by the forest. Nowadays there are only 13 hhs in Kujauli. As time passed, population and number of hhs increased and it became difficult to survive in limited area of Bhogtaghari. So they again shifted towards this tole, which is about 10 minutes north west on foot.

The community has the following situation of population, education, landholding and livestock.

S.N.	Particular	Bote / Musahar	Majhi	BK	Tharu	Total
1.	Number of hhs	25	20	1	12	50
2.	Land holders	18	14	1	11	44
3.	Landless	7	6	--	1	14
4.	Number of literate person	1	1	1	2	5
5.	Average family size	7	8	3	5	5.5
6.	Marginal land size	5 kattha	3 kattha	4 kattha	3 kattha	3.75 katttha
7.	Livestock	2 goats and 2 cows	4 goats	2 ox	1 cow 2 ox	13

The number of households in this settlement near the riverside is 46 and the population is 250 to 300.

Landholding situation

Ethnic Group	Hhs with house and some land	Hhs with only house	Hhs with only land	Hhs with only house a bit further	Total hhs
Majhi and Mushahar	10	1	-	3	14
Bote	9	6	1	1	17
Biswakarma	1	6	-	-	7
Tharu	4	4	4	-	12
Total	24	17	5	4	50

Even in this era of modern science and technology of this civilized globe, the occupation of Majhai, Bote and Mushahar and their livelihood strategies seems like that of nomadic culture. These people have no permanent settlement as the other high caste people who came much later in the area from different places and are quite well off as compared to this group of people. Their settlements are in a rehabilitated situation, as they settle in the public land. This means that though they have used the land temporarily, none of them have registered the land in their names. Since they have settled near the side of the river, in the monsoon time they are always scared of being washed away by floods in the river. Even after settling in this area (there were 11 hhs in the initial period) the government tried to push them away three times by using elephants for breaking down their huts, by setting fire on the huts and by damaging the house poles. Such incidents that occurred frequently have made them adoptive so they too stay in the same place even after the authorities try to push them away.

They tried to register the land cultivated by them in 2048 / 49 but it didn't succeed. They requested the VDC for the opportunity of permanent settlement with land ownership but the VDC has assured them verbally but didn't forward any process

Impact of the buffer zone programme on the occupation and livelihood of Bote, Majhi and Mushahars

Before the implementation of the National Park Programme the settlement was extended up to the next side of the Narayani River with the purpose of cattle farming. It was also easy for them to collect wild vegetables. Their main occupation during that period was boating for the travelers towards Chitwan and pilgrims of Lodhaghat, Narayanghat, Bhusarghat, Tribenighat, and Kujaulighat etc. The area was from Narayanghat to Tribenighat. Each house has its own boat and transportation rent used

to be in annual crop basis. Annually in an average 1 hh got 20 to 25 muri of paddy (1200 to 1500 kg). Besides this, fishing was another occupation, which made direct cash for meeting the household expenditure. There was no restriction for fishing. So they used to do fishing from Gaidakot to Laugahi from north to south. Usually two members of a family go for fishing in the evening and catch 2 to 3 kg of fish, which they both consume and sell.

After the declaration of the National park, their livelihood was badly affected. The bridge construction in the Naraynghat and Triveni also adversely affected their boating profession. When the National park prohibited their free entrance in the park area, it affected not only the travelers but seized their traditional and independent rights of collecting wild vegetables, mostly 'niguro' (a kind of wild vegetable). Now they have to be limited within the order of the park. They collect it only in the side of the forest as permitted to them. The cattle farming vanished completely in the park area (These people also used to work as cowherds of the Tharu community who made their shed in the present park area). Thus the declaration of the National Park reduced their livelihood option as livestock labourers.

The fishing occupation also got reduced highly. The distance is fixed only from Gaidakot below Bhrikuti Paper Industry site to Laugahi about 30 - 35 km far. They are permitted for fishing within this limited area only in the opposite side of the park. Fishing in the main stream of the river is banned. They should take license from the park by paying Rs 50 / person / year but that is limited to only two members of a household. The can do fishing for only 9 months from Bhadra to Baisakh (August to April) as rest of the 3 months are the egg laying period. At present only 12 hhs have taken the license and the number of the boats in the whole community is only 3, which is about to wreck. They made the boats of Karam, Sissoo and Simal but now the park has banned to use these species so they have no wood for making boats. They get the chance of fishing only in 3 days week on a routine basis. The quantity has diminished to hardly 1-2 kg / trip because of the limited permit area. Bhrikuti Pulp and Paper Industry has also polluted the Narayani River, which has badly affected in the availability of fish. The fishermen have found many dead fishes, snakes and frogs to its surroundings during hunting time. Other communities residing around this village are also engaged to fulfill their needs mainly for hh purpose. Gandak barrage has obstructed coming fish to this side. This has also reduced the quantity in the availability of fish.

