

# **SAGA Eastern Himalayas Resource Kit**

**A Resource of the Training on Social and Gender Analysis  
(SAGA) of Natural Resource Management and Biodiversity in the  
Eastern Himalayas**

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## **Introduction to the SAGA Eastern Himalayas Resource Kit**

The SAGA Eastern Himalayas Resource Kit has been developed as a reference and training tool for participants of the “Training on Social and Gender Analysis (SAGA) of Natural Resource Management and Biodiversity in the Eastern Himalayas”. It is also intended for a wider audience of users such as other SAGA trainers, researchers and IDRC partners.

The Kit is comprised of four sections: A. Case Studies and Theoretical/Overview Papers, B. Additional Readings, C. Websites and Electronic Information and D. Exercises Based on Case Studies.

In Section A, five case studies and four theoretical/overview papers are provided. A summary page with discussion questions precedes each case study. Section B provides an annotated list of additional readings on SAGA in natural resource and/or biodiversity management in the South Asian/Eastern Himalayan region. The list is composed of nine references to journal articles and other papers with web addresses where available and two references for books. Section C includes an annotated list of websites pertaining to SAGA and online related guides, books and kits. Finally, Section D proposes three general exercises based on the case studies, which can be completed individually or in groups.

## A. Case Studies and Theoretical/Overview Papers

This section of the SAGA Eastern Himalayas Resource Kit provides case studies and theoretical/overview papers on SAGA in the Eastern Himalayan region. The case studies were chosen to sensitize researchers and other interested individuals to work on SAGA in the natural resource management context of the Eastern Himalayan region. They are also intended to provoke thought and discussion on the outcome of using SAGA, the methodologies used and the strengths and weaknesses of the methodologies. Due to the bias in the limited SAGA research conducted in this region towards gender analysis, the case studies all focus on gender analysis as opposed to various other social analyses.

There are five case studies, two from the Chittagong Hill Tracts, one from Bhutan, one from Sikkim and one from Lak District, Vietnam. The Lak District, Vietnam case study was included because of several similarities in context to gender and natural resource management issues in the Eastern Himalayas. Each of the five case studies is preceded by a one-page summary, which also includes some points and questions for discussion.

Three of the theoretical/overview papers were chosen to familiarize the readers with current analyses of the influence of gender on resource management, property rights, collective action and to provide background and a typology on participatory research and gender analysis. The fourth paper presents an overview of gender relations in north-eastern states and the role of customary law in maintaining gender-biased resource control and ownership.

The following are the references for the papers:

### Case Study Papers

- (1) Khan, N.A. and S.K. Khisa. 2002. Gender and livelihood concerns: views from the Upland Settlement Project *In* N.A. Khan et al. (eds.) *Farming Practices and Sustainable Development in Chittagong Hill Tracts*. Dhaka: CHTDB, Government of Bangladesh & VFFP-IC Swiss Agency for Development and Cooperation.
- (2) Tiwari, S. 2003. Chittagong Hill Tracts: A Preliminary Study on Gender and Natural Resource Management. Report completed by Shilpa Tiwari as part of internship at IDRC.
- (3) Pema, D., Penjore, D. and K. Upadhaya. 1995. Bhutan: women and men working together. Seven villages in the Punakha and Wangdi valleys *In* Wilde, V.L. and A. Vainio-Mattila, *Gender Analysis and Forestry Section D, Case Studies*. Rome: FAO.
- (4) Eckman, K. 1997. Gender and participation in agricultural development planning, lessons from Sikkim, India. Rome: Women in Development Service and FAO.
- (5) Gebert, R. 1997. Gender Issues in the MRC - GTZ Sustainable Management of Resources in the Lower Mekong River Basin Project Dak Lak Province, Vietnam. Short-term mission report. GTZ and Mekong River Commission Secretariat.

## **Theoretical/Overview Papers**

- (1) Krishna, S. 2001. Gender, tribe and community control of natural resources in North-east India. *Indian Journal of Gender Studies* 8 (2): 307-321.
- (2) Agarwal, B. 2000. Group functioning and community forestry in South Asia: A gender analysis and conceptual framework. Working Paper No. 172. UNU World Institute for Development Economics Research
- (3) Meinzen-Dick, R., L.R. Brown, H.S. Feldstein and A.R. Quisumbing. Gender, property rights and natural resources. FCND Discussion Paper No. 29. International Food Policy Research Institute.
- (4) Lambrou, Y. 2001. A Typology: Participatory research and gender analysis in natural resource management research. Working Document. CGIAR Systemwide Program on Participatory Research and Gender Analysis: No. 15.



## **A.1 Gender and Livelihood Concerns: Views from the Upland Settlement Project by N.A. Khan and S.K. Khisa (2002)**

### Summary

The setting of this case study is the Upland Settlement Project: Second Phase (USP), begun in 1993 in the Chittagong Hill Tracts. This project sought to address high poverty among ethnic people and environmental degradation, by creating employment opportunities and improving the farm income and food security of poor families. A key project activity is agroforestry, including homestead and rubber plantations.

This case study, which reported on preliminary findings of select gender issues, is part of a larger goal of the project to “document and record detailed information on the activities, livelihood, changes and survival strategies of members of the target households”. The methodologies used include uncontrolled observation, ethno-history analysis, social mapping and ‘walk and talk’. More detailed information on the use of these tools is not available in this paper but can be found in other references indicated in the paper. Another focus of the analysis was the gender issues at the organizational level of the project, although this has not been dealt with in this summary.

The gender analysis concentrated on resource control and ownership, resource management, gender division of labour and household decision making. It was found that homestead land is under control of men only and men control 70 % of the agroforestry plots and rubber-banana community plantations. However, women have extensive access to these landed resources for meeting reproductive and productive needs aimed at provision for the family's welfare. Credit, another resource, is not available to women from either formal or informal sources. Also, men control large livestock, such as cows and goats while women control small livestock such as poultry. However, women have primary responsibility for maintenance of both. As men control large livestock they are also the ones who earn income from their sale. Income earned by women from poultry sales are kept by them, and generally spent on the family, but their income from participation in project activities and from agroforestry products are controlled by men. Women are generally responsible for all household chores, childcare and processing harvested crops. The home garden maintenance tasks are divided between women and men, with women responsible for tasks such as raising seedlings and sowing and men responsible for tasks such as clearing, burning and staking. Finally, household decision making is done collaboratively among active adult members of the household and sometimes also includes prominent relatives and neighbours. Nonetheless, the researchers were able to discern major decision-makers for various decision areas. In the paper twenty major decision areas including issues of agroforestry/garden management, buying landed assets, attending events, taking loans, joining organizations etc. are categorized by the major decision-makers: key male, key female or joint.

### Food for Thought

The authors have stated that the results of this study are preliminary and incomplete, as they are part of a larger and ongoing research project. Therefore, it is possible to pose some additional questions that could be addressed by the project in the future. These questions are intended to facilitate a discussion on how the products of gender analysis can be used, in the context of a natural resource management project aimed at improving the livelihood status of the poor.

### Discussion Questions

(1) The analysis found that men are the main controllers of homestead land, agroforestry plots, rubber-banana community plantations and large livestock. However, women are users and in some cases (eg. large livestock) the primary managers of these resources.

What are the implications of a disjunction between resource users/managers and resource controllers? For example, how does it affect workloads?

(2) From Table 18.1 on page 232, it is seen that the key male is the primary decision maker for decisions related to attending social and religious festivals and events, visiting city centres, joining external organizations and talking to outsiders. What challenges does this present to the predominantly male staff of the Upland Settlement Project in interacting with resource managers, organizing village meetings and holding off-farm activities? How can these challenges be addressed adequately within the project?

## **18 Gender and Livelihood Concerns: Views from the Upland Settlement Project**

**Niaz Ahmed Khan and Sudibya K. Khisa**

The observations which inform this paper draw on the performance of an experimental agroforestry project in the south-eastern upland Bangladesh. The project, titled the Upland Settlement Project: Second Phase (USP), was launched in 1993 in the Chittagong Hill Tracts (CHT). The stated goal of the Upland Settlement Project is to "improve the socioeconomic condition [and] to redress the poverty of the ethnic people and environmental degradation in the region by creating employment opportunities with income generating activities as well as providing a basis of livelihood by improving their farm income and ensuring food security" (USP, undated).

The project is fuelled by a fund of Taka (Tk.) 431.8 million. So far, 1000 landless and desperately poor ethnic families (equally distributed in the districts of Khagrachari and Bandarban) have been settled in suitable sloping (public) lands. The project area is divided into a number of 'project villages', each comprising 50 families. The participating farmers are required to practise agroforestry, with the aim of raising 506 hectares (ha) of homestead plantation (0.5 ha for each family) and 1620 ha of rubber plantations in individual compact blocks of 81 ha (1.6 ha for each family). The government's CHT Development Board administers the project. There are 106 sanctioned staff positions in the project. Currently, 94 staff are working; out of which the number of female personnel is 6.

The project has purposely endeavoured to develop a 'holistic' perspective in the analysis, research and treatment of the development work and plans. It intends to document and record detailed information on the activities, livelihood, changes and survival strategies of members of the target households, through intense observations over a reasonably long period of time (the scheduled research span is two and half years, subject to availability of resources). The major research tools include uncontrolled observation, ethno-history analysis, social mapping and 'walk and talk' (for a detailed account of the methodology and the sample frame, see Khan, 1998 and USP, 1998). To explore the views of the female personnel serving the project, informal discussions and focussed-group meetings have been held with them. With the help of two female research assistants, the working life and career environment of the respondent women have also been closely observed.

This article comes as a sequel to a few recent work (e.g. Khan and Khisa, 2000; Khan, 2000) which have reported on varied socio-economic aspects of the project. In what follows, we attempt to furnish some preliminary findings on selected gender issues as observed in the project both at the farming community and organisational levels.

### Gender at the Farming Community Level

The major resources which surround the life and living of these families are as follows:

- homestead land
- agroforestry and community plantations
- livestock
- credit facilities
- cash income

Most resources are still owned and/or controlled by men. The homestead land is under absolute control of men, while 70% of the agroforestry plots and "rubber-banana community plantations" are controlled by men. Women from respective households have however wide access to these landed resources for varied

reproductive and productive functions. Women's access to and activities in these places are mostly geared towards meeting needs of their families and not for their (women's) personal benefit.

Credit is available in the study area from two major sources: informal money lenders (locally called *mohajon*) and formal banks and financial institutions. Women do not have access to loan facilities from either source. This is attributable to a number of reasons. Women have limited mobility and access to external institutions. Most women are illiterate and incapable of dealing with the cumbersome paper work involved in institutional loans. *Mohajon* loans require collateral in the form of a 'social reference' from a *matobbar* or *karbari* (local elite/leaders) which the women can hardly negotiate.

Fully grown cows and goats, which are tended mainly for cash income, are controlled by the male farmers. Women however shoulder the major responsibility in maintaining and nursing these animals. Women have control over small poultry, which they generally tend within the homestead boundaries. They sometimes sell these birds to local vendors (who visit from house to houses). They are allowed to keep the money out of such a sale, which they typically spend to meet family needs. The wages earned from participating in various project activities and the income from agroforestry products are mostly controlled by men.

The women's daily work and labour input fall into two broad categories: 'household chores', which include cooking for the whole family, child care, cleaning house and utensils, washing clothes, fetching water, livestock and poultry rearing, firewood collection, and handicrafts; and 'agroforestry activities', which include managing home and horticultural gardens and processing harvested crops. On average, the women work for 15–16 hours a day.

The management of home gardens and associated agroforestry activities typically follow a gender division of labour. Women play an intensive role in the development and maintenance of the home gardens. The activities mainly done by women include preparing the seed beds, raising seedlings, collecting debris, sowing or

planting, collecting cow dung (as fertilizer), grafting, watering, weeding, and mulching. Men are mainly responsible for such activities as clearing and burning jungle, preparing the site, staking, excavating deep pits and water drainage, and making protective gabions (Khan, 2000).

The major day-to-day household decisions are generally made in some form of consultation between the active (adult) members of the household, including the male head (father, elder brother, or son), the key female figure (wife or mother of the head of the household) and other earning members. The consultation mainly occurs in the leisurely family sittings immediately after the supper at night, and or in between the breaks during agroforestry planting and home-garden maintenance. At times, important relatives and neighbours are also invited in to participate in the discussion leading to decisions about major family events, especially marriage or acquiring landed assets. On the basis of frequency and significance (to the respective households), a number of major decision areas have been noted during the fieldwork (for details, see Khan, 2000).

Table 18.1: The Major (and Most Commonly Observed) Decision Areas and Decision Makers in the Study Households

Decision areas	Decision maker		
	Key male	Key female	Joint
Selecting planting and gardening site	X		
Determining type, quality and quantity of seedlings	X		
Time and amount of seed sown in agroforestry plots	X		
Time and amount of seed sown in home gardens		X	
Selling the varied agroforestry and horticultural products (which grow in the project)			X

Decision areas	Decision maker		
	Key male	Key female	Joint
Time and amount of household savings		X	
The time, heads, and amount of expenditure for day-to-day running of the household			X
Tending operations in the agroforestry plantations	X		
Marriage			X
Attending social and religious festivals and events	X		
Visiting city centre(s)	X		
Social visits to friends, patrons and relatives	X		
Buying landed assets			X
Choice of doctors, medicine, location of treatment			X
Repairing and renovating huts, livestock sheds, etc.			X
Source, time and amount of borrowing			X
Source, time and amount of repayment			X
Adopting of particular strategies in the face of natural calamities (e.g. droughts, cyclones)			X
Joining external organisations (e.g. voluntary associations, public agencies)	X		
Talking to 'outsiders'	X		

Note: The key male is generally the father/husband or the elder brother/son; the key female is generally the mother/wife or the elder daughter/sister; and joint decisions are made through a consultative process between the key male and female members (and sometimes other earning adult members).

Source: Khan, 2000

The limited income which they earn by participating in the project activities seems to instill a sense of self-esteem among the women. They also reported that they currently enjoy relatively more social status as a result of participating in the project. To the respondents, the manifestations of 'increased social status' are: "we can now visit the government offices"; "our husbands ask for our opinion in important family affairs"; "the [project] office has opened a big file in my name"; "nowadays more of our rich relatives visit our homes"; "big [high ranking] officials talk to us"; "...have some money at home most of the month", and so on.

### Gender at the Organisational Level

The project neither has a specific policy nor any specialised training scheme as regards gender. The concept of gender as an academic discipline and organisational philosophy is quite new to the female staff. There are only 6 women out of a total of 64 positions in the organisation; and they too are engaged in lower level menial and clerical jobs.

The respondent women opined that the primary purpose for their employment was to serve their respective families and contribute to family welfare. They felt that women should be given preference in employment, as women (as compared to men) were more committed to the responsibility of family welfare. One typical comment was: "if you employ a woman, you in fact take care of the whole family; woman would not leave her family behind in any circumstances".

There are a number of hindrances on the way of greater employment opportunities for women. The provision of reserving 30% posts in the public services for women is not strictly followed. Lack of appropriate level of education, coupled with inability to access relevant information in right time render it difficult for women to compete for jobs. Some respondents also raised the issue of biased recruitment decisions by the "male-dominated recruitment board". They hardly have a role to play in the management decisions and monitoring.

In the meeting, the respondents reported, women generally performed a passive role in the presence of the overwhelming

majority of the male members. They were skeptical of their voices being heard by the higher authorities.

The physical working environment is also not very conducive to female staff. The respondents repeatedly emphasised the need for such facilities as a separate toilet and rest room, a day care centre for their children and a regular access to information about job and career opportunities. Currently, these facilities and support are absent.

The female staff seemed to be generally satisfied about their current level of involvement in the project. Although they were conscious about the problems relating to their work environment and society, they did not complain much. During more intimate interviews, they candidly reported that, as compared to their previous social and economic situation, their present status (even with the above mentioned limitations) was clearly better. They manifested a low expectation from life in general.

### Summing Up

The preceding discussion has attempted to present some preliminary observations from an ethnographic survey of a participatory agroforestry project in the southeastern Bangladesh. The findings are incomplete in the sense that they are part of a broader (and ongoing) research scheme. It is however possible to draw some broad (and provisional) conclusions such as the following: (a) Women play a most active role in the management of household and agroforestry activities in the study area, although their contribution is not readily (and justly) recognised. (b) Women depict a greater degree of commitment to family welfare; their earnings and income are channelled, in the main, towards meeting the demands of their respective households. (c) Women's participation in the formal/institutional sectors is limited due to such reasons as reduced mobility, lack of appropriate information and education, and insufficient control over relevant resources. (d) Despite their judicious and overwhelming contribution to the day-to-day management of household resources, women have insignificant control over the resources (and the benefits accruing thereof). (e) In the absence of an effective gender policy, the overall working

environment for the female staff is not very conducive. (f) The level of female participation in the project management is insignificant. (g) The project has contributed significantly towards increasing the social status of women both at the family and organisational levels.

### Note

1. In following Khan (2000), the term 'gender' for the purpose of this study connotes the socioculturally determined and context-specific roles assigned to both sexes. Brett (1991:2-3) further explains: "Sex is concerned with biology, whereas gender identity of men and women in any given society is socially and psychologically (and that means also historically and culturally) determined ... To determine gender, social and cultural perceptions of masculine and feminine traits and roles must be taken into account ... Gender is learnt through a process of socialisation and through the culture of the particular society concerned".

### References

- Brett, A. 1991. Why Gender is a Development Issue. In: T. Wallace and C. March (eds.) *Changing Perceptions: Writings on Gender and Development*. Oxfam, Oxford.
- Khan, N. A. 2000. Gender and Livelihood in an Upland Community Forestry Project in Bangladesh. *Development Bulletin* 51:77-81.
- Khan, N. A. 1998. *A Political Economy of Forest Resource Use: Case Studies of Social Forestry in Bangladesh*. Ashgate, Aldershot and Brookfield.
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- USP (Upland Settlement Project). 1998. *Evaluation Rreport: 1998*. USP, CHT Development Board, Khagrachari (in Bengali).
- USP (Upland Settlement Project). undated. *The Upland Settlement Project: Second Phase*. Introductory leaflet, USP, CHT Development Board, Khagrachari.

## A.2 Chittagong Hill Tracts: A Preliminary Study on Gender and Natural Resource Management by S. Tiwari (2003)

### Summary

There is very little known about the relationship between gender and resource tenure in the Chittagong Hill Tracts (CHT). This is despite the fact that the political, economic and social conflict experienced in this region is centered on use, access and control of natural resources. Therefore, this case study presents some preliminary research on the factors that influence resource use, access and control in the CHT, as a means to identify issues and raise questions for future gender analysis work in the area. The study was conducted over two months in 2002, of which six weeks were spent in the CHT and two weeks were spent in Dhaka.

The researcher provides a good overview of the conflict in the CHT, the dominant ethnic groups, resource use, access and control in the CHT and customary patterns of resource use. The methodology used was strongly qualitative. The field research was based on observation and semi-structured interviews. The research was conducted in villages of two of the three districts of the CHT, Bandarban and Rangamati. Most interviews were held separately with individual men and women while they were doing their daily activities such as jumming or working in the market. The discussions were based on topics rather than questions, including: daily activities, use of resources – what and how, change in resource use over time, safety, what would they like to do in the future for community and family, development activities in the village and occupation. Another component of the methodology was group interviews, which were for the most part conducted separately with groups of men and women. These interviews were carried out in spaces where participants would feel comfortable; for example, with women they were conducted in the village school or homes of other women. Finally, the researcher met with NGOs to receive input before and during the fieldwork and share observations and field discussions. After the field research was complete the research findings, questions and concerns were shared with NGOs in Rangamati and comments and suggestions received.

Excerpts of the researcher's findings and the questions she raised as a result of the findings are presented here. The Common Village Forests, which were communally owned and managed and were reserved for use and extraction for domestic purposes, were primarily used by women meeting household needs. However, the village headman was the formally recognized guardian of these forests. The patterns of use and access seemed to vary from village to village. Tiwari posed the following questions for further study: *"Is there gender differentiated use in these Common Village Forests of the resources? How do women's patterns of use impact men's patterns of use and vice versa? What are the challenges of negotiating use and access with changing external factors that affect resource management patterns?"*

Tiwari found that where jum cultivation was still the primary source of meeting livelihood needs it was frequently combined with plough cultivation of cash crops. The concern over this transition to a market economy is the possible loss of indirect rights for persons with less status in the community and loss of formalized rights for senior community members. The researcher felt that *"it would be interesting to study the introduction of cash crops to the jum cycle. What are its implications for society, culture and gender in the CHT?...In the CHT my observations show that most of the seed selection and planting is carried out by women. If women are choosing to plant cash crops without the encouragement of senior community members and male household members, is the position and economic status of women in the villages increasing? I am reluctant to say yes..."*

On access of women to formal community development groups called Samiti, Tiwari found that only heads of households joined these groups and therefore exclusively the males of the village formed them. When women were asked if they would like to join the Samiti, they said that they would very



much like to join. *"I then asked them if they would like to be in a Samiti that was formed by both men and women from the village. All the women responded "No"...Perhaps future research and development can explore possible entry points to develop spaces for women in formal decision-making processes dominated primarily by village elders and men? What would be the most appropriate culturally? How do women perceive their role in formal community-level decision-making processes and how do they think they can become more involved in formal processes? How do men feel women can be more active in decision-making processes? Would examining the decision-making processes at a village level benefit the management of natural resources, would it create gender equity?"*

Other issues examined by Tiwari, include the impact of privatization of common spaces; socio-economic and cultural transformation resulting from forest policy, the hydroelectric project and the resettlement program; and the influence of indigenous patterns of inheritance on gender and natural resource management.

### Food for Thought

Throughout this study, the researcher raised questions to stimulate thought on further analysis and to demonstrate how gender analysis is linked to better natural resource management and increased gender equity. Equally interesting and useful are the questions posed by the researcher on the methodology for conducting the research. The discussion questions are based on one of the areas for further analysis and the methodology.

### Discussion Questions

(1) The researcher felt that future research could explore entry points for women to formal "village-level" decision-making processes dominated by village elders and men (see page 23). Drawing upon the paper "Group functioning and community forestry in South Asia: A gender analysis and conceptual framework" by Bina Agarwal and based on your research project and past experience, discuss barriers and possible entry points for women to formal natural resource management decision-making bodies.

(2) The methodology used in this study included semi-structured interviews, where the researcher identified relevant topics for discussion (see page 8) and encouraged participants to lead the discussion based on these topics. The researcher felt that the advantage of this was that participants would have control over the discussion. What are the disadvantages of this method? In what ways other than those presented in this case study, can the responses from these discussions be portrayed?

## **Chittagong Hill Tracts: A Preliminary Study on Gender and Natural Resource Management**

The Chittagong Hill Tracts (CHT) covers about nine percent of the total area of Bangladesh and accounts for slightly more than half the forestlands (SWATEE 2002). This area was originally inhabited exclusively by eleven indigenous groups; however over the years there has been substantial in-migration into the hills from the plains of Bangladesh. The area has been a scene of unrest since the colonial era; from the 1970's armed resistance to the Bangladesh government led to extensive militarisation, many deaths, and considerable displacement of the population (IISH 2001).

A major turning point in the situation came when the Awami League government signed a "Peace Accord" in 1997 with Shanti Bahini, the armed force of the indigenous people of the CHT. In addition to laying down terms for re-establishing peace, the accord recognized the indigenous people's rights to land, natural resources, culture, language, and religion. It is widely thought in Bangladesh that land-related problems have contributed to the longstanding political unrest and conflict in the CHT region (Roy, 1998; Roy, 2000; Gain, 1998; Mohsin, 1997). The Accord set out detailed provisions for strengthening the system of self-governance in the CHT, and to address some of the most urgent natural resource related problems. These included the resolution of land disputes by a Commission on Land, the transfer authority for land administration to the re-organized and strengthened hill district councils (HDC), the cancellation of leases granted to non-residents during the conflict period, the distribution of land to indigenous or tribal villagers and strengthening of customary rights. These problems still remain largely unresolved (Roy, 2000). The resolution of natural resource-related problems is deemed crucial for long-term peace in the CHT, an opinion shared by politicians and academics alike (CHT Commission, 1991). A fragile peace still holds, but tension between the indigenous people and ethnic Bengali settlers regarding land-related disputes has yet to be diffused.

This paper attempts to cast a gender perspective on the allocation and determinants of tenure regimes to natural resources in the CHT by exploring factors that have shaped and continue to shape resource use, access and control, and the challenges in negotiating spaces for use and access. Relevant points of discussion were identified through a 2 month study, of which 6 weeks were in the CHT and 2 weeks in Dhaka. Before beginning the discussion on resource use, access and control and gender, a brief discussion on the history and the people of the CHT is included as essential background information in order to provide an understanding of the political, socio-economic context in which this study takes places. This is followed by reflection on the methodological aspects of the research, which provides space for reflection and insight into how the subsequent discussions were developed – it makes evident power relations, methodological problems, and ethical issues, and emphasizes that this research is not only a product of my observations and interviews, but also a product of people's perception of me. By providing detail on various aspects of methodology I attempt to present it as a series of mutual and dialogical encounters, which involved continuous negotiation between the researcher and the researched.

## History

The conflict in the CHT is deeply rooted in history. Colonial and post-colonial desires to consolidate colonial rule and create a “nation-state” were pursued at the expense of the indigenous peoples of the CHT. The British, Pakistanis and the Bengalis treated the region and its peoples as mere “spoils” of the wars of “national liberation movements”. The Hill peoples’ economic, political and cultural systems were either undermined or assimilated for the sake of “nation-building” (Mohsin, 1997).

The process of “Othering” began during the British colonial period (1760-1947), when the legal and institutional bases of colonial (state) control of the Hill peoples were put in place. Two main objectives guided British policy in the CHT: a) the protection of the political, economic and military interests of the British, and b) keeping the Hill peoples segregated from the Bengalis (Mohsin, 1997). To facilitate the collection of tax and the extraction of raw materials, the British placed the administration of the CHT under a Deputy Commissioner (DC); divided the CHT into three administrative subdivisions: Rangamati, Khagrachari, and Bandarban; and divided the CHT into three Circles: the Chakma, Bohomng and Mong Circles. The position of “Circle Chiefs” was also created. The process of building the “nation-state” of Pakistan further alienated both the Bengalis and the Hill people. The first constitution of Pakistan in 1956 retained the special administrative status of the CHT as an “excluded area”. Subsequently, it turned the entire indigenous population of the CHT into second-class citizens. According to Clause 15 (1) of the Constitution, only a Muslim could hold the position of Head of the State in the Islamic of Pakistan (Choudhury, 1959, cited in Mohsin, 1997). The Constitution of 1962 changed the status of the CHT from an “excluded area” to a “tribal area”. This signaled the entry of Bengalis into the local administration. All of these undermined the indigenous socio-political institutions of the Hill peoples.

## The People

The Hill Tracts are home to the country’s largest concentration of indigenous people namely the Bawn, Chak, Chakma, Khumi, Khyang, Lushai, Marma, Mru, Pankhua, Tanchangya and Tripura. Although the influences of the national development have not had uniform impact on the different peoples, they are bound together by a shared history, years of peaceful cohabitation, and a common future (Gain, 1998). There are approximately 600,000 indigenous people in the Hill Tracts although the figures by the 1991 census are slightly less, indicating a negative population growth among the indigenous people. Most of the indigenous people in the CHT profess Buddhism, followed by Hinduism, Christianity and Animism (Roy, 2000a).

Women from the indigenous groups have far more social mobility than women in the plains districts, but this does not mean that their overall situation is less marginalised than that of plains women. The workload of most rural indigenous women is extremely high, as they have to tend to the farms, look after their children, and fetch water and firewood, often from great distances. Except in the case of some Marma, indigenous women do not inherit immovable property as a right. They are also severely under-

represented in both the traditional systems and the formalized and elective regional and local government bodies, except in the case of union and municipality councils, where seats are reserved for them by law. Thus the situation of social, economic, and political disempowerment is a case for serious concern – both for Bengali and hill women (Halim, 2002).

### **The Research**

My study in the CHT attempts to identify relevant points of discussion for natural resource management and gender issues in the hill tracts. The topic of gender has been pushed aside in the hill people's struggle for autonomy from Bangladesh. However in this region, where conflict centres on use, access and control of natural resources, the issue of gender is paramount. The role of both women and men in the management of natural resources has evolved rapidly due to the past and present social, political and economic conditions in the CHT (this is based on my observations and informal interviews collected over a 6 week period, and Halim, 2002).

My intentions in this study are not to speak for the indigenous women and men of the CHT, but merely to draw a picture of the situation as it relates to gender and NRM from my observations and informal conversations with the indigenous people of the CHT. This in the end is my story based on my experiences in the CHT.

### **Me, the researcher: “Are you Bengali???”**

Mbilinyi argues: “our identities are not given or reducible to our origins, skin colour, or material locations. Identities or positions are the product of struggle and they represent an achieved, not an ascribed trait” (1992). The category, “insider-outsider” is a constructed one: my own multiple and shifting identities produced an interesting situation. My identity simultaneously straddled various axes of difference, including gender, age, and ethnic outsider and insider as well as the socially and professionally ascribed positions of researcher, development agent, and academic. All these differing dimensions of my positionality interacted, opposed, and contradicted each other, and shifted and changed over time in differing circumstances. They affected the way I represented my work and myself, and the meanings I associated to them. They also influenced the way people perceived me.

I found myself silencing some aspects of my identity in certain interaction and encounters, while emphasizing others – a conscious, and sometimes subconscious, strategy in the politics of representation. *For example, during field visits I silenced my Canadian identity and emphasized my Indian/Hindu background in order to decrease feelings of vulnerability. However on numerous occasions I was mistaken for Bengali, which would often cause the indigenous people to become more guarded with what they said and did. I would explain my cultural and ethnic origin and ask the participants if they would like to ask me questions in attempts to develop a comfortable setting in which people felt safe to speak with me. I found myself silencing my Indian/Hindu origin and stressing my Canadian background while in town. With increasing tensions between different religious groups in Bangladesh, I felt that maintaining a Canadian identity, in particular while speaking with government official's, provided me with a feeling of*

*impartiality, maybe wrongly so. I found even though I would introduce myself as a Canadian, my ethnic and religious background were of interest to almost everyone I spoke with.*

I often felt vulnerable in terms of safety. Before leaving New Delhi I was not completely aware of the safety concerns. It was not until I spoke with various University Professors, Government Officials and Indigenous Leaders in Dhaka that I realized how difficult it would be to carry out research in the CHT. I was told, as a woman of Indian/Hindu origin, and also a Canadian, it would be difficult for me to carry out research in the Hill Tracts. Many restrictions were put on my movements. I was not accustomed to moving in such small spaces and such clearly marked boundaries, and for my religious affiliations to be a central force in determining my identity and how I was perceived.

My association with an international institution put me in a more powerful position than many of the research participants and Bangladeshi colleagues. In encounters with research participants I found myself emphasizing my academic student status and de-emphasizing my institutional affiliations. I hoped this would help to prevent my perceived status from influencing their reason for participating or their responses. I also wanted to avoid raising expectations of access to material and economic resources. On the other hand when speaking with government officials, academics, and experts I found myself emphasizing my institutional affiliations to increase my chances of gaining access to information and knowledge about local issues and constraints.

## **Methodology**

The field research is strongly rooted in qualitative methodology. The impetus for utilizing qualitative methods is that it allows for gendered accounts of everyday life. Qualitative methods enable the emergence of a range of multiple and simultaneous issues, experienced by local actors, that affect natural resource management when viewed through a gendered lens, and what meaning they give to those experiences. Personal narratives, in particular, are useful in unsettling generalizations, subverting the process of “othering” (Abu, 1999), and raising questions about how people live and experience natural resource management when viewed through a gendered lens, and what meaning they give to those experiences.

Personal narratives challenge essentializing views that are often detached from the complex and multiple realities of participants (Mies 1992; Kirkby and McKenna 1989, 164). They give local women and men opportunities and spaces to articulate their own knowledge, views, and experiences. Women and men’s subjective accounts have integrity in their own right because they are located within their real and gendered life-words (Mbilinyi 1992,). They provide an opportunity for exploring realities that have been marginalized in the past, and challenge constructions of realities found in conventional approaches, there by working against narrative closure and the silencing of multiple voices (Moore and Vaughan 1994)

## **Reflecting on the Methodology**

Feminist poststructuralist and critical anthropological approaches stress a reflexive approach. The goal is not rampant self-reflexivity as an end in itself (Harding 1987, cited in Lal 1996). Rather, the goal of self-reflexivity is to make the research process transparent, and to counter the notion of “neutral” research and knowledge production (Mbilinyi, 1992).

The research encounter is one in which actors with varying positionalities interact and create spaces for negotiation, accommodation, exchange, and transformation (Long, 1992). Although participants play an active role in the research process, there is a marked power imbalance: they lack control over many aspects of the research itself and the production of knowledge that results from it (Cotteril, 1992). Unless the research is designed accordingly, participants have no control over how it is written, how it is interpreted, and how it represents their realities. It is the researcher who, in the end walks away and controls the final interpretation of the data, no matter what form it takes.

### The Process

Making the research transparent allows others to understand how the results were obtained and makes apparent power relations, gaps in methodology, and ethical issues. By providing detail on various aspects of methodology I attempt to present it as a series of mutual and dialogical encounters, which involved continuous negotiation between the researcher and the researched. This approach turns a critical eye on conventional conceptualizations of “the field” as a taken-for-granted space “where an “other” culture or society lays waiting to be observed or written” (Gupta and Ferguson, 1997). The research consisted of a series of interrelated processes and simultaneous methods with multiple linkages from one process to the other. The intention is to highlight the methods used, thereby reflecting on the research findings in an honest, and transparent manner.

My institutional affiliations with IDRC and IARD played a significant role in defining the research agenda. They also made a profound difference in reducing the level of anxiety and vulnerability associated with cross-cultural research. My research was incorporated into the Sustainable Use of Biodiversity (SUB) Program. This was based on a mutual interest in exploring local perspectives on gender and natural resource management issues through a preliminary study that would draw out entry points for other context-specific research initiatives. I was hosted by Integrated Action Research Development (IARD), as they were interested in supporting gender research, and research in the CHT. There have been very few studies done on the socio-economic environment of the CHT, and the scope of available literature is very limited, and therefore it was felt that this study might be able to add to the literature already existing.

### Literature Review

Upon arrival to Bangladesh, I immediately began searching for and reviewing literature on the CHT. I quickly realized that very limited literature was available on the CHT. The literature available was often a result of large donor funded consultancies that entailed rapid assessments and surveys, or were journalistic accounts of human rights abuses in the CHT. The Chakma Chief Raja Devasish Roy has published a substantial body of work that focuses on land issues in the CHT from a political and administrative

lens, Amenia Mohsin has examined the CHT in terms of Nationhood and Hegemony, and Sakdeka Halim has recently begun work on social forestry in the CHT. I soon realized that resource tenure as it relates to gender has not been examined. Raja Devaish Roy in his writings on land rights has brought to attention the need to examine gender, specifically in research and development activities.

While in Dhaka I spoke with faculty from International Relations, Business Management, and the Sociology Department at Dhaka University and faculty from Chittagong University. The primary intention of my informal questions was to obtain a general picture of the CHT - the people, the culture, the history. I focused questions specifically on the work the interviewee had done in the CHT.

### Field Research

I had initially intended to apply a variety of PRA tools to facilitate a process where information could be shared between community members and with me. I would begin with informal interviews to learn about the region in a general sense, so that I could identify constraints and develop relevant questions, and determine point of entry. However upon arrival in Dhaka, and even more so in the CHT, I quickly came to the realization that I would have to rework my field method, and simplify the research. Vandergeest (1996) suggests that we “think about property not only as rule and laws but also as ordinary everyday practices”. This approach implies that for research on resource tenure it may be useful to begin with observations of what people do, rather than questions about rules and laws. “By examining everyday resource interactions of people and communities the complexities of property become visible” (Vandergeest, 1996). This supports my choice to apply a more simplistic approach to the research, one that was based on observation and semi-structured interviews. I would learn from watching and listening.

### Visiting Villages

As I was not familiar with any of the approximately 11 indigenous languages or Bengali, or even the region, I required not only an interpreter, but also someone who was familiar with the area and could guide me to villages. Due to safety concerns it was not possible for me to stay in the villages overnight. I was advised that I should be back in town by 4pm everyday. My Research Assistant and I identified villages to visit, our primary criteria being safety. We would only visit villages that were known to her, and villages that were neutral, did not have Anti-Peace Accord Parties in the vicinity. We would leave for the village about 6am every morning and return to the town by 4 pm. There are three districts in CHT; Bandarban, Rangamati and Khagrachari. My research was focused in Bandarban and Rangamati. I chose not to work in Khagrachari for two reasons: safety concerns and time constraints.

Before visiting the villages we would seek permission from the Village Karbari (Headman) or the Village Chariman. *All Village Karbaris we spoke with were willing to have us visit. Upon arrival to the village we would first visit with the karbari or headman and informally discuss the intention of my study and issues pertaining to natural resource management in the village. He would then show us around the village, which was helpful*

*in providing insight into issues specific to the people of the village. We would then spend the day meeting with men and women of the village and carry out semi-structured interviews and observations. To obtain a gendered perspective it was important to learn from the experiences and opinions of both men and women from different socio-economic groups within the village. In most cases the interviews were held separately with men and women while they were carrying out their daily activities, such as working in the jum plot, in the home garden, carrying out household activities, or working in the market.*

### Group Discussions

Group interviews were held in village schools, and in village member's homes. I am aware that certain public spaces may inhibit participatory discussion. Mosse's (1994) article sheds light on the complexities of participation and the dynamics of space that elicit true participation. After a series of semi-structured discussions it was determined that for group's discussions to be in an open and comfortable space, in which people feel safe to speak freely, it would be best to segregate discussions by gender. Discussions with women were held in the village school or in the home of other women from the community; in a space they felt comfortable. I do realize that even having discussions that are segregated by gender and held in a place that women consider theirs does not insure that every voice will be heard. Women and men are not two homogenous groups within a community, there are many types of women and men, and they exist in many different groups (these groups can be determined by age, religion, economic status, etc). While I tried to encourage the participation of all members of the group discussion, hierarchies within the groups manifested themselves through members who seemed to be leaders, elders or outspoken. In two instances we were able to have a mixed group discussions with a family and members of the extended family. In this case I found that the young women in the family found it difficult to speak, the older women were vocal, as were the elder men.

### Semi-Structured Interviews

As the aim of the study was to understand what natural resource management means for differently positioned women and men in their everyday lives, the bulk of the discussion was focused on individual semi-structured interviews. Many of the participants had not been engaged in this type of dialogue or come in contact with a foreign researcher I often found that it was difficult for people to respond to my questions. *An example of this would be when asked about the future – most often it was difficult for people to respond. It seemed that most people thought of immediate needs and the present. When I asked "how do you envision the future for your community and their family", many could not respond and in some cases people said they are waiting to die.*

The motivation behind topics as opposed to questions was to provide a space for women and men to speak to issues they felt were important within the identified topics. Since I was attempting identify important matters for the indigenous communities of the CHT – I felt it was important to facilitate discussions on issues they would identify within the topics of discussion. *An example would be in one group discussion with men I*



*had started first asking them about what do they do in a day, the discussion gradually moved to drug use by indigenous people and the increased use of certain illegal substances, a phenomena they feel is attributed by the active presence of the military in the CHT.*

I hoped that by identifying relevant topics of discussion, as opposed to specific questions the participants could feel that they had control of the discussion. Not all topics were discussed in the interviews, I would follow the lead of the participant and only converse about what they felt was important. *In one home – I spent more than an hour discussing the participant's daily activities, in particular her weaving. She brought out all that she had made and tried on the various pieces for us, explaining the significance of each piece.*

The topics of discussion are the following:

1. Daily activities
2. Use of Resources – what and how
3. Change in resource use over time
4. Safety
5. What would they like in the future for community and family
6. Development activities in the village (what development organizations are working in the area, and what do they do)
7. Occupation

### Meeting with NGO's

Before beginning fieldwork and during the fieldwork I made time to visit most of the NGO's working in Rangamati and Bandraban, and revisiting NGO's working on issues that related to the work I was doing. Initially this was to assist in flushing out issues with respect to NRM and to learn more about the cultural and social landscape of the region, as well as current development activities, however as I built relationships with certain NGO's, and specifically with certain staff members, I would share my observations and discussions from the field with them and ask them for their opinions and input.

### Sharing Session

Just before leaving the CHT I organized an informal "Sharing Session" with staff members of different NGO's in Rangamati. I would have liked to arrange "Sharing Sessions" in Bandraban and in the villages of Bandraban and Rangamati, however due to time constraints I was unable to. Before the session I identified dominant trends in the research findings, as well as questions and concerns I had with respect to major trends, the research process and the current situation in the CHT.

At the session I presented the motivation behind the research, the goals and the objectives, the methodological process, which then led into the findings, questions and concerns. The session provided a space for people to comment on my interpretation of the field and the findings, and to provide suggestions, and comments.

## **Resource Use, Access and Control**

Resources in CHT have been discussed exclusively in terms of land and land rights. In this section I attempt to reconceptualize factors central to the controversy surrounding land use and land rights in terms of their impacts on resource use, access, control, and ultimately tenure. Resource use and tenure regimes have evolved a great deal over the last century, this section explores forces influencing tenure regimes by examining three identified determinants, customary patterns of use and management, government-sponsored development activities, and lastly the situation post-peace accord. Traditionally tenure regimes were established by customary patterns of use (two indigenous forms natural resource management integral to indigenous livelihood strategies are presented in this section - jumming and village common forests), however customary processes for resource allocation are being challenged by government sponsored development projects, which have been a dominant force in shaping resource use and access over the past 50 years, and now the social and political environment post-peace accord will add another layer and dimension in people's perception of natural resources. The analysis below presents the different systems at play, and challenges in negotiating resource use and access within these different systems.

### **Customary Patterns of Use**

Traditionally, the hill people have never had to question their rights to the hills and forests in their area; in a formal arena they have managed the resources according to their customs and practices. In some cases, custom-based rights have been transformed into written laws or have been formally acknowledged by legislation or executive orders. However, most customary resource rights remain formally unacknowledged (Roy, 2000).

The practice of consulting the mauza (the smallest administrative unit (number of villages) for tax collection in the CHT) headmen before the natural resources of the mauzas can be utilized may be regarded as an indirect acknowledgment of the indigenous peoples' rights over the natural resources of their mauzas to the exclusion of others. The indigenous people of the rural areas, especially the mauza headmen and the karbaris are usually well acquainted with these customs and practices. As external factors begin to influence tenure regimes it is felt by many that it may be necessary to define the formal status of various customary rights for legal and administrative purposes. A test case will be the decisions of the future Commission on Land (a creation of the CHT Accord of 1997) which is to settle disputes over land while being obliged to take into account "existing rules, customs and usages of the CHT" (Tebtebba, 2000).

Mindful of the vital role that forests and other natural resources play in their own economic sustainability, the indigenous people devised mechanisms and modalities to preserve and protect their resource base according to the precepts of equity and responsibility (Gain, 1998). However as external forces such as displacement and deforestation come into play indigenous knowledge and customs are increasingly challenged. Two predominant indigenous systems of resource use and conservation I was able to learn about (there may be others that I am unaware of) have been identified

through literature review, interviews and observations: common village forests and jum agriculture.

### Common Village Forests

According to customary practice, each village identified an area within its territorial and jurisdictional authority, reserved solely for use and extraction relating to domestic purposes. The forest is communally owned and managed, with the community as a whole responsible for its upkeep and conservation: jums are not allowed in these areas. Use and extraction was need-based, with each person taking only what was required, in order not to deplete the natural resources of this forest which existed for the benefit of the entire community. This area was later known as the mauza reserve or service forests with the indigenous village administration responsible for its care and upkeep (Halim and Roy, 1999). This system continues today in a few villages. In some cases it is the only remaining natural forest in the surrounding area. *I was not able to visit on common village forest as most are situated in more remote areas of the hill tracts, where there are still a few extensive tracts of forests. Common village forests were known to many of the interviewees; however they were not involved in the use and maintenance of them. My understanding of this practice is that the formally recognized guardian of the VCF forests is often the headman or village karbari, however the primary users of these forests seem to be women, as the forests are used primarily to meet household needs. The patterns of use and access are unclear, I was under the impression they vary from village to village.* A possible research project could be to examine the tenure regimes that exist and if there are overlapping regimes? Is there is gender differentiated use in these Common Village Forests of the resources and how women's pattern's of use impact men's pattern's of use and vice versa? What are the challenges of negotiating use and access with changing external factors that effect resource management patterns?

A CHT NGO - Taungya focuses its activities on protecting indigenous people's rights to use and access these forests and products from the forests. Dr. Halim (personal communication, 2002) suggests that common village forests are under threat due to a variety of causes, the primary being tenurial insecurity due to scarcity of agricultural lands, population rise, high in –migration and lack of institutional support. The long-term sustainability of the common village forests will depend on how integral common village forest's are to local communities everyday lives, and the threats to sustainability will have to be met primarily by the villagers themselves. It is believed that a crucial factor towards long-term sustenance of common village forests is formal recognition of these areas, to secure use, access and tenure regimes.

### Jum

Jum cultivation is an indigenous agricultural system in the CHT, and is still considered the mainstay of the indigenous peoples economy (though I feel this point may be debatable, particularly in less remote regions of the CHT) and the central force in their identity as indigenous people of Bangladesh, despite the governments many efforts to curtail this practice (Gain, 1998). Many jumlands have been flooded by the Kaptai Dam

or have been converted to plantations and orchards, restricting jum cultivation to remote hill areas.

My feeling is that the practice of jum is declining and those that are still jumming are relying on it much less to meet their livelihood needs, due to decrease in land availability, lack of fertile soil, the increased input of labour required, and low yield. The roles of men and women within the jum field have been shifting as well; traditionally men would clear the area, and women would tend to the weeding, and harvesting (Gain, 2000). However now it seems that women are becoming increasingly involved in all aspects of jum cultivation and are often taking the lead role in agricultural activities, as men move towards daily labour in neighboring towns. This may not be the case in remote areas, I was unable to visit remote areas my assessment is only based on villages close to town, and villages that are slowly moving towards urbanization.

Traditionally jum land is owned by the village rather than an individual. The Headman is responsible for the distribution of the jum land among the village member. The size of the plot depends on the size of the family or the community. The Jumia families pay a tax to the headman to be shared by the headman, the chiefs, and the government (Gain, 2000; Roy, 1998). *My interviews and observations support these descriptions of jum to some extent; yet I also found use and access regimes with respect to jum are not as clear-cut as described in the literature. Patterns of use seemed to vary from village to village.*

*I also found that people from neighboring areas could utilize areas that were not used by village members. In one village outside of Rangamati I spoke with a woman who had come from a neighboring village to jum in an area that was vacant. She had said that she noticed this area was not being used; she approached the Karbari about using the land for jum. As no one from the village was interested in jumming in this space she and her husband were given use rights for this season. It seems from talking with the Karbari and other village members that the Karbari alone made this decision. Nevertheless all village members were in agreement, if the space is not being utilized by village members than it is acceptable for this women and her family to use the area for jumming. She and her husband would pay the Karbari a tax for use of the land, which would be the same amount a member from the village would pay. Her husband would make all decisions regarding jumming (as she had said, but my observations reveal that she was in fact making all decisions regarding seed selection, planting and harvesting and was residing in the jum ghar (temporary home built on the jum plot, and used while jumming) while her husband was fishing and occasionally finding work in town). The Karbari had verified that he was not involved in seed selection and harvesting. He had clarified that what is planted in the jums is decided by the people jumming and not him. This village was located outside of Rangamati, due to the flooding by the Kaptai Dam much of the space was at water level resulting in rice being the primary crop for cultivation.*

In areas where jum cultivation is still the primary source of meeting livelihood needs it is often combined with plough cultivation of cash crops such as ginger, turmeric and banana on gentler slopes. The move towards cash crops and marketable resources in the indigenous community raises many concerns. The growing market economy and increasing commercialization of agriculture may result in loss of indirect rights to resources, for junior members and people of lower status in a community, and formalizing rights of senior community members. It would be interesting to study the

introduction of cash crops to the jum cycle. What are its implications for society, culture and gender in the CHT? The practice of jumming has been cited (Gain, 1998; Mohisn, 1997; Van Schendel, 1992) to go beyond merely a livelihood strategy; it is deeply tied to the culture and traditions of the indigenous people. Many indigenous people have built their identity around jum – and call themselves jumia. How is the identity of the jumia affected by the shift to market based economies and cash crops? In the CHT my observations show that most of the seed selection and planting is carried out by women, if women are choosing to plant cash crops without the encouragement of senior community members and male household members, is the position and economic status of women in the villages increasing? I am reluctant to say yes. Many women expressed their frustrations of not being involved in formal decision making processes.

*Another crop not traditionally planted in jum plots, but seems to have become quite popular in the recent years is teak (to be sold upon maturity). What I am unable to decipher is the system around the cultivation of teak within jum plots? Homesteads are permanent, but jum plots change from year to year. However teak does not mature in one season, it requires years before it can be harvested. If jum land is not private, and only for use in one season, and then can be used again after a fallow period that is now between 2-3 years (traditionally the fallow period was 15years) how and when are teak harvested – is there an informal understanding with regards to teak ownership, and who in the household makes the decision regarding teak- is it encouraged by the Karbari, are the seeds given to men in the market place or to women? The shift to planting teak in jum plots leads to questions about access to jum plots, privatization, and equity benefits from jum products and suggests that this may need to be considered in the face of increasing interest and support given to agro-forestry programs. Many of the indigenous people I spoke with in the CHT supported the introduction of cash crops in their jum fields, however as I have alluded to in the previous paragraph, there are many implications to cash crops on tenure regimes, cultural practices around agriculture, social dynamics and gender relations within the community. When I asked people planting cash crops, both men and women in the villages about the positives and negatives, they felt that the positives of introducing cash crops outweighed the negatives. However I feel that in depth interviews and observations may reveal something to the contrary. I am under the impression that there are underlying tensions regarding the introduction of cash crops and it is difficult to draw them out in such a short preliminary study.*

It seems that jum cultivation will continue, however the use and access patterns associated with this practice will continue to transform as women become increasingly visible in jum fields, as other agricultural systems (such as home gardens, plantation and orchards) are introduced, as the land available for jumming decreases, as the people's priorities shift from subsistence to market oriented agriculture, and as the culture evolves due to constant influxes of new social and economic determinants.

### Privatization of Common Spaces

The people of the CHT are showing more interest in marketisation and privatization in order to secure their livelihoods. Consequently, more and more hitherto swidden and forest commons are being converted into homesteads and family-owned orchards and plantations. However those who, for whatever reason, cannot obtain private

plot are now deprived of access to former commons. Similarly, some areas of the Karnaphuli reservoir near Rangamati have been leased out to non-resident entrepreneurs, causing conflict with local people who used the area for fishing and for navigating their canoes and boats to and from the market. This is also a trend that could adversely affect the resource rights of the relatively poor. Just as important is the fact that privately registered farm areas are also being sold more frequently. On one hand this is helping local farmers liquidate their assets and raise the so-far elusive capital for their farming and other ventures. On the other hand, economically poor farmers are pressured to sell their land at prices dictated by the few cash buyers. Furthermore, communities living in the more inaccessible uplands and highlands do not share the same motivation for becoming registered owners of their land, which as yet has little market value.

These people's tenure is rather precarious. Unless affirmative action is taken to safeguard the interests of these remote communities and other disadvantaged sections of the rural population, the rising inequities could spell further unrest and hinder development needs. However when considering formalizing resource rights through privatization it is important to realize that both customary and formal systems can accommodate short-term changes and opportunities. Customary systems usually regulate access to resources according to membership in a lineage, community, or household (Shipton, 1989). These systems operate most effectively when resource is relatively abundant and most resource user's know one another and have regular and direct contact (Ostrom, 1990). Formal systems are most effective where resource values are high and resource transactions among strangers are frequent requiring transparency and public records to reduce information asymmetries (Grigsby, 1996). However often codification of customary rights has strengthened and concentrated resource rights of individual, senior male household heads over other interests, resulting in a small percentage of the population having resource rights and undermining the rights of minority groups within a community, such as women and junior members of a community. A combination of measures such as preventing the privatization of selected swidden, grazing, and fishing commons could at least partially address the problems of people without access to resources.

## **Government Supported Policies and Development Activities**

Various policies and programmes have been implemented in the CHT from the time of the first colonial power and the present national administration. The thrust of these policies and programs has been to strengthen overall national development. One feature common to all policies directed towards the Hill Tracts, in the past and present, is consistent disregard for the indigenous peoples, their value systems and traditional knowledge. Three government sponsor initiatives from which a great deal of the social, economic and cultural transformation has resulted are the forest policy, the hydroelectric project – Kaptai Dam, and the resettlement program.

### Forest Policy

#### The Concept of Government Forests

The first external administration in the Hill Tracts, the British, initiated a procedure between 1875 and 1882 whereby the forests and their resources were declared off-limits to the indigenous people, simply by declaring forests as “reserve forests” (by notification, order or other executive’s decision). The indigenous peoples no longer had any rights to these forests, which became the sole property of Government. This forest policy was adhered to by successive governments, and in the 1960’s another concept, that of “protected forest”, was introduced (Gain, 1998). This system of forest regulation continues to be in force, there are at present three categories of forest in the CHT as per national legislation:

1. Reserve Forests
2. Protected Forests
3. Unclassed State Forest/ Service Forests

Once an area is designated as a government forest, it falls under the supervisory jurisdiction of the Forest Department, which monitors compliance for the relevant rules and regulations within that area. Indigenous people are prohibited from enjoying their customary rights to jumming, hunting and gathering in the Reserve Forests and can do so in a restricted manner within the Protected Forests (Roy, 1998).

Unclassed State Forests are those areas which are not under the domain of either Reserve or Protected forests. However, what successive administrations classify as Unclassed/Service State Forest are the common lands of indigenous peoples, within the mauza areas. It is the headman who regulates the use, extraction and rotation of the jum areas. Traditionally, the indigenous people had the unfettered right to these lands (Roy, 1998).

### Impact of State Forest Policies

The forestry policy implemented in the CHT highlights a systematic pattern of violations of the traditional resource rights of indigenous peoples. The majority of the indigenous people, many of whom are engaged in subsistence-based activities, are dependent on the forests and their produce for their economic well-being. The national afforestation policy has thus had a major impact on the basic social, cultural and economic rights of the indigenous peoples.

As can be assessed from available literature, interviews and observations the procedure for creating Reserve Forests includes a concomitant loss of accessible natural spaces and related resource rights for the hill people. With each successive administration the indigenous people of the CHT have seen their traditional rights to natural resources being steadily converted into national forests under juridical regimes in which no consideration is given to their needs, or existing customary patterns of use and access to forests and other resources. Many of these rights are recognized in Regulation 1 of 1900, such as the right to cut sun grass, the right to homestead land, the right to jum, and to graze cattle.

No compensation was paid to the indigenous people for the loss of their traditional resources although relevant case law indicates that it is illegal to establish a Reserved Forest on spaces for which rent has been paid. Many of the resources claimed

in within the Reserve Forests are jum lands, for which the indigenous farmers pay an annual tax. Yet once the notification of the decision to create a government forest is published, steps are taken to establish it including the removal of the indigenous people from their lands and ceasing the use of natural resources required to meet subsistence strategies. There has been a considerable decrease in the area of natural resources remaining open and accessible to indigenous people to eke out a living. The public notification of a forest area as reserved effectively displaces the indigenous inhabitants living within the area. As recently as 1992 the decision to create another "Reserved Forest" met with strong criticism both locally and internationally, in particular regarding the displacement of people living within the area (Roy, 1998).

Within the Reserve Forests any use or extraction of forest produce is prohibited, while within the Protected Forests such activities are restricted, except in the case of the Forest Department, who can sell the produce or market it after processing. The majority of the indigenous people are subsistence farmers, engaged in subsidiary hunting and gathering of forest products, their principal source of livelihood is the use of natural resources. With no measures taken or envisaged to facilitate a transition to a market oriented economy, the indigenous farmers are experiencing difficulties in seeking alternative avenues for income generation. If the present policy of converting the communally owned forests of the Hill Tracts into extraction areas for the government's sole use and enrichment continues, the economic destruction of the indigenous people is inevitable.

Although the use of and extraction from the forest and its resources is prohibited in the Reserve Forests, and is in fact penalized, the indigenous people have no alternative but to enter these forests for use and extraction to meet their domestic requirements, and in some cases for commercial purposes too. In 1976 an Asian Development Bank – funded study on the CHT forests estimated that 65% of the Reinkhyong Reserve had been destroyed by jumias coming into the area: "they have been forced to do so because of the reduced jum cycle and increased pressure for land in the Unclassed State Forest" (Roy, 2000). However I found that only in a few cases did people speak of using reserve forests for resources (this may be because most of the villages I was visiting were not near reserve forests). *The interviewees who had said that they were sometimes compelled to use the reserve forests qualified this statement by adding that this was because they felt they had no other choice; they were in desperate need of resources to meet household requirements. From interviews it seemed that women were more inclined to use reserve forests, as their first priority is to meet household needs, the men replied that they do not use reserve forests. The interviewees stress that when people become desperate they have no other choice then to take the risk that comes with entering the reserve forests and cutting down trees.*

As a matter of general practice, there are no measures available to allocate alternative natural resources to the displaced families. As a result of this practice of creating government forests, hundreds of indigenous people have been, and still are, internally displaced. With little or no access to the forests and their resources, many indigenous people are now homeless, in addition to having no resource base for their economic activities. Many of the internally displaced people are among the indigent members of society, with a standard of living well below the poverty line, even by local standards.



*More than half of the people and families I interviewed are internally displaced, they are living on marginal resources, and in tightly clustered villages due to lack of space. When I would ask about the changes seen in their lifetime, many replied there are very few natural resources available to meet livelihood requirements, they left their natal villages in hopes of finding an area where they were able to jum or build a homestead.*

#### The Hydro Electric Project (1953-1963)

A hydroelectric power plant was constructed in the CHT between 1959 and 1963. The Karnaphuli River was dammed and the reservoir it created occupied some 256 square miles. The dam submerged 54,000 acres of agricultural land in the CHT – which amounted to approximately 40% of land suitable for plough cultivation. These lands formed the majority of the rice-fields in the area. In addition to the material damage of losing their farms and their homes, the dams displaced more than 100,000 indigenous people who were forced to evacuate the designated area. As a result of the loss of their ancestral lands, some 40,000 Chakmas migrated to Arunachal Pradesh in India and remain stateless up to this day (Tebetbba, 2000).

#### Impact on Resource Use and Access

Government sponsored development activities such as the Kaptai Dam had many degrading effects on the original structure of resource use, access, and rights. However the change in the natural and social landscape due to such activities in the region has opened up new layers of resource rights, and has added another dimension to an already complex pattern of resource tenure.

*Much of the area in and around Rangamati was flooded by the Kaptai Dam. While in Rangamati I had the opportunity to visit villages that had been affected by the dam, and meet with people living in these villages. I must say that the conditions of these villages are dire. Many of the people living in these villages in the past were rice cultivators; however their fields have been submerged as a result of the flooding. In the dry season the water level decreases marginally and some are able to cultivate a very small amount of rice, however in most cases people living in around these areas have stopped cultivating rice. Almost all the people in these villages have also stopped jumming as the area available for jum has decreased, and spaces that do exist are inaccessible. Many of the men in these villages rely on fishing and occasional labour work available in town. This also implies that most of the agricultural work is now left to women in the community. It would be interesting to examine what new spaces for negotiation are created as men leave the fields and migrate to towns. The migration of men to urban areas has diversified women's roles and responsibilities in fields and in the household – has this created opportunity for women in informal or formal venues?*

The increased number of lakes due to the flooding has opened up new spaces for use – primarily for fishing. *Every morning I would watch the fisherman head out, most often the boats that go out into central portion of the lake belong to Bengali fisherman, however in areas close to villages (the Bengali population in Rangamati is concentrated in town and the indigenous on small islands created by the floods in outlying areas of Rangamati) the indigenous people have set up fish nurseries.* New natural spaces have been created by the Kaptai Dam, the associated tenure regimes to these spaces, how they

are determined and negotiated between the various user groups may be an interesting area to explore. Are they influenced by existing patterns?

Landlessness has often been attributed to forest policies, the dam and the settlement program. The pattern of resource use and access by the landless is unclear and has left me with more questions. *I was able to interview many villagers who were landless. All were still reliant on agriculture to some extent. They worked on other people's plot of land. When asked about the methods of management, there were many different responses. Some had said they are paid in cash for the work they do on other lands. Some had said that they use the land to plant seeds they have selected and then give a portion of the harvest to the landowner, there is no fixed amount, this is negotiated between the landowner and the landless. Some replied that they plant what the landowner requests, and they keep a portion of what they have planted.* However, what are the gender implications to this, how does planting cash crops as opposed to agriculture for subsistence affect the relationship between landless and landowners? Are the landless given access to other areas within the landowner's boundaries – bamboo for home construction, grass for roofs or firewood?

Another interesting phenomenon that the landless and displaced people of Rangamati are engaged in is the production of rice wine to sell in the local market. Rice wine production and consumption is an element of indigenous culture, however in the past rice wine was prepared at home for community and family members, not for selling the market. *In the villages I was visiting people were very reluctant to talk about wine production. However through a series of interviews it became apparent that wine was being produced. Wine production was being carried out by almost every female family member in the area, and then taken to the market to sell. The rice needed for wine production was purchased at the market.* It has also been cited (Tebtebba, 2000) that there is a marked increase in the use of alcohol and drugs within the indigenous community "we now fear our own men" (quote in Tebtebba, 2000). Perhaps exploring non-traditional market activities in the indigenous communities and their impact on the traditional values and norms may shed light on the effects of urbanization and "modernization" of indigenous communities?

A final response to the changing physical and socio-economic environment that I observed is an increasing trend towards urbanization. *In one of the first villages I visited outside of Rangamati, almost all the people I met with had stopped jumming. All maintained a home garden for fruits and vegetables to be used in the home. Most of the men worked in town and almost all the women were extensively involved in textile production to be sold in the market. The village seemed to be relatively affluent and their reliance on natural resources was minimal (in comparison to the other villages I had the opportunity to visit).* However I wonder what the effects of urbanization of rural areas are on resource tenure and on a culture that is supposedly heavily embedded in the use and management of natural resources – some refer to themselves as jumia?

### Population Transfer Program

In 1979, the President of Bangladesh, Ziaur Rehman convened a meeting of high level officials including the Deputy Prime Minister, the Home Minister, the Commissioner of Chittagong, and the Deputy Commissioner of the CHT. The objective

was to formulate a program of population transfer to relocate families from the plain areas of Bangladesh to the Hill Tracts. An allocation of 60 million takas (the national currency) was earmarked for the program, and special committees established for its implementation (Mohsin, 1997). In order to encourage the plains families to move to the CHT, various incentives in cash and kind were offered. The official rationale for the Settlement Program was overcrowding in the plains and that there was land to spare in the Hill Tracts. This misconception of enormous amounts of available land in the CHT was contrary to official information (Mohsin, 1997).

There was a gradual increase of non-indigenous people into the Hill Tracts through the years, but in 1981, when the settlement program was underway, a dramatic shift in the demographic composition of the area is noticeable. It is important to take into consideration that in 1947, when the Indian sub-continent was partitioned, indigenous people constituted over 92% of the total population in the CHT; in 1971 when Bangladesh was created they made up nearly 75%; whereas in 1991 they made up only 51.4% of the total population (Mohsin, 1997). Although the Government claims to have halted the settlement program, unofficial sources indicate that families from the plains continue to relocate to the Hill Tracts.

### Impact Resource Rights

The impact of the settlement program on the resource rights of indigenous people was far-reaching, and problematic; a major factor contributing to the prevailing unrest in the CHT. Allocation of natural spaces and resources for settler's families was given the highest priority, and in 1979 survey officials were observed measuring space, including that occupied by the hill people. With the settlement program underway, the Government had to find an immediate solution to the lack of available space. As an initial measure, a portion of the Kassalong Reserve Forest near the confluence of the Maini and Kassalong Rivers was "de-reserved" and settled in their favor. However, this was far less than the amount of area needed, which was between 460,000 to 920,000 acres (Roy, 2000). The Government undertook certain measure to bridge this gap, providing settler families with areas belonging to indigenous people. Many of the areas allocated were illegal, as the specified areas were already registered in the names of indigenous people, or were under their occupation and cultivation. The transfer of thousands of landless settler families from the plains to the Hill Tracts and the allocation of areas in their names infringed both the private and the customary rights of the indigenous peoples (Roy, 2000). The settlement program violated their customary rights to their paddy lands and jums. Access to fringe areas, hillsides, fruit and vegetable gardens and plough lands was drastically curtailed. In addition, their customary rights to graze cattle cut sun grass, and to build a homestead in non-urban areas were also jeopardized (Gain, 1998). The displacement as a result of the influx of people from the plain land resulted in both internal and external displacement of indigenous people. The internally displaced as a result were landless in the CHT, and the externally left for NE India – Aurnchal Pradesh and Tripura, and are living as stateless refugees even now (The CHT Commission, 1991; Roy, 2000). The internal displaced are living in meek conditions often working as daily labourers or on other peoples lands. Many people have lost access and customary use rights to the resources they once used freely and disputes are yet to be settled. In the meantime the

indigenous people are trying to carve out alternative livelihood strategies, one such example is the production of rice wine (discussed in the previous section).

The ensuing tension between the indigenous people, and the settler communities erupted in violent incidents including rape, torture, and mass killings. The hostility between the indigenous people and the settlers lead the Government of Bangladesh to believe that it was necessary to establish a military presence in the CHT (The CHT Commission, 1991). The violence between the military and the indigenous people, and the settler's and the indigenous people have had a definite impact on people's feeling of security and their access and use of natural resources. *Women and men talked about military raids in villages, which would force the indigenous people to flee into the forest and hide for days and even weeks. People spoke of the military coming into their homes demanding meals, helping themselves to whatever was in the home garden, and cutting down trees that the village people were maintaining for domestic purposes. Many women spoke of the safety concerns they had when working in the field. Both men and women's movements were restricted, however resources need to survive were further and further away. The people I spoke with say that the violence has decreased, and they feel that they have more mobility, however they pointed out that the situation varies from area to area and in remote regions there is still violence and assault by the military.*

#### Post Accord

High population growth, decreased access to lands due to the Kapati Dam and government forestry programmes, educational progress and growing integration with the market economy of the plains – and consequently the global economic system – is inducing far reaching occupational changes within indigenous society. Men living in villages close to town have taken to daily labour. Families rely less and less on jum cultivation to meet their subsistence needs. Indigenous communities are now also turning to fishing, typically a Bengali activity, now with such vast areas covered by water and plough land submerged; men are now engaged in fishing. However with indigenous men moving into occupations that are traditionally occupied by Bengali men, there is increasing hostility. Ownership and tenure regimes continued to be challenged, but now in there is another dimension – water tenure and urban employment activities. The devastation resulting from government programmes and policies have left people little choice other than to rely on alternate subsistence strategies.

A growing section of the indigenous population has now taken to non-traditional economic activities such as sedentary agriculture with irrigation and mechanized and non-mechanized ploughing, market-oriented fruit and tree plantations, trading, fishing and other vocations, including private and government jobs. There is a strong shift towards market-oriented occupations and increased instances of multiple-occupation patterns, a trend that is more than likely to continue in an accelerated manner in the near future (Roy, 2000). However even though the push towards marketable activities is gaining momentum, there are very few options and spaces to develop marketing facilities. Marketing textiles made by indigenous women has been one strategy, however there are limits to this, there is more supply than demand, and only a limited number of women in the CHT are able to access this opportunity. Tourism is also being considered as an

option – however there are many socio-economic and cultural implications to this, as one can imagine.

In the post accord environment there has also been an increasing push towards privatization of natural resources and natural spaces. Though privatization may legitimize resource rights of indigenous people it further marginalize groups within this community by taking away their indirect and often invisible rights to natural resources. Often it is the senior members that benefit from such actions. *I was able to already see disparities within the indigenous communities. In one community I visited I met with the chairmen (in most of the villages I visited I was not able to meet anyone more senior than the Karbari), this was the first and only chance I had to speak with, and observe the lifestyle of a Chairman. This village was quite badly off in comparison to many of the other villages. Those who did have home gardens, were only able to maintain a very small one, very few had access to jum fields, or other natural resources. However the Chairman was quite well off. He had benefited from the privatization of land and natural resources. He had orchards, a large homestead, a home garden and a fishing boat - all private property, and for all he had documents showing that he was indeed the owner.* The disparities created by privatization of use, access and rights to resources and natural spaces are very obvious in the CHT, and will only increase if the side effects of privatization are not considered more realistically. How does privatization affect the informal use and access of natural resources by people whose use is invisible - such as those who are of lower economic status, are landless, or are women (it may be necessary to first formally recognize that women are using the natural spaces before this question can be addressed with any basis)? It is also important to note that in the indigenous community there are many overlapping tenure regimes – how will plans for privatization take this into account? How do these new forms of using natural spaces such as plantations, fishing and orchards fit into the picture? How does privatization effect a culture and a society built around collective use rights - does it create a sub-culture, resulting in discrimination and hostilities?

### **Gender and CHT**

Gender issues have not been directly addressed in the 1997 Peace Accord. Nonetheless some feel that the importance of gender equity has been addressed in an indirect manner, by providing a number of “reserved” seats for women in the District Council and Regional Council. However these measures are not adequate to protect the economic, social and political rights of women from different socio-economic and cultural backgrounds. Unless and until women are able to achieve real empowerment politically, socially and economically, their marginalised situation is bound to continue. This section explores the gendered nature of resource use, access and control.

### **Use, Access and Control – Gendered Spaces??**

It is only relatively recently that gender roles in resource use, access, and control have been explored in academic literature and research, and in the CHT, gender as it relates to natural resource management, and use have never been directly examined. Current literature on gender and resource use has shed light on the complexities of natural

resource management, and its multi-dimensional character. Rocheleau and Edmunds (1997) research in particular has had a strong focus on how spaces can be gendered, and how gendering can change over time. Although men frequently gain formal access to land and land titling programs, women often have informal access to other, “in between” spaces.

In the past the use and access of resources may have fit into the gendered niches that Rocheleau explores in her research. Research on jum cultivation (Gain, 1998; Roy, 2000) highlights that in the past women and men had distinct roles in the field and often occupied different natural spaces within the same area. However there are now different and increasing number of factors affecting the use of these spaces and their gendered nature. Over the years women and men’s use of natural spaces have transformed quite rapidly. The shifts in roles and spaces occupied have been attributed primarily to two main factors: military presence in the CHT, and a decrease in resources (due to the dam, and the settlement programs, policies that are not appropriate and do not protect resource rights of inhabitants). To shed light on the topic of gender in the CHT, I attempt to identify factors that have affected gender roles in the CHT, and how this is played out in village communities. I explore two key points of discussion with respect to gender and natural resource management, both of which were identified through interviews with indigenous men and women - the role of men and women in decision making processes, and the indigenous patterns of inheritance.

### Decision Making Process

Indigenous women have traditionally been more mobile and have had larger boundaries to move in as opposed to their counterparts – Bengali women residing in the CHT, however mobility and vague boundaries have often been wrongly interpreted as equality in decision-making processes and in the division of labour. Through literature based research prior to arriving in the CHT, and initial interviews with NGO’s, and hill people, it was quickly established that women and men have been subjected to a great deal of change and upheaval in terms of resource use and access. The military presence in the CHT is a very obvious factor affecting natural resource use and management. Both men and women were subjected to gross human rights abuses, which have been cited in “Life is not Ours”(1991). The indigenous people have been forced to live within tight boundaries and limited spaces to protect themselves from interrogation – this has had huge impacts on people access to resources, their sense of security, and ability to meet livelihood needs. Many men and women in the village have stated the restriction in their movements and fear of persecution by the military has caused a marked change in their patterns of use. With men becoming increasingly involved in the political situation of the CHT, women have had to diversify their roles in the home, community and market place. Women not only carry out household activities, they are active in agriculture and market based economies. They have taken a lead role in working in the jum fields, maintaining home gardens and selling produce in the market place, however they face a great deal of harassment and backlash from the Bengali settlers.

*“I go to the market every Wednesday to sell my vegetables from the Bhagan (home garden), I am often harassed by the Bengali business owners and they will not buy*

*my vegetable for a fair price. They buy them from me at a very low price and sell them at a much higher rate"*

*"In the past women had to deal with much harassment both verbal and physical when going to the market to sell and buy vegetables, we need passes that would allow us to move around the market place, and were often subjected to frequent police checks".*

*"There is still a great deal of hostility between tribal (indigenous) people and Bengali settlers – they are still taking advantage of us"*

Although indigenous women's boundaries are increasing within their community, the rights and privileges associated with this increased mobility, and available to men in the indigenous community are not always accessible and granted to women. *In many interviews with men and women it was reported that in most cases men and women work side by side in fields. When asked who determines what is planted in the fields it was difficult to assess, women would respond "My husband" and in few cases they said "Me". However through observations and group discussions it was clear that women often decide what will be planted, and more so in the case of home gardens. What I predict is happening is that women are often saying that men are making decisions regarding natural resource management to protect their (the women's) indirect rights to resources. By maintaining that men are the primary users and decision makers perhaps they feel their use of resource is much more secure than if they were to say they were making most decisions regarding seed selection, planting and harvesting. They are therefore able to protect their indirect rights to the resources and protect the informal, and often invisible decision-making process they are accustomed to. However in some instances women were vocalizing their desire to become a part of the formal decision-making process as the primary users and managers of natural resources.*

*There were many interviews that revealed women's increased desire to participate in formal decision-making processes at the community/village level, and less interest at the district and regional level. Many felt that their diverse role in the community had yet to be recognized formally. It was first through informal interviews that this became apparent, this was later confirmed through a series of group discussions with women from villages in both Rangamati and Bandarban. It was evident that women preferred to speak in the company of women. One woman in particular had said (when I had asked how they felt about group discussions that were mixed, with men and women) – "it is impossible to speak freely in the presence of men.....we can discuss together but ultimately the man is the head of the household and will make all final decisions". In terms of natural resource management I found this to be disconcerting, it was evident that women were the primary caretakers and managers of natural resources, and also the most visible in the market place selling vegetables. The lack of women's active involvement in decision-making processes regarding the management of natural resources, but also in other social process – such as education, sanitation and health, may mean that a whole body of knowledge and experience is being ignored, which may lead to mismanagement and the development of inappropriate facilities and modes of governance.*

*In one discussion with women from a village outside of Bandarban, and which was followed by a discussion with I was able to ask questions that would shed light on women's opinions and views about their current position within the community. The head of the household were a part of a Samiti (group developed around a certain activity);*

*because the heads of households were requested to join the Samiti was formed exclusively by the males of the village. I was able to interview the men of this village and then I asked if I could speak with the women from the village explaining that I would be asking the similar questions to the women.*

*I asked women if they would like to join the Samiti, they had said they would very much like to be a part of the Samiti. I then asked them if they would like to be in a Samiti that was formed of both men and women from the village. All the women responded "No". They wanted to be a part of a Samiti that was exclusively women. I asked "Why?"*

*"If we are in a group with men, ultimately men will make all the decisions and will have no say over what we do with the money allotted to us. If we are only women, we will be able to decide and help each other manage our funds".*

Perhaps future research and development can explore possible entry points to develop spaces for women in formal decision-making processes dominated primarily by village elders and men? What would be the most appropriate culturally? How do women perceive their role in formal community level decision-making processes, and how do they think they can be more involved in formal processes? How do men feel women can be more actively in decision-making process? Would examining the decision-making process at a village level benefit the management of natural resources, would it create gender equity?