Despite of the hindrances, they have been continuing their traditional occupation of fishing and selling it in the local market at Rs 60 to 100 / kg according to it's quality. They are shifting their occupation towards agriculture labour and male members of the family go for fishing in leisure time during the fishing season.

They have food scarcity quite frequently. To save from starvation, they borrow cereals from the wealthy hhs. It is done in the dry season when there is no income. They bring 7 to 8 pathi cereals at a time and pay it through labour exchange. These people are not benefited at all from the programme given by the National Park for the people residing in the buffer zone area. In brief, the researchers found these people as the most vulnerable group that have been adversely affected by the Park programme.

They are out of the basic health facility. They depend on natural herbs and traditional faith healer for their health problems. They were proposed for getting skill enhancement training but they didn't show interest on it because it was not their real need and was not traditionally adopted.

Whatsoever is the intensity of the deprivation of the Majhi, Bote and Mushahar and whatsoever is the concept of the buffer zone, the situation of these people has further worsened with the implementation of the buffer zone programme. It is because they have not benefited at all from the development interventions of the buffer zone programme. The park has been implementing different programmes for the people residing in the buffer zone are. The programmes include construction of roads, support to schools and embarkment in Jharahi, training on gender, painting, sewing/cutting, leadership development and group management, livestock farming, plantation, repairing pumping set, education on conservation, study tours etc. There is also a provision of interest free loan to groups for keeping

buffalo. There are saving and credit groups supported by the National Park. However, these people are not included in any of the programme. The reasons may be that the programmes do not reflect the needs of these people. The details of which are given below:

- Pre – Primary school has been established in B.S. 2058 where 20 – 22 students are studying. Adult class was also launched, supported by the park and people project last year for 6 months but it continued only up to 1.5 months because the facilitator didn't attend regularly though there were 15 – 20 participants, both male and female. He insisted to conduct the class in the evening, which was not favorable to them because it was their fishing time. So they requested him to run the class in the daytime after lunch but he didn't agree and they discontinued the class.

- PPP has a provision to provide some facilities to them like check dam construction, saving programme, drinking water, study tour, skill enhancement training etc. PPP had promised to provide them with wire for the construction of check dam to protect from cutting from the Narayani River. However, the community of Piprahar, in the leadership of Hari Bahadur, borrowed the wire from them with an assurance of returning it after they also got from the PPP. Rs. 50,000 was allocated for this purpose. However, they never got the wire back neither they were paid for its costs. Thus these people lost the only one benefit, which they were about to get from the PPP. There is only one hand pump for drinking water available in the tole given by PPP

- In the initial phase, saving program was also carried out for them. It was Rs 5 / week / hh which was collected by Laxman Mahato. Twenty households were involved in the programme. The programme continued from 2055 to 2057 and the fund had reached about Rs 7 to 8000. Neither he informed timely to collect the account nor he provided any loan to them. It brought mistrust and unwillingness for further saving. So they left it. The money is still with Laxman Mahato.

- The collection of fuel wood, thatch and grass from the park is also restricted. These people have always fear of being charged by the rhinos. River cutting problem is in the increasing trend in settlement side due to the dense forest in park side

- 135 out of 145 hhs of ward 3 have taken the membership of Sisuwar CF. However, 10 hhs of Mushahar tole have not taken the membership. According to the version of the committee, they were given especial facility of paying the membership in three installments of 50 rupees each. However, they did not pay and so they have not been the members. There are two different versions of these non-members. One version is that the committee did not let them know of paying in the installment basis; the other version is that they needed membership of the forest for thatch only because they collect firewood from the river. They have to go to the national park to get the thatch anyway. They cut thatch from the park in 50 % sharing basis. According to the distribution system established by the committee, people who pay money earlier are given the plots for cutting thatch and they cannot do so because they cannot pay the committee on time. So they prefer to collect the thatch from the park itself. Among 135 member households 71 hhs are the members of Chautari CF. Mostly the Botes and Musahars have failed to collect thatch, as they have not been able to pay the money to the committee. However, the people of this community complain that the committee does discriminate them. There is no provision of fuel wood supply from the protected CF as no fuel wood is available there. People collect wood and trees brought by the Narayani River during monsoon and use this as fuel wood. However, users are allowed to collect small dead and dry twigs for three days from the forest just after the collection of thatch is completed. For this they have to pay 20 rupees. If there is big size wood, it is sold by weight (100 rupees per quintal). Since most of the users of this forest are also the users of Chautari, they get the forest products from Chautari as well if the products received from Sisuwar and floated in the Narayani River are not enough. It was found that Bote and Musahar did not collect forest products from Chautari. They either get the woods brought by Narayani or steal from Sisuwar. They also bring fire wood and wood for construction from the park in tenant basis given by the park. They also cut and collect thatch in the tenancy with the park. Also they do not need grass because they have no large-scale livestock farming. Their access to the resource

reduced after the implementation of National Park and the intensity further increased by the hand over of Sisuwar CF.