What I can infer from observations is that there may be many layers in the way women and men are involved in the decision making process at the village level. In the public and formal settings men are the visible decision makers and women may support this to maintain their place in the informal decision-making processes. I firmly believe to address some of the pressing issues with natural resource management, it may be necessary to explore the process that a group uses to make decisions. How inclusionary or exclusionary are they and how does this effect the use and management of resources, and the status and welfare of different groups within a community? How can access to decision-making processes be facilitated?

### Inheritance

Himawanti, a NGO in the CHT based in Rangamati, works to promote solidarity amongst grassroots women so that they will enhance their participation in decision-making processes and obtain full access to the natural resources. Himawanti has identified inheritance as an important issue to target in order to improve the position of indigenous women within CHT, and to insure the equitable distribution of resources. *However when I asked women what they felt were important issues to them and other women in the CHT, no one mentioned inheritance. There was also some confusion between men and women on this issue, and what was considered inheritable. In the literature it states that from the 11 indigenous groups in the CHT only within the Marma group are women able to inherit property (1/16<sup>th</sup> of total property available). However I found that in many villages Marma and non-Marma, there were many contradictions between women and men's realities. When I asked questions about patterns of inheritance in a group discussion with members of a Chakma village outside of Bandraban, men had said that women are not entitled to property of any sorts. I asked them if they felt that their wives, daughters or sisters should inherit property – they promptly replied yes, my*



next question “Why do you feel that women should inherit property?” was difficult to answer. I repeated “You have said that you feel women should inherit property – but why do you feel women should inherit property- how would they benefit”. Finally the men replied in actuality they did not feel that women should inherit property. “If women from the indigenous community marry Bengali man then property would go to him and there would then be less land in the hands of indigenous people”. In the surrounding area some land had been sold to Bengali settlers, there was a great deal of hostility, and feelings of vulnerability were high. When I asked the women of this community if they felt that they should inherit property they had replied that they do, that within their customary rights and regimes they were entitled to property”. I was a bit confused at this point – as the men had said women are not entitled to property, and they felt that women should not inherit property. When I expressed my confusion women had replied that the men are mistaken and that they did indeed have property. Property is a socially constructed term and meanings associated may differ by gender, class, age, etc., there may also be multiple meanings attached to the term. Himawanti has termed property as rights to land, and has stated that for women to be empowered they must have formal inheritance to land. Perhaps to women in the indigenous community property extends beyond land. They may be more concerned with the use and management of resources, and inheritance of rights to resources, as opposed to the actual area of land.

In the CHT where resources are acquired, used and controlled by a series of overlapping customary regimes, and people are continually subjected to unpredictable and uncertain political and social situations it may be in the interest of women to have formal rights to land. However a study on the implications of formalizing customary rights and access may shed light to the benefits and downfalls to such an initiative.

## **Conclusion**

Since the signing of the Peace Accord of 1997, a number of major developments on issues surrounding natural resource management, use, and tenure seem more likely. The Commission on Land may not be able to adequately address, resolve and create new spaces and options for an issue that is multi-dimensional and exists beyond the scope of land possession. The acceleration of the privatization of resources in the CHT, which will most likely exclude a majority of the indigenous population, is certain to continue. Deforestation and displacement of indigenous people are pressing issues and continue to influence use and management of resources. These developments may hamper the post-Accord process of rehabilitation, and deepen the ecological crisis that has been accelerated by the Kaptai Dam, endemic deforestation, and the unsuitable plantation and cultivation patterns of recent years. More importantly, they may well fuel further political unrest.

The topic of natural resource management in the CHT is complex, multi-dimensional, and incredibly political. It is viewed by many that a comprehensive policy regarding resource rights, may ensure equitable and environmentally sound resource use practices. It has been cited that policy requires proper implementation that takes into account the diversity of people, and overlapping issues (Roy, 2000a). However there are many layers to the issues in the CHT, appropriate identification of important issues with respect to resource allocation, management and rights from a gender perspective is

necessary before developing policy and implementing it. Perhaps this study can assist those interested in the CHT to develop questions that are relevant around issues of tenure, governance, institutional development and natural resource management. However I must caveat this by saying the situation in the CHT is continually evolving, this study only examines a few issues by no means all that exist, and it is placed in a certain time frame and context.

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### **A.3. Bhutan: Women and Men Working Together. Seven Villages in the Punakha and Wangdi Valleys by Deki Pema, Dawn Penjore and Kumar Upadhaya (1995)**

#### Summary

This study was conducted in the Punakha and Wangdi districts of the Inner Himalayan Ranges of Bhutan. The goal of the study was to gain insights into the gender roles in western Bhutan relevant to farming and forestry activities in low, mid and high altitudes. Seven villages were included in the study. Most of the paper focuses on the results of the study and the impact of Social/Community Forestry initiatives.

In the study area the head of the household is the senior male but men marry into the household of their wives. Male and female children have equal family property rights but generally, girls receive a larger share than boys do.

Women and girls are responsible for day-to-day household chores such as carrying water, feeding livestock, cooking and caring for the elderly. Men do occasional household tasks including constructing houses, transporting heavy logs, carpentry, masonry, painting and fencing, slaughtering pigs and slicing meat. Any family member may herd cattle to fields or forest. In table 2 of Annex A, a breakdown is provided, segregated by gender, of the monthly labour requirements for household tasks in an average valley farm.

Decision-making is joint between men and women for decisions on the education of children, purchase of land, equipment, cattle, choice of crops and marriage of children. However, women usually decide who inherits family property.

The husband and wife jointly own the farm resources with the women having control over family income derived from selling vegetables and other items. It is not difficult for women to gain access to credit because they hold land titles, which can be used as collateral. Yet, women are often constrained from taking credit by poor knowledge of application procedures, difficulties in filling in applications, the long distance to the Dzong (district administrative centre) and time constraints. Although women and men generally get paid equal salaries for wage labour, the percentage of women in the workforce is far lower than the percentage of men and there is disparity in the wages for farm labour and other unskilled jobs. Men and women have equal access to extension services in the areas of agriculture, forestry and livestock. However, although there are no barriers to women interacting directly with male extension agents, the study states that it would help to have female extension agents.

The population in the study is generally comprised of small-scale, self-sufficient farmers, cultivating mostly rice, wheat and mustard. The whole family contributes to rice and wheat cultivation, the tasks being divided by gender and age. The study provides a graph (Figure 2) of the number of workdays annually required for various agricultural activities, segregated by gender and a breakdown of the person-days/month of labour required for agriculture in an average valley farm for various crops, segregated by gender (table 1 of Annex A).

Leaf litter collection for animal bedding and producing manure, a laborious task, is predominately done by girls or women (70%). All work with manure (shoveling, spreading etc.) is exclusively the responsibility of women. Although fuelwood collection is the responsibility of both men and women it is particularly arduous for women who had to leave early in the morning for collection. Table 1 presents firewood collection and uses by gender and age on a typical farm.

Three of the seven villages included had ongoing forestry activities. Before community forestry was initiated, a meeting was held with the village headmen and farmers to discuss and explain the

government forestry initiatives. For the tree-planting project, men did most of the fencing, erecting of poles and digging and women transported seedlings from the road to the village.

The major economic change that has affected gender roles is the movement from a barter-dominated system to an increasingly cash-oriented economy. In the villages of the valley bottom more men are employed in off-farm wage labour than in the other villages. Therefore, women take care of most of the farm activities in these low-altitude villages.

As this study is part of the FAO's Gender Analysis and Forestry Training Package, there is also a summary of the Forest Management and Conservation Project in the paper, covering objectives and components.

### Food for Thought

This study provides detailed information on gender roles for reproductive and household activities, in decision making, and for agriculture, forestry and livestock activities. It also provides ways of presenting results of gender analysis in the form of graphs, tables and activity profiles (used as training tools in the Training Package). However, this study is preliminary in scope and raises questions for further gender analysis work. Furthermore, the use of the study to influence government forestry and watershed management programs can be further investigated. This is the focus of the discussion questions.

### Discussion Questions

(1) On page 26 the authors indicate that when tree-planting schemes were implemented, men did most of the related activities. The species of seedlings planted were good for house construction and the leaves were good for religious purposes. Therefore, women who have a key role in fuelwood and leaf litter collection, both considered labour-intensive tasks, do not benefit from the government forestry schemes. From the information given in the case, suggest reasons why this situation may have developed. Discuss how the government schemes can become more gender-equitable.

(2) Examine the Activity Profile on page 35. What are the relationships between the activities, which are female dominated and those which are male dominated in terms of workload, frequency of activity and meeting practical and strategic gender needs?

# Bhutan

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Case Study: "Women and Men Working Together. Seven Villages in the Punakha and Wangdi Valleys"

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Project Summary: Forest Management and Conservation:  
Institution Building

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Training Notes

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**BUTHAN**

Deki Pema, Dawa Penjore and  
Kumar Upadhaya:

*Women and Men Working  
Together. Seven Villages in the  
Punakha and Wangdi Valleys  
Forest Management and  
Conservation: Institution  
Building*

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# Bhutan: Women and Men Working Together. **Seven Villages** in the Punakha and Wangdi Valleys

## The project area

The study area lies in the Punakha and Wangdi Districts in the Chang Chu valley with its several tributaries in the Inner Himalayan Ranges of Bhutan. The altitudes in the valley range from 1,200 m at bottom to 4,825 m above sea level. The climate is characterized by cool winters from November to March, warm summers from April to October and an annual monsoon rainfall from May to September (650-750 mm). Environmental damage due to erosion is minimal in the valley. Apart from the incessant natural erosion of the river valley by streams, no serious deforestation and environmental degradation exists in the Punakha-Wangdi

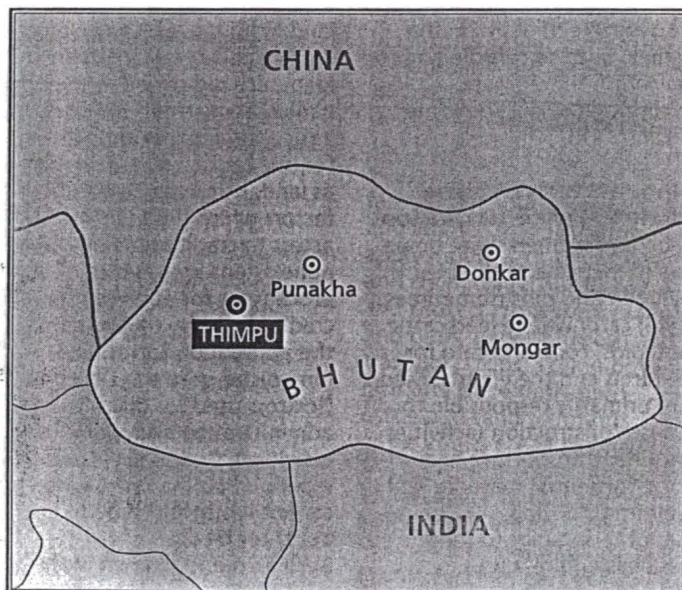
region. An exception is the Matolungchu village where there is severe topsoil erosion and deep gullies, formed by rushing streams which swell in the rainy season from May to August.

More destructive than soil erosion or gully formation are the frequent fires in the forests overlooking the valley. Winter months are most prone to fire because dry grass, shrubs and bushes can easily burn. A recent accident destroyed more than 40 hectares of forest in the area above Bajo village.

Trees are also destroyed by insects and diseases. The Department of Forestry has recently stepped up measures to control the bark beetle and defoliator epidemics which destroyed large sections of forest in western Bhutan. Soil fertility has not decreased in the last 10 years, but farmers say that pests and crop diseases have certainly increased. This may be due to planting "improved" crop varieties (a common example is the sweet-smelling rice variety Japonica No. 11, which seems to attract birds and field rodents).

Farmers on the floor of the valley have reported that travel distances for collecting firewood have increased constantly during the past 15 years.

For the purposes of this study, seven villages – Lobeyasa, Bajo



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Thangu, Rinchengang, Matolungchu, Omtekha, Chebakha and Kashi – were chosen to provide insights on gender roles in western Bhutan. Farming and forestry project activities in this area can be divided over the three altitudes: Lobeysa and Bajo Thangu in the valley bottom; Rinchengang, Matolungchu and Omtekha at mid-altitude, between 1,300 and 1,500 m; Chebakha and Kashi at high altitude, 1,800 to 2,100 m.

### **The Bhutanese household and village community**

By law, the status of women is considered equal to that of men. The basic system of marriage is monogamy, but polygamy is permissible under the law with the consent of the first wife, while polyandry is illegal; the payment of dowry is prohibited by law. Legislation of 1957 states that a marriage must be made with a marriage certificate acquired in a local court of law with two witnesses (a woman and a man) to make the marriage legally valid. In reality, in many of the rural areas, no formal marriage ceremony is practised; as a result marriages are easily made and broken. But no stigma is attached to being divorced or a parent without a spouse. In many cases it is the mother who becomes responsible for the financial support and upbringing of the children – which in many cases makes the women's life difficult. In the valley, the head of the household is usually the senior male, but when a man marries he joins the house of his wife's mother. It is strongly believed that daughters can better care for their parents in old age because sons move away after

marriage. Traditionally, each family sent at least one son to become a monk. This practice may lose its popularity as "modern" – English – education is now very much desired by parents. A typical household consists of six or seven people, one third of whom are children of school age and below. About 57 percent are adult males and females and about 10 percent are elderly. Farmers own irrigated land or wetland (0.6 to 0.8 hectares), private forests (0.4 to 2.4 hectares) and a pair of draught cattle. A village consists of a cluster of households where members engage in economic, social and religious activities. The most important of these is labour sharing and exchange. Families cooperate to perform farm activities – paddy transplanting, weeding, harvesting, threshing, collecting firewood and leaf-litter, transporting manure and house construction; very rarely is labour offered for wages. This cooperation is also evident in the yearly festivals of thanksgiving, when members are invited as guests; also in time of death in the family, both to console and to help with sometimes elaborate burial ceremonies.

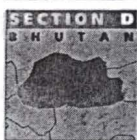
### **Reproductive/home maintenance activities**

Men and women share home maintenance activities. Women and girls (sometimes men) carry water, feed cattle and pigs, cook and care for children and the elderly. Men are primarily responsible for house construction (activities include: transporting heavy logs, carpentry, masonry and painting) fencing, slaughtering pigs (during festivals and religious

offerings) and slicing meat to be dried. Men will assist or do all household chores normally performed by women when their wives are recovering from childbirth. Herding cattle to the fields or a nearby forest is performed by any member of the family, including young boys, girls and the elderly.

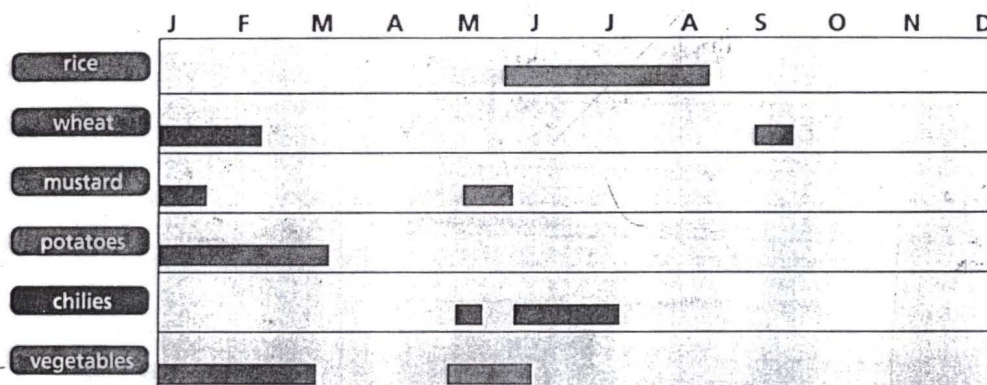
### **Access, control and decision making**

Household and farm decisions are made by both women and men in consultation with each other. Major decisions include the education of children, purchase of land, equipment, cattle, choice of crops for the season and marriage of grown-up children. Husband and wife jointly own the farm resources. Women usually have most control of family income which is determined by marketing habits or patterns. Mostly women market vegetables, fruits, cheese and eggs and the income is kept by them for household use. Access to formal credit is relatively easy for women in the valley because most of the land holdings, which can be used as collateral to obtain loans, are registered in their names. Some small agricultural loans do not require registered assets such as land. However, some of the factors which limit women's access to credit are: scant or nonexistent knowledge of procedures for applying for credit; difficulty of filling in the application forms; and long distance to the Dzong (fortress used for district administration and religious activities). Due to their heavy workload on the farm, women cannot easily find time to apply for credit. Both men and women in the





**Figure 1. Agriculture calendar**



valley have equal access to extension services in agriculture, forestry and livestock activities. There are no cultural or educational barriers that particularly inhibit women from interacting directly with male extensionists, however it would certainly help to have female extension agents. Male and female children have equal rights to family property, but in general daughters receive a larger share of property than do sons. It is believed that males have better access to paid employment, but daughters may be unlucky and have an unsuccessful marriage. Women usually decide who inherits family property and often land titles for family land holdings are in the daughter's name. This is the strongest structural advantage women in the valley enjoy. Women and men are paid equal salaries for similar government jobs, although the percentage of women working is far below that of men. Some disparity exists in wages for farm labour and other unskilled jobs.

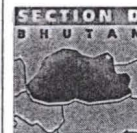
#### **Agricultural activities**

The population in the valley consists mainly of small-scale, self-sufficient farmers with rice, wheat and mustard as the main crops. In recent years major changes in the traditional cropping system have been the introduction of the double cropping of paddy and the cultivation of potatoes and vegetables as cash crops. Double cropping of rice has not become popular because it requires more labour than the traditional rice and wheat system. The whole family participates in rice and wheat production. Men plough the land and clean the bunds; women raise seedlings, transplant, select and store seeds for the next season, transport and apply farmyard-manure. Both men and women irrigate fields, apply inputs such as herbicides and chemical fertilizers, weed and protect crops from cattle and birds, harvest, thresh and transport crops. Young boys, girls and the elderly herd cattle and tend to infants while adults are in the fields. (An agriculture calendar for a typical valley farm is given below in Figure 1.) Young women also help market kitchen garden

produce (lettuce, leafy onion, chili, sugar cane, carrots), fruits (orange, peach, walnut and persimmon) and rice products (sip, or beaten rice, or fried rice, called zao) and wild mushrooms and orchids collected from the forest. A summary of gender-based labour for different farming activities is shown in Figure 2. The tables in Annex A provide a detailed breakdown of person-days per month for male and female labour in agriculture and household tasks for an average farm family in the valley. Labour deficits are usually met by sharing labour in the villages (only 3 of the 36 households indicated hiring labour).

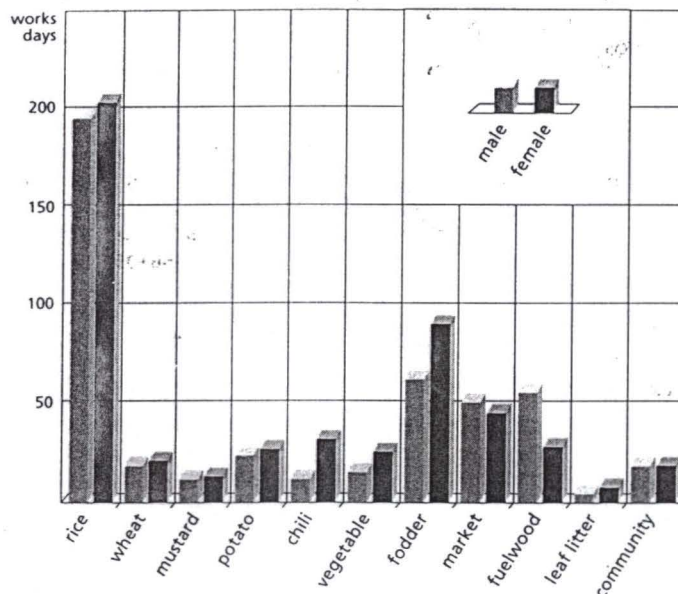
#### **Forestry activities**

Forestry activities were initiated in the villages of Chebakha, Omtékha and Matolungchu where several farmers were interviewed about their forestry activities. The farmers' preferred tree species were chir pine (*Chendhe shing*), a *Cupressus* species and *Ficus* species (*F. roxburghii*), or Baku shing, as it is called locally. Community forestry is new in the valley farming systems; it





**Figure 2. Male and Female Labor by Activities**



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was introduced only in mid-1991, although the Department of Forest Nursery at Chuzomsa was established four years earlier. Prior to Social Forestry or Community Forestry, most forestry activities in the country consisted of policing the forests to prevent illegal logging by farmers and entrepreneurs.

The introduction of Social/Community Forestry began with a survey of degraded areas or areas with fuelwood and fodder shortages. This was followed by a socio-economic survey in which certain villages were identified as pilot areas for trail forestry activities. Meetings were held with village headmen (Gups) and farmers to discuss and explain the government forestry initiatives.

Three types of forestry activities were introduced: Community Forestry – farmers could grow trees on degraded

government land and have control of the trees and their uses; Private Forestry – trees could be grown on farmers' private lands at their own initiative (farmers had full control of trees they had planted); and Leased Forestry – the government leased out land to individuals mainly for commercial enterprises or large-scale tree planting. Lease Forestry is rarely carried out because it requires large-scale plantations, which farmers cannot manage. In selected villages the forestry project identified interested individuals, groups, or community tree growers. Farmers were given free seeds or seedlings, wooden fence poles and barbed wire to fence the designated land near the village. Sometimes farmers preferred seeds to seedlings raised in the nurseries because seeds had a higher survival rate. Seedlings were freely distributed from the Department of Forestry

nursery at Chuzomsa. The nursery is run by a supervisor, a forest guard and four labourers.

The survival rate of most of the seedlings was about 55 percent. This was due to using over-aged or unhealthy seedlings, often as a result of poor storage before distribution to the farmers. In general seedlings were not maintained after they were planted.

Most farmers preferred *Cupressus* for its quality as floor planks and roofing shingles for house construction. The leaves are burnt as incense for the daily offering of prayer in the family altar.

Most of the fencing, erecting poles and digging was done by men. Women had little or no share in the activities except for transporting seedlings from the road to the village. The project paid Ngultrum 95.00 (US\$1=Ngultrum 25.60) to the farmers for their labour in tree planting.

Farmers did not appear to be very keen on the tree planting project initiated by the Forestry Department. It was a long-term project and farmers seemed to be more interested in immediate farming demands. Further, most farmers did not understand how tree harvests would be shared within the community. It was quite rare to find a farmer who had planted trees as a private venture.

#### **Fuelwood sources and distance**

Forests are the main source of fuel for cooking and heating in all the households. Thirty-one households reported fetching wood directly from the forest, four fetched from



both forest and riverbank, and one household depended entirely on wood fished from the river.

Firewood collection is the responsibility of both men and women. In Rinchengang village this was a very labour-intensive task, especially for women farmers because they had to leave early in the morning (6.00-6.30) to collect firewood from the forest above their village. It takes about five hours to walk uphill to gather sticks of dried and dead wood. Two fuelwood gathering seasons were prominent in all the villages visited: the Jha-shing, or summer, fuelwood collected in November-December and the Sok-shing, or autumn, fuelwood collected in July-August to last through the winter months.

Of all households, about 28 percent had firewood sources within one kilometre. These were mainly farmers from Kashi and Chebakha, villages with good forest cover all around. Another 57 percent of farmers interviewed had to travel far to get one person-load of fuelwood. Other farmers obtained fuelwood by hitching a ride to distant forests. Farmers in this category were mainly from the lower valleys; they reported that they had to travel further now than 10-15 years earlier.

By law all trees belong to the state. Farmers must obtain a permit to gather firewood or cut trees for fuelwood. To obtain a permit, farmers must complete an application form at the village headman's office; the signed form is submitted to the ranger's office. The regional ranger then issues a permit which specifies species and quantity of trees to be cut. Finally, the

**Table 1. Firewood uses by gender and age on a typical farm**

Uses	Percentage	Collection by Gender
Cooking and fodder	80	F, EF, g
Brewing alcohol	10	F, EF, g
Outdoor stone bath	4	M, F, g, b
Heating	4	F, M, g, b
Cremation contribution	2	M, F, EF

KEY: F: Adult Female; M: Adult Male; EF: Elderly Female; g: young girl; b: young boy.

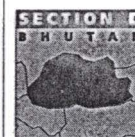
local forest guard accompanies the farmer to the forest to mark the trees to be cut (with a stamp-hammer). During the last five to ten years, wood has become scarce for the lower-altitude villages because increasing population has put greater demands on fuelwood. Today, only one (as in Rinchengang village) or at most two trips for fuelwood can be made in one day. Young girls and women in Rinchengang did most of the fuelwood gathering. It was usually the males who chopped and stacked bigger chunks of firewood to be carried to the village after it dried in the forest. Men also cut and carried timber for home construction in the villages. Firewood consumption is directly proportional to the size of the household and the number of livestock on the farm. An average of 6.5 tons of fuelwood per household is consumed annually. More than 80 percent of firewood is used for cooking meals and fodder; less than 5 percent is used strictly for heating, because most homes have kitchens with an open fireplace that is used for both cooking and heating. Ten percent of the wood is used for brewing alcohol and a smaller amount is used for the

outdoor burnt-stone bath (mixture of wood and stones are burned in a pile; the red hot stones are dropped into a tub filled with water for bathing); 2 percent is contributed to the village community for cremations.

### Interaction between forestry, livestock and agriculture

The concept of integrating forestry, livestock and agriculture is not new for the farmers of Bhutan. However only recently the separate departments of Agriculture, Animal Husbandry and Forestry have begun to integrate their previously disparate development activities.

In the valley, higher-altitude villages are closer to or in the forest, so they have traditionally interacted more with the forest; they also depend more on livestock for their livelihood than lower-altitude villages. Jagtey village in Kashi and Chebakha in Nisho gewogs are high-altitude villages where chili, wheat and barley are the main crops. Here the dominant farming system incorporates seasonal migration. The family and its cattle migrate to a lower home in winter and return to their main summer-



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home for most of the year. Jagtey village represents an area where the deciduous forest is still more intact; forest grazing for animals is plentiful (although, as in the other villages, wheat is also grown as a fodder crop). Villagers trade dried chili for rice from lower valley farmers (this system of barter is increasingly being replaced because many farmers now sell their chilies for cash in the Wangdi market). This intensive chili-cereal production is sustained by farmyard manure (FYM) largely supplemented by oak-leaf litter collected in February and March. Farmers here do not use chemical fertilizers; they report that FYM applied to chili provides sufficient soil nutrients for the following wheat crop.

Leaf-litter collection for animal bedding and producing FYM is a female-dominated task. It is intensive manual work but also a time for fun and socialization between the sexes. Groups range in age from 8 to 15 or more; 70 percent are female. The work takes a day or two. Women use hardy brush-wood brooms and men use long handled wooden forks to gather huge piles of leaf-litter which has been swept down to the nearest footpath. A week or so later, when

enough labour is mustered, the leaves are piled in huge baskets by the women and men carry them to the farm. Small amounts of leaf-litter are then spread inside the cattle shed each day to provide a dry layer for bedding. When the leaf-litter and animal waste is about a metre deep, it is shoveled out of the shed to be spread on the fields. All work with manure is done exclusively by women.

Lobeysa village has little or no community forest land left because large portions have been fenced off for government projects and private businesses. Farmers have voiced their concerns about being forced to reduce their cattle herds due to reduced access to traditional grazing lands.

### **Social impact as a result of forestry activities**

Forestry activities alone created little or no social impact, except to increase awareness in the villages of government efforts to preserve and maintain forest resources, and awareness about the possibility of forest degradation in the future. Roles of men and women in forestry activities have changed little in the last 10 to

15 years, including roles in decision making within the household, in the day-to-day workload and the status of women in the community. The most significant change is in the economy – from a barter-dominated system to an increasing use of cash for labour and marketing – and the subsequent effect on gender roles in farming. In the valley bottom villages of Rinchengang, Lobeysa and Bajo Thangu, more male family members work at nearby construction sites, as petty contractors, masons, carpenters, wage labourers and painters than do male farmers in the higher-altitude villages of Chebakha and Kashi. This means women must now tend to most of the farm activities in low-altitude villages.

In Rinchengang village, men who worked in another valley far from the village returned to help out during the peak labour demand periods of land preparation for paddy (ploughing and digging land), harvesting and gathering firewood in winter after the paddy harvest. Roles for women here have increased now that men have cash income from off-farm jobs.



## ANNEX A

**Table 1. Monthly labour requirements in agriculture for an average valley farm**

Activity by gender	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Rice M	0	5	12	12	5	8	22	40	27	31	22	13	19
F	0	4	5	5	12	12	50	17	27	31	22	13	205
Wheat M	1	1	2	3	3	0	0	0	0	1	8	3	21
F	1	1	3	4	4	0	0	0	0	4	3	3	23
Mustard M	2	2	2	0	0	0	0	0	0	2	3	3	14
F	2	1	2	0	0	0	0	0	0	1	5	5	16
Potato M	4	6	6	2	2	2	0	6	0	0	0	0	28
F	4	6	6	2	2	2	0	8	0	0	0	0	30
Chili M	0	0	3	0	0	3	2	2	3	2	0	0	15
Kitchen garden/ vegetables M	2	1	2	3	1	2	0	0	0	3	2	3	19
F	4	2	3	4	2	3	0	0	0	4	3	4	29
Total crop labour	20	29	48	35	31	49	87	78	62	82	68	47	638

Source: Farming Systems study of Punakha and Wangdi Valleys, 1991.

**Table 2. Monthly labour requirements in household tasks for an average valley farm**

Activity by gender	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Livestock fodder M	4	4	5	4	4	5	9	9	7	5	5	5	66
F	8	8	7	9	8	7	9	9	8	7	7	7	94
Marketing M	6	6	2	4	4	4	4	4	2	2	6	6	50
F	2	2	6	4	4	4	4	4	6	6	2	2	46
Firewood collection* M	0	2	2	0	0	14	14	0	0	0	14	14	50
F	0	1	1	0	0	7	7	0	0	0	7	7	30
Leaf-litter collection M	3	3	0	0	0	0	0	0	0	0	0	0	6
F	5	5	0	0	0	0	0	0	0	0	0	0	10
Community work M	5	5	0	0	0	0	0	0	0	0	5	5	20
F	5	5	0	0	0	0	0	0	0	0	5	5	20
Household chores M													
F	17	17	17	17	17	17	17	17	17	17	17	17	204
Total household labour													
Demand	55	57	39	38	37	58	64	43	40	37	60	60	604
Total farm labour (both tables)													
Demand	75	86	87	73	67	107	151	121	102	119	136	115	1240
Family labour availability	90	90	90	90	90	90	90	90	90	90	90	90	1080
Family labour balance	15	4	3	17	23	-17	-61	-31	-12	-29	-46	-25	-160

\* Includes chopping, stacking and transport to farm



## **Bhutan Project Summary.**

### **Forest Management and Conservation: Institution Building**

#### **Development objective**

The project aims to assist the government to:

- Maintain present forest land base under forest cover and manage the forest to ensure long-term sustained yield and stable ecological conditions.
- Balance and optimize land use considering such factors as: watershed and wildlife protection, social demands and benefits, road development needs, forest product revenue, afforestation/reforestation requirements and forest protection.
- Strengthen the institutional framework of the Department of Forests (DF) and continue to improve personnel skills through training programmes.

#### **Immediate objectives**

##### **Forest management**

Increase capability of the Department of Forests to manage natural forests and develop plantations incorporating: forest research and silviculture, forest inventory, forest protection, nursery work, seed handling, seedling planting, plantation protection and forest management planning. Activities would be scheduled for initial application to Forests Management Units (FMUs) having priority needs.

##### **Community and Farm Forestry**

Improve and expand the Community and Farm Forestry system, including setting up, upgrading or rehabilitating local nurseries; a reliable extension system and a system for monitoring and evaluating the results of programme activities. The programme would be concentrated in selected districts to help meet villagers' needs for fuelwood and fodder, while also helping to prevent further degradation of forest and soil resources. Where possible, activities will complement forest management programmes being developed in priority FMUs.

##### **Watershed management**

Establish a framework to develop and implement watershed management plans based on sound policy and legislation. Plan and implement strategies for selected priority watersheds, preferably tied to a FMU in which forest management activities are being applied. Develop a programme management strategy for other priority watersheds identified during the project.

##### **Nature conservation**

Further develop a strategy to manage National Parks and other reserve areas. Establish a management plan Framework for these areas which include institutional support requirements.

#### **Project components**

##### **Forest management, silviculture, plantation and nurseries**

- Strengthen forest management and forest research division.
- Carry out forest inventories and forest mapping.
- Improve local volume tables.
- Develop management plans for areas in which inventories and mapping are carried out.
- Establish three research stations.
- Establish protected trial plots in all main forest types.
- Establish seed operations centres.
- Establish a seed store, a small soil lab and a reference library in Thimbu.
- Establish new medium-scale nurseries.
- Integrate forest protection with forest management.
- Carry out species trials.
- Formulate a national long-term plantation development strategy.





### **Community and Farm Forestry**

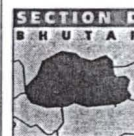
- Carry out a baseline survey
- Train staff for community and farm forestry.
- Establish six new, upgraded or rehabilitated nurseries.
- Establish preferred species.
- Provide adequate numbers of different seedlings to farms and communities.
- Establish at least 250 ha of community woodlots.
- Develop an extension system.
- Establish monitoring and evaluation system.

### **Watershed management**

- Train staff in watershed management
- Select watersheds for development
- Establish a pilot watershed area covering about 7,000 ha in a visible location.
- Draft legislation for soil conservation and watershed management.
- Develop a methodology for environmental impact assessment.
- Develop methodologies for planning and implementing watershed management and multiple land use practices.

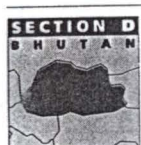
### **Nature conservation and national parks**

- Develop a Nature Conservation and National Parks Group.
- Produce a report on management of parks and other reserved areas.



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## BHUTAN: TRAINING NOTES

### CONTEXT PROFILE

The Context Profile shows that most of the identifiable constraints in the case study area are environmental: pests and crop diseases, tree-threatening insects and, most important, frequent forest fires. At the same time the case study area is unusual in Bhutan in the sense that there is no serious deforestation and environmental degradation. The environmental constraints in the case study area are being addressed through institutional and economic supports. The government has recently established community forestry as a new intervention in the country and is in the process of developing an integrated approach to agriculture, animal husbandry and forestry. The Context Profile also reveals social issues that could be considered either as supports or constraints. In Bhutan property is registered in women's names and land is inherited by daughters from their mothers. Men join their wives' families at marriage. Each family will send at least one son to become a monk.

### ACTIVITY PROFILE

The Activity Profile shows that in the case study area women and men share most productive activities, whereas the reproductive activities taking place on the homestead are more distinct. On the homestead women are responsible for most day-to-day activities (e.g. cooking, taking care of young and old, water fetching), while men are responsible for activities that are occasional (e.g. house construction, fencing, slaughtering for festivals). It is interesting to note that the men take on all their wives' home maintenance responsibilities for a period after childbirth.

### RESOURCES PROFILE

The Resources Profile shows that as with the productive activities, the control over farm resources is largely shared between the wife and husband. All the major decisions are made in consultation, while women retain control of family income earned through the marketing of farm produce. Both women and men have access to extension services, but the case study comments on this by stating that the women would find it easier to talk with women extensionists, who are very few at present. Both women and men also have access to credit. However, the procedures involved and the distances to administrative centres are obstacles that affect women more than men.

### PROGRAMME ACTION PROFILE

The Forest Management and Conservation Project aims to: (a) maintain and manage the forest land base, (b) balance and optimize land use, including watershed protection, forest product revenues and social demands and (c) strengthen the Department of Forests. A key constraint for the project is the farmers' low motivation to participate. What are the social impact risks if the project is implemented without consideration of the currently equitable status of women and men? The risks for the project? Why would women want to participate? Men?



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worksheet 1

# CONTEXT PROFILE for Bhutan Case Study

## CONSTRAINTS

### Environmental

- localized severe erosion of top soil
- frequent forest fires, especially in winter
- insects and diseases are threat to trees
- pests and crop diseases have increased
- distances walked to collect firewood increase steadily

## SUPPORTS

### Environmental

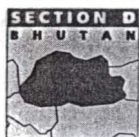
- no serious deforestation or environmental degradation
- soil fertility has remained stable

### Institutional

- Department of Forests has acted to control bark beetle and defoliator epidemics
- community forestry established as new intervention in 1991
- government is developing integrated approach to agriculture, animal husbandry and forestry

### Social

- norm is that property is registered in women's name, inheritance is mother to daughter
- norm is that at least one son becomes a monk



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*e.g. environmental, economic, institutional, demographic, social and political norms, trends, and changes, as relevant, that pose constraints or support development in the area of concern.*

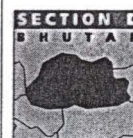




## worksheet 2

# ACTIVITY PROFILE for Bhutan Case Study

LOCATION	ACTIVITIES	GENDER	TIME
Homestead	Carrying water Feed cattle & pigs Cook Child & elder care House, fence construction Slaughtering Housework	F F F F M M F (but men take over for period after birth of child)	daily daily daily daily occasional festivals daily
Rice & Wheat Fields	Ploughing Clean bunds Raise & transplant seedlings Transport & apply manure Irrigation Pesticide/fertilizer application Weeding Harvesting & threshing Transporting	M M F F M/F M/F M/F M/F M/F	rice: April - November  wheat: November - April
Forest Off-farm	Firewood collection Leaf litter collection Cattle herding  Waged labour Marketing	M/F F M/F  M F	
e.g. govt forest land, community forest land, homesteads, upland fields, lowland	e.g. fuelwood and fodder collection, ploughing, weeding, harvesting, cooking, childcare, wage labour.	M - exclusively male M/f - predominantly male M/F - equally male/female F/m - predominantly female F - exclusively female	e.g. daily, weekly, seasonal e.g. 3 hr daily, 35 hr weekly e.g. dry season, rainy season



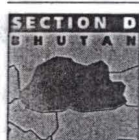
PAGE 35



### worksheet 3

## RESOURCES PROFILE for Bhutan Case Study

RESOURCES	ACCESS BY GENDER	CONTROL	BENEFITS
<b>Farm Resources</b> <ul style="list-style-type: none"> <li>• wetland/irrigated land</li> <li>• dryland/rainfed</li> <li>• kitchen garden</li> <li>• animals</li> </ul>	M/F  M/F M/F M/F	F  F F M/F	food, income
<b>Forests/trees</b>	M/F	Govt	leaf litter, fodder, and wood for cooking, brewing alcohol, bathing, heating, and cremation
<b>Income</b>	F	F	
<b>Credit</b>	M/f	Govt	
<b>Extension</b>	M/F	Govt	
<b>Household Decision/making</b>	M/F	M/F	decisions about education, land purchases, equipment, choice of crops, etc.
eg. land, trees, labour, time, technology, capital, extension training, indigenous knowledge.	M - exclusively male M/f - predominantly male M/F - equally male/female F/m - predominantly female F - exclusively female	e.g. husband, first wife, village chief, state, forest department.	e.g. food, fuel, income, skills, status.



#### **A.4. Gender and Participation in Agricultural Development Planning, Lessons from Sikkim, India by Karlyn Eckman (1997)**

##### Summary

This case study is based on an initiative to implement participatory and gender-responsive approaches to agricultural development in an FAO Technical Cooperation Project (TCP) for small-scale goat and poultry production in Sikkim, called "Development of Small-Scale Livestock Activities – Sikkim". The TCP focused on livestock breeding and training of agricultural and forestry extension staff on participatory methods and gender analysis. This paper seeks to share what was learned about (1) building capacity within extension services to use gender-sensitive, participatory approaches, (2) using participatory rural appraisal (PRA) to enhance learning about gender based differences in agriculture and (3) mainstreaming gender issues in the government of Sikkim, government of India and other countries. This summary will provide a brief background to the TCP and then highlight the process and methods used in PRA and gender analysis and how the information gathered was used in the project.

The project –related activities involving livestock production included training of poor village farmers, primarily women and girls, in small-scale rearing of goat and poultry and resource conservation techniques such as stall-feeding and zero-grazing. Other components related to livestock production were on-farm research into tree and field fodder and training in monitoring environmental and social impacts of project-related activities.

This project was one of the first in Sikkim to conduct applied field research at a subsistence level in an effort to understand farming systems and gender roles better. The author states that "prior to the PRAs carried out under the project, there was essentially no previous study based upon the analysis of difference, or on the sexual division of labour in agriculture and natural resource use...[in Sikkim]" The rationale for implementing gender analysis in this project was the central role that women play in the daily care of goats and chickens in Sikkim.

The training of government staff involved fourteen Government of Sikkim staff from Animal Husbandry and Veterinary Services, the Forest Department and the Sikkim Rural Development Agency's "Development of Women and Children in Rural Areas Programme". Examples of training topics were problem analysis - identifying the factors that affect household livestock production, small-scale goat and poultry production, PRA and RRA tools such as participatory mapping and using PRA checklists. After the PRA training workshop the trainees and consultants were split into two interdisciplinary teams to initiate PRAs in the East and South districts. These districts were chosen because the highest human and livestock populations occur there. The aims of the PRA were to find out more about the farming systems, gender roles and development needs in rural Sikkim, to describe how goats and chickens are kept in villages and identify constraints and opportunities to guide TCP activities.

The methods used included a few RRA techniques such as key informant interviews and a wide range of PRA and gender analysis tools. Triangulation of information was possible through different team members using different tools and mutual information sharing. One useful method applied by the East District PRA team was the interdisciplinary Sondeo method which aided interactions between male and female members of the PRA teams and between team members and women & girl participants. The basis of this method is pairing each team member with another team member from a different discipline so that there is cross-disciplinary assessment of situations to corroborate and triangulate results. At the end of each day team debriefings were held, where each two-person team shared their findings with the group and lessons learned were summarized. The teams also worked with local officials and village panchayats to involve them in the PRA process.

Refer to the table on page 11 for a summary of the tools used to answer various questions in the PRA/Gender Analysis framework (eg. What is getting better? What is getting worse?). An important tool used was developing gender and age-differentiated seasonal task calendars. On page 21 these are described in detail. The task calendars were useful to demonstrate the significant role of women and children in managing goats and poultry and highlighted periods of labour constraints when girls were often withdrawn from school. They were also helpful to understand survival strategies during times of hardship such as food insecurity and indebtedness.

There were several learnings from the PRA exercises; some of the key ones are highlighted here and where documented, indication is given of how the project responded to them (Refer to pages 12-13 and 22-23 for a complete list). For example, it was found that raising poultry and selling eggs were important income sources for women and that there was room for poultry productivity to be improved through training and monitoring. As a result male poultry extension workers were sensitized to work primarily with women, utilizing women's groups formed under a different project. A second revelation was that it was clear that some villages were better off than others in terms of income status of households, percentage of scheduled castes and water and forest resources. As a result the project decided that it would concentrate its resources on villages that were most isolated, with limited resources and a high percentage of scheduled castes. Several specifically gender-related findings were also revealed (refer to pages 22-23). Two particularly important ones were that girls were often withdrawn from school after two to three years to work on farm and household tasks and the few village-based extension activities previously conducted by the Animal Health and Veterinary Services department had primarily benefited men.

### Food for Thought

This case illustrates a diversity of tools and approaches that may be used to conduct PRAs and gender analysis. The discussion questions will challenge you to think about how tools and approaches for SAGA are chosen.

### Discussion Questions

- (1) What are the features of the research efforts in this study that allowed the selection of a large number of tools and approaches?
- (2) For your own research project list and rank the criteria that will determine which and how many tools and approaches you select to conduct your social and/or gender analyses.
- (3) Several advantages of the Sondeo method are listed in the study. Can you think of any drawbacks of using this method?



# **GENDER AND PARTICIPATION IN AGRICULTURAL DEVELOPMENT PLANNING**

## **LESSONS FROM SIKKIM- INDIA**

(Insert photo)

**Women in Development Service  
Food and Agriculture Organization of the United Nations**

**Rome  
October 1997**

# **GENDER AND PARTICIPATION IN AGRICULTURAL DEVELOPMENT PLANNING**

## **LESSONS FROM SIKKIM**

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This case study was written by Dr. Karlyn Eckman, a consultant to the Women in Development Service (SDWW) of FAO. Funding for the study was provided by the Government of Norway. The original language version of the document was edited by Sally Sontheimer.

The study is based on the experience of the FAO Technical Cooperation Project entitled *Development of Small-Scale Livestock Activities in Sikkim , India (TCP/IND/4451)*. The author wishes to acknowledge the substantial contributions to this project that were made by key project staff. The PRA team and extension staff responsible for village-based participatory activities during implementation were an exceptionally committed group, and deserve much credit for the successful completion of the project. They include P. H. Chettri, H. Chettri, B. B. Garung, P. Kafley, M. Rai, K. Ongmu, O. T. Namchoo, and R. K. Tamang. The Goat Development Officer, Mr. N. T. Lepcha, and the Project Liaison and Training Officer, Miss Durga Upreti, were outstanding in their dedication to the project, and in their resourcefulness under difficult circumstances. FAO staff, including C. L. Koenraad and Simon Mack in Rome and Ms. Renuka Thaimni in Delhi, also recognized the importance of this project and worked hard to support it despite difficult communications and limited funding. The professionalism and expertise of fellow consultants Dr. Christie Peacock and Daw Chandra Devi Baral also deserve recognition. Finally, the participants themselves were the real stars of the project, and were able to improve the well-being of their families through their willingness to learn, and to work together toward a common goal.

The opinions expressed in this document are those of the author and do not necessarily reflect the position of the Food and Agriculture Organization of the United Nations.

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## PREFACE

This case study explores the lessons learned during the implementation of an FAO technical cooperation project (TCP) aimed at small-scale goat and poultry production in Sikkim, India. From this modest project, entitled *Development of Small-Scale Livestock Activities - Sikkim*, emerged a number of important lessons for using participatory, gender-responsive approaches to agricultural development. These lessons have broader application beyond the borders of Sikkim because they demonstrate how effective such approaches can be in improving rural livelihoods, reducing risk and indebtedness, and increasing food security for *all* household members.

The study is one of a series of background papers being prepared for a “**Workshop on Gender and Participation in Agricultural Development Planning - Harvesting Best Practices**” to be held in Rome in December of 1997. The Workshop will provide the opportunity to bring together nationals from a number of countries where FAO has tried to assist institutions and communities to support planning processes which are participatory and that address the different needs and priorities of rural women and men. The objectives of this workshop are to:

- compare and share experiences from different countries and thereby build capacity among institutions and organizations working in the agricultural sector to use participatory and gender sensitive approaches in agricultural planning;
- from this shared experience, potentially develop a framework or model for gender-responsive participatory agricultural development planning;
- share what was learned from this field experience with interested FAO technical divisions and explore linkages with complementary FAO programmes, such as the Special Programme for Food Security (SPSF) and the Socio-Economic and Gender Analysis Programme (SEAGA).

It is hoped that this case study will be of interest to others working on programmes and projects - especially in Sikkim - which seek effective ways to include rural women, their experience and their priorities in agricultural development processes.

## **ABBREVIATIONS AND ACRONYMS**

<b>AHVS</b>	Animal Husbandry and Veterinary Services Department (Government of Sikkim)
<b>DWCRA</b>	Development of Women and Children in Rural Areas Programme (GOS)
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>GA</b>	Gender analysis
<b>GDO</b>	Goat Development Officer
<b>GID</b>	Gender in development
<b>GOI</b>	Government of India
<b>GOS</b>	Government of Sikkim
<b>ICAR</b>	Indian Council of Agricultural Research
<b>ISPS</b>	Indo-Swiss Project - Sikkim
<b>NGO</b>	Non-governmental organization
<b>PLTO</b>	Project Liaison and Training Officer
<b>PRA</b>	Participatory rural appraisal
<b>PWD</b>	Public Works Department
<b>Rs</b>	Rupees (currently US \$1.00 = 35 Rs)
<b>RAT</b>	Rapid appraisal of tenure
<b>RDD</b>	Rural Development Department (RDD)
<b>RIR</b>	Road Island Red
<b>RRA</b>	Rapid rural appraisal
<b>SEAGA</b>	Socio-Economic and Gender Analysis Programme of the FAO
<b>SPSF</b>	Special Programme for Food Security of the FAO
<b>SRDA</b>	Sikkim Rural Development Authority (GOS)
<b>TCP</b>	Technical Cooperation Programme of the FAO
<b>WID</b>	Women in development

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## I. INTRODUCTION

Sikkim is a former Himalayan mountain kingdom that was, until recently, geographically and culturally isolated. It was annexed by India in 1975, becoming India's newest state. As part of India, it is now governed by the Indian constitution and national government, and has its own state parliament in the Sikkimese capital city of Gangtok. Sikkim has historically had little previous contact with the United Nations or other international development organizations. In 1994 a senior staff member of the Animal Husbandry and Veterinary Services (AHVS) encountered an FAO official at an international conference, and initiated a request for FAO assistance to Sikkim in the area of animal husbandry. From this initial contact, a modest Technical Cooperation Project (TCP) was begun that had far-reaching impacts in terms of introducing new methods and approaches.

Activities focused on livestock breeding, and on training of agricultural and forestry extension staff and community development workers in a range of new approaches and methods. These included participatory assessment, planning, and monitoring; gender analysis; and rapid appraisal of tenure. As with other projects studied in this series, the training focused on looking at differences in access to various resources by gender and age. The training also emphasized applied, field-based practical tools and techniques to allow the trainees to explore the differences in the activities, constraints, and priorities between adult men and women, boys and girls, and elderly men and women. There were several main outputs and results of this project:

- training of a small group of mid-level Government of Sikkim (GOS) field staff that are capable of applying such techniques in future GOS projects, as well as training other GOS staff in the methods;
- training of low-income participants (primarily women and girls) in several villages in small-scale livestock rearing (e.g. goat and poultry production) and in resource conservation techniques;
- initiating a range of activities related to small-scale livestock production including goat-breeding with Jamnapuri bucks in two villages; promotion of stall-feeding and zero-grazing techniques; on-farm research into tree and field fodders; the introduction of Rhode Island Red (RIR) breeding stock in three villages; and monitoring the environmental and social impacts of these activities;
- raising the awareness of GOS higher-level officials in the benefits of participatory, gender-sensitive approaches and methods.

This project is worthy of examining as a case study because it had positive impacts that went beyond the original boundaries and scope of a modest TCP project. While originally conceived as a conventional livestock production and training project, it evolved over its short life span into a more comprehensive initiative with impacts that expanded beyond those first envisioned. Key to these expanded impacts were the participatory rural appraisals (PRAs) that were undertaken in several villages. The PRAs significantly enriched the information base about agricultural practices, gender roles and responsibilities, land and natural resource tenure in rural areas, natural resource use and condition, and seasonal cycles of food insecurity, risk, and indebtedness. Indeed, little applied field work had ever been undertaken at the subsistence level in Sikkim, and

there was not much information available about farming systems or gender roles. The PRAs yielded a wealth of new information that was shared with at least five Government departments. The demonstrated success of the small-scale livestock activities, particularly in village poultry, further demonstrated to policy makers and to field extensionists through a series of interactive meetings the value of participatory, gender-responsive methods. As a result, the TCP project brought new insights, ideas, and field methods to the attention of policy makers at the middle and high levels throughout its lifetime. This was probably the first time in Sikkim that these issues received such attention.

The *Development of Small-Scale Livestock Activities in Sikkim India* project coincided with a period of renewed interest by the Government of India in development issues in Sikkim and the other northeastern Indian states. Both the Government of India and the state Government of Sikkim have recently put forward broad new policies of economic development, including strengthening of rural agricultural sectors, in this isolated corner of India. The state and national governments have adopted policies of strong support for minority tribes and scheduled castes, which make up a majority of the population in Sikkim. The project also coincides with a period of renewed interest in locally based participatory and gender-sensitive approaches.

The PRA and gender analysis methods used in this project represent a range of tools and techniques that were developed or adapted by various team members, including the author. The mix of tools and interdisciplinary techniques proved to be extremely useful and beneficial, not only in the PRA exercises, but also during monitoring activities. As with other projects in this case study series, this project was a powerful learning experience for all involved, from the participants who improved their skills and initiated their own mutual assistance activities; to the committed extension and community development workers who implemented the project on a day-to-day basis and were largely responsible for its success; to the consultants and FAO technical officers who set up the framework and training and provided support services; to the AHVS decision makers who had not quite thought through the implications of reorienting a project to target rural women and female headed households. And thus the purpose of this document is to review and compare the combined experience of this project with other case studies in the series, in order to share what was learned in terms of:

- building capacity within extension services to use gender-sensitive, participatory approaches;
- using participatory rural appraisal to enhance learning about gender based differences in agriculture; and
- mainstreaming gender issues in the Government of Sikkim, Government of India, and in other nations where gender differences are prominent in agricultural production and food security.

The organisation of the paper is modeled after others in this series. The case study begins in Section II with some background information on Sikkim, which may be unfamiliar to many readers. This is followed in Sections III and IV with a description of the project and its conceptual framework, and its implementation strategy. As with other case studies in this series, the analysis is organized around a discussion of six “challenges” what were inherent to or emerged during the process:

- the entry point, i.e., determining at what level to start and the implications that had for how to structure and support the process;
- the tools and methods that were used and how they worked in terms of learning about and documenting gender issues in agriculture;
- gender information, i.e. a brief analysis of the major findings from the PRA/gender analysis;
- capacity building, i.e. whose capacities were enhanced and what strategies and methods worked best to accomplish that task;
- linkages, i.e. how did the project promote linkages with planning processes; and
- institutionalisation, i.e. what changes did or should take place in order to create a more enabling environment for gender-responsive, participatory approaches to agricultural development planning.

In the final section, highlights of the main lessons learned are offered in the form of advice to others interested in supporting similar processes.

The author would like to stress that the methodology for writing this case study did not involve a formal evaluation process. As with the other case studies in this series, the document is instead based upon an understanding of the situation derived from the author's intermittent participation in the training activities, planning, implementation and monitoring of the project; much discussion with participants, Government counterparts and colleagues; and a review of project-related reports, field notes and other relevant documentation.



## **II. BACKGROUND ON SIKKIM**

Sikkim is a small, extremely mountainous state in the Indian Himalayas with sharply defined and extremely steep watersheds. Although Sikkim is only about forty miles in width and seventy miles in length, its altitude escalates rapidly from about 2,500 feet above sea level in the South to about 27,000 feet along the Himalayan Kachenjunga range. Most agriculture is concentrated in the lower mountain reaches, primarily in the East and South Districts. Nomadic high-altitude livestock herding (primarily goats, sheep and yaks) is found along the borders with Nepal and Bhutan, and in the North District approaching the Tibetan Plateau.

Sikkim has very diverse ecological conditions, from subtropical to alpine, and is endowed with great biological diversity of plants and animals. A wide range of crops are cultivated in a range of agro-ecological zones, including upland rice, vegetables, pulses, potato, and ginger. Its extreme topography and altitude mean that most agriculture is done on narrow terraced benches on very steep slopes. The country is subject to torrential monsoonal rains, which contribute to rapid runoff on the slopes, resulting in landslides and flooding in river bottoms.

Most arable land has already been put under cultivation. Sikkim's growing rural population is slowly expanding upwards, bringing steeper forested slopes under cultivation. In addition, demand for cardamom, an export crop, has also contributed to conversion of forests to agriculture. Each village has different endowments of various types of lands, and very different patterns of access to public and common lands. Average holding size for poorer households is under three acres. Most agriculture is rainfed.

### **Photo 1: Sikkimese agriculture showing typical rural holding**

Insert photo 1

The most recent census data for Sikkim (1991) gives a population of 406,457 persons. Population has been expanding very rapidly, from 316,385 in 1981 and 209,843 in 1971. This represents an approximate doubling of the population in twenty years. Overall population density was 57 persons per square kilometer in 1991. According to the 1981 census, the literacy rates were 22.2% for females and 43.95% for males; by 1991 this number had risen significantly to 46.7% for females and 65.7% for males. In spite of GOS efforts, educational facilities, especially in rural areas, are still inadequate. The low level of female literacy also indicates the lack of motivation for social change and inadequate facilities for women to avail of education (Sudhakar and Gusain 1991), in comparison to males.

The population is diverse in its ethnicity, religions, and languages. At least fifteen languages are spoken, but Nepali is spoken by the majority of the population. Nepalis now represent the majority population at 70% of total, with Lepchas, Tibetans and Bhutias also comprising major ethno-linguistic groups. There are numerous other groups drawn primarily from minority or scheduled castes. The ownership of cultivable land, as well as cardamom production, was historically been under the control of Bhutia *kazis* (landlords and aristocrats), which continues to influence the distribution of land and natural resources even today. Nepali immigrants leased lands from the *kazis*, and gradually acquired land from the Bhutias and Lepchas. The result is a scarcity of arable land, with fragmentation of holdings and greatly expanded cultivation on very marginal steep slopes. The distribution of income, and patterns of poverty, are closely linked to land ownership, with Bhutia families tending to be better off than other groups.

## **The Policy Environment**

Development policy in Sikkim is currently guided by its Draft Eighth Five Year Plan (1990-1995), which to date has successfully fostered economic growth at about 8 per cent per year. The Ninth Draft Plan is set for release during 1997, and represents a continuation of policies emphasizing universal access to primary education, agriculture and rural development, and economic and industrial development.

The Eighth Plan sections dealing with livestock development and soil conservation do not specifically mention women as participants. However, the Eighth Plan does mention the inclusion of women in two general areas:

“It will also be necessary for the State to pay increased attention to training of manpower particularly in the area of research, soil surveys, statistics, monitoring and evaluation as well as for training of farmers, with particular attention to women....Extension services will have to be reoriented to carry the message of technological upgradation of agricultural practices to the very doorstep of farmers” (page 15).

“In Eighth Plan the programmes envisaged for implementation relate to introduction of T & V system<sup>1</sup> of extension service, creation of mobile publicity and equipped with visual aids, establishment of two Farmer’s Training Centres for North and South district, providing physical infrastructures to Farmers’ Training centre in East district and organisation of training for farmers and farm women on large scale” (page 31).

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<sup>1</sup> Training and Visit system.

While women and girls are not specifically targeted in the Eighth Plan, other policy statements and programmes have placed great emphasis on ensuring that women are fully engaged in the development process. The GOS Special Programmes for Rural Development includes a range of activities including biogas and chula stove promotion in rural areas through the National Rural Energy Programme - a national employment programme with high recruitment of women and girls - a housing scheme, and others.

The Rural Development Department (RDD) has historically had a strong focus on promoting various economic development and educational activities for rural women and girls, and collaborated in the TCP project by providing an experienced employee as the national Project Liaison and Training Officer (PLTO), working under the supervision of the National Project Director (NPD).

The policies of the Government of India in moving gender issues to the forefront has had an important, though delayed, impact in Sikkim. Centrally-funded programmes are often introduced by elected politicians, who have made frequent statements about the need to include women and girls in the development process. Subsidized programmes, such as provision of housing and livestock, are often promoted by politicians.

In general, however, GOS agricultural policies, strategies and programmes have tended to overlook gender roles and responsibilities in rural farm communities. The lack of information about gender roles has not contributed to this situation. Although some information is available about farming systems in Sikkim, there is almost no information about the differential roles of women, men, and children at different ages in the life cycle. Prior to the PRAs carried out under the project, there was essentially no previous study based upon the analysis of difference, or on the sexual division of labour in agriculture and natural resource use outside of older ethnographies conducted during the early British colonial system.

The PRAs found that agricultural extension services have been weak or absent at the village level. The few village-based agricultural or forestry extension activities have tended to benefit adult men, rather than women, boys or girls. The PRAs have therefore made a very important contribution in documenting the significant roles of women and girls in rural agriculture, and in demonstrating that they too should be targeted in extension and other GOS-initiated agricultural activities. There is considerable potential and need to decentralize extension services and messages to the village level, and to reorient extension efforts toward more gender-sensitive, participatory methods and approaches. Bringing the PRA findings to the attention of GOS senior officials and policy makers is an important and logical next step in reorienting agricultural programs toward the appropriate target groups.

### III. THE PROJECT RATIONALE AND DESIGN

In 1994 the Food and Agriculture Organization received a request from the Animal Husbandry and Veterinary Sciences Department (AHVS) of the Government of Sikkim for assistance to develop goat production and initiate a crossbreeding programme in Sikkim. FAO took initial steps the same year to field an international goat expert to Sikkim to explore project options with Government counterparts.

FAO then initiated a TCP for a two-year period, intended as a pilot project. This was to be the first externally-funded development project in Sikkim, except for a Swiss-funded dairy project in Western Sikkim begun the previous year.<sup>[KBI]</sup> ( A profile of the project is found in Annex 3.)

While this project was not originally intended by the AHVS to be a “women’s” project, a strong participatory and gender focus emerged early on in the course of project planning. It was considered that most goats in Sikkim receive their day-to-day care from women, who also look after chickens. The Women in Development Service at FAO Headquarters (SDWW) insisted during the formulation phase that “gender” should be part and parcel of the project. FAO therefore proposed to broaden the scope of the proposed project to include village poultry production, and to include a gender focus in the project. In addition, the original project scope was expanded to include agro-forestry, soil and water conservation, and fodder production elements. This occurred in part because of the concern of the Headquarters technical officers and the external consultants related to conservation and sustainability issues, but also because later PRA research strongly confirmed that *both gender responsibilities and natural resource constraints would influence the ultimate success of the project.*

#### IV. PROJECT IMPLEMENTATION

This section describes in chronological order the events that took place during implementation of the project. Responsibility for implementation of the project rested with the Animal Husbandry and Veterinary Services, who provided the National Project Director (NPD). The day-to-day operational activities were coordinated by the Project Liaison and Training Officer. The PLTO and Sikkim's only Goat Development Officer (GDO) were seconded to the project for technical, training, and monitoring activities. Recognizing the interdisciplinary nature of the project, a **Steering Committee/Interdepartmental Working Group** was established, with members drawn from several different GOS services. Technical backstopping, additional training, and monitoring support was provided by the core team of international consultants, each of whom visited Sikkim at least three times. In addition, the technical officer from Rome provided a monitoring visit toward the end of the project. The consultants and FAO technical officer helped to introduce, reinforce and re-iterate the concepts of gender responsiveness and local participation, which were essentially previously unknown in Sikkim. No known NGOs existed in Sikkim in the early stages of implementation, consequently there was no NGO involvement in the project.

Some problems with administration occurred, stemming from several factors. The AHVS does not have a functioning telephone or FAX, and therefore communications and coordination of project activities with FAO/Delhi were extremely difficult. The Department did not have previous experience in collaborating with an international donor, nor did the NPD have an understanding of donor requirements (such as reporting). The NPD, based in Gangtok, did not have a close relationship with the field staff, including the PLTO or extension staff, which also contributed to miscommunication and support to field activities. To resolve these problems, greater emphasis was placed at mid-term on utilizing the Steering Committee/Interdepartmental Working Group.

##### Chronology of Events

Activity/Event	Date
PRA/GA Training	March 1995
PRA Assessments	April 1995
Refresher training in poultry management for farmers and extension field staff	May 1995 1995-1996
Training sessions (2) for women farmers	May-November 1995
Preparation of extension materials in Nepali	November-December 1995
Poultry management training, Bangalore	November 1995
Study tour to Kenya and Ethiopia	April 17 1995
Interdepartmental meetings/workshops on PRA findings	
Interdepartmental workshop on reorienting extension toward women; project follow-up	September 1996
Interdepartmental workshops (2) on reorientation needs; coordination of follow-up project	January 1997

## **Project preparations**

Three international consultants in the areas of goat production, chicken production, and socio-economic and gender analysis/community forestry visited Sikkim for five weeks in March-April 1994. In addition, an Indian national socio-economic/gender analysis consultant joined the team during the first mission. During this period the conceptual framework and project design were developed, and the project began implementation.

At the initial briefings at FAO Rome it was realized that the external team recruited for the TCP project was comprised entirely of women consultants, all with previous experience working with PRA and GENDER ANALYSIS methods. This was thought to be the first time that an all-woman project formulation mission was fielded by FAO. The external team, although drawn from various disciplines and from four continents, was already very sensitive to the need to use participatory, gender-responsive approaches. A collegial and productive working relationship quickly emerged among the international and the Sikkimese team members, and a division of field responsibilities was agreed upon.

As little was known about farming systems, gender roles, and development needs in rural Sikkim, it was decided to carry out an assessment of rural conditions related to possible activities in the project. At this time training needs would also be looked into. A strong participatory, gender-responsive approach was adopted to learn about the general socio-economic context, household roles, and environmental conditions related to livestock rearing. The objective of this action-oriented PRA was to describe how goats and chickens are kept in villages in south and east Sikkim and to identify constraints and opportunities in order to plan improvements through TCP activities.

## **Training in PRA and gender analysis for government counterparts**

Shortly after arrival, the international consultants organized an initial orientation followed by a three-day counterpart training course in participatory rural appraisal and gender analysis techniques. The trainees included fourteen GOS staff who later worked closely with the external team members during the village-based PRAs. Extension staff from AHVS, the Forest Department (FD), and community development workers from the Sikkim Rural Development Agency (SRDA) Development of Women and Children in Rural Areas Programme (DWCRA) attended training workshops. The training started by defining the main factors that directly and indirectly affect goat and chicken production in Sikkim (see training graphics reproduced in Annex 4). Key concepts in problem analysis and participatory approaches were introduced, followed by training in participatory field methods. Topics covered in the training included:

- Problem analysis: identifying the factors that affect household livestock production
- Small-scale goat production
- Small-scale poultry production
- Introduction to PRA
- The Sondeo team approach
- Notekeeping and recording findings
- PRA and RRA tools:
  - Village checklists
  - Participatory mapping
  - Gender analysis
  - Gender-differentiated task calendars
  - Rapid appraisal of tenure (RAT)
  - Group and individual interviewing techniques
  - Assessing rural livestock markets
- Using PRA checklists
  - Checklist of information about forests and grazing
  - Checklist of information about land and tree tenure

A few GOS team members had had previous exposure to rapid rural appraisal (RRA) techniques through their assignment to the Indo-Swiss Project-Sikkim during its initial RRA phase. However, most had not, and few had ever heard of participatory approaches and methods. Consequently, strong emphasis was placed during the training on the rationale and justification for participatory and gender-sensitive approaches and methods.

In the days after the formal training, the trainers worked individually with team members to reinforce concepts and techniques. One male AHVS extensionist proved reluctant to accept the gender concepts, preferring to interview only village men about poultry production, and avoiding women. As explained more at length later, the Sondeo approach (using interdisciplinary and mixed-gender teams) aided in overcoming these biases.

### **The participatory village assessments**

After the PRA training workshop, the trainees and consultants were split into two interdisciplinary teams to initiate PRAs in the East and South districts. Each team was guided by a team leader. Slightly different approaches were used by each team. Some conventional RRA techniques were used that are not generally considered to be truly participatory, such as key informant interviews and environmental scoping methods. However, much emphasis was placed by both teams on participatory approaches that would enable outsiders to understand the constraints and possibilities from the perspective of farm and household. Each team used a wide range of PRA and gender analysis tools. Different team members using different tools were able to corroborate or triangulate information through a mutual information sharing process. Key to the success of the PRAs was the adoption and adaptation of the interdisciplinary Sondeo method, which is described below. This method was very useful in integrating lessons about gender analysis through direct interaction between male and female members of the PRA teams. This was especially important for the successful interaction between male and female team members, but more importantly, for interaction between team members and women and girl participants. A summary of the tools used are presented in the table below.

## The PRA/Gender Analysis Framework

Step	Answers the question	Tools used
<b>The context</b>	<i>What is getting better?</i> <i>What is getting worse?</i> in terms of the environmental, economic, social and political patterns that support or constraint development	Document review Factor summary (see Annex 4) Group interviews Village maps Environmental assessment Key informant interviews
<b>Activities</b>	<i>Who does what?</i> in terms of the division of labour for productive and reproductive activities	Gender-differentiated task calendars Group and individual interviews Participant observation
<b>Resources</b>	<i>Who has what?</i> in terms of access to and control over resources and benefits	Document review Rapid appraisal of tenure Group and individual interviews Mapping
<b>Workplan for success</b>	<i>What should be done?</i> in terms of delivering extension services that will be sustainable, effective and equitable	Ranking techniques Consensus-oriented group discussions Sondeo team method Participatory impact monitoring

Efforts were made to work with local officials and village panchayats, and to solicit their interest and involvement in the PRA process. In the East District, the local panchayats and village officers were involved in consensus-building discussions intended to summarize the villages' needs and opportunities, and to identify means of how to address issues that were beyond the scope of the FAO-supported TCP project.

The intensive work done during the PRAs yielded a tremendous amount of new, relevant and important information on farming systems, gender roles and responsibilities, goat and poultry management by rural households, environmental conditions, land tenure and ownership, grazing patterns, and patterns of poverty, risk, and indebtedness.

### PRA sites

The highest human and livestock population densities occur in East and South Sikkim, and so it was decided to concentrate on these districts. There are, of course, many factors influencing agricultural production in Sikkim, but it was agreed that altitude and aspect (the direction that a slope faces) were two of the more important factors. Therefore, PRA sites were selected that covered the range of these characteristics (population densities, altitude, and aspect). It was hoped that the PRAs should help to identify villages that were relatively poorer and with more limited access to services, and where the project might have a potentially greater impact. The



PRA sites - Aritar and Salgari in the East District and Phongla and Pamphok in the South District - are shown on the map in Annex 2.

### **Other training activities**

There was a strong emphasis on various training activities in this project. Some formal training and praxis activities were organized, such as the early training activities in PRA and gender analysis. Later on, training activities in other areas were organized for both GOS staff and participants. GOS staff and extensionists were trained in improved small-scale poultry and goat management in Sikkim. Several staff attended study tour/training workshop in various subjects.

For participants, a series of training activities were conducted by GOS extension staff in poultry management and goat management. Training materials were translated into Nepali for use at the village level. Ongoing monitoring and demonstrations by extension staff helped to re-enforce lessons learned in the training with the participants. In the South District, where the project's goat breeding activities took place, the GDO trained participants in stall feeding, zero-grazing, and worked collaboratively with participants to experiment with different tree and field fodder. Participatory on-farm research with farmers was to be another goal of the project, so that farmers and extensionists could learn from each other about what worked, and why.<sup>2</sup>

Additional training of project staff was done throughout the project's life in other specialized areas. The PLTO was given training in PRA and RRA techniques and in more technical environmental activities, such as compass techniques, surveying, monitoring canopy cover with a spherical densiometer, and rationale and methods for on-farm research.

### **Photo 2: Monitoring Deforestation in Phongla**

Insert PHOTO 3:

## Getting it right: re-orientation of the project

As noted, the project was originally conceptualized by the AHVS to focus only on goat production, with male farmers inherently targeted as beneficiaries. However, the PRAs strongly indicated that a reorientation of the project to more gender-sensitive, participatory, environmentally sustainable and interdisciplinary approaches was needed for several reasons.

First, it was learned that *all household members have important but different roles regarding the ownership and care of goats and chickens*. There was a concern that more and larger goats (through selective breeding) would place an additional burden on the work loads of women and girls. Girls already have a history of withdrawal from school at an early age to tend goat flocks. It was also confirmed in the PRAs that women and girls have a primary role in agricultural production, water transport, and poultry production. Therefore, the project was reoriented to include all household members in the project, and particularly in training activities related to livestock management.

Second, the PRAs suggested that *poultry rearing and egg sales are an important source of income for women, but that poultry productivity could be improved by training and monitoring*. As women and girls are primary owners and caretakers of poultry, male AHVS poultry extensionists were sensitised in working primarily with women. None of the villages were known to have traditional women's groups, except for recently organized groups for the purpose of distribution of DWCRA subsidies. The community development workers and extensionists utilized these groups as a basis for training and outreach, but also included other women and children who learned about the project from neighbors. Strong emphasis was placed on participatory impact monitoring of these activities.

Third, *the availability, source and type of fodder is a major constraint to expanding the size of the goat herd*. The PRAs and subsequent environmental monitoring by the author clearly showed that rapid deforestation at an average of 11-13% per year is occurring in most project villages due to extraction of the forest understory, primarily for grazing and livestock fodder and bedding. Virtually all forest cover would be lost in Salgari and Phongla by the year 2001 if the current extraction rates were unchecked. Expansion of the area under cardamom production is also a contributing cause in wealthier villages. To relieve pressure on adjoining forests, the team (including staff from the Forest Department) proposed that fodder trials be initiated on farmers' fields in Salgari, Phongla and Pamphok on an experimental basis. Stall feeding and zero grazing were also promoted by the project staff. These new participatory and environmental foci had not been anticipated at the onset of the project.

The project also strongly encouraged staff from different Government services to work closely together in an interdisciplinary team approach, given that complex problems in the villages could not be solved by a narrow disciplinary focus, or by single departments working alone. It was also clear that a project focused narrowly on goat breeding and poultry production could not address all of the issues and needs in rural villages that were uncovered during the PRA. Consequently, a system of referrals was developed during the PRAs in the East District so that issues that could

not be addressed in the FAO TCP could be brought to the attention of the appropriate GOS officials for alternative treatment.

Fourth, *the PRAs clearly showed that some villages were much better off than others*. Aritar village emerged as a wealthier village with abundant water and forest resources. The village also had a low percentage of scheduled castes, and many better-off households deriving income from export-oriented cardamom production. A consensus emerged that the project should concentrate its resources on those villages with limited resources, greater isolation, and a high percentage of scheduled caste households. Consequently, Aritar was de-emphasized as a project village, and Salgari, Phongla and Phamphok were more strongly targeted. Participatory impact monitoring was adopted to ensure that project benefits reached the appropriate people and to track project impacts, both negative and positive.

Fifth, the GOS and GOI have long supported a number of programs that distribute free goods (livestock, cement, roofing materials, cash, etc.) to scheduled castes. *The PRAs revealed that a climate of dependence upon government subsidies had developed*. Villagers were sometimes reluctant to take on self-help activities, and had an expectation that the Government should simply provide goods and services without their unremunerated contribution or participation. This attitude was not as strong in poorer and more isolated villages which were not as politically influential and consequently received fewer subsidies. Nevertheless, government subsidies were found by the PRA teams to be a disincentive for local participation. This would have to be overcome by concentrating resources in isolated villages that had had few subsidies, and to help create a spirit of mutual support, pride, and group determination.

### **Participatory impact monitoring**

As noted above, a strong monitoring element was emphasized in this project. Decentralized, participatory monitoring was key to documenting both positive and negative impacts, and to adjusting project implementation. The monitoring did not simply focus on conventional quantitative input-output indicators, such as numbers of participants trained or receiving benefits. In addition, extension staff and external consultants often visited participants' households to encourage and support participants in their project activities, to informally discuss the project and its impacts with participants, and to learn about emerging issues, needs, and opportunities.

Unintended negative consequences, as well as unexpected positive results, were documented. In this way was discovered the great value of the poultry component to village women. Many participants described the importance of the high egg-laying capacity of the RIR hens that were introduced in the project to marginal subsistence-based households (often headed by women). We heard many times that the RIR eggs provided a greatly needed source of income and nutrition on at least a weekly basis. The income, though modest by Western standards, allowed women to avoid borrowing from a local moneylender at high rates of interest. It allowed them to begin investing and saving on a small scale. One woman was able to save and invest enough egg money to build, stock, and run the first small shop in Salgari village.

The income and nutritional benefits contributed to household food security and, most importantly, to the growing self-confidence and management skills of the women participants. The participants also initiated their own self-help activities by lending roosters for breeding, and

giving RIR crossbred chicks to other women. They also shared their new knowledge and skills in poultry management with others (sometimes outside the village at town markets), thus expanding project impacts beyond the original design.

### **Next steps**

As of this writing the TCP project was successfully completed as scheduled in October 1996. The AHVS and SRDA/DWCRA have proposed follow-on projects to continue the successful initiatives of the pilot TCP project. Tentative plans for follow-up projects and activities were developed with the GOS. Unfortunately, funds have not yet been available to refine the project methodology, expand project impacts to new villages, or to initiate additional activities that have been identified as key to resolving problems of resource degradation in Sikkim. Efforts are underway to identify possible donors to sustain the momentum initiated by this small but successful project.

## V. LESSONS LEARNED

### The entry point

This modest FAO TCP project was apparently the first development project in Sikkim to complete the entire cycle of PRA, planning, implementation, and termination. The preliminary stages of project design were undertaken by the FAO lead consultant on an initial fact-finding mission to Sikkim. The consultant recommended that a rapid appraisal be conducted by a team comprised of both GOS and FAO experts. At this time it was realized that the GOS is a hierarchical organization of services and line departments, modeled after the old British colonial structure (as are state governments elsewhere in India). Certain departments, such as forestry, agriculture and animal husbandry, are highly centralized and hierarchical. Policies and programmes are administered in a conventional, top-down manner, and are heavily oriented toward the distribution of free inputs and materials (fertilizers, seeds, livestock, construction materials, etc.) to farmers.

The FAO TCP project in Sikkim introduced an alternative model of development based upon a process of bottom-up planning, decentralization, participation, and sensitization. Although this approach brought some initial resistance from GOS policy makers and department staff, over time it came to be appreciated for its effectiveness and relevance to rural development needs and issues. The main point of friction between these models was the intersection between centrally administered and controlled logistics, and bottom-up requests for supplies, transport, and extension support. A few upper level officials were accustomed to making decisions in a top-down manner, and were reluctant to cede control of the decision making and administrative process. As a result, they did not respond to requests from the field. Field staff and activities did not receive inputs or transport on a timely basis. The field staff were extremely resourceful in dealing with the situation, and often went about their work using their own resources for transport and materials. **From this, we learned that more attention needs to be paid to sensitizing upper level officials who have a decision making role in the project and their staff on the use of PRA, participatory approaches and gender analysis methodologies.**

The project had a farmer-oriented, bottom-up approach from its earliest days. The entry point was therefore capacity building not only of the agricultural and community development staff working at the most grass-roots level, but also of the participants themselves. The focus of participant training was to develop their management and decision making skills, to encourage mutual assistance activities in remote villages, and to encourage women to save and to invest their earnings from poultry production.

The choice of who to train became evident early in the PRAs. Training needs were considered during the PRA training and later during the field PRA exercises. From the outset it was clear that training should focus on extension staff (training of trainers) followed by training of participants. The focus of various training activities was to increase the knowledge and skills of extension and community development staff working directly with rural communities. The intent was to broaden the analytical, problem-solving and interdisciplinary skills of the GOS staff, and to help communities develop interventions in a participatory, gender-sensitive manner.

Opportunities for training outside of Sikkim (Bangalore and Kenya) emerged during the project. Unfortunately, higher-level GOS employees not active in project villages were nominated for these training courses by the NPD. Close vigilance by FAO Delhi helped to ensure that the appropriate persons at the appropriate levels were able to take part in the international training.

As with the Namibia case study, an important lesson was learned that facts from the field are the most powerful tool for convincing technical staff and policy makers that giving attention to gender and participation issues will make their work more effective and successful. If such a project demonstrates that positive outcomes can occur in a rather short period of time (less than two years), both technical staff and policy makers will take notice. They will be less likely to reject the new and unconventional approaches, and be more likely to give them a chance.

#### ***Important lessons learned:***

- *Upper level administrators and policy makers may be reluctant to cede authority and control in participatory projects where impetus is bottom-up. Therefore project design must be flexible and have built-in decentralized mechanisms for supporting field-level staff and for bottom-up activities such as farmers' participatory research.*
- *It is important at the outset to sensitize upper level staff who are involved in project management about participatory approaches, how they work and how they as managers can support them.*
- *Policy makers will more readily embrace bottom-up methods if they are given evidence of success.*

## **Tools and methods**

The team utilized a range of participatory rural assessment tools and methods to maximize project impacts. Some of the most useful are summarized below.

### **1. Gender Analysis Training**

Training in gender analysis was provided by the national WID consultant during the PRA training. The classroom training was supplemented later on by practical in-field training by the other international consultants. It should be noted that the national WID consultant's approach to gender analysis was unfortunately based upon her experience in Rajasthan and Gujarat. An assumption was made that because Sikkim was a state of India, socio-economic and gender relations would be identical to conditions existing in other Indian states. Ergo, there was no need to conduct any PRA or gender analysis activities in Sikkim. There were also significant caste differences between the national WID consultant (an Indian Brahmin) and the participants (Nepali minority and scheduled castes), so that the consultant was reluctant to enter into direct discussions at the village level with lower-caste participants, and in one case, with a low-caste AHVS extension agent. The consultant was also in poor physical condition and was not able to walk to remote sites without assistance.

The national WID consultant's attitude was immediately challenged by the GOS field staff who were sensitive to differences not only in gender, but to caste, religion, and other socioeconomic differences. This experience was repeated when the national fodder consultant visited Sikkim. As noted by one PRA team member, there should be "caste no bar, race no bar, gender no bar"

when doing PRAs. These different-world views in fact resulted in a surprisingly positive outcome -- both male and female GOS staff quickly developed a heightened sense of *difference* not only between Indians from different states, but also of differences based upon gender, age, caste, economic and social background, and rights of access.

The national WID consultant withdrew from further work with the team. The gender analysis training and gender analysis field work was split between other members of the team, primarily the remaining international consultants and the PLTO. Gender analysis training and field work in the Sikkim project then evolved in an iterative way to include the following:

- rationale for looking at differences
- types of differences (especially in the Indian context)
- implications for development
- tools and techniques for looking at gender differences at the panchayat level
- coming full circle -- what to do about gender differences found during the PRAs
- bringing such differences to the attention of GOS staff and policy makers

***Important lessons learned:***

- ***National consultants should be screened for commitment and willingness to interact directly with participants at the village level regardless of their own background and caste;***
- ***PRA team members must be in good physical condition to undergo the hardships and rigors of field-based PRAs.***

A number of tools useful for analysis of difference were introduced during the PRA training, including gender-differentiated seasonal task calendars and rapid appraisal of tenure (RAT). Additional training, role playing and field practice were organized to give trainees first hand experience in real-life settings just prior to the actual PRAs. During the PRAs, the team leaders monitored use of these tools, and re-enforced the training and methods. The gender and age-differentiated seasonal task calendars were key to documenting roles and responsibilities by age and gender in the project villages, and in helping to identify needs and constraints related to labour. The gender and age- differentiated seasonal task calendar methodology is described in Section 5 below.

## **2. GA/PRA for field-level training in gender-sensitive approaches to agricultural extension**

The agriculture extension and community development trainees demonstrated that they had learned a great deal from applying the PRA and gender analysis techniques to field research. The trainees showed a greater depth and breadth of understanding of rural farming systems, and became much more knowledgeable over time about which sub-group to target. For example, extension workers realized that a demonstration about growing fodder grasses would be best targeted to elderly men and young girls, as they were most involved in several villages in collecting and growing fodder for goats.

Combining the gender analysis activities with other PRA activities proved in this case to be a very powerful tool for learning about and documenting gender issues in agriculture in Sikkim. Both the AHVS livestock extension and the DWCRA community development workers learned

from each other as well as from participants, and formed a more holistic understanding about farming systems in different villages. The AHVS extension staff in particular began to change their own patterns of visits, shifting from contacting only adult males to contacting women and children as well.

### **3. PRA to support macro-level policy analysis and formulation**

The original project design did not envision PRA as a means of supporting macro-level policy analysis and formulation. However, it may be said that the great utility of gender-responsive and participatory methods in this project was brought to the attention of policy makers and senior staff in at least three departments (Animal Husbandry and Veterinary Services, Forest Department, RDD). This occurred not only in large, inter-departmental meetings but also in smaller meetings with high-level officials, where the methods and findings were discussed in more detail.

The bottom-up, gender-sensitive approach used in the TCP project seemed to dovetail with the thinking of at least several policy makers, who strongly agreed with the scope and methods of the project. This is perhaps because a new generation of policy makers has very recently come into place, including the new heads of AHVS and of the GOS Planning Department. Several of these policy makers could be viewed as allies and supporters, and it would be worthwhile to foster a continued supportive relationship with them through field visits, departmental publications and brochures about how the project was organized, and through follow-up brainstorming sessions.

#### ***Important lessons learned:***

- *seek out supportive policy makers to identify ways of supporting and expanding such approaches and methods, and*
- *share information at the policy level about what worked, and why.*

### **4. Modified Sondeo Team Approach**

The East District PRA team used the *Sondeo approach* to encourage cross-disciplinary assessment of a situation, to corroborate and triangulate results, and to pair less-experienced team members with colleagues having more PRA experience. The Sondeo approach<sup>3</sup> has long been used, modified and adopted by many RRA and PRA practitioners. In this instance, the east PRA team using the Sondeo method was comprised of a veterinarian, two livestock extensionists, two community development workers, the national WID specialist, and a community forester cum team leader.

The Sondeo approach proved to be a flexible and appropriate method for organizing PRA activities. Each day, each team member was paired with another team mate from a different discipline, so that three two-person interdisciplinary teams would work on different PRA activities in the village. An important modification of the Sondeo method was to mix the gender of team members as much as possible, so that male and female team members were paired as much as possible during field work. In this way, maximum diversity and interdisciplinary exchange could be gained between team members.



The team leader “floated” between teams as needed, and also reinforced PRA concepts learned in the PRA training. Each day the pairings changed. Several team members had no previous PRA experience, and were therefore paired with a more experienced colleague, but from a discipline different than his or her own. Team members learned from each other, and broadened their own understanding of local farming systems in a way that extended beyond their own disciplinary background and boundaries.

At the end of each day a team debriefing was held, lasting about one hour. Each two-person team shared their findings with the group, enabling others to interact and to share common points. **The most important “lessons learned” of the day would be summarized. The team leader served as secretary, recording important points.** In this way emerging issues could be discussed, and a consensus reached about needs and opportunities in the villages. These would then be probed in more detail during successive PRA activities. Towards the end of each assessment, group meetings with villagers, the panchayat members, and the team took place. These meetings were held in the evening after villagers had completed the day’s tasks, generally after the evening meal. During these meetings the PRA findings would be summarized, and a consensus reached on:

- The main needs and opportunities in the village;
- Whether the issue was an appropriate one to address directly in the TCP project; (and if not, what type of referral would be needed to an appropriate GOS department);
- Possible options (e.g. what could be done) and who should have responsibility for taking action;
- Defining resource needs to take the appropriate action;
- Agreeing on next steps.

An example of the summary chart that was prepared at these group meetings is given in Annex 6 (Needs and Opportunities in Salghari Village).

The Sondeo approach also helped to reinforce lessons learned during the gender analysis and PRA training. For example, it was learned after the first day of field work that one male team member (an AHVS extensionist) had met only with adult men about household poultry-rearing practices, even though women and children had primary responsibility for poultry. The evening team debriefing provided an opportunity to discover, understand and address the problem. Additional sensitization was improvised by the team leader to reinforce basic gender analysis concepts. On successive days the reluctant male team member was paired with the team leader or experienced female community development workers. By the end of the PRA in the first village the extensionist had come to genuinely appreciate the need and rationale for gender analysis and PRA.

*An important lessons learned is that this tool helped to encourage the breaking down of disciplinary boundaries and build consensus among the team, participants, and panchayat members about prioritizing problems and responses.*

## **5. Gender and Age-Differentiated Seasonal Task Calendars**

This tool was introduced during the PRA training, and was applied during the actual PRAs. Development workers have devised a number of frameworks for learning about seasonality in rural farming systems. There are also several methods for preparing labour calendars that can document who does what, and during what season. The gender and age differentiated task calendar (Eckman Rev. 1994; Eckman 1996; Eckman 1996), or simply "*task calendar*," combines both the gender and relative age or life stage (child, adult, elderly) of individual household members to learn about who does what, and when they do it.

The task calendar is divided into sections that can describe different areas of work commonly undertaken by rural households in developing countries (e.g. crop production, post-harvest activities, livestock tending, water and fuelwood collection, domestic tasks). It also contains sections on major food security and income cycles. The task calendar enables the presentation of considerable detail covering many aspects of household, farm and off-farm labour in graph form using simple symbols. An example of this type of gender-differentiated tool is included in Annex 5.

The task calendars were useful for demonstrating to AHVS staff and policy makers the significant roles of women and children (not just male "heads of households") in managing goats and poultry. They documented and described patterns of labour for livestock watering, fodder cutting and carrying, herding in public and private forests, periods of fodder scarcity, and periods of labour constraints (particularly when girls are withdrawn from school for farm work). The tool was also extremely useful for learning about survival strategies during times of hardship, periods of food insecurity and water scarcity, and cycles of indebtedness and migration. *Learning to make the task calendars was an important skill learned in the Sikkim TCP project. These were key to documenting who does what in livestock management and in other agricultural activities.*

## 6. Participatory Impact Monitoring

Monitoring is a frequently overlooked and under used tool in many development projects (Eckman 1994). The Sikkim TCP project encouraged frequent informal and participatory monitoring visits by project staff and FAO consultants. Close monitoring enabled the staff and consultants to track both positive and negative trends, and to become aware of emerging issues. Perhaps more importantly, it demonstrated to the participants that the staff were genuinely concerned with and interested in their progress, and were committed to supporting them in their efforts.

GOS extension staff and community development workers visited the project villages often to provide training and inputs, and to monitor progress. Visits of the three international consultants were spaced out over the two-year period so as to ensure a visit every three to four months. Even in a four month period much change could be seen. By the time of the last visit (January 1997), considerable progress had been made since the previous visit in September 1996. One participant had been able to save and invest her egg money, and by January 1997 had constructed and stocked her own store -- the first shop to ever exist in Salgari panchayat.

An important feature of participatory impact monitoring is its emphasis on emerging issues that the *participants* view as significant. As such, it has a strongly qualitative tone. There is little emphasis on purely quantitative indicators of achievement, such as reaching a numeric target of 10,000 trees planted or 5000 pullets distributed. Such quantitative measures are necessary for many administrative purposes, but are not sufficient for understanding impacts of the project on household incomes or food security. Quantitative indicators tell nothing about who owns the trees, who maintains them or who will eventually benefit from them. Rather, in participatory impact monitoring the emphasis is on *who benefits, and in what way*.

Frequent participatory monitoring revealed that many other, less obvious and subjective positive outcomes had occurred: participants no longer had to go to a moneylender and go into debt at high interest rates in order to borrow small amounts of money. Participants no longer skipped a meal or cut back on portions because of food insecurity -- rather they simply sold a few dozen eggs in order to buy food or medicine. It became clear that the project had profoundly changed women's lives to make them more self-confident in their abilities. Participation in the project's training activities had formed new bonds between women who began to collaborate with their neighbors in aspects of poultry management and in labour exchange. For some women, the training given in poultry management by the extension staff was the only education that they had ever received in their lifetimes.

*An important lesson learned is that participatory monitoring can detect positive and negative outcomes for rural women and girls that were not necessarily part of the original project goals and objectives.* Such positive outcomes would have gone undetected, and FAO and AHVS would have been unaware of such progress, had participatory impact monitoring not been used.

## **Gender information**

The PRAs undertaken in Sikkim were highly successful in documenting roles and responsibilities in agriculture and livestock management in terms of *who does what, and when they do it*. The PRAs constituted the first such research known to have been done in the East and South Districts, and therefore contributed greatly to the knowledge and information base about farming systems, gender and age-based roles, land and resource tenure systems, seasonal cycles of poverty and survival, and environmental condition and trends (such as deforestation rates) in rural Sikkim.

The main gender related-findings are roughly summarized below. As the project focus was goat and poultry management, the most detailed findings relate to gender roles associated with livestock management.

- *Every village is different in its labour/gender patterns.* Labour constraints differ from one village to another, and probably depend upon household size and composition, holding size, the basic natural resource endowment of the village (e.g. proximity of water sources, fodder sources, agricultural fields, etc.), and cropping system. It was found that in some cases the size of the goat flock is limited by water and feed/fodder availability, which in turn affects labour availability -- i.e. who does what.

The sexual division of labour for both agricultural and domestic tasks varies greatly by village and by ethnic group, and it is difficult to make generalizations about the roles of men, women and children that apply universally to all villages. However, it is clear that all household members are heavily involved in agriculture and subsistence tasks, and that all contribute long hours each day to the household economy. Most households have serious labour constraints. The following overall patterns *tend* to prevail, although with variations:

- Men tend to care for livestock that are of larger size (goats, cattle, oxen), although women and children are also involved in livestock management.
  - Women are primarily responsible for tending poultry (see below).
  - Men and women are involved in agricultural production on a relatively equal basis, but the involvement of children in agriculture varies by village and by ethnic group.
  - Women are primarily responsible for hauling water, including water for stalled animals.
  - Women cook, do childcare, and other household tasks, although men cook for large groups, and all household members may share in domestic tasks.
  - All household members are involved in cleaning and washing.
- *With regard to goat rearing, all household members are involved* in various tasks such as cutting and carrying fodder, grazing, kidding, watering, and decisionmaking about slaughter and marketing. Again, these responsibilities vary by village and by ethnic group and from family to family, but also by season. Therefore, it is not possible to say that any one household member assumes primary responsibility for goat rearing in any of the villages surveyed. Goat rearing appears to be very much of a family endeavor, with all family members contributing at least some labour to flock management.
- *With regard to poultry rearing, women and girls have primary responsibility for management.* Women tend to have responsibility for flock management and rearing, although all household members may join in some tasks (such as housing construction, decision making, marketing, etc.).
- Perhaps the most important gender disparity uncovered during the PRAs is *that girls are often withdrawn from school after two or three years to work full-time in agricultural and subsistence tasks*. Of these tasks, fodder collection appears to take a considerable share of time. Girls are withdrawn from school but boys are not, and although participants expressed the need and desire to educate children, preference for schooling was given to boy children. This pattern held throughout both the East and South Districts.
- *The few village-based extension activities undertaken by AHVS in Sikkim have benefited mostly men.* For example, of 53 farmers participating in farmers' field days since 1988, only two or three were women. The selection process for participation in such events is organized by AHVS in collaboration with the local panchayats. Only a share of total farmers (e.g. male farmers) were invited to participate in extension activities. More work needs to be done to encourage the participation of women and girls at the panchayat level, as well as within the AHVS.

## Capacity building

### 1. Building field-level capacity within the Government of Sikkim

A key finding of the PRAs was the complete absence of extension services in the project villages that cuts across all concerned GOS departments (e.g. AHVS, FD, Agriculture). Only the Rural Development Department has a strong presence in even the most remote rural areas, with its cadre of trained community development workers. It was this lack of AHVS extension presence and veterinary support in the villages that most concerned the project. AHVS staff wait for villagers to bring sick animals to them, rather than teaching preventive management at the village level. Few veterinary officers have any understanding of or training in extension. None had prior exposure to participatory methods or gender analysis, or any training in the socioeconomic aspects of rural development. Only a few had had a university-level education, or had traveled out of Sikkim. At the same time, villagers have no information or knowledge about livestock disease treatment, and lack sound information about poultry management.

Therefore, the project sought to develop appropriate extension messages and materials about village-based goat and chicken rearing, and to train participants at the village level in livestock management. More importantly, the project sought to reorient and train AHVS veterinary staff in decentralized village-based animal health care and preventative work. By participating in the PRA training and PRA field work, AHVS field staff and staff from the Forest Department and Rural Development Department gained practical, hands-on experience about participatory rural assessments, working with farmers in prioritizing and problem-solving, and gender analysis. Emphasis was also placed on linking field extension workers from different services with each other to share information and knowledge, to avoid duplication, and to possibly foster some field-based collaborative efforts at the village level.

Steps in the process of building field-level capacity:	The main outputs of this process are:
<ul style="list-style-type: none"><li>• PRA/Gender analysis training</li><li>• PRA field work</li><li>• Training at Bangalore, India in poultry management</li><li>• Training in Kenya and Ethiopia in PRA, extension approaches, and soil conservation</li><li>• Inter-departmental working groups at the District level</li><li>• Study tour to Nepal to learn about participatory on-farm research (proposed)</li></ul>	<ul style="list-style-type: none"><li>• A small group of AHVS livestock extensionists and staff from FD and RDD have learned how to work together with farmers to identify the constraints of women, men, and children, and to identify their activities, resources, and priorities for extension.</li><li>• Extension outreach to women and men participants in four project villages has greatly improved.</li><li>• At least two key project staff are now qualified and prepared to train other colleagues in this same approach.</li><li>• Key policy makers from at least five departments (AHVS, Agriculture, Planning, FD and RDD) are now aware of the approach and its impacts at the village level.</li></ul>

### 2. Sensitization of Policy makers

Sharing the findings from the PRAs with senior staff from AHVS and other departments had an important impact on GOS policy and programmes. Project staff and consultants constantly raised issues of gender roles (*who does what* with regard to goat and chicken production), problems with deforestation associated with goat keeping, and appropriate targeting (poorer rather than better-off or more politically important households and villages). In this way we were able to convince the AHVS management of the need for broadening the scope, targeting and disciplinary boundaries of the project.

It should be noted that many AHVS staff were reluctant to accept such unconventional approaches as PRA, gender analysis, and rapid appraisal of tenure, given their classical education. Indeed, a few senior staff probably never fully accepted the concepts. However, the majority of AHVS field staff came to adopt participatory, gender-sensitive approaches. They were joined by colleagues in the Forest Department and the Rural Development Department, who entered into fascinating dialogues in the interdepartmental workshops about why the services should change traditional programming and policies. The project clearly had an impact on raising the awareness of bottom-up planning and gender roles, and enabled some staff members who already had some sensitivity to express their views and to encourage their more reluctant colleagues.

The project also received verbal support from a newer generation of managers, appointed rather late in the project time frame to policy positions within AHVS. These individuals had moved up through the ranks, and had years of field experience as village-based extensionists. Several had themselves been raised on a small rural farm. Through their own personal and professional experience, they understood the gender division of labour existing in rural Sikkim. They expressed immediate support and confirmation of the gender and participatory approaches emphasized in the project during workshops and in other staff meetings.

### **3. Horizontal capacity building**

The GOS is the main institution carrying out agricultural and rural development activities in Sikkim. There are no universities or other educational organizations in the state, and accordingly there are few opportunities to build in-country capacity with educational or research institutions. The Indian Council of Agricultural Research facility at Gangtok has some limited research in agro-forestry, and contacts already exist between ICAR and FD. Only one NGO exists, a World Wildlife Fund for Nature sub-office that was recently established to monitor biological diversity of wildlife in the Himalayas. This organization was contacted and a mutual interest in conservation education materials was shared.

The GOS staff at all levels have been isolated from the global development community, and have little or no access to development literature, international conferences and fora, publications, the internet, gender and participatory networks and associations, or other means of international communication. For this reason study tours to India, Kenya, Ethiopia and Nepal were viewed as a means of fostering contacts between Sikkimese extension staff with a diverse group of development organizations and professionals. Horizontal capacity building, therefore, has been encouraged across government services and departments, as well as internationally.

## **Linkages**

The project also encouraged inter-departmental collaboration and cross-fertilization. GOS departments had little formal contact with each other even though many staff members knew each other on a social basis, and many were former classmates. The hierarchical nature of the GOS bureaucracy did not encourage collaboration or sharing of information across departments and disciplines. The project drew together, for the first time, GOS staff from at least three departments (AHVS, FD, RDD/DWCRA), and fostered collaboration at the senior, middle management and field extension levels. There are indications that such informal interdisciplinary and interdepartmental collaboration will continue in the future on other issues as well.

## **Institutionalization**

The Namibia case study demonstrated that official policy can create a more enabling environment for gender-responsive, participatory approaches to agricultural development in the field. The experience to date in Sikkim is rather the inverse: that lessons from the field have filtered upward toward policy makers. There is as yet no major or formal policy impetus to create a mandate for extension services to target women and female heads of households. Nevertheless, the TCP project clearly demonstrated the need for reorientation of extension services in several departments (AHVS, Agriculture, FD) to become much more gender-responsive, decentralized and participatory. The project brought participatory and gender issues to the direct attention of senior policy makers in the departments of AHVS, Agriculture, FD, RDD and Planning. There was unexpectedly strong support from the new directors of AHVS and Planning. An opportunity now exists to initiate such institutionalization of gender-sensitive policies and programmes where one did not exist before. Absence of funding to continue and expand project activities, however, remains a critical issue.

## VI. CONCLUSIONS

Despite administrative and logistical problems, this small, pilot project to promote livestock production had many positive outcomes at multiple levels that could not have been anticipated at its outset. Even modest pilot projects such as this can have policy and program impacts that extend beyond the original project scope. In this case, the project was able to constructively introduce many important development concepts (e.g. the importance of considering gender, fostering local participation, on-farm participatory research). The project also introduced applied new interdisciplinary research methods in Sikkim (e.g. PRAs, gender analysis and gender-differentiated seasonal task calendars, rapid appraisal of tenure, participatory impact monitoring, Sondeo teams). Finally, the project introduced key higher-level staff at the policy level to the concepts of participation and gender, and garnered their support and interest by positively demonstrating that such approaches bring successful results.

Based on the experience in Sikkim, the following advice is offered to others who are interested in fostering participatory, gender-responsive processes and programmes:

- ***Don't underestimate the importance of re-iterative, practical, field-based training in PRA and gender analysis.*** Start with a training needs assessment. Team role-playing with various tools is a good way to develop PRA skills before actually starting field work. Trainers should be aware of any caste or socioeconomic conflicts among team members or with participants. Trainers should also informally test the trainees' new skills in a constructive, non-confrontational manner to ensure the quality of research. An experienced trainer/researcher should accompany an inexperienced team to the field to guide, assist, and re-enforce skills and messages learned in the training.
- ***Allow plenty of time for training and to do the PRAs,*** and plan for adequate support for the PRA team while in the field (transport, food, drinking water, overnight accommodations, and time to rest).
- ***Promote interdisciplinary learning and documentation in the field by using such PRA/gender analysis tools as the Sondeo team approach, rapid appraisal of tenure, and gender-differentiated task calendars.*** These tested and practical techniques are flexible and useful in a wide variety of cultures and countries.
- ***Avoid top-down, hastily planned activities, and quick technical fixes.*** It is sometimes better to resist the pressure to "do something" and do nothing until you are reasonably certain that a proposed activity will ***do no harm***. Assessment of rural development issues and finding workable solutions at the village level takes time. Technical quick fixes are sometimes seized upon in haste to address complex social problems, but they are rarely sustainable (Eckman 1996).
- ***Plan any project interventions with those who will be directly impacted by them --*** use participatory planning methods to maximize sustainable, successful outcomes. Most successful projects are "owned" by the participants themselves.



- *Include participatory impact monitoring in your project design. This is key to understanding and documenting both the positive and negative impacts of a project.* Frequent, informal monitoring should include non-quantitative measures as well as quantitative indicators, based upon the participants' own measures of success or failure.
- *Thoroughly research and understand basic differences in access to natural resources (for example, by gender, age, caste or clan) in any agricultural development project.* Try to understand any traditional, customary, or spiritual uses or taboos concerning the resource, especially water resources (Eckman 1996). Identify the various resource user groups, and potential areas of cooperation, competition or conflict over the resource. Rapid appraisal of tenure is a good resource for learning about differences in rights of access.
- *Create opportunities to share field-based knowledge with senior level staff and policy makers.* Give practical examples from the field where PRA and gender analysis techniques have uncovered new information, and have contributed to the successful adoption of agricultural technologies or methods.

## ANNEXES

### Annex 1: Summary Agricultural And Economic Statistics For Sikkim

#### Historical and ecological factors

Political status: Sikkim was an independent kingdom until its annexation by India in 1975.

Climate:

- East District: Monsoonal rainfall supporting a diversity of rainfed crop/livestock and horticultural systems. West and north-facing slopes are cooler and wetter; south and east facing slopes are drier and hotter. Cropping systems are highly dependent on aspect, slope, and rainfall.
- South District: As above.
- West District: As above, but higher in altitude.
- North District: Alpine; cultivation not possible. High altitude yak pastures.

Vegetation: tropical to alpine

Rainfall (mm): 1250-5000

Altitude: 300 to 8500 meters above sea level

Deforestation rate in TCP project villages: 11 to 13% per annum

#### Demography and livelihoods

Surface area: 7,096 km<sup>2</sup>

% of land area under cultivation: 11%

Number of villages: 447

Number of towns with >2000 population: 8

Population: 405,505 (1991)

Population density: 57

Average household size: 6.5

Acres/person in TCP project villages: 1.1

% female headed households: information not available

% of scheduled castes and minority tribes: 22

% nomadic households: 7%

Population growth rate: 27.57% (1991)

Literacy rate (%):

Male: 54; Female: 38; Total: 43

Women as % of total workforce: 33%

Women as % of subsistence labour force: 78

Land Use (%): forest: 36; agriculture: 15; pasture: 10; barren land: 25; cultivable wasteland: 13

#### Agriculture:

Main imports: Rice, wheat, vegetables, oils,

Food exports: Cardamom; ginger; oranges; potatoes; apples; tea

% of workforce in subsistence agriculture: 65%

Male: information not available

Female: information not available

% female agricultural extension staff: information not available

#### Commercial agriculture:

Main activities: subsistence rain fed mixed cropping (primarily terraced) and livestock production

% contribution to GDP: 80%

% irrigated land: 14%

Average land holding: 1.95 hectares

Annual per capita income from farming: information not available

## Annex 3: Project Profile And Linkages

TCP/IND/4451(A)

Development of Small-Scale Livestock Activities - Sikkim

**Timeframe:** October 1994 - October 1996

**Budget:** US \$ 100,000

**Counterpart institution:** Animal Husbandry and Veterinary Services, GOS

### Expected outputs:

- Improved livestock management practices by small farmers in the East and South Districts, resulting in increased incomes;
- Improved skills and outreach of GOS AHVS extension staff.

### Main Activities:

- Trained GOS staff in PRA and GA;
- Trained GOS staff internationally in goat and poultry production, as well as in land use and extension techniques;
- Documented and analyzed livestock production systems, farming systems, seasonality, and gender roles in South and East Sikkim;
- Initiated a goat cross-breeding programme;
- Introduced conservation techniques for livestock systems (staff-feeding, zero-grazing, on-farm fodder production);
- Took preliminary steps toward participatory research on farmers' holdings on field and tree fodders to reduce deforestation;
- Trained participants (the majority being women and girls) in livestock management and in keeping records of their expenses and earnings.

### Key Accomplishments:

- Introduction of GA and *applied* PRA methods in Sikkim;
- PRA and Gas yielded considerable new knowledge about constraints facing the rural poor, and especially women and girls;
- Undertook preliminary environmental assessments in South and East Sikkim into forest dependence, land tenure, land use, and the impacts of heavy dependence on forest fodders on Sikkim's vulnerable mountain ecosystems;
- Made preliminary steps to reorient the extension approach of AHVS, FD and RDD towards participatory, gender-sensitive community-based development;
- Raised awareness among GOS staff about the benefits of gender-sensitive participative impact monitoring to understand project impacts (e.g. effects on incomes; labour burdens, health and nutritional benefits, gender and age of participants) - in other words, *who benefited and how*;
- Raised awareness among GOS staff at both the district and senior policy levels of the need for improved institutional linkages and coordination, and the need to improve delivery of extension services and messages;
- As girls are traditionally withheld from school for agricultural tasks, many participants are functionally illiterate. Some indicated that the training received in the TCP project was the only opportunity for education that they had ever had in their lifetimes. The training increased their knowledge, abilities, and self-confidence. The training also fostered considerable mutual cooperation and interaction among the participants;
- Increased incomes, productivity and food security from the introduction of improved breeds of goats and poultry, and from improved management. Egg production increased by 200%. Increased incomes from selling eggs had a significant impact in terms of poverty alleviation by easing household cash shortages, reducing dependence on moneylenders, providing an alternate source of income to casual daily manual labour (such as working on a road crew), and contributing to the ability of women to purchase food and medicine for their children.

## **Annex 6: Example Of Summary Table Of Constraints For A Sikkimese Village**

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## ENDNOTES

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1. The Indo-Swiss Project Sikkim (ISPS) conducted a rapid rural assessment in the West District in 1994-1995 with a view to initiating dairy, cheese making and horticultural activities. While this project continues to exist, it has undergone a protracted period of planning and redesign, and has not yet implemented many activities.

<sup>2</sup> Unfortunately, this activity did not materialize, as the national consultant recruited at a later date did not understand participatory methods, and conducted all fodder trials on a research plot under controlled conditions.

<sup>3</sup> Hildebrand, Peter E. Combining Disciplines in Rapid Appraisal: The Sondeo Approach. *Agricultural Administration* 8 (1981) 423-432.



## **A.5. Gender Issues in the MRC – GTZ Sustainable Management of Resources in the Lower Mekong River Basin Project by Rita Gebert (1997)**

Rita Gebert conducted this case study as part of her consultancy mission in April 1997 for the MRC-GTZ "Sustainable Management of Resources in the Lower Mekong River Basin (SMRLMB) Project". The aim of the project was to develop and test participatory concepts and approaches in sustainable natural resource management, appropriate to the socio-economic conditions of the Lower Mekong Basin. The purpose of her mission was to gain insight into the gender-specific roles and tasks of the M'ngong ethnic minority in natural resource management, in Lak District, Vietnam. This would assist in further project planning and interventions.

The methodology used for the assessment was RRA-style interviews with key informants – formal and traditional leaders and the women and men in five of seven target villages in Dak Phoi Commune. Interviews were conducted with small groups, couples or individuals and included both better off and poorer households. The researcher also participated in a project-organized PRA exercise in one village. All of the information gathered was qualitative in nature.

The focus of this summary is the gender situation analysis, where the author presented most of her findings. Local districts in Lak District were analyzed with respect to the gender composition of local institutions and the interaction of government officials with villagers. The author determined that there were only three women in management positions within the District departments and very few female technical staff and staff at the commune level. The author felt that the district agencies seemed to feel that their role was to pass on information and enforce the policies/rules of the government. Due to a lack of staff and vehicles, government agencies depended on village and commune leaders to implement government programs. When government officers did come to villages they usually met with commune leaders, village headmen and sometimes the heads of households, by which they meant men, whereas among the M'ngong, women actually make up 15 % of household heads due to their strong decision-making role within the household. However, government officials falsely believed that women learned about new government programs etc. from the men in their households. Many M'ngong women and men said that the government officials' habit of contacting only men to introduce "modern" agriculture was undermining women's decision-making role.

In the area of the study the M'ngong were the most numerous ethnic minority but also the poorest. They practiced upland, swidden agriculture. Generally each family only used one upland plot per agricultural season, sowing it with rice, maize and vegetables. Usually a plot was only used for one season and then left to fallow for up to twenty years depending on individual households' ownership. However, many factors such as relocation were causing a reduction in fallow eg. some villages had fallows of only five to seven years (Refer to Box 2 on page 11 for a discussion of the shortening fallow periods). M'ngong men and women integrated their labour for almost all agricultural activities. Exchange labour between families in the uplands plots was also very common. It was evident however, that women worked longer hours than men and by their own accounts had almost no leisure time. Table 1 on page 8 presents the task allocations for men and women in agricultural operations in the upland plot.

The shortening fallow periods were a source of concern for villagers, in particular women. For women, clearing land is the busiest time of the year in the swidden cycle. Therefore, women faced increased workloads as a result of having to clear bamboo forest and many smaller sized plants as opposed to secondary forest with few large trees. Other disadvantages of the reduced fallow periods were the increased weed pressure and the lower amounts of wood available for firewood, because bamboo is rarely used as firewood.

Most families also had a homestead planted with paddy, coffee and also owned a small number of livestock. Women were responsible for the care of small livestock, vegetable production, collecting

vegetables from the forest and for the majority of work in paddy production. Women were also responsible for household-related tasks, namely firewood collection, fetching water and pounding rice. The researcher found that of all tasks, agricultural or otherwise, women named firewood collection and rice pounding as the most difficult. Women generally went to the forest three to four times a week to collect firewood and some walked as far as five kilometers. Apart from this, all household tasks except for minor childcare, basket/implement making, house construction and the collection of timber were the responsibilities of women.

Traditional land tenure among the M'nong is matrilineal. Traditionally, therefore, women have had a strong role eg. final say, regarding decisions concerning land. However, the modern land titling process may have an impact on women's land ownership rights, as only one name per land use certificate is issued and as already discussed government officials invariably contact "male household heads". Refer to Box 1 on page 9 for a discussion of the land titling issue.

Cash cropping was a recent addition to the M'nong livelihoods with corn, rice, bananas, beans and vegetables being grown. However, barter was still more common than cash as a means of exchange for crops. Large livestock sales were the M'nong's traditional source of cash. It seems that women and men had equal say with regards to purchase and sale of large livestock. Another source of cash was wage labour, although not major. In Dak Phoi Commune women and men hired out their services almost equally. Better off families also hired out their labour during the agricultural off-season indicating that there were few sources of cash income available. The M'nong's experience with formal credit was limited. However, in the Dak Phio Commune, of the 140 borrowers, none were women. Table 2 on page 14 illustrates various sources of cash income for women and men.

### Food For Thought

This study is the result of a short research process (one month) primarily using RRA tools. Therefore, there is scope for continued and more detailed analysis of gender issues in the M'nong communities. This is the focus of the discussion questions.

### Discussion Questions

- (1) Using a gender analysis framework eg. the DFID framework, analyze the gender dynamics presented in this case. Are there gaps in your analysis?
- (2) What tools/approaches could be used to gain a more holistic understanding of the gender dynamics of the M'nong, fill gaps in analysis and triangulate information?

**GENDER ISSUES IN THE MRC – GTZ SUSTAINABLE  
MANAGEMENT OF RESOURCES IN THE LOWER MEKONG  
RIVER BASIN PROJECT**

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**DAK LAK PROVINCE, VIETNAM**

**Short-term Mission Report**

by

**Rita Gebert**

June 1997

**On behalf of:**

**Deutsche Gesellschaft für**

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## 1. Introduction and Background

The MRC - GTZ project, "Sustainable Management of Resources in the Lower Mekong Basin," (SMRLMB Project) is a relatively new regional project involving the Mekong Basin states of Vietnam, Laos, Cambodia and Thailand. Responsibility for implementation in Vietnam lies with the Department of Forestry within the Ministry of Agriculture and Rural Development. The project's primary purpose is to contribute to the development and testing of participatory concepts and approaches in sustainable natural resources management which are appropriate for the varying socio-economic conditions of the Lower Mekong Basin. To these ends in Vietnam, the project in consultation with all relevant organizations has selected a pilot site in Lak District in the province of Dak Lak. Dak Lak is located in the Central Highlands and as such, a number of its rivers are tributaries of the Mekong.

Participatory approaches to sustainable natural resources management are an absolute necessity. However, when project planners speak of "the people" who are involved in managing their resources, it is all too often the case that the planners are referring to "men." The crucial role of women in natural resources management and conversely how women are differently affected than men by the same environmental conditions and/or policies is not as easily recognized. Therefore, the original project planners have put this project into the "Frauen-Risiko" ("Risk for Women") category in their funding offer to the German Ministry for Economic Co-operation. The amount of information available with regard to the position and role of women in the proposed project areas and how they might be involved in/affected by project interventions was too little to say that the project could have a positive effect on the lives of women.

This report, based on a consultancy mission which took place in April 1997, is part of what should be an ongoing process needed to be taken by the project in order to gain more insights into the gender-specific roles and tasks of the M'Nong ethnic minority in natural resources management. The M'Nong are the dominant ethnic minority in Lak District. Despite their numerical dominance, however, they are undoubtedly the poorest ethnic group in the district. As will be seen, gender roles and tasks are by no means static and have already been much affected by the aftermath of war, environmental degradation and government policies.

The information upon which this report is based is, for the most part, the product of "RRA-style" interviews with key informants - formal and traditional leaders - and the women and men in five of seven target villages in Dak Phoi Commune (Lieng Ke, Du Mah, T'long A and B, Buon Nam and Bu Yuk). For the most part, the interviews were informally conducted with small groups, couples or individuals. In each village we made a point of meeting people from better off and poorer households. I also had the opportunity to visit briefly the more distant Krong No Commune and to participate in a project-organised PRA exercise in one village (Ba Yang). Additionally, I had the opportunity to discuss issues related to gender and participation with project and various government staff, and commune officials.

It must be stressed that this report is based on qualitative rather than quantitative information, and aims to give the project an overview of gender issues in Lak District which may be used for further project planning and interventions. It must also be stressed that while I have learned much from project and district staff, from commune and village leaders and from numerous villagers, the views expressed in this report are my own, and do not necessarily reflect those of the project and/or its counterparts.

## 2. A Note on Gender:

There are many misconceptions as to what the word, "gender" actually means. It is often associated with "women," and activities related to "women and development." **In fact, gender like age, ethnicity, class and caste, is a social variable.** It refers to the *learned* social differences between women and men which are changeable over time, and which vary both geographically and culturally. Gender does not refer to the biological differences between women and men. When we talk about gender roles and tasks in the household, for example, we want to know about what *both* women and men in the household are doing, and what sort of obligations, rights and benefits - or lack thereof - they have in the household, community

and political-legal system. While it often seems that "gender" focuses our attention on women, this is because women, their roles and responsibilities, and their often poorer socio-economic status continue to be overlooked - even by those projects which explicitly state that women's needs and concerns are to be specially considered. A gendered approach to development means those women's and men's differing needs and concerns must always be considered in every step of project planning, implementation and monitoring.

Based on gender-defined roles and responsibilities, women and men have different needs, interests and concerns whether in a rural or urban environment. As research has shown, these differences also manifest themselves within a single household, and households in Vietnam are no exception. Therefore, it is always necessary for projects to take these differences into account in order to avoid gender biases in concepts, activities and policy recommendations. When we talk about "community-based," "people-centred," or "participatory" concepts, we are necessarily talking about women and men, the better off, the poorer, the younger and the elderly.

But gender-defined roles and tasks are not "writ in stone." Just because women and girls usually fetch water and firewood, does not mean that men and boys cannot do this task; just because men usually take greater part in community decision-making, does not mean that women have no capabilities as (public) decision-makers. Just because girls have not traditionally been sent to school, does not mean they are incapable of literacy and an understanding of the broader world outside of their village. This means that **development projects should not address women as an "isolated" target group.** When we talk about change and development in women's lives, we are necessarily talking about change and development in men's lives and vice versa!

"Gender" is a crosscutting issue and as such must be considered in all projects activities. As a crosscutting issue it is an issue for all project staff - male, female, junior, senior - to include in their work. It is a misconception that only female project staff working with women of the population target group should handle project gender issues.

### 3. Gender Situation Analysis:

#### 3.1 Local Institutions in Lak District

During the field visits to Lak District, I took the time to visit a number of government agencies relevant for the project's work in natural resources management and agricultural development, the Bank for the Poor and the Vietnam Women's Union (VWU). The government agencies included: the District Agriculture and Rural Development Office (ARDO), the Forest Enterprise Unit, and the Plant Protection Unit. The number of women in management positions in the District totals three: the Director of the Bank for the Poor (she is the Deputy Director of the Vietnam Bank for Agriculture (VBA)), and the Head and her Deputy at the District Women's Union. Moreover, the total number of female technical staff in the above-mentioned agencies is little more: there is one female planning officer at ARDO, and there is one provincially assigned female agricultural extension officer in Dak Phoi Commune. The situation at Commune level does not improve. Female staff does not amount to more than the Commune Women's Union representative and, perhaps, a commune secretary in both Dak Phoi and Krong No Communes. Among the agencies visited, there is also a very small number of ethnic minority staff, none of whom are in management positions.

As in other rural districts of Vietnam, the government agencies and mass organisations are poorly staffed and equipped. None of the agencies visited in Lak District have as much as one staff per commune. Naturally, staff and vehicle shortages are particularly hard felt in remoter districts such as Lak. Again, as in other districts of Vietnam, most of the agencies try to compensate for their staffing shortages through relying on commune and village leaders to implement their government programmes in a system based on one-way communication. District staff presence on village level is extremely limited even in communes as close to the district town as Dak Phoi-villagers reported that their contacts with government officers from the agriculture and forest sectors were few. Moreover, these contacts were largely confined to meetings called by the district officers with commune leaders and village headmen or sometimes with "heads of household." The meetings are largely for the passing on of information rather than for discussion. In Lak District, the target villages of the SMRLMB Project are becoming an exception to this rule.

Local agencies are given very little "room to manoeuvre" in the planning and implementation of annual programmes. In this respect, the VWU (the most active mass organisation in Vietnam and which according to Vietnamese law must always cooperate in the line agencies' socio-economic programmes for women) at District level works under the same conditions. Policy guidelines and programmes to be implemented are "handed down" from the higher levels - at local level, the VWU is obliged to carry out the annual



programmes emphasised by the National Women's Union. The advantage of this is that the burden of planning and programme development is not placed on the commune and district levels (which lack personnel with the commensurate skills). However, the obvious disadvantage lies in the mechanical implementation of programmes without adapting them for local conditions. This was made especially obvious at commune level, where women had little recollection and less understanding of the training programmes which the Women's Union had implemented in the commune during the year before. It means the content of the training has been too far removed from the women's lives for it to make a lasting impression on them. (In Dak Phoi Commune, five of eleven villages have no Women's Union members.)

Insofar as the district agencies understand that they have a role to play in the villages or the communes, they seem to understand it to be one of passing on information and/or enforcing the policies and rules of the government. Within this context of role understanding, it is difficult to envision that the government agencies will be able, in the near future, to play enhanced roles in the area of developing and implementing gendered participatory approaches. The administrative system is hierarchical, and this extends to the local officials' perceptions of relations between themselves and local people. In terms of natural resources management, it is quite normal for government officers to assign responsibility for forest degradation to the local people, without considering the complex interaction of numerous factors - including various government policies -, which have led to the current situation.

In terms of "gender awareness," government staff have mentioned that when they do go to the villages, they normally meet the "heads of household" (also confirmed by villagers). By Vietnamese (Kinh) definition this is "men," although among the M'ng and Ede ethnic minorities, women traditionally have a strong decision-making role in the family. Moreover, our inquiries at village level showed that M'ng women make up a good 15% of the household heads according to Kinh definition (because of deaths of husbands). Both women and men in the M'ng villages have told us that they see an erosion of women's decision-making roles with regard to the introduction of "modern" agriculture because of the government officials' habit of contacting men in the villages.

Government officers for the most part do recognize that both Kinh and minority women in Lak District have an important role to play in agriculture, but they do not translate this recognition into a felt need to meet with and/or train women. Their (false) assumption is that the women will learn of government programmes, new crop varieties, and the like from their men (see also Section 3.2 below). **That government staff is largely unable to speak M'ng or the local *lingua franca*, Ede, makes it all the more difficult for them to communicate with both women and men.** Otherwise, all government agencies are obliged to cooperate with the Women's Union, and it would appear that they feel they are doing something "for women" through this cooperation.

To conclude, **the local institutions in Lak District would need a constant and intensive (at first) support to help increase their awareness of both gender issues and the utility of participatory approaches. They also should be assisted to coordinate and cooperate more with each other than they do at present, as good cooperation would also assist in compensating for local-level staff shortages.**

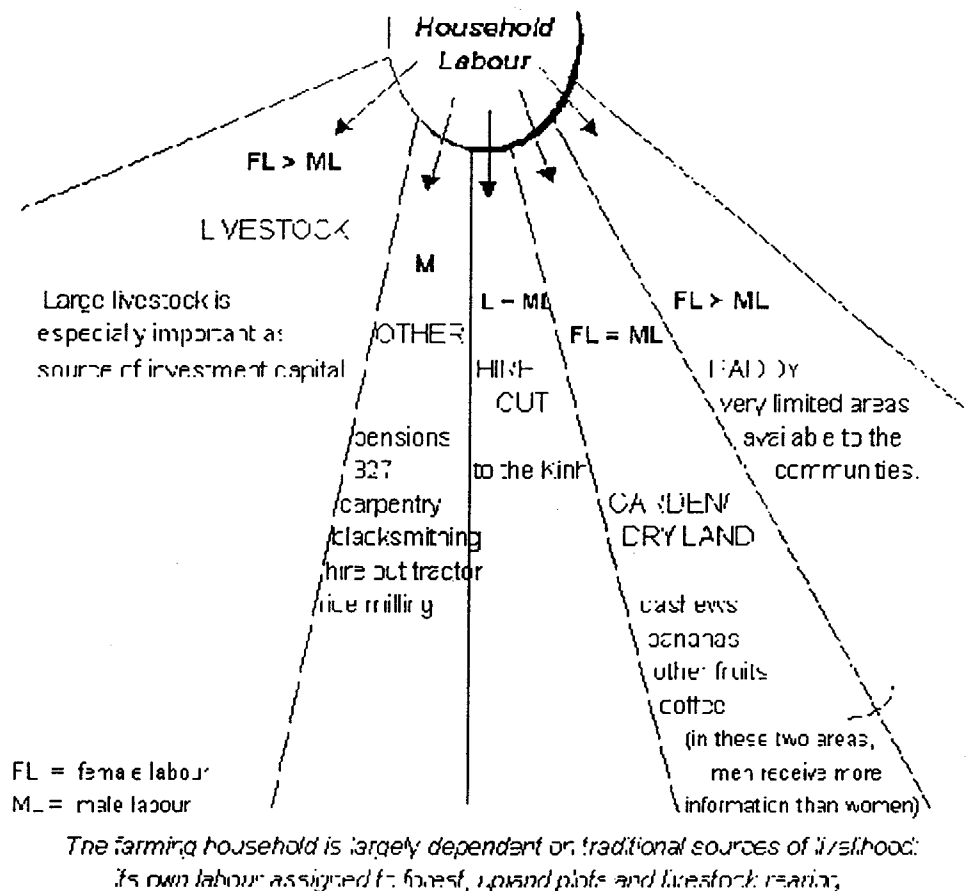
### 3.2 Roles and Tasks in the M'ng Farming System

In Dak Phoi Commune all of the target village population lives primarily from upland agriculture, practising **a low external input, rotational swiddening farming system.** M'ng farming families make use of only one upland plot (swidden) per agricultural season which is sown with upland rice (there are around 12 traditional varieties, of which 7 or 8 might be sown in one field in one year based on certain criteria, including taste and time to maturity), maize and vegetables. (For an overview of the M'ng Farming System see *Figure One* on page 6.) This plot is used only one season before being left to fallow for periods up to 20 years depending on individual households' ownership. With a combination of government and population pressure, and relocation to areas away from their ancestral lands, however, some villages now have fallows which are only of five to seven years duration (see also *Box Two* below).

Additionally, most families have a small (sometimes-miniscule) amount of paddy; some garden area often planted with (sickly) coffee, and a small number of livestock. In past generations, families also planted cotton, but cotton planting has been given up as long ago as 25 years according to some informants. Unfortunately, younger M'ng women have also lost their weaving skills, and there are no female handicrafts as such (extremely limited cotton weaving), while men make baskets and various agricultural implements. **Overall, women and men in the Dak Phoi Commune have indicated to us that they feel themselves to be worse off now than they were in the past.** They see a deterioration (not of their own

making) in their traditional agricultural system without there being, so far, adequate agricultural development in areas which can offset the deterioration.

Gender differences among the M'ngong in conducting agricultural tasks are not easily found out! As the project PRA teams discovered earlier in the year, if questions about gender differences are not carefully asked, informants have a tendency to respond that "men and women do everything equally; there are no real differences between women's and men's work in the fields." We found, however, that with follow-up questions and/or rephrasing of questions, gender differences in responsibilities and tasks in the M'ngong livelihood system did become apparent, although the strongest tendency in the M'ngong household is to share responsibilities closely between husband and wife. Nonetheless, as in other agrarian societies in Southeast Asia, M'ngong women also are responsible for over half of the household's agricultural and forestry activities.



In the M'ngong farming system, women and men share their time and labour in virtually all agricultural operations, presenting us with a system in which male and female labour is highly integrated. The M'ngong people also make extensive use of exchange labour between families for all major upland agricultural operations, including land clearing and burning, weeding and harvesting. Despite this integration of male and female labour, however, it is also noticeable that on average, women work longer hours than men are every day, and according to their own accounts have almost no leisure time. In this respect, it must be emphasized that - without it possible to comment on the efficiency of labour use - women's labour in most M'ngong households is fully utilised. The truth of this statement may be observed in the households' allocation of child labour. Young girls, as of age 9 or 10, spend a good part of their day assisting their mothers with a number of agricultural and non-agricultural tasks and if their mother's labour becomes tied up with caring for a sick child or husband, the girls' labour is brought even more into use. Boys, it seems, have more time to play and, more importantly, to attend school. Men have also been observed to have more free time.

As depicted in *Figure One* above, the M'ngong family's upland plot undoubtedly forms the centre of

**the household's livelihood system.** An important question to be asked is the ability of the M'nong livelihood system to provide a reasonable level of subsistence for the household. Our discussions with a number of informants indicated that this upland farming system is able to provide not only subsistence, but also even surplus under certain conditions. Unfortunately, these conditions seem more and more difficult to achieve. The conditions are as follows: there must be adequate fallow periods - people have identified these to be of at least 11 or 12 years duration - which allow for adequate forest regeneration. Pest attacks (insect, rat, bird, monkey, disease) on the rice crop in particular must also be manageable, but with some villages reporting severe rat problems in the last couple of years. (Controlling animal pest attacks is one reason given by informants to explain why they generally have their upland plots close to one another; it gives a better chance for fewer persons to look over a larger cultivated area.)

Despite the assistance provided families through exchange labour, an extremely important factor in achieving subsistence, are the family's own ratio of labour to non-labour availability. Those families which have more (*and healthy*) labour available to them are also most likely going to be among the better off families in the community. In other words, the underlying assumption of the traditional farming system is that each fully working member of the labour force should be able to produce a small surplus to feed not only him/herself but the household's non-labour as well. There is a strong tendency in the M'nong community, however, to emphasize subsistence above surplus, with households cooperating closely together (not only exchanging labour, but also seeds and rice) to ensure that every household meets its minimum subsistence needs. M'nong households are also willing to lease out their upland areas to other M'nong for a fairly nominal price of one pig (or equivalent in cash), food to host the landowner and family for dinner, and one earthen jar of rice wine.

As the SMRLMB project has a long-term purpose of facilitating the shift from shifting cultivation in the project area(s) to more permanent form of agriculture. Such factors as the current system's ability to provide subsistence and the household's allocation of labour in order to achieve its subsistence needs are crucial issues. The current full employment, particularly of female labour, will make rapid change hard to achieve. Major shifts in the household's allocation of labour will most certainly be seen as risky, as there is no guarantee that a new activity (or rather, a combination of activities) will result in the small surpluses per labour which can still be expected from the traditional system under favourable conditions. Moreover, the "modern" sectors of the average household's livelihood system form only a minor percentage of the household's overall subsistence/income. For some families a significant percentage of their cash income comes not from the results of their labour, but rather from their labour as a commodity. Those families which must hire out their labour to make up for food shortages - both women and men hire out their labour fairly equally - often reduce their chances to improve their own farming system. At times when they would have a chance to work on land improvements, they are busy working for the Kinh.

In an upland system one of the most crucial factors, besides labour, in determining outputs is the fallow period. The fallow period is one of the best indicators of the overall "health" of the upland system, and its continued viability. During our visits to the target villages of Dak Phoi Commune we always asked people about this issue, and were surprised to find some significant variations, not only between villages but also among families within the villages. Fallow periods mentioned to us varied from a minimum of five or six years (a minority of households in Bu Yuk) to a maximum of 20 years (also mentioned by one informant in Bu Yuk). However, average fallow periods seem to be in the 8 to 10 year range which is actually very good compared to other areas of northern Vietnam where swiddening agriculture is still practiced.

Every person who has discussed fallow periods has said, "the longer the better." Unfortunately, our time in the area was too short to gain a good overview of two critical issues related to fallows: 1) "fallow progression," although it seems that with 15 years and up, there is good development of secondary forest. Much less than that and one is confronted with the bamboo dominant stands, which can be seen nearer to the villages. 2) What is the "real" pressure on forested land in the M'nong area? It seems that with some families still on a 20-year rotation, while others are down to 5 or 6 years, there is no clear answer to this question. Obviously, those areas, which still have the benefit of a 20-year fallow, are under very little pressure, while those with only 5 or 6 years are under much more pressure. More effort should be made by the project to understand these differences, as they will play a major role in determining people's willingness to change their land use systems.

Women in particular complained to us about shortened fallow periods citing a number of reasons for their complaints. Surprisingly to us at first, they insisted that clearing bamboo forest areas is more difficult than secondary (mature) forest. Of course, women's main task in clearing an upland plot is to cut down the underbrush and small trees, including bamboo. It is far more time-consuming for them to slash a lot of smaller sized plants/trees than it is for the family to cut down a fewer number of larger trees. It was also surprising to me to hear women say that the clearing period for them is the busiest time of year - in other areas with swiddening agriculture it is more common to hear women describe weeding time as the busiest

time of year for them. While this again emphasizes the increased workload for women in doing clearing work from bamboo areas, it does not mean that weeding is an insignificant task for the women. In fact, they also complained that working in a field after shorter fallowing periods, means heavier weed pressure and lower yields. Finally, as bamboo is little used as firewood, a field that had been covered in bamboo yields very little firewood compared to a field, which had been covered by more mature forest.

**Table One: Differences Between M'nong Women and Men in Agricultural Operations: The Upland Plot**

Task	Women	Men
<b>Upland Site Selection</b>	Shared decision	Shared decision (young couples are shown "ancestral plot" by traditional headman)
<b>Land Clearing</b>	Shrubs, Undergrowth, Small Trees	Bigger Trees
<b>Burning</b>	Shared work	Shared work (timing of burning decided by traditional headman)
<b>Planting Decisions</b>	Shared decision (some informants say W. decide more than M.)	Shared decision
<b>Sowing</b>	Shared: women put seeds into holes.	Shared: men make the holes with dibble stick
<b>Weeding</b>	Women spend more time on this task	Men spend less time on this task
<b>Seed Selection for next Season</b>	Woman's task.	Man only does this task, if wife is ill.
<b>Harvest</b>	Shared work.	Shared work.
<b>Storage of Harvest</b>	Woman's task.	Man makes any baskets required for storage.

In other parts of the agricultural system, women and their daughters also bear a major part of the labour burden. When it comes to care for livestock, women are in charge of feeding small livestock (pigs and chickens). Large livestock are largely left to graze on their own, with any herding responsibilities taken by boys and/or elderly family members. In terms of paddy production, although the target villages have very little, women also are responsible for the bulk of the work (because the household paddy plots are so small, the traditional male-responsible task of ploughing with a buffalo is not undertaken). Any vegetable production in garden plots is also the women's responsibility, although coffee production tends to be more men's work (partly because they get more information from government and other sources on how to tend the coffee bushes).

Our discussions with women, however, indicated that they see the main labour burden in their lives elsewhere. That is, not in agriculture *per se* (although a number of women complained of the distances to their upland fields), but rather in the maintenance of their households. Every day, firewood and water must be brought to the household. If no mill is available nearby, or if the quantity of rice to be milled is too small, rice must be pounded. In interview after interview, **women named firewood collection and rice pounding as two of the most onerous tasks with which they are confronted.** In some of the villages, firewood was said to be far away from the village, entailing walks of three hours in one direction.

All daily household tasks, with the exception of some minor childcare duties (which the men normally do

when the woman is away collecting water or firewood), are the responsibility of women and their daughters. Men are responsible for basket and implement making, and have more responsibilities for house construction, including the collection of timber. (When men told us they were always responsible for "heavier" work compared to women, we sometimes asked them if basket-making is heavier work than firewood collection; the men had to confess naturally, that firewood collection is more arduous) It is only when the woman is sick, or when she is fully occupied with taking care of another sick person in the household, that the man will involve himself in household tasks, such as food preparation. This combination of productive and household work, particularly when the latter in itself is burdensome, results in extremely difficult living conditions for the M'nong woman.

**Of note in the M'nong livelihood system is that traditional land tenure is *matrilineal*.** That is, "ancestral lands" belong to the woman's side of the family, rather than the man's. Likewise, should a couple with children separate for any reason, the children are considered to belong to the woman and her side of the family, rather than the man's (the latter is often the case in Asia). It was reported to us that women have the last say over what will happen to a plot of land. For example, if another family wants to borrow the land for a season the husband's agreement is not enough; the wife must also agree (and it is also possible for her to overrule her husband's decision in such a case). For the most part, the system is also matrilineal, meaning that the husband is more likely to move into the woman's household/village than the other way around. In other words, women traditionally have important decision-making power in M'nong society and enjoyed quite a high status relative to men in comparison with other ethnic groups, including the Kinh.

While women have quite high decision-making status within the household, their status in the public sphere has always seemed to be rather limited. In this respect, however, the "average man" may not have that much decision-making power either. The reason for this is **a special feature of M'nong society, which is the power, vested in the traditional Headman, rather than a council of elders.** In the M'nong community, the most important decisions relating to community land use and other issues, including inter-community conflict resolution, have been (still are to a certain extent) taken by the traditional Headman who seems to have had the power to decide on certain issues unilaterally. While **there is evidence that the power and status of the traditional Headman is eroding under the modern political and economic system, the Headman still commands a great deal of respect within the community.** We found it of interest, however, to learn that the traditional Shaman-*cum*-healer in the village was more likely a woman than a man.

#### Box One:

##### A Special Issue: Land Titling

The matrilineal system of the M'nong needs to be taken into account by government land titling programmes. Households in Vietnam may now have officially-recognized long term land use rights through the issuance of land use certificates (interim White Book followed by Red Book Certificates). In Lak District the process of issuing land use certificates is an ongoing one. An immediate problem, however, is that the Vietnamese government only wishes to recognize one name per household per certificate. While this does not automatically discriminate against women, the strong tendency of government officials, as mentioned above, to contact only "male heads of household" means that there will be an equally strong tendency for land use certificates to be issued in men's names. In a couple of villages we visited in Dak Phoi Commune, the women we talked to about land titling had an extremely limited understanding of the Certificates and their significance. Having a land title has also an impact on a person's access to credit and irrigation facilities.

The M'nong women's traditional land ownership rights are endangered by "modern" land titling processes. To the extent possible, the project should include the issue of women's names being on the Certificate (either instead of or with men's names) in discussions with counterparts.

### 3.3 Issues in Natural Resource Use

With their system of swiddening agriculture, the M'nong people are keenly aware of issues related to natural resource use. The swiddening agriculture system is so closely tied to the forest that the daily lives of women and men are immediately affected should forest areas become badly degraded. First, of course, the upland plots are carved out of forestland every year with, as described in the Section previous, there being a direct relationship between the productivity of the plot and the length of the fallow. Therefore, it is in

people's interests to maintain as long a fallow period as possible, with the best forest regeneration possible. **Perhaps a question to be asked is: Is it necessary to banish swiddening agriculture completely in order to maintain adequate forest cover?** Given people's strong interests to maintain adequate fallow periods, there may be some room to work with them in gradually modifying the swiddening system rather than "forcing" them to give up swiddening rapidly and altogether. In this way their **traditional forest management skills could also be better recognized in dialogues about forest conservation; and attempts made to enable a smoother transition from the current farming system to one less dependent on forest resources.**

As shown in *Figure One* above, the M'nong people's livelihood is also dependent directly on the forest for a number of its products, and not only as a source of agricultural land. In fact, it may be argued that the swiddening agriculture system *assumes* adequate access to forest resources in order to assure the subsistence of the family. The forest should be there both as "fallback position" (with wild tubers) should families experience rice/corn shortages, as a means to round out families' nutritional requirements in terms of fruit, vegetables and protein, as a source of housing materials, of cooking/heating fuel, as a source of saleable products (the latter a more recent innovation), the living place of various spirits, and in the past a source of various medicines. Women's concerns with their household's nutritional requirements lead them more often to the forest than the men, and gender differences in the use and collection of forest products are easily observed. It could be argued that women have even greater interest than men do not only in adequate forest cover, but also in a forest, which provides them with all of their needs.

Fuelwood is one of the foremost needs of women from the forest. In most households where we discussed fuel needs, the women have said that they go to the forest three or four times a week to collect fuel wood. In some villages they mentioned having to walk as far as five kilometres (ex. Du Mah) to gather wood appropriate for firewood (bamboo - which could be plentifully available from fields - is rarely used in this area as a fuelwood). A number of women complained that they must go farther and farther away from the village to find good firewood.

The women at Ba Yang village in Krong No Commune, along with women at T'long in Dak Phoi, mentioned a number of tree species which they consider as having the best properties for fuelwood. The preferred properties are: low smoke, high heat and good charcoal production. Women at T'long village also mentioned that they sell firewood to the Kinh as an extra source of income. As the gathering of firewood is one of the most time-consuming and tedious jobs that women are faced with, the project's introduction of fuel-efficient stoves on a pilot basis is certainly well considered. At the same time, it would also be a good idea to explore the notion of establishing community woodlots, which could be used as a steady source of fuelwood.

Besides firewood women are also in charge of collecting vegetables for their families and their pigs. These trips are carried out separately, as the different vegetables may grow in different areas. Depending on the quality of the forest nearby, the women spoke of quite varying times spent in collecting vegetables, including bamboo shoots. In summary, however, their trips to the forest to collect vegetables for their own consumption increase during the late dry season and into the rainy season. When their own field vegetables are ready to be harvested they reduce their trips to the forest to search for vegetables. In other words, as women have not mentioned buying vegetables, the nutritional requirements of their families also *necessitate* their search for vegetables in the forest. Poorer families we spoke with also mentioned the need to rely on the forest for tubers (women from better off families said they also occasionally gathered tubers from the forest, but rather because of liking their taste rather than out of need). During their season, bamboo shoots are not only an important source of nutrition; they are also an important source of cash income for many families.

In connection with both forest products and livestock rearing is the issue of "common lands". In every village, there appears to be common land where people can collect grasses for roofing and where animals can graze. Some of this land is, in fact, old fallow. In terms of old fallow, it may be (although I am not sure) that during its fallow period, a piece of land's non-timber produce is available for anyone to collect. Although we did not look closely into this issue, there seems to be no problem about village common areas. In other areas of northern Vietnam, however, the pressure on land has become so high that formerly common areas have been claimed, and even something like roofing grass has become a commodity with a price tag on it. This closing of common areas has a strongly negative impact on poorer households of the community. Clearly, in terms of land use planning it is important to know from women and men what products they get from common lands, and where those lands are.

A clear lesson we can learn from the M'nong women about the forest is that a **"good" forest is much more than its trees.** As we see from the discussion above, the village women depend on a variety of timber and non-timber products from the forest. It is much in their interests to have a forest rich in bio-



diversity. Their traditional farming system, with its long fallow periods, has encouraged the regrowth of the necessary plants and trees for the people's livelihood. Dialoguing with government agencies about reforestation and forest protection should be conducted in this light.



*M'Nong Women Easily Showing the PRA Team Important Resources of the Village*

*Photograph: R. Gebert*

#### **Box Two:**

##### **What has Happened to M'Nong Natural Resource Management?**

The question is posed in a provocative way. Why does it appear that the M'Nong are engaged in practices damaging to their natural environment when their own farming system demands that they conserve their environment as best as possible? While part of the answer may be found in rapidly increasing population pressures of the last generation, it also needs to be asked, "population pressure from whom?" Even in Dak Phoi Commune there is a large Tay village where the people have been settled for no more than 13 years. In other communes of Lak District there are now large Kinh villages planting coffee where no villages, or coffee, existed before.

Another issue which needs to be closely considered is the location of current M'Nong villages; none of the villages visited in Dak Phoi Commune have been there longer than 25 years. At least one of the villages (Buon Nam) has been relocated away from its ancestral lands - the people have no ties with their current location. Their "dislocation" from their ancestral lands means they must borrow upland plots every year from the neighbouring villages of Buon Dung and Buon T'long. What impact does this have on their attitudes towards, and use of, natural resources in the area? How does this affect the land use of Buon Dung and Buon T'long?

Government reforestation and forest protection policies are also having a strong impact on the M'Nong

women's and men's use of natural resources. For example, in selecting areas to be "protected," the Forest Enterprise Unit normally selects easily visible areas, which are closest to the villages. The effect this has is immediate. First, people are denied use of fallow closer to the villages, meaning they have to go to fallow farther away from the villages (thereby shortening the overall fallow time) this has a greater adverse impact on women than men, as breast feeding women often walk to fields carrying their babies, and they are the ones to carry wood and vegetables back home. Another issue is that the Forest Enterprise Unit selection of areas for protection is done by the Enterprise on its own, based on its own maps and information. The areas selected do not have anything to do with people's traditional land use boundaries. Therefore, it is possible that certain families may lose much more land than others may, causing disproportionate hardship for some.

Government policies on re-forestation are very much oriented to replanting of a certain number of tree species. In some areas of the country, reported seedling survival rates have been low. The selection of species is seldom done with active participation of local women and men. Perhaps this has an impact on survival rates? Natural regeneration seems not to be an well-accepted concept. Yet natural regeneration may be what a local area needs to balance the government's goals for forest cover with the local people's needs from the surrounding forest.

Overall, the government programmes "tell" the people indirectly if not directly, they are incapable of protecting and/or managing the forest. However, **the best chances for improved forest management are when both partners –government and people–are strong and motivated to protect the forest. How can the SMRLMB project help both partners to be strong?**

### 3.4 The Cash Sector: Marketing, Income-Generation and Credit

As seen from Section 3.2 above, women and men tightly integrate their labour in managing the household and its agricultural activities. Activities to maintain the household itself are largely the responsibility of women and their daughters. As far as we could determine from our interviews, and the results of the PRA exercises in January 1997, cash cropping is a recent innovation for the M'ngong farming households, and quite a number of households have no proceeds from cash crops. There are few households, which rely to any extent on recently introduced "modern" crop varieties such as hybrid corn (just introduced by the project this agricultural season). The Forest Enterprise Unit had unsuccessfully introduced cashew plantations some years ago, and there are only a few families, which sell a small amount of cashew.

Cash cropping as a traditional vocation is almost unheard of among the M'ngong, in that there is no crop which was produced expressly for "sale." If they had surpluses of corn and/or rice, bananas, beans and other vegetables, then these were sold or more often, bartered. Nowadays, with the exception of corn (for few families, rice), traditional crops still are not cash crops. The **low development of the cash economy among the M'ngong** is apparent in the number of barter exchanges which go on; for many families barter is more predominant than cash as a means of exchange. Even rice sales and/or exchanges may be for emergency purposes rather than for income-generation; a number of women have told us that when they face a sudden emergency which requires them to have cash (ex. need to buy medicines), they may sell some of their rice stocks, even though they know they have not enough to last the year. In all cases where we asked, women and men told us that women are in charge of keeping household finances.

The M'ngong people's traditional major source of cash (or silver in former times) is large livestock, and during our interviews in April, it became clear that large livestock remains an important capital asset for the household. In terms of gender issues, it must be said that the M'ngong women and men appear to have an equal say in the purchases and/or sales of large livestock. When people had, or were in the process of constructing, new housing with tin sheet roofing they most frequently cited large livestock sales as the major source of income to finance the house construction. Livestock sales appeared to take place locally, with cattle/buffalo brokers and or merchants coming from surrounding villages to purchase animals. (Kinh and Tay, we were told).

While the M'ngong people have quite diversified sources of cash income, none of the sources appear to be very major. According to the PRA Teams, some families have even said that their major **source of cash income is the 327 Protection of Forested Areas Programme**. Based on our interviews, however, it would appear that a larger number of families rely on wage labour as their main source of cash. In Dak Phoi Commune women and men hire out their labour fairly equally (on an alternating basis some people told us), and seem also to be paid equally. With people getting 10,000 VND with lunch included, and 15,000 VND when no lunch is included (in Krong No Commune, however, women said that they get paid

somewhat less than men when they hire out their labour). We were surprised to learn that even families identified as "better off," hire out their labour during the agricultural off-season (essentially December to February), because they still can work on the Kinh coffee plantations. They do this as a means to earn cash rather than as a means to tide them over foreseen food shortages; one better off family we spoke with, said they had bought a bicycle with the money they had earned from wage labour. Nonetheless, that a better off family would also hire out its labour is an indicator for the few sources of major cash income which are available to the M'Nong.

In the cash sector of the M'Nong livelihood, it is unfortunately apparent that the M'Nong are very little in "control" of it. For almost all products sold by the M'Nong, the merchants - normally Kinh - come to them. **The M'Nong are too passive in the marketing of their goods**, and sometimes neither woman nor man knows what is the real market price for their produce. They only know what the Kinh trader gives them. That the M'Nong - particularly the women - have had limited access to education makes them all the more easy "prey" for merchants. Not only do they not know the unit prices of things; they cannot easily calculate price by weight. To make matters even worse, the M'Nong are often in debt with the local Kinh merchants who live in their villages and run small shops. Rather than being able to sell or exchange their produce where they want, they may have to take it to the Kinh shop as repayment for a debt. Another issue here is that the **M'Nong sell virtually no products with "value-added."** With the exception of baskets, which M'Nong men make and sell (usually to other M'Nong), the M'Nong do not process raw materials before selling them (another minor exception is bamboo shoots, some of which are sold dried rather than fresh).

An important issue in the M'Nong households' transition from a pre-cash subsistence economy to a mixed cash-oriented economy, is credit availability. **The lack of credit is a bottleneck for many families.** Of particular importance is credit availability for productive purposes, including (flat) land clearing and preparation. Based on villagers' reports, **the Imperata grasslands close to the villages are "out of bounds" for agriculture primarily because the families do not have the labour available to clear the land effectively of the grass, while at the same time being unable to afford to hire or to buy inputs for land clearance.** In the M'Nong villages visited, the predominant form of credit is informal (with repayments more likely in kind than in cash), and largely for consumption purposes. **The people's experience to date with the formal credit system is minimal**, with only a few people in any given village having received loans from the VBA. The number of M'Nong women who have received loans is even less, partly because they do not understand enough Kinh language in order to fill out the complicated loan forms. Additionally, when a VBA Officer visits the Commune, it will be the men who are gathered to listen to the information he provides.

In Lak District, virtually all M'Nong households are classified as "poor" based on the measurement of rice available per capita. In this regard, this makes them eligible for loans from Bank for the Poor. In Lak District up to January 1997, the Bank had distributed 2.4 billion VND in loans. This totals represents 2200 borrowers, of whom approximately 30% are women. Of this number of female borrowers, however, the biggest majority of them are Kinh. In Dak Phoi Commune there have been a total of 140 borrowers (no information on which villages, but not an even spread), who received 215 million VND. **There have been no female borrowers in Dak Phoi.** In the more distant Krong No commune, the Bank for the Poor has only managed to distribute 100 million VND in loans (no information on number of borrowers).

Most of the villagers with whom we spoke about formal credit issues complained about two issues: (1) the forms and procedures for the credit application are too long and complicated; (2) the term for repayment - usually not longer than six months - is too short. With regard to the first problem, some of the mass organisations are helping people with simple financial planning and the filling out of forms. According to the Director of the Bank for the Poor, the Commune Women's Union of Dak Lieng has been active in getting loans for 15 of its (Kinh) members. It seems, however, that other branches of the Women's Union have not been so active.

Regarding the second problem, the terms of repayment are set according to the activity for which a loan has been taken. Crop loans are never longer than three to six months, and as the M'Nong seldom sell their crops, there are few proceeds which could be used to repay the loans. A major problem is, however, that **people borrow money ostensibly for one productive purpose but use it for another.** This was evident in terms of coffee. People borrowed money for rice or corn, but then actually used it for inputs for their coffee - of course, extension services do not exist; inputs can not be applied; returns, if any, cannot be expected for some years. The people are left to "scramble" to repay their loans after a few months. The same is true when people take crop loans but use them for large livestock purchases.

**Table Two: M'Nong Women's and Men's Sources of Cash Income**

Women Only	Women > Men	Women = Men	Men > Women	Men Only
Bamboo shoots (fresh/dried)	Bananas Field Vegetables	Hiring Out Labour to the Kinh	327 Program VBA Loans	Army Pensions Carpentry
Bark for Incense		Livestock Sales	Bank for the Poor Loans	Blacksmithing Baskets
Firewood		Corn Sales	Bamboo for Chopsticks	Hire out use of tractor**
Wild Ginger		Cashew Sales		
Manure		Rice Sales (Surplus/Emergency)		Rice Mill**

Note: Items in different font/colour indicate forest products.

\* = We did not come across any cases of M'Nong hiring in labour, with the exception of skilled labour, such as carpenters.

\*\* = Very few M'Nong families in Dak Phoi Commune have either a tractor or a mill--most are owned by Kinh residing locally.

Finally, a note on mobility. Both M'Nong women's and men's mobility - with minor exceptions - seems rather circumscribed. The exceptions are village and commune leaders, including Women's Union, who travel regularly to the District town and even to the provincial capital. As mentioned above, traders of various products come to the villages rather than the villagers going to the local market to sell their goods. Regular market visits do not seem to take place. Visits to the commune health centre or district hospital are also rare. Of course, visits to relatives do take place, but these are often in nearby villages.

Otherwise, both men and women do hire out their labour to the Kinh, but again this does not involve any great distances, and there were no people we heard of who engaged in any seasonal migration in search of work (some persons ruefully commenting that no one has the cash required to take a bus to a place where jobs might be available). For many people, it seems, their most regular journeys are to their fields. Our time in the area was too short to describe accurately whether women's mobility is much more limited than men's are; as elsewhere, women's mobility is often limited not so much by cultural values, as by the rigor of daily life.

### 3.5 A Summary of Gender Issues

From Sections 3.1 to 3.4 above, we see that there are a number of crucial gender issues in Lak District. **Perhaps of greatest importance, or of potential greatest impact on gender issues among the M'Nong people, is the interface between government policies and their implementation and M'Nong women and men themselves.** Traditionally, the M'Nong women have quite a strong standing in their society; land is held matrilineal and women have important decision-making roles in both the household's land and labour use. But both women and men commented that there has been an **obvious erosion of women's status and decision-making in M'Nong society as a result of the implementation of**

**government policies.** The reason for this was clearly stated by the women and men themselves.

New innovations in agriculture have been introduced to men; men get the information and are able to make decisions. When new credit programmes are offered, they are offered "by default" to men, as it seems a spouse's signature is not required on loan applications. Women's literacy rates are also lower than that of men's (we met young women - in their late teens - who had had no schooling at all), which means that written information is also "out of their reach." Therefore, when it comes to formal information networks, even though the men complain they also get too little information, the women are left out. Of course, both women and men are still a central part of informal networks, but we were not in the area long enough to determine the extent and types of information which are exchanged in the informal networks.

The "outsiders" coming to the villages with their formal meetings have delegated women to the background with their formality (see photograph of hybrid corn seed meeting on page 28). This gives a false impression both of women's status in M'ngong society, and of the importance of women's opinions in making household decisions. We found that when we had informal meetings, and using Ede rather than Kinh, the women did not sit quietly at the back of the room. They spoke up, *and* they contradicted their men if they did not agree with what they said. When given an equal opportunity to participate in discussions, the women take the opportunity to make their voices heard. The question is then, how to help "outsiders" listen to the voices of women. This is especially important in the case of women-headed households which make up roughly 15% of the target village households, and are among the poorest households in the villages; if "outsiders" contact men all the time, how can households which have no men be included in information flows?

Another crucial gender issue relates to the use of male and female labour in M'ngong households. As far as we could determine, women's labour is already "maximised." This has implications for introducing changes in the household's current set of activities, as the changes will have a labour opportunity-cost. Any new activity can only be taken up at the cost of another, assuming that men do not start to take more responsibility for some of the women's tasks. One of the most negative impacts possible from such a labour situation is that when a new activity, which requires women's labour, is introduced, the women are most likely to assign some of their current tasks to their daughters. Daughters are then given less opportunity to go to school than their brothers even though M'ngong culture does not prohibit nor actively discourage the education of girls; thus, the younger female generation's chances to "compete" more equally in the modern economic system promoted by *doi moi* will be as limited as their mothers'.

#### 4. A Note on PRA and Information Needs

At the time of my visit to the SMRLMB project area in Lak District, the project had chosen seven pilot villages in Dak Phoi Commune, comprising two forest cover classifications: bare land and protection forest. Immediately prior to my visit, a third area had been selected in Krong No Commune (two villages?) who was to represent production forest. PRA Teams had visited the first two sites for PRA exercises in January 1997, while the third site had a PRA exercise in April - May. Since we also spent some time in the target villages and in intensive discussions with local people and officials, a number of issues relating to PRA and information needs (information needs from different angles) arose.

During discussions about the project, which I witnessed with local people, it was apparent that many commune and village leaders were unsure of the project's real goals and motivations in working with them. This also appeared true of some district level officials. While it cannot be expected that people will "immediately" understand every aspect of the project, it would probably help them to understand more of it if the project staff could use visualisation methods (i.e., simple, explanatory charts) to assist in explaining the project and its working methods. Now that the project is farther along with some implementation, it would also help in explanations if concrete examples of project activities were given.

The main purpose of the project for this phase is to ensure that participatory approaches for the sustainable management and rehabilitation of watersheds are identified, adjusted and implementation started. Along with the results of the project-planning matrix, one may interpret that the project has at least as much a research as implementation focuses. This has implications not only for the selection of implementation sites but also for the way in which activities are implemented and monitored at the sites. In Lak District the project has selected three areas based on their government forest classification. However, our visit to Dak Phoi Commune showed that the seven villages selected do not fit well to the classification. This apparently is quite common, in that **some areas are given classifications based on what "should be" rather than "what is."** At least two of the four villages put in the bare land category (Du Mah and Lieng Ke), have been described to us by commune leaders as having the "best" forest in the area which is neither "what is" nor "what should be" in respect to "bare land."

Regarding the forest classification issue, there are at least two questions, which arise: the first, is the project interested in proving the existing classifications to be faulty (with the idea of creating a new classification system)? Or, is the project interested in developing and implementing different types of activities in the target villages *according* to their classification, and then show that government "standard" programmes (meaning programmes which are the same for all parts of the country) should be conducted differently according to their own different classifications? In both cases, the project should have more information about the *individual* target villages than it has now. As will be seen below, it is not possible, for example, to "lump" the three villages of the protection forest category and the four villages of the bare land category together in terms of their land use and natural resource management.

Although our time in Dak Phoi Commune was short, (and not especially focussed on land use issues), **we could see a number of issues emerging in the villages which seemed not to have "come out" during the PRA exercises.** First and foremost are the **differences among the villages in terms of their (perceived) land availability** (whether, and in what ways, the land is actually "limited" is not known at this time). Of the five villages we visited, two villages which indicated that the upland available to them is too little, are T'long and Bu Yuk. At the same time, they were identified to us as being "probably" the two poorest villages in the commune (which supports the villagers' contention that they have too little land available). An additional factor which may affect these two villages is that apparently (this is unchecked information) neither of them are "heroic" villages (supportive to the North Vietnamese Army during pre-75 times).

A further point which emerged from T'long is that it is, in fact, in two locations: the first part located in between Buon Nam and Buon Dung and the second part on the other side of the Dak Lieng River. The settlement on the other side of the river has been there for about two (?) years, and it seems that the people on the B. Nam - B. Dung side want to move to the other side as well. According to the Headman, the main reason they want to move is that they fear the Tay people from Cao Bang will either further encroach on T'long lands on the other side of the river. Or that the Tay will refuse to give up some flat land which they are currently occupying for a period limited to five years by the commune. Given the rapid increase in the Tay population at Cao Bang due to in-migration, the fears of the T'long villagers may be well founded.

Another village which has an "unusual" land use situation is Buon Nam, in that it is not located near its ancestral lands (because of post-war relocation programmes). Year after year, the people of Buon Nam must "borrow" lands from Buon Dung and to a lesser extent, from T'long. According to the Headman, the lands, which the other villages can make available to them, are too little. Within the last few years some Buon Nam families have chosen to return to very old fallow areas (at least 20 years old) far away from their present location, but located at their former area. The Headman has "threatened" to return to the forest if the local government is unable to help them improve their agriculture in their present location, and to provide additional areas for cultivation. He told us that the rice yields in the old fallow areas were so high that a single family could produce enough to last for two years! Even if this is exaggerated, it is still indication of a productivity much greater than anything in the near vicinity of Buon Nam.

Finally, the whole question of bare land versus protected forest must be raised in light of our findings that every village in the bare land area has "protected" forest (i.e., they are getting paid under the 327 Programme by the Forest Enterprise Unit to re-forest and then "protect" a certain number of hectares. We did not, however, check to see if these protected areas are really in the process of being re-forested or not!). The villages of Lieng Ke and Du Mah have 282 and 520 hectares respectively (according to the village Headmen). At the same time when we asked the Director of the District Forest Enterprise to tell us where the "bare land" in Dak Phoi Commune is located, he told us that it is the area "directly behind" the Commune centre. In respect of the villages, then, perhaps Jie Yuk (not visited) and Bu Yuk (it also has 132 hectares "protected" area under 327) better correspond to "bare land," while Lieng Ke and Du Mah seem more like "protected" forest areas.

Considering the differences among the villages, and considering the gaps which exist in the information about the villages' land use situation, **it is necessary for the project to conduct resource transact walks and draw resource maps of each target village in co-operation with key informants (especially including the traditional Headmen who must have accurate maps of village lands and boundaries in their heads!)** Some household interviewing on fallows would also be necessary to get a better idea of inter-household differences in land use. **The project needs adequate data on the land use situation of each village, and a more accurate categorisation of the villages' forest cover for its participatory land use planning and agricultural development activities, and for its dialoguing process with government decision-makers on forest classification issues.**



## 5. Conclusion

M'Nong women and men are both actively involved in agriculture and natural resources management. Both are decision-makers, and women are arguably responsible for a greater portion of the M'Nong livelihood than are the men. Both women and men have a deep understanding of their natural environment, with the spheres of knowledge of women and men being somewhat different based on their different roles and tasks in earning the household's livelihood. Despite this, however, women are left out of the mainstream of formal interaction between government agencies and the communities. This means that their extensive knowledge and skills are also getting left out of the picture both in terms of ensuring that they are used in continued efforts to protect and improve the natural environment, and in terms of further developing their knowledge and skills to better cope with the modern, cash-oriented, agricultural system. In a sense, the women are getting left behind and both M'Nong women and men have realised this.

The SMRLMB project, through its work in Lak District has a good chance through its planned participatory working approaches to ensure that women do *not* get left behind. But this will take conscious and continuous efforts. Planning, implementation and monitoring with the communities needs to be "gendered." Women's ideas about their situation and how to change it need also to be included in overall planning for changes in agriculture and natural resources management. Without the women's full participation, there can be no sustainability of project efforts. As we have seen throughout this paper, gender issues are crosscutting issues--there is no development sector, which does not touch on the lives of both women and men. In the final analysis, gender issues are everyone's issues; from project management to directors to field staff to consultants to community leaders and the women and men of the communities.

## 6. Recommendations

### 6.1 Gender Issues within the Project

- The one-day training on gender should be followed up from time to time with "roundtable" discussions and/or additional topical training, on gender issues as they are related to the concrete activities of the project (to increase everyone's practical understanding of the implementation of activities in terms of gender issues).
- The project's operational (activity) plan should be explicitly gendered as a reminder to staff to include gender issues in all, especially field, activities.
- The TORs for all short-term Experts should mention gender issues. If experts come for various technical issues, they should also consider gender issues to ensure the highest level of integration of gender issues into the project's activities.
- Gender issues are issues for everyone. This means that project management staff who have not yet received training on gender issues should also have the opportunity of attending gender training.

### 6.2 Implementation Issues

- a. All project-supported training and/or meetings at the local level (village/ commune) should have some gender "balance." Not only should women be invited to attend, their participation should be actively facilitated in a step-by-step approach (i.e., we cannot expect women's full participation at "formal setting" meetings in the very beginning!).
  - Practically, this means ensuring that the M'Nong language is also used at meetings (to the extent possible; second choice would be Ede, then Kinh)
  - Training should also be arranged in a way that women are facilitated to attend them (timing both seasonal and during the day; some discussion about childcare).
  - Training should include content, which reflect women's, as well as men's, interests and needs.
  - Eventually, means should be found to develop some simple media who could be used as communication aids in training (although field-level training would always need a practical, demonstration approach as well).
  - Both women's and men's understanding of training content should be double-checked (because of language difficulties) before the end of a training.
- a. Wood stove programme. As women have always mentioned the burdens of firewood collection, the project should monitor closely through ongoing discussions and dialogue, the local women's

- acceptance and use of the wood stoves. If they appear to gain acceptance among the first users, all efforts should be made to help their spread in the villages.
- b. Community Woodlots. This issue is also related to the burdens on women of firewood collection. As the project begins to work on issues related to land use and/or reforestation, a high priority should be given to establishing community woodlots, which contain tree species favoured by the women for fuelwood.
  - c. As many women do experience difficulties with the Ede and Kinh languages, some local women who are fluent in Ede and/or Kinh, may be able to be "paid volunteers" to assist project staff with translations to other women who only speak M'ngong.

### 6.3 Information Needs Related to Implementation

- a. Each village working with the project should have an internal, community map showing all households. This "PRA-type" map should then be used as a tool for active discussions/dialogue with villagers. Ex., in monitoring together the outcomes of various project interventions (and keeping track of who is participating in what!). In this regard, women-headed households should be marked clearly on the map to ensure that they do not get left out of activities, which would also be of potential benefit to them.
- b. Each village working with the project should have an external, land and resources map showing all the land areas of the village. This "PRA-type" map should also be used as a concrete discussion tool with villagers in discussing their constraints and potentials in agriculture and natural resources management. Such maps could also be used to discuss with people about the "protected forest" areas, and such issues as sharing land between neighbouring villages.
- c. Local "best practices." As it cannot be expected that the M'ngong people will be able to make rapid changes in their farming system, all efforts should be made to find local "best practices," whereby people could be facilitated to learn from one another. This should result in useful "farmer-visit-farmer" type activities, where people in one area can see what is "do-able" under similar conditions (local "best practices" should be looked for within the commune and district). Needless to say, women should also be included in such activities.
- d. From local "best practices," the project should also be able to find local resource persons and experts, including women. These resource persons could be called upon from time to time, as paid volunteers (?), to assist other farmers in the area. Given the known staffing constraints of the local government agencies, including agriculture, such local experts and resource persons may play an invaluable role in furthering the implementation of project activities.

### 6.4 Working Together at Local Level

- a. There is still confusion among local people as to the aims and working approach of the project. It may help if the project develops and uses some media (flipcharts and the like), to explain the project with some visualisation; wherever possible, people should be given concrete examples of what the project is doing/would like to do.
- b. The project still needs to decide which agencies are its main partners on local level, and whether they will include Forest Enterprise and Forest Protection; a greater project presence on district level will assist immeasurably in answering this question.
- c. The purpose of doing PRA. PRA may be seen primarily as a means of information gathering. However, it may also be seen as a long-term process in and of itself. The project needs to be clear which is the primary purpose of PRA in order to avoid misunderstandings along the lines of "when do we finish PRA and start implementing something?"
- d. It appears that the MRC-GTZ project is very much a research-oriented project, which should be using its "pilot site(s)" to test and adapt measures, which have been tried successfully elsewhere. There needs to be extensive discussion within the project, as to the implications of a testing orientation on the implementation of activities. (This relates, for example, to the geographical scope of implementation measures tried, the degree of monitoring, the selection of villages and even the selection of households within villages, etc.).
- e. To what extent do we rely *only* on our government partners? This is still an open question, but has important implications for the "speed" with which the project may implement its activities. Certainly, there needs to be a high degree of openness at the beginning in seeing the potentials of all of the project partners.

## ANNEXES

# Gender, Tribe and Community Control of Natural Resources in North-east India\*

SUMI KRISHNA

*Following public debate on the dissonance between tribal traditions of self-governance and modern formal institutions in December 1996, Parliament extended the Panchayat Act to the areas covered by Schedule V of the Constitution. In many parts of India this has facilitated tribal women's legal right to participate in NRM. This paper describes the particular situation in north-eastern India, which is a region of great biogeographic and strategic significance. In the north-east existing customary practices (backed by special Constitutional arrangements or the provisions of Schedule VI) continue to deny tribal women ownership and significant control over local resources. With particular reference to Arunachal Pradesh and Mizoram, the paper argues for a reappraisal by tribal women and men of the sharply gender-biased customary practices and constitutional provisions in order to draw out women's power and strengthen their capacity to shape local resource management.*

North-east India, peopled by several waves of migrations, has an extraordinarily rich and varied tapestry of cultures resulting from the uniqueness of its biogeographic evolution and anthropological history.<sup>1</sup> Its strategic location as a 'gateway' to the subcontinent has endowed it with significant ecological, floral and faunal diversity. Both biogeographically and geopolitically the north-eastern Himalaya is a critical 'hot-spot', the

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potential of its bioresources as yet not fully known. Intensifying commercial extraction and the global reach of bioprospecting pose new threats to resource conservation, development, sustainability and equitable use. The forests, wetlands and other biodiversity-rich areas have been under government and/or local control through traditional village councils (as in Nagaland and till recently Arunachal Pradesh) or statutory autonomous councils (as in Assam, Meghalaya and Mizoram). Regional autonomy, ethnic identities, local control of resources and agroforestry practices are closely interlinked and have an impact on changing resource management practices. In the emerging scenario the perspective and interests of the women of the north-eastern states do not figure.

This paper seeks to unravel some strands in the tangled knot of gender, tribe and community control of resources, an urgent task because of the intense pressures that are swiftly eroding the landscape and reshaping the social fabric. The paper delineates the varied historical and constitutional context of the north-eastern states; discusses women's roles in managing resources for household provisioning; and focuses on gender relations embedded in customary practices that constrain women's political empowerment.

### The Constitutional and Historical Context

Since the mid-1970s, there has been growing evidence that resource management at the village level is highly gendered, with women bearing the major workload in production, utilisation, distribution and conservation activities. In the 1980s West Bengal, Karnataka, Andhra and Maharashtra took the lead in establishing new systems of local self-government, and gave an impetus to women's political leadership by providing for reserved seats from the village to the district level in panchayats, *mandals* and *zila parishads*. Their experience demonstrated the effectiveness of administrative decentralisation (Mathew 1992, Mathew 1997). Recognising the opportunity for involving women in public decision making, the National Perspective Plan for Women, 1988–2000 also recommended 30 per cent reservation for women in grassroots institutions.

Building upon these earlier initiatives and the draft 64th and 65th Amendment Bills, Parliament enacted the 73rd and 74th Amendments in 1992. The 73rd Amendment (Government of India 1993) invests local bodies with the authority and the financial capability to shape local land use and development through the control of local resources—land acquisition, mining leases and rights over non-timber forest produce, for example. It also reserves a third of the elected seats of members and chairpersons for women. The revolutionary 73rd Amendment did not apply to the tribal areas covered by Schedule V of the Constitution, or to Darjeeling, the

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Manipur hills, the autonomous councils of Schedule VI, and to tribal states in the north-eastern Himalayan region, barring Sikkim and Arunachal Pradesh.<sup>2</sup>

After considerable public pressure, in 1994 the Dileep Singh Bhuria Committee of Members of Parliament and experts was set up to examine the extension of the Amendment. The Committee's report led to the Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996, which was passed by Parliament on the last day of the winter session in December 1996—surprisingly with almost no discussion. The most remarkable achievement of the Panchayat Act has been to facilitate village women's participation in local bodies almost throughout the country.

Women's experience in the panchayats is varied; some have been used as proxy members by husbands or other men in the family, or have been prevented from functioning effectively; yet others have succeeded against all odds (Buch 2000; Datta 1998). In much of the north-east, however, existing customary practices—backed by special Constitutional arrangements or the provisions of Schedule VI—deny tribal women ownership and effective control over local resources.

Village affairs in most parts of the north-east have traditionally been managed by men who derived their political power from their prowess at war, their wealth and ritual status in the tribal clan. In the colonial period many tribal communities and their leaders took advantage of the opportunities for education and new occupations. This, rather than landed property, fuelled the rise of a middle-class elite. After independence, a policy of affirmative action, better communications, more development activity and the rising aspirations of the people have created a nexus between the new tribal elites, government functionaries, contractors and politicians, and non-tribal entrepreneurs and traders. The process of social transformation has increased the tribal elite's control over the institutions of governance at all levels from the village outwards (see Sinha 1998).

In the 1960s, in the north-east for the first time in independent India, ethnicity rather than language was recognised in demarcating states. The political and administrative structure that evolved in response to the particular needs of the region was governed by the 'peace agreements' with the union government and by special overriding provisions of the Constitution for Nagaland, Assam, Manipur, Mizoram and Arunachal Pradesh. For instance, Article 371A relating to Nagaland provides that no Act of Parliament in respect of Naga religious and social practices, customary law and procedure, ownership and transfer of land, etc. shall apply to the state, unless this is adopted by a resolution of the Legislative Assembly.<sup>3</sup> Schedule VI (under Article 244) provides for District and Regional Councils, which have considerable independence, although not financial power, in dealing with local administrative and legislative matters.

Consequently, unlike the position elsewhere in India, the government's control over land use is limited.<sup>4</sup> The government has acquired ownership over a large extent of forest land, but many forests and watersheds are still under local control through autonomous councils (Assam, Meghalaya and Mizoram) or village councils (Nagaland and till late 1997 Arunachal Pradesh). In these states the peoples' perception is that the Constitutional provisions effectively protect the village community's customary rights over the use of forested land and the extraction of forest-based resources. So, when the state authority intervenes in the matter of land or forests, as in the 1996 Supreme Court ruling against the interstate movement of timber, there is a general feeling shared by women and men 'that land rights have been infringed upon' (Basaiawmoit 1997). The control and management of resources, notably, oil, natural gas, timber, plywood and tea, are critical issues. In future the extraction and export of horticultural plants (like orchids and citrus fruit) and medicinal plants (like *Coptis teeta*) are likely to be even more contentious.

The politics of resource control and ethnicity have been closely interwoven. In Assam and some of the other states the middle class has effectively used this lever in the regional and autonomy movements. Women's interest and motivation is evident in the crucial role that they have played in the various struggles for greater autonomy vis-à-vis the central government, as in the Assam and Nagaland movements. But this has not enhanced women's decision-making power in the public or political sphere (Misra and Misra 1995). On an average, in the north-east, women's representation in the legislatures is less than half that in India as a whole, which itself is abysmally low at 4 per cent (Table 1). In Tripura and Meghalaya it is 1.7. In Manipur, Mizoram, Nagaland and Arunachal Pradesh women rarely make it to the legislature. This reflects the reality of societies in which women's participation in political institutions is almost non-existent.

Table 1  
Percentage of Women Members of Legislatures in North-eastern States

State	1989-92	1993-97
Arunachal	3.3	3.3
Assam	4.0	4.8
Manipur	1.7	none
Meghalaya	no election	1.7
Mizoram	none	none
Nagaland	none	none
Tripura	no election	1.7
All-India	4.5	4.0

Source: Extracted from: CSDS. Data Unit; Manchanda (1998).



## Resource Management for Household Provisioning

Even as political participation remains illusory, women's economic power is also being undermined. It is now well recognised that women tend to lose status with the livelihood changes involved in the transformation from foraging/shifting cultivation to settled agriculture, communal to private ownership, and local to wider market interactions—all processes very evident in the north-east. Despite the sharp diversities in the ecological and social situations in different parts of the region, women's responsibilities for managing resources for household provisioning do not vary much, whether it be in Mizoram (Krishna 1998c) or Lower Subansiri district in Arunachal Pradesh (Krishna 1998b).

### Lower Subansiri District, Arunachal Pradesh

Household and community roles among the Arunachali tribes are sharply gendered (see Chowdhury 1990). Men and boys hunt and fish; cultivation and food preparation is the women's responsibility. Men perform specific tasks, like slashing the trees for *jhuming* (shifting cultivation) or using the plough for settled cultivation (as the Singhpos do in Lohit district). In Lower Subansiri district men of all ages and young women no longer want to work on family fields, but may work for wages on government demonstration farms. Private landholdings are being sold to educate children who aspire for government jobs at different levels in the public works, rural works, public health, engineering, power, irrigation and flood control departments—all routes to 'easy [that is unaccounted] money'.

The Apatani plateau between Hapoli and Ziro in Lower Subansiri district is globally famous for a unique system of high-altitude (nearly 200m above sea level) irrigated rice and fish cultivation. Among the Apatanis ecological knowledge and skills are sharply differentiated by age and gender. Older women identify varieties of paddy suited to differing soil conditions and select 'pure seed'. Neither the men nor youth (boys or girls) have this skill. As educated young women 'escape' from the village, the older women's workload is increasing. Nani Duni's two sons, a junior engineer and a veterinarian, are in government service; her daughter is away at college. Nani Duni and other Apatani women cope with the lack of helping hands by forming a work group of 10 women who labour in rotation on one another's fields. As the burden of food production is being shifted almost entirely on to the older women, and the ecological knowledge of men and educated young women being eroded, the sustainability of resource use is becoming problematic.

Traditionally, only men handled the spade to prepare the fields. This seems to be changing as men withdraw from farming operations—one

saw many women in the fields using spades. Men also construct houses and are responsible for fuel, fetching the firewood from the forest and chopping it. In the past an Apatani or Nishing woman would do these tasks only in dire necessity, for instance, if she were a widow with young children; yet now it is the women and girls who collect firewood. Some older men might help, but few young men fetch firewood. Apatani men still chop the wood and stack it with the women's help. But early one morning in a Nishing village, one saw women chopping wood—an unusual sight that reflects the changing conditions. There is no change, however, in the domestic sphere of cooking, cleaning and child care, which continue to remain wholly in the woman's domain. It is also still the village woman's duty to prepare the home-brewed liquor for the men.

The increasing workload all around means that women do not have the time to weave the cloth for *gaale* (sarong-like wraparound skirt), although they still have looms in their houses and they have the basic weaving skills. Even older women in the interior villages are now buying Himachali shawls from the market instead of weaving their own *gaale*. In Arunachal all crafts are strictly gendered, both traditionally and now in the government's district industrial craft centres. Pottery and weaving are women's crafts, which are barely surviving with government support and export orders, unlike the men's crafts of carpentry and cane work. Tribal boys are not interested in cane craft because it requires a year's training and they are looking for much bigger money than they could possibly earn by making and selling cane furniture.

### Mizoram

In sharp contrast to the verdant high northern ranges of the Himalaya in Arunachal, are the sparsely covered low hills of Mizoram south of the Brahmaputra. Mizoram is also distinguished by strongly knit communities where (despite being regrouped by the Indian army during the Mizo insurgency) village land is still largely held in common and annually allocated to families by draw of lots. Resource management roles are gendered, but the knowledge base continues to be shared. So men's knowledge about agriculture is not yet limited by their traditionally lesser roles in many jhumming operations, and although women do not hunt they seem to share the men's knowledge of wild animals. Certain gender roles are firmly established by tradition; others are more fluid, and some changes are taking place. Traditionally, only men are entitled to wield the gun to hunt and the axe to slash down the trees in the *jhum* field. All other tasks involved in the jhumming cycle are either done jointly or by women alone. Women participate in clearing the slashed and burned debris, and they prepare the land for planting. Seed selection may be done by women or men, but seed storage within the household is the woman's responsibility.

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Small quantities, such as of maize, are stored in dry gourds, and larger quantities, such as of paddy, in bamboo baskets and tin drums. Wood ash is used for protection from insect damage. Sowing seeds whether by broadcasting or dibbling (making a hole with a small stick) is generally done by women, but may also be done by men. Weeding, which is most arduous and has to be done repeatedly, is almost wholly the women's task. Harvesting is done jointly.

Yet, as in Arunachal, the spread of education and new avenues of employment are adding to the older women's farming responsibilities. High up on a steep hillside beyond Zanlawn village in central Mizoram, a 50-year-old woman farmer Chhuanthangi was planting sugarcane, 'a Coimbatore variety', she told me. Working with her were three hired women and men labourers. The seven members in her own family included young grandchildren. Her husband, a forest beat officer, was away at work; her teenage son (an unemployed driver) and daughter (who had failed the matriculation examination) were not interested in jhuming. Chhuanthangi takes agricultural decisions because her husband is too busy or uninterested. As elsewhere in the north-east, educating the young is shifting the burden of food production to older women, who must manage resources without any real control over them.

Firewood is the main source of fuel. Both firewood and water may be collected by women or men. Young men and children use a low wooden toboggan-like cart to carry firewood and other goods. The solid wooden wheels with a rubber rim and the single rod steering lever are very effective in making the cart skim downhill on the metalled roads. It is also used for joy rides by children. Water is collected in tin drums balanced on a rod, which is carried on the shoulder by women or men. Modern technologies that involve machinery and tools are usually in the men's domain, but some women have worked with traditional tools, as in blacksmithy. Nowadays, labour-intensive activities like pounding grain are being given up. An elderly woman, Lalrin Tluangi, pounded some grain but said she was only showing me how it used to be done as the family now took their grain to be milled in commercial diesel-operated machines or bought subsidised grain from the public distribution system. Home-grown rice was tastier, but market rice was more economical. For the poor, the labour and monetary cost of maintaining local crop strains are steep.

Petty trade is completely managed by women, whether in the vegetable market in Aizawl, the Mizoram capital, or in small rural markets. All the stalls at roadside markets are run by women, selling monkey beans, local leafy greens, tamarind, salt, bananas, oranges and papayas, besides betel leaves and cigarettes. (In between looking after customers, some women pass the time reading.) The highly profitable, large-scale trade in vegetables and the transportation by truck to the Assam plains is controlled by

tribal men and men from the plains. The roadside eateries that the truck drivers patronise are run by both women and men.

Men construct houses, but all the other tasks in and around the house are the woman's. Women cook, clean and wash; tend the home gardens and domestic animals; make baskets, spin and weave cloth. Child care is wholly the woman's responsibility. Some women say that their domestic chores give them a sense of worth in the family, despite being time consuming and energy sapping. On the other hand, with changing livelihood options, many young Mizo men are confused about their role in the family. One can sometimes see a village boy roaming the whole day in the forest, with a gun slung over his shoulders. There is not much game to be hunted now but it is difficult for boys and young men to overcome their socially defined gender roles and help mothers on the jhum field.

In Mizoram, Arunachal Pradesh and other north-eastern states the erosion of traditional male roles and centuries'-old livelihood skills has led to identity problems, particularly among young men. One coping strategy seems to be to ensure that women's public status is maintained some notches lower than the men's. So men have an important stake in retaining or enhancing control of resources and decision making.<sup>5</sup> This makes it especially difficult to engender local resource control by bringing about changes in gender-biased customary practices, to which I now turn.

### Gender Relations in Customary Practice

Apart from a few matrilineal communities, the tribal societies in the north-east are patrilineal and patrilocal. Traditionally, women have not participated in decision-making bodies, and almost everywhere there is entrenched resistance among the tribal male elite to empowering women with political rights. This is true of all kinds of tribal societies, whether authoritarian or republican; and regardless of the traditional belief systems or religion (Buddhist/Christian/Hindu) to which a tribe may subscribe. High female literacy as among the Mizos and some sections of the Nagas also does not seem to affect the status of women.

Gender relations vary among the tribes. There is no gender seclusion, and most tribes allow adolescent boys and girls to mix freely. There is greater disparity with regard to women's choice of marriage partners, the right to divorce and a widow's right to remarry. Women's visibility in the economic life of tribal villages and their greater freedom of movement (as compared to that of upper-caste north Indian Hindu women, for example) have contributed to the myth of gender equality created by British ethnographers and reinforced by Indian administrators (Krishna 1996). Critiquing the 'ethnographer's romanticised model', Nongbri (1998: 223) says that the tribal women's 'greater economic independence and freedom

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of movement' compared to 'their counterparts in non-tribal societies cannot be disputed', but it is 'naïve to equate this with superior social status'. She argues that a 'closer look would show that gender inequality is not alien to tribal societies but it is obscured by their poor economic conditions which forces men and women to co-operate and share in joint economic activities'.<sup>6</sup>

The non-tribal Meiteis of the Manipur valley are among the few communities who do not socialise women into subordinate status (Krishna 1996).<sup>7</sup> In the early 19th century, the wars with Burma (now Myanmar) led to severe male depopulation and enlarged the women's sphere of work. Hinduisation, which had begun before the wars, was intensified by the patronage of the ruling elite. But Vaishnavite Hinduism was not able to erase traditional belief systems or promote gender-biased practices, such as the prohibition of divorce and widow remarriage, or encourage pre-puberty marriages and *sati*. So, too, Muslim Meitei ('Pangan') women rejected the custom of *purdah*. Caste Hinduism was not able to curtail the customary male-female cooperation in the religious sphere or change women's socioeconomic role, which centres on the market for rice. Meitei women's control of the rice trade gives them a powerful public voice. So, although the Meiteis are a patrilineal society and men have the position of authority as fathers and husbands, the women's socioeconomic power and collective strength counteracts male domination. Commenting on 'the traditional political power of the market network' of Meitei women, Chaki-Sircar (1984: 223) pointed out that 'the women can paralyse the political and administrative system when the need arises'. This power is not easily eroded. Yet, even in the Manipur valley, women's representation in local bodies has been minimal. Manipur (like Assam) has had a panchayat system from the early years of the 20th century to look after village administration and development, and to function as a civil court, but only men were panchayat members. In the late 1970s a few women were nominated to the panchayats, and young women began to campaign for male candidates in the panchayat elections. But political participation continues to be very low, or non-existent, at all levels up to the state legislature (Table 1).

In the matrilineal Khasi and Garo societies of Meghalaya, inheritance and descent are traced through the female line, but customary practices are not gender egalitarian as authority is vested in the mother's brother. Tilput Nongbri (1994: 88-89) suggests that the Khasi saying 'war and politics for men, property and children for women' was a way of legitimising male roles and mystifying the position of women. Women inherit property but lack the power to manage it. Traditionally, control was exercised by men. Indeed, by 'glorifying women's status as mothers the men were free of the demands of family duties'. Since the 1960s attempts have been made to redefine customary laws and 'regulate' the behaviour of Khasi

women. Political leaders have supported the move to suspend women's inheritance rights if they marry 'outsiders'. In 1990 an association of students, businessmen and civil servants was formed mainly to ensure the husband/father's authority over wife and children. Khasi men are using their political power to strengthen their position in the public domain, and to transform social practice and its legal underpinnings towards a patrilineal and patriarchal system. In a power struggle with the elected autonomous councils the *syiems* (male tribal chiefs) have their own interests in seeking Constitutional protection for customary law (Gupta 2000). In this situation, the changes necessary to involve women in resource control and public decision making are unlikely to gain support.

Mizoram stands out for high female literacy (Table 2) on par with Kerala, but this has not changed women's subordinate status in legally-binding tribal customs tersely summed up in the saying: 'Wives and old bamboo fences need to be changed.' Lanipuii (personal communication), president of the statewide Mizo women's organisation, widely known by the acronym MHIP, points out that the women have no standing in customary marriage laws, and can be discarded for a whim; the husband merely paying a fine of Rs. 40.<sup>8</sup> Even those Mizo men who are more sensitive to women's status feel that only periodic revision of the fine amount is required. Mizo women are liberated to work, but their earnings belong to the men. Mizo society is patrilineal and the women have no right to property. A widow's place in society is precarious for she is herself the 'property' of her son. Women are like 'good servants' who are consulted but are not decision makers, says Lanipuii. Despite this, K.S. Singh (1995: xiv) says, 'Mizo women do not suffer from any discrimination.' There are very few women in the Mizo village councils and none in the legislature (Table 1). The MHIP has branches in every village. Its articulate leaders are firm that traditional customary practices must change and that laws must be revised. They

Table 2  
Sex Ratio (Females per 1,000 Males) and Female Literacy Rate

State	Sex ratio		Literacy (%)	
	1991	2001	1991	2001
Arunachal	861	901	29.37	44.24
Assam	925	932	43.70	56.03
Manipur	961	978	48.64	59.70
Meghalaya	947	975	44.78	60.41
Mizoram	924	938	78.09	86.13
Nagaland	890	909	55.72	61.92
Tripura	946	950	50.01	65.41
All-India	929	933	39.42	44.24

Source: Registrar General of India, 2001; Census of India (2001); Bose (1991).

want reservation for women in locally elected bodies, as is provided in the 73rd Amendment, but this was rejected by the chief minister (Krishna 1998c).

The situation in Nagaland is not much different (see Zehol 1998), except that Nagaland has already codified its customary practices, leaving women with little legal space. And unlike the Mizo women's MHIP, Naga women do not have a strong organisation to speak for them. Traditional practices determine women's status and behaviour. For instance, the Angami Nagas have a saying that a girl's duty is to work but not to earn, and women are not allowed to inherit property (Kelhou 1998). Even among the Aos, known for their traditionally democratic village 'republics', irrespective of wealth and rank men may participate in the village bodies, but not women despite their high literacy (Aier 1998). Ao women cannot inherit property although they can manage, buy and sell property. The Naga legislature has passed a formal resolution against adopting the 73rd Amendment.

The most vulnerable and disadvantaged of all the tribal women in the north-east are those who were governed directly by the union government till the formation of the separate state of Arunachal Pradesh. By all criteria, the status of women in Arunachal is among the lowest in the country. The sex ratio of 901 is low compared to the national figure of 933 females per 1,000 males (Census 2001). The female literacy rate, which was under 30 per cent in 1991, has risen to 44.24, which puts the state on par with Rajasthan (Table 2). Visiting scholars, administrators and casual observers have remarked upon the women's beauty and grace, not their status in society. Even Verrier Elwin (1959)—who helped to shape Prime Minister Jawaharlal Nehru's sympathetic policies towards the then North-east Frontier Agency (NEFA)—said that the women of NEFA held a 'high and honourable position', working on equal terms with men on the jhum fields and influencing the tribal councils. This is a myth. Poor tribal women bear almost the entire responsibility for food production, but they have few rights in the deeply patriarchal society. (Krishna 1998b). Two decades ago a study of 17 tribes and sub-tribes all over Arunachal, except Siang district, concluded that Arunachali women did not have 'many of the rights taken for granted in other communities, tribal ones included' (Dutta 1976: 68). That situation is not much changed (Danda, presumed 1998). An Arunachali woman has no right to moveable or immoveable property, except her share of her mother's ornaments. In many tribes a woman is considered her husband's 'property' and upon his death that of the eldest son. The widespread practice of bride price reinforces the concept of a wife as useful property. Even the Taraon-Mishmi word for marriage, *miya braiya*, means 'buying a woman' (Baruah 1976: 111). The high price of a good worker is usually calculated in terms of *mithuns* (a local breed of partially domesticated cattle, resembling *gaur*)



and has been the cause of indebtedness. Young men want value for their money and easily discard a wife. Apatani women have a reputation of being hard workers, but even if there is no work to be done, they will be out in the fields, for they cannot be seen to be at leisure (Krishna 1998b).

Till very recently, Arunachal had a dual system of traditional village councils and modern panchayats. Women of all tribes have been almost completely excluded from participation in community affairs in both systems. The Tangsa, Nocte, Singpho, Sulung, Sherdukpen and Nishing do not allow women even as observers in village councils. Some tribes allow women to listen to the proceedings but not to take part. There have been a few token women members in the modern civic bodies, and in the late 1990s some women entered traditional village councils. In Siang district, Gallong women were allowed to wear the 'red coats' that identify them as council members but they are not allowed to speak. The men say, 'We have given women the red coats so that they can make and serve tea at the meetings' (Jajrum Ete, personal communication). Indeed, despite women's protests, the state legislature has passed a controversial bill to protect its customary laws and social practices (Government of Arunachal Pradesh 1994).

### **Women's Power to Shape Resource Management**

North-eastern women are not a homogenous group; their mobility, visibility and economic role differ as between the elite and the poor, from state to state and tribe to tribe, but there are some commonalities. In the past, a wife/mother's opinion was esteemed even if she had no property rights (see Choudhury 1993: 32). Changes in land use and agricultural practices, however, are undermining the relevance of women's knowledge. Moreover, it seems that women must provide any additional farm labour input that is required (Krishna 1998a). As the responsibility for food production and provisioning the household is shifting to older women, these mature, experienced women have little time or energy to participate in community decision making (Krishna 2000). Young men, on the other hand, are in deep confusion over their changing role and identity in society, expressing their masculinity in new ways like driving/owning vehicles, in widespread political aspirations to be a minister (Krishna 1998b, Krishna 1998c), and in resorting to male solidarity to reinforce women's subordinate status in public. When ethnic autonomy or statehood is at stake, tribal customary practice has not been an obstacle to women's participation in political activity, but patriarchal values dominate (as in caste/class societies elsewhere in India) when it comes to representation in formal political institutions. This instrumental approach to women's concerns, rights and political participation is reflected in the codification of

tribal law and customary practice, which has been treated as a matter between traditional tribal chiefs and the state.

A common narrative runs through the region: inequitable gender relations and resource control embedded in tribal customary practices, which are supported in some cases by special Constitutional arrangements. This raises the question of whether women's representation on local decision-making bodies would help draw out their power and enhance local resource control and management in the future. It also poses the problem of why factors such as matriliney (Khasi and Garo), literacy (Mizo and Ao) and economic power (Meitei) seem to have little impact on women's political empowerment. Women's organisations such as the Mizo MHIP and the Arunachal Women's Welfare Association are struggling to gain self-respect, autonomy and political space. Perhaps a shared platform may be more empowering than literacy, economic power and inheritance of land/property. This reflects the complexities that must be unravelled and also the many dimensions of the struggle to engender community rights in natural resource management in India.

### Notes

1. The term 'north-east' refers specifically to seven states: Assam, Meghalaya, Mizoram, Nagaland, Manipur, Arunachal Pradesh and Tripura. The biogeographic eastern Himalayan region also includes the hill district of Darjeeling (West Bengal) and Sikkim in India, and Bhutan.
2. Article 244 of the Constitution of India deals with 'Scheduled and Tribal Areas'. Schedule V applies to the administration and control of Scheduled Areas (in states excluding Assam and Meghalaya), contiguous areas of tribal population, which are notified as such by the president. The districts included in Schedule VI are—Assam: North Cachar Hills, and Mikir Hills; Meghalaya: Khasi-Jaintia Hills, Jowai Hills and Garo Hills; Mizoram: Chakma, Lakher and Pawi districts.  
Article 243M of the Constitution (73rd Amendment) Act, 1992, exempts from its application the following: (a) the Darjeeling Gorkha Hill Council; (b) the states of Nagaland, Meghalaya and Mizoram, whose legislatures may extend the provisions in their states, barring the tribal areas listed in Schedule VI; (c) the hill areas of Manipur (where district councils exist); and (d) all the areas in Schedules V and VI.
3. Similar provisions have been made for the states of Assam (Article 371B), Manipur (371C), Mizoram (371G) and Arunachal Pradesh (371H).
4. Tripura is exceptional in having defined a landownership regime under the Tripura Land Revenue and Land Reforms Act, 1969, which applies to the entire state, including the hill areas. In Tripura all land that is not privately owned is vested with the government, whereas in the other north-eastern states various forms of communal control of land management continue (Ganguly 1993).
5. Even within university settings, women academics are forced by male colleagues into traditional roles. At a regional conference of social scientists held at Aizawl in the mid-1990s, visiting teachers were surprised that Mizo women were not present. It emerged that the women were busy cooking lunch for everybody, because that was the custom in Mizoram (Manorama Sharma, personal communication).

6. As Kelkar and Nathan (1992: 148) also say in the context of social relations in Jharkhand, The seeds of inequality have been present in adivasi society, albeit not in the developed form of full control over all aspects of a woman's existence as we find in caste/class society. It is, however, in the interaction of Jharkhandi society with the state formations of the plains—initially with the Mughal raj and much more so with British colonialism—that this society has evolved in the direction of a patriarchy.
7. The Mètei include Vaishnavite Hindus, 'Pangans' (Muslims), Buddhists and Christians.
8. Customary laws and practices continue in force as the village council court takes decisions on the basis of oral traditions and customary sanctions. Fines are imposed for a variety of offences and range from Rs. 5 to Rs. 50. Some aspects of Mizo customary law with regard to marriage, divorce and inheritance, as described by Roy and Rizvi (1990), seem to differ from what I gathered in 1997 in interviews with members of MHIP. This may be because of variation between what is taken as 'given' in customary law and what actually happens, and reflects one of the problems of codifying such practices.

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**Group Functioning and  
Community Forestry in South Asia:**

**A Gender Analysis and  
Conceptual Framework**

Bina Agarwal

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# **Group Functioning and Community Forestry in South Asia**

A Gender Analysis and Conceptual Framework

**Bina Agarwal**

January 2000

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## **LIST OF ABBREVIATIONS**

CFG	Community Forestry Group
EC	Executive Committee
FUG	Forest User Group
JFM	Joint Forest Management
NGO	Non-Governmental Organization
UP	Uttar Pradesh

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## ABSTRACT

This paper examines group functioning in the management of common pool resources, such as forests. In recent years community forestry groups have mushroomed in South Asia. But how participative, equitable and efficient are they? Many have done well in the short run in terms of regenerating previously degraded lands. But are they reaping the full potential benefit of their efforts, and will they sustain? Equally, are the benefits and costs being shared equitably between rich and poor households and between women and men? The paper demonstrates that seemingly participative, equitable, and successful groups can reveal significant inequities and inefficiencies when viewed from a gender perspective.

The paper also examines the factors that constrain women's (especially but not only poor women's) participation, and those that lead to gender inequitable outcomes. It argues that participation and distributional equity (and associated fallouts for efficiency) depend especially on rules, norms, perceptions, personal endowments and attributes, and household endowments and attributes. Reducing the gender bias embedded in these factors would depend on women's bargaining power with the State, the community and the family. The paper outlines the likely determinants of women's bargaining power in these arenas, and analyses ground experience in terms of progress made and dilemmas encountered.

## I INTRODUCTION

Rural community forestry groups, managing State or community owned forest resources, represent one of the most rapidly growing forms of collective action initiatives in large parts of the developing world. They thus provide an especially useful study in how groups function. This paper will focus on South Asian experience to illuminate some critical aspects of collective action and institutional functioning in relation to common pool resources. Among other things, it will analyse how groups, which are seemingly participative, equitable and efficient can cloak significant gender inequities and inefficiencies. It will also examine what underlies unfavourable outcomes and how outcomes can be improved.

For rural households in South Asia, forests and village commons have always been important sources of basic necessities and supplementary livelihoods, providing firewood, fodder, small timber, and various non-timber products. Especially for the poor and women who own little private land, they have been critical sources. In the 1980s, for instance, in semi-arid regions, the landless and landpoor obtained over 90 per cent of their firewood and satisfied 69-89 per cent of their grazing needs from communal resources (Jodha, 1986). In that period, firewood alone provided 65-67 per cent of total domestic energy in the hills and desert areas of India and over 90 per cent in Nepal as a whole (Agarwal, 1987). Today, firewood remains the single most important source (and for many the only source) of rural domestic energy in most of South Asia, and is still largely gathered, not bought.<sup>1</sup>

However, over the decades, people's ability to fulfil such needs has been eroding with the decline in communal resources, due both to degradation and to shifts in property rights away from community hands to State and individual hands. The formation of community forest management groups in recent years represents a small but notable reversal in these processes of statization and privatization, toward a re-establishment of greater community control over forests and village commons.

These groups have a range of origins: some are State-initiated, others self-initiated by villagers, and yet others catalysed interactively by non-governmental organizations (NGOs), communities, and local state officials. But unlike the old systems of communal property management, which typically recognized the usufruct rights of all village residents, the new ones

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<sup>1</sup> For India, see Natrajan (1995).

represent a more formalized system of rights. Typically these rights are based either on membership (as in the State-initiated groups), or on rules specified by selected (often self selected) community members (as in the self-initiated groups). In other words, membership, or some other formal system, is replacing village citizenship as the defining criterion for establishing rights in the commons.

This raises some critical questions, such as: how are the community forestry groups performing in terms of participation, equity and efficiency from the perspective of women, especially the poor? Are the benefits and costs being shared equitably, or are they creating a system of property rights in communal land which, like existing rights in privatized land, are strongly elite and/or male centred? What determines their performance on these fronts? How can the outcomes be made more participative, equitable and efficient?

While focusing on these questions, the interactive effect of one outcome on another is also examined. For instance, excluding women (often the principal users of community forests) from participation in the group's decision-making bodies could have a range of negative efficiency fallouts, such as the framing of inappropriate and inequitable rules which might tend to be broken. These issues are analysed here mainly from a gender perspective, since they typically cut across class/caste divisions, but where relevant, the interplay of class/caste with gender, in defining differences in outcomes for different categories of women, is also focused on.

Conceptually, it is argued here that the outcomes of group functioning are determined especially by rules, norms, and perceptions, in addition to the personal and household endowments and attributes of those affected. All of these factors can disadvantage women, both separately and interactively. To what extent these can be changed in women's favour will depend on women's bargaining power vis-à-vis the State, the community, and the family. The paper spells out the factors that are likely to affect women's bargaining power in these three arenas. Among the factors discussed is the role of gender-progressive groups and coalitions as distinct interest groups, within or outside the larger groups, in all three arenas. While these aspects are discussed in the context of community forestry, the overall conceptual framework would be relevant to understanding gendered dimensions of group functioning in a number of other contexts as well.

Part II of the paper gives a background to the field data used here; Part III provides a brief description of community forestry groups in India and Nepal. Part IV examines the nature of outcomes in terms of participation, equity and

efficiency, and Part V traces the factors underlying particular outcomes. Parts VI and VII analyse, the former conceptually (in terms of the bargaining framework), the latter drawing on ground experience, how the outcomes might be made more favourable for women. Part VIII contains brief concluding comments.

## II SOME DETAILS OF FIELDWORK

The paper is based largely on my field visits and interviews undertaken during 1998-9, supplemented by existing case studies. My fieldwork covered 87 community forestry sites across five states of India (Gujarat, Karnataka, Madhya Pradesh, Orissa, and the Uttar Pradesh hills) and two districts (Kaski and Dang) of Nepal.<sup>2</sup> The Indian sites were chosen in order to cover: (1) the most important types of community forestry institutions to be found in the country, namely JFM groups, self-initiated groups, and *van panchayats* (village councils), with varying degrees of NGO presence in each type; (2) the culturally and ecologically diverse context within which such initiatives are located; and (3) varied experiences of women's participation. I had also done fieldwork in some sites earlier: in Gujarat in 1995, in the Uttar Pradesh (UP) hills in 1993 and 1995, and in West Bengal in 1993. In the case of Nepal, although it was not possible to cover the ecological spread of community forestry in that country, the two districts I visited provided an interesting range of illustrative case studies.

My visits were facilitated by a diverse set of institutions and individuals: NGOs involved in community forestry work in a region; the forest department officials responsible for JFM; and local researchers. Since my purpose was to get an overview rather than to pursue any single village experience in depth, my trips involved short visits to the selected villages. In all cases, I was accompanied by at least one person who had some prior knowledge of the area and people. In locales where I did not speak the language, such a person also served as an interpreter.

Information was obtained mostly through relatively unstructured interviews with groups of women and men involved in community forestry. This often

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<sup>2</sup> In India, the term 'state' relates to the biggest administrative divisions within the country and is not to be confused with 'State', used throughout the paper in the political economy sense of the word. In Nepal the biggest administrative divisions are 'districts'. In India, districts are smaller divisions within states.



included those who had played leadership roles in community forest management. Sometimes I met with women and men in separate groups, at other times jointly. I sought to interview a range of individuals in each group. In addition, in some cases, individual interviews were also conducted with key informants. These were typically women or men who were office bearers in the CFG executive committees, and sometimes in other village-based institutions, such as a women's association or the village council. The material gathered here provides answers on some counts and pointers on others, which I hope to explore further in a follow-up survey.

### **III BACKGROUND ON COMMUNITY FORESTRY GROUPS**

By the mid 1970s, the degradation of forests and village commons had reached crisis proportions in large parts of India and Nepal. The initial response of the government and donor agencies was to undertake 'social forestry' programmes which typically took the form of plantations of commercial species, promoted and managed in a top-down manner. This brought little success, and raised serious doubts about the ability of the State to develop what was a communal resource, without some significant involvement of the resource-using communities (Agarwal, 1986). In contrast, there were emerging stories of successful forest protection and management by a number of communities, some in the context of forest movements such as Chipko in the UP hills (northwest India) initiated in 1973, others taking the form of spontaneous initiatives by villagers, and some few encouraged by forest officials (as in West Bengal, eastern India). The lessons so learnt, as well as inputs from environmental activists, academics, and others, led in the early 1990s to a notable shift in government policies in both countries, toward more community-oriented forest management.

In recent years, we thus see a mushrooming of community forestry groups (henceforth called CFGs) in South Asia.<sup>3</sup> Some CFGs have been State-initiated. These include: (a) the Joint Forest Management (JFM) programme launched in India in 1990, involving a co-management deal in which village communities and the government share the responsibilities and benefits of regenerating degraded local forests; and (b) the community forestry programme launched in Nepal 1993 in which the State transfers even good forest land to a set of identified users who form a forest user group (FUG) and

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<sup>3</sup> I will be using CFG as a general term to cover all types of community forestry groups in India and Nepal.

who are entitled to all of the benefits.<sup>4</sup> In both India and Nepal, NGOs can act as intermediaries and catalysts.<sup>5</sup> Other CFGs have been initiated autonomously by a village council, youth club or village elder. Yet others have a mixed history, such as the *van panchayats* or forest councils in India's UP hills, which date to the 1930s.

JFM groups alone constitute some 21,000 community forestry groups in India today, covering 2.5 million hectares (m ha) or 3.9 per cent of the country's forest land (SPWD, 1998). In addition, there would be a few thousand groups of other types (mentioned above), apart from the protection efforts spearheaded by environmental movements such as Chipko. So far, such forestry initiatives are largely located among communities which are highly forest dependent and facing considerable scarcities due to acute degradation of the resource base, or which fear facing degradation and scarcity. Most also involve tribal or hill populations that are relatively less socially and economically differentiated.

Similarly, in Nepal there were 5,356 FUGs in 1996 covering an area of 0.36 m ha or 6.7 per cent of Nepal's total forest land (Joshi, 1996). I understand that by 1998 about 15 per cent of forestland had been handed over to FUGs, out of a targeted transfer of 61 per cent of Nepal's forests. To date, most FUGs are located in Nepal's hill districts. In addition to these formally recognized FUGs there are a scattering of self-initiated groups and indigenous protection efforts going back several decades. Some further details of the major types of CFGs are given below.

### **3.1 India**

Today 63 m ha or 19.4 per cent of India's geographic area is under forest. Much of this is degraded and the remaining good forests are concentrated in pockets of central, eastern and northeastern India. Most of India's forest land falls under government jurisdiction and has until recently been policed and managed largely by the forest department, with selected and highly restricted rights being granted to local users. Policing by the State involves high transactions costs and is often ineffective (Agarwal, 1986). The recent changes in State policy (as embodied in the JFM programme) represent a notable shift toward recognizing the importance of involving local communities for more effective forest management.

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<sup>4</sup> The government, however, retains the right to reclaim any forests seen to be mismanaged by the FUGs.

<sup>5</sup> In Nepal, however, the involvement of expatriates employed by international donors has been more direct than in India.

Of the three types of CFGs described below, JFM groups are the most widespread, both geographically and in forest area covered, and, over time, the programme is expected to cover all states of India. Self-initiated autonomous groups are concentrated mainly in eastern India, and *van panchayats* in the UP hills.

### *3.1.1 The joint forest management programme*

The basic idea behind this programme is to establish a partnership between the state forest department and village communities, with a sharing of responsibilities and benefits. Although the earliest such initiatives are noted to have been catalysed by two district forest officers in West Bengal in the early 1970s, these remained isolated cases until the late 1980s when there was rapid informal expansion. In 1989 a formal policy was approved by the West Bengal government following the proven success of forest protection by villagers in the noted districts (Poffenberger, 1990). Subsequently, on June 1, 1990, a central government circular spelt out the new national policy for involving village communities across the country to revive degraded forest lands.

To date, 19 states have passed JFM resolutions. The resolutions allow the participating villagers free access to most non-timber forest products and to 25-50 per cent (varying by state) of the mature timber when finally harvested. The resolutions broadly prescribe a two-tier organizational structure, consisting of a general body with members drawn from the whole village and an executive (or management) committee (henceforth called EC) of some 9-15 persons. Also prescribed are the eligibility rules for membership in the general body and EC. These rules vary by state. Some states allow general body membership to only one person per household, others to one man and one woman per household, a few to all village residents, and so on. The prescribed composition of the EC similarly varies: apart from a certain number of elected/selected village representatives, some states specify the inclusion of specific categories of persons, such as a panchayat representative and a forest department representative. In addition, most states now specify a minimum number of female members and some also require the inclusion of a low-caste or landless member. These membership rules for both the general body and the EC have also been changing over time, with important gender implications that are traced later.

Typically the general body meets once or twice a year and the EC meets about once a month. Both bodies, interactively, define the rules for forest use and

benefit sharing, the structure of fines for rule violation, the method of protection (e.g., guards, patrol groups, etc.), and so on.

### *3.1.2 Self-initiated autonomous CFGs*

Parallel to and often prior to the JFM initiatives, numerous self-initiated CFGs have emerged especially in eastern India, catalysed by local leaders and sometimes supported by NGOs. Enormously diverse in form and structure, these CFGs are found mainly in areas where people are still strongly dependent on forests and have some tradition of community resource management. They are present in largest numbers in Bihar and Orissa and to a lesser extent in some other states, and are run variously by village councils, youth clubs, village elders, and so on. Over time, some of these groups have formally registered with the forest department, but most remain autonomous, without official standing but with tacit village approval to manage the forest, make rules, and punish offenders.

### *3.1.3 Van panchayats*

*Van panchayats* or forest councils were established in the UP hills by the colonial government in the 1930s, in response to a long period of agitation by local communities against the government's curtailment of their rights to forest use. On the recommendation of a committee set up in 1921 to examine people's grievances, the forests were reclassified into two categories. Class I forests were those judged as having little commercial value but important as watersheds and as sources of fuel and fodder to local communities. These were placed under the revenue department. Class II forests were those containing commercially valuable timber species; these were placed under the forest department. In addition there were the 'civil forests'—forests that fell within village boundaries—which were informally managed by villagers but formally under the revenue department's control. *Van panchayats* were formed essentially from Class I and civil forests. In 1995 there were an estimated 4805 *van panchayats* covering about 0.24 m ha of forest area in eight districts of the UP hills (Saxena, 1995: 63).

Typically consisting of 5-9 members elected from the village (or villages) falling in their jurisdiction, the *van panchayats* are responsible for preventing encroachments and devising rules for forest use. They are also authorized to collect fees from users and levy fines on offenders (Ballabh and Singh, 1988). Most hire watchmen for protection. This management structure is subject to the administrative and technical control of the revenue and forest departments. Over the years, some *van panchayats* have continued functioning while others have become relatively inactive or ineffective. In

recent years a number of them have also been revived by local NGOs. In addition, some of the villages involved in the Chipko movement are doing regular protection work, including through the revival of *van panchayats* (Raju, 1997).

### **3.2 Nepal**

Today Nepal has 5.5 m ha of forestland, constituting 38 per cent of the country's geo-area. In some interesting parallels with India, in Nepal too the 1990s marked a shift from an essentially topdown form of management to the devolution of control to village communities. The Forest Act of 1993, operationalized in 1995, allows the District Forest Officer to hand over forest management directly to those identified as forest users and constituted into a forest user group. Unlike India's JFM programme, the forest handed over in this way is not confined to degraded land nor does the FUG have to share benefits with the State. FUGs are meant to be self-governing institutions, legally allowed to use or sell the forest products (but timber exports are banned). The income generated from such sales, the fines collected, etc., is put into a community fund which can be used both for forest development and other community development needs (WATCH, 1997; Hobley, 1996).

As with JFM, structurally FUGs are general bodies which elect/select an executive committee of some 11-15 members. Membership is defined on a household basis, rather than on an individual basis (Seeley, 1996). The rules for forest use and punishments for abuse, the methods of protection and conflict resolution, etc., are all formulated interactively by the EC and the general body, as is also the case under JFM.

In both India and Nepal, therefore, which set of persons has a voice in the general body and the EC has a critical bearing on how well these organizations function, and who gains or loses from them.

## **IV OUTCOMES: PARTICIPATION, EQUITY AND EFFICIENCY**

Many of the CFG initiatives have led to successful forest regeneration. Often all that is involved is restriction of entry and protection. In some cases, though, replanting is also undertaken in parts, usually with government support. Under JFM, for instance, the Indian government typically provides wages for nursery raising, pit digging and planting, and a forest guard's pay for three years. In many sites, however, simple protection has produced good

results. Natural revival is often rapid if the rootstock is intact. Many forest areas that I visited in the semi-arid parts of Gujarat and Madhya Pradesh had been so severely degraded by the late 1980s that they provided little other than twigs and monsoon grass. Within five to seven years of protection, following the JFM programme or efforts by NGO-catalysed CFGs, these tracts were covered with young trees. Many other areas where there was still some vegetation, but notably declining, also show encouraging signs of regeneration. In fact in most ecological zones, as a result of the CFG initiatives, beneficial results are noted, and in a number of cases incomes and employment are reported to have increased,<sup>6</sup> seasonal outmigration fallen,<sup>7</sup> and biodiversity enhanced.<sup>8</sup>

Some villages also report an improvement in the land's carrying capacity reflected in a notable rise in milch cattle numbers since protection began (Arul and Poffenberger, 1990). A number of JFM villages have even received awards for conservation (Shah and Shah, 1995; my field visits during 1998-9). Many *van panchayats* similarly report successful protection through community cooperation (Mansingh, 1991; Sharma and Sinha, 1993).

Viewed from a gender perspective (and especially the perspective of poor women), however, these results look less impressive on several important counts: effective participation; equity in the sharing of costs and benefits; and efficiency in functioning.

#### **4.1 Participation**

Women's effective participation in CFG decision-making would mean:

- being a member of the group: the general body, the EC, etc.;
- attending the general body or EC meetings (as relevant);
- speaking up in meetings;
- being able to influence decisions in their own interest (at least some of the time).

In addition, we need to take account of participation in specific activities that result from these decisions, e.g. in methods of forest protection, visits to other CFG sites, micro-planning and silvicultural training, and so on.

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<sup>6</sup> See Raju *et al.* (1993), Kant *et al.* (1991), and SPWD (1994) for documentation on the returns from community forest protection, in various regions.

<sup>7</sup> See e.g. Viegas and Menon (1993) and Chopra and Gulati (1997).

<sup>8</sup> Raju, *et al.* (1993); Arul and Poffenberger (1990); also my visits in 1995, and 1998-9.

Women's effective participation can be seen as important both in itself, as an indicator of citizenship and democratic institutional functioning, and for its effect on benefit sharing and efficiency. How far are women in general, and poor women in particular, involved in CFG functioning?

#### 4.1.1 Participation in management

The typical pattern is of very low women's participation in the CFGs at all levels. Women usually constitute less than 10 per cent of the general bodies in most JFM groups;<sup>9</sup> they are usually absent in the autonomous groups;<sup>10</sup> and there are few or none in the *van panchayats*.<sup>11</sup> In a recent study of 50 *van panchayats*, only 9 had any women (Tata Energy Research Institute, 1995). In the FUGs of Nepal, again, women's presence in the general body is sparse. A study of seven FUGs in eastern Nepal found that only 3.5 per cent of those recorded as users in the FUGs were women (Dahal, 1994: 78).

TABLE 1 JFM RULES FOR GENERAL BODY MEMBERSHIP: INDIA<sup>1</sup>

Membership conditions	States
One person per household	Arunachal Pradesh, <sup>2</sup> Bihar, Jammu and Kashmir, Karnataka, Maharashtra, Rajasthan, Tripura, <sup>3</sup> Uttar Pradesh
One male and one female per household	Andhra Pradesh, Himachal Pradesh, Madhya Pradesh, Orissa, Tamil Nadu, West Bengal, <sup>4</sup> Kerala
All village adults	Haryana
Anyone interested	Gujarat
No clear representation of households	Punjab, Nagaland <sup>5</sup>

Source: SPWD (1998), and personal communication in 1996 from Sushil Saigal (then on SPWD Staff) on Uttar Pradesh.

Notes: (1) In some states, the CFGs also take the form of cooperative societies. (2) Here the rule is one adult per family; and at least 30% of total registered members will need to be women. See discussion in text on the anomalous nature of this clause. (3) Only families which have at least one wage earner are eligible. (4) In West Bengal, if the husband is a member the wife automatically becomes a member. (5) Only land-owning households are eligible.

In India's JFM programme, 8 out of the 19 states allow membership to only one person per household (see Table 1). This is inevitably the male household

<sup>9</sup> Roy *et al.* (1992), Guhathakurta and Bhatia (1992), Narain (1994), and my field interviews in 1998-9.

<sup>10</sup> Kant *et al.* (1991), Singh and Kumar (1993), and my field interviews in 1998-9.

<sup>11</sup> Also, Ballabh and Singh (1988), Sharma and Sinha (1993), Tata Energy Research Institute (1995), and my field interviews in 1998-9.



head. In 7 other states, as a result of amendments in the initial orders, both spouses, or one man and one woman, can now be members, but this still excludes other household adults. Only two states allow general body membership to all village adults. In India's self-initiated autonomous groups, the customary exclusion of women from village decision-making bodies has been replicated in the CFGs. In Nepal's FUGs, again, the household is the unit of membership, and in male-headed households it is the man's name that is entered in the membership list (Seeley, 1996).

Without being general body members, women usually hear little about what transpires at the meetings. In fact this remains women's constant complaint:

Typically men don't tell their wives what happens in meetings. Even if there is a dispute about something, they don't tell us; nor do they volunteer information about other matters (women to author, Kheripada village, Gujarat, 1999).

The men seldom inform us of discussions in meetings. When we ask them they say: 'why do you want to know?' If we were members we would be better informed (women to author, Jamai village, Madhya Pradesh, 1999).

Earlier only men came to the general body, so women received no information about the meetings or what was being planned in them (women to author, Malwadi village, Karnataka, 1998).

Women's representation in ECs is also typically low, although there is some variation by context. A recent study of 20 CFGs in West Bengal (east India) found that 60 per cent had no women, and only 8 per cent out of the 180 EC members were women. Also landless families, while present in most general bodies, were barely represented in the ECs (Sarin, 1998: 49).

In most states, recent JFM resolutions require at least some female presence in the EC, varying from a minimum of 2 or 3 women to one-third women (Table 2), but in my field visits I found that many of the women so included do not play an active role. They are rarely chosen by other village women as their representatives. In fact, sometimes, male EC members choose the women in their absence and without consulting them.<sup>12</sup> Such women are seldom motivated to play an active role or able to make effective interventions.

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<sup>12</sup> See also Raju (1997), who found that in a West Bengal village none of the 3 women nominated to the EC had been consulted. In one case a brother and in another the husband were attending meetings on the women's behalf and without their knowledge.

TABLE 2 JFM RULES FOR WOMEN'S REPRESENTATION  
IN EXECUTIVE COMMITTEES: INDIA

Rules <sup>1</sup>	States
Minimum 1 woman	Punjab
Minimum 2 Women	Gujarat, <sup>2</sup> Haryana, Himachal Pradesh, <sup>3</sup> Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharashtra
Minimum 3 women	Kerala, Orissa
Minimum 3 women, maximum 5 women	Bihar, Tamil Nadu
One-third women	Andhra Pradesh, Uttar Pradesh <sup>4</sup>
Unspecified	Arunachal Pradesh, Nagaland, Rajasthan, Tripura, West Bengal

Sources: Adapted from Sarin (1998: 73) and SPWD (1998).

Notes: (1) Total specified EC members vary: typical number 11-15 members.

(2) Specification is for minimum 2 women in the "working committee" for managing the JFM micro-plan, but effectively it is interpreted as minimum 2 women in the EC. (3) Out of a total of 9-12 EC members, 5 are village representatives, of whom 50% should be women. This works out to a minimum of 2-3 women in the whole EC. (4) One-third of elected members in the EC. In addition the EC will have nominated members.

In Nepal again, women have only a nominal presence in the ECs. For instance, more women get inducted where there are international donors (in the seven districts of the Nepal-UK project, most FUGs have 2 to 3 women out of 11-12 EC members),<sup>13</sup> but many of these women are 'completely unaware of their FUG's activities' (Upadhyay and Jeddere-Fisher, 1998: 23); or 'have no idea that they were supposed to be participating as members of the executive committees' (Moffatt, 1998: 42). There is also an upper-caste domination in many FUGs (Dahal, 1994).

Whether from lack of awareness or due to the other reasons discussed in Section V, usually only a small percentage of the women who are members of the general body or the EC attend the meetings. If they do attend they rarely speak up, and if they speak they find their opinions are given little weight.

What is the point of going to meetings. We would only sit silently (women to author, Panasa Diha village, Orissa, 1998).

Men don't listen, expect perhaps one or two. Men feel they should be the spokespersons (woman to author, Garbe Kuna village, Kaski district, Nepal, 1998).

<sup>13</sup> Upadhyay and Jeddere-Fisher (1998) and Upadhyay, *et al.* (1998).

I attend *van panchayat* meetings, but I only sign, I don't say much. Or I say I agree (woman *van panchayat* member to author, Sallarautela village, UP hills).

When we open our mouths, men shout us down (women in Harimari village, West Bengal, cited in Raju, 1997).

Having a voice in the EC is important since this is the site for discussions and decisions regarding many critical aspects of CFG functioning. The EC has considerable authority, even if some decisions have to be ratified later in the general body. Women's absence or lack of voice means that they are not party to many crucial decisions. In an analysis of JFM decision-making in 5 Gujarat villages at a workshop of 31 village representatives, it was found that all major decisions concerning forest protection, use, distribution of wood and grass, and future planning were taken by men. The only joint decisions with women were those concerning tree nurseries (Joshi, 1998). Women are also often left out of the CFG teams that are sent on 'exposure' visits to other sites, or that receive technical training in new silviculture practices.

Within this rather stark scenario, there are some contrasting examples of CFGs with a high proportion of women, but these are not typical. They include (i) an all-women CFG as the sole CFG in the village; (ii) an all-women CFG coexisting with an all-men one in the same village; and (iii) mixed CFGs with a high female presence.

All-women CFGs are found especially in the UP hills and parts of Nepal where there is high male outmigration, but a scattering of them have also emerged in regions where they have either been the first to stake a claim to the commons, or have been catalysed by a local NGO, a forest official, or an international donor.<sup>14</sup> Cases where women have formed their own CFG, even while an all-male group exists, are rarer, although I came across a few in Orissa and Nepal. There are no consolidated figures for India, but Nepal is estimated to have 150 all-women FUGs (Moffat, 1998: 37). These constitute less than 3 per cent of all FUGs, and they typically receive very small plots of largely barren land needing tree planting, while the mixed (male-controlled) FUGs receive the natural forest. The all-women FUGs I met during my field visits, usually controlled 10 ha or less (and seldom over 50 ha) of forest land, while mixed FUGs commonly controlled a few hundred hectares (see Table 3 and Moffatt, 1998).

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<sup>14</sup> Mukerjee and Roy (1993), Correa (1997), Adhikari *et al.* (1991), Mansingh (1991), Regmi (1989), Singh and Burra, 1993), and Raju (1997); also my field visits in 1998-9.

Mixed groups with a high female presence can again be found in selected pockets. In parts of Gujarat, for instance, 30 per cent of the members in the general body are women, and their presence in the JFM ECs ranges between 14 per cent and 50 per cent (Narain, 1994). In some villages of West Bengal's Bankura district, women's presence in the general bodies is as much as 50-63 per cent (Viegas and Menon, 1993). Such examples, however, while providing important insights on what can be achieved (as analysed in Section VII of the paper), are as yet few and far between.

Of course, despite their limited presence as formal members in most CFGs, many women, in one way or another, still play an active role in the protection efforts.

#### *4.1.2 Participation in protection*

In formal terms, protection of the bounded forest area is usually done either by employing a guard, with the CFG members contributing toward the wage, or by forming a patrol group from among the members. Under JFM, if tree planting is undertaken, the forest department employs a guard for the first three years of the plantation's life, after which protection is the CFG's responsibility.

In terms of gender composition, the typical pattern is to keep a male guard and/or have an all-male patrol group. These two methods characterized 45 per cent and 18 per cent respectively of the 87 sites I visited, but occasionally