The social networking is developing with an optimistic future. Organization networking is being developing since 2049. Community development organization (CDO) played an important role in their empowerment. It supported them for organization establishment, leadership development, conservation and exploration and to raise voice in government office for the sake of their development. They formed Bote / Majhi, Musahar Kalyan Sangh (welfare committee) in. OXFAM, Action Aid / Nepal provided financial and technical support on organizational management. They have established and run the office in Kawasoti, 10 km west to Rajahar. Netra Lal Paudel of Pragatinagar, 4 km west to Rajahar, former Pradhan Pancha helped them for constitution preparation and it has been registered in the district administration office, Nawalparasi. The committee is also affiliated with " Social Welfare Council" Kathmandu.

2.2. Mushahars of Makar- 4

There are 56 Mushahar households in this community, two households are of Chamar, and eight households are of Magars, Damai and Chhetris. All except Chhetri and Magar are schedule castes. They were settled on the bank of Niraya stream since 1980 until 1999 (2055 B.S.)

These people were resettled in ward 4 by the VDC by giving each house a piece of common land of 12 x 12 hands (18 x 18 ft) when the flood in the Niraya stream washed their houses in 2055. Each household in the community has a small thatch roofed hut in the area allotted to them. They have always fear of rain, storm and setting of fire.

Their only means of livelihoods is the daily wage labour, which is not regular. The Musahar people who depend on daily labour for their livelihoods get either food grains or money as their payment of the labor. The earning made from one-day labour work is sufficient just for a day for the family. They have no system and tradition of saving food or money for the future. When they have no work, the men usually spend their time in playing cards. When they do not have any earning, they get money or grains in debt from the landlords with a provision of giving labour in the future. They then gradually pay the debt when they have some earning. Therefore, they usually go for labour work to the landlords, even if they are paid less than what they would get in other places.

Eight women in the community were the members of women saving and credit group supported by the village development bank. It was known that these women had loan of Rs. 8000. 00 each for income generating activities from village development bank. One woman had started the business of selling vegetables. However, she left the job because she was in loss. The other seven women spent the money in unproductive work such as wedding of their children, house construction and in household expenditure. None of these women has been able to pay the loan back.

The skilled laborers are usually paid Rs. 100 per day whereas the wage of the unskilled labor varies from 30 to 60 rupees a day. In the community, only 10 people (males) have skills in housing construction. One person is a witch doctor and a woman is a traditional midwife. She has learnt the skills from her mother. The people got the skills on their own while working as unskilled labor.

100 percent of the women of the Mushahar community are illiterate. As for the male literacy, all males above 30 are illiterate. At the most, few people have studied up to the fifth grade. Children of only 10% households go to school. However, usually there are dropouts after the children go to schools for couple of years. There are not other informal education systems in the community. The level of unawareness level among women is higher than those of men. It is because men have greater exposure than those of women.

None of the household has a toilet. They are not aware of health and sanitation. The children seemed to have a problem of malnutrition. The women were also not seen healthy. In general, they believe in

witchcraft and so get service from the local witch doctor. As reported they get different treatment than the other patients in the nearby health post. Therefore, they do not usually go the health posts as they feel humiliated and discriminated. Another reason as they reported for not going to the health posts is that they cannot afford for the treatment.

Few of the households of this community have taken membership in Parijat FUG. They collect fuel wood as the others when the forest is open for the purpose. They seem to be ignorant of the concept and benefits of CF and the activities of the committee.

3. Rationale for the support

As seen above the Mushahars of Makar-4 and Bote, Majhi and Mushahar of Rajahar-3 are the most vulnerable and poorest community. The landlessness and insecurity in the livelihood options of the Mushahars of Makar and the restrictions imposed by the National Park to the people settling in the buffer zone area have adversely affected the livelihood of these people. In addition, these people have not been not been benefited from any development interventions. Providing support to such group that may help, even to some extent, could be meaningful for supporting to their livelihoods. Providing support to this support is also in line with the organizational policy of NORMS. In addition, these people have to find work every day for their daily hand to mouth problem. The time given by them to the researchers for giving detail information therefore needs to be paid even in the humanitarian ground. Besides, the support was not imposed but was provided as per their needs and demand. The points mentioned above justify for the support provided to the groups.

4. Process followed

The process followed was based on the following criteria and organizational policy:

- That as far as possible, the support could be meaningful in the sense that it could support the group for their sustainable livelihood instead of one off welfare support.

- The researchers collected information on the possibilities of support in course of information collection for the research work without affecting the quality of the information for the research.

- The information collection on the possible support focuses on identifying appropriate community and exploring the potential type of support, possible mechanisms for the support and the amount it would cost without giving the community of any hint that they would be supported by the organization, which would otherwise influenced the research.

- Identification of appropriate organization working in the area, which would be ready to spend the entire amount for the beneficiaries without spending any amount for its administrative purpose and making agreement with the organization accordingly.

- Identification of the real needs of the beneficiaries and the mechanism the support would be best utilized by holding discussion with them.

4.1. Process followed in Rajahar-

- Ascertaining the situation of the community and the impact of the Park programme on them through direct observation and discussion with them and crosschecking with the Users' group committee and other key informants.

- Giving them the hints about the possible support to them and letting them know the criteria for the support. This was done only after the information collection for the research work was completed.

Asking them to hold discussion among themselves on possible ways that they would like to do and plan for it.

- Facilitating discussion on the identification of needs and prioritization and discussion on the options for addressing the needs and detail planning with specific tasks during the implementation of the plan.

They demanded following short-term future expectation to improve their livelihood status.

- **Irrigation pump set**: They have small plot of land having no irrigation facility though it is by the side of Narayani River and other irrigation canal lies in the north side. They expect that if an irrigation pump set would be available to them 60% of the food sufficiency may be increased. They have the availability of human resource for this operation.

- **Fish farming center**: Fishing in Narayani is going to give hardly income. If Gaidatal pond, of ward no. 6, which is under the control of the VDC, would be given to them for fish farming, they may be able make more than Rs. 200 000 income annually. This was their preference, as it would be based on their existing strength. For this skilled resource is also available there.

- **Land registration**: If they would have the registered land the life might be easier and the problem of displacement may be solved.

- **Education and social justice**: If education facility is more accessible to them and there would be non-discrimination by class, caste and status, the livelihood condition may certainly be improved.

Based on the discussion and the time the researchers could give for them to support in the areas the community expressed their expectation from the team, it was agreed that providing them with the pumping set was more feasible and appropriate. Hence the researchers and the representatives of the community bought a set from Bhairahawa and fixed got it fixed. The community people formed a committee with seven people (five male and two female) for the operation of the pumping set. They also specified the role of the committee as follows:

- Collect Rs. 5/ -per household per month for the diesel and maintenance of the pumping set.
- Three people with some idea on the pump set were given responsibility for the operation of the pump set by turn.
- Communicating with NORMS about the progress- The group will send information to NORMS every two months in the format prepared by the researchers with their consultation.

As mentioned earlier, the community has a district level federation in the form of an NGO. However, the research team provided support to the community not through the organization. It is because the process would take longer time, which the research team could not give. Moreover, the chairperson of the committee is also the chairperson of the organization and he suggested that he would inform the NGO about this project later. The chairperson suggested that he would also inform the organization about this support given to them.

4.2. Process followed to support Mushahar group in Makar

As mentioned earlier about the organizational policy for providing support to the communities through the organizations working in the area as far as practicable, the support to Mushahar community was provided through 'Women Acting together for Change' (WATCH), a national NGO working in Rupandehi and Kapilbastu districts. It was known that WATCH is going to extend its field activities in Nawalparasi district also. The organizational principles and focus of support of NORMS and WATCH have very much in the same line and since WATCH agreed to provide support to the Mushahar community without spending any amount for the administrative purpose NORMS agreed to

provide support to the community through WATCH. The key points agreed between NORMS and WATCH are as follows:

- NORMS shall provide a sum of Rs. 60,000.00 (sixty thousand rupees) to WATCH for the purpose of conducting ***'Saving and Credit Program'*** for the 68 households of the Mushahar community of Makar VDC ward 4.

- WATCH shall spend the whole amount for conducting ***'Saving and Credit Program'*** for the women group of the aforementioned community.

- WATCH shall undertake all process to organize the group for the purpose and it shall handover the program to the group when the group becomes capable to undertake the program independently with minimum external support. WATCH shall not spend any amount for its administrative work from the amount mentioned above.

- While implementing the program WATCH shall clarify the community that the support to them has come from both NORMS and WATCH.

- WATCH shall report to NORNS of the progress until the group starts operating the programme so that NORMS is informed about the support approach and the impact to the community.

5. Progress made so far:

5.1. Rajahar

So far the researchers have met the chairperson of the committee once. It is known both verbally and from the monitoring form sent by the group by post that they have been utilizing the pump set for the purpose of both vegetable farming and irrigating the pond (they made pond on their own) for fish farming and they have also been raising fund of the group as agreed in the group meeting.

5.2. Makar

WATCH has completed first round discussion with the community. The meeting focused on collecting more information about their socioeconomic status and their concern for their livelihood. The next programme as reported by WATCH is to hold discussion for the formation of saving and credit group as per the process and approach of the organization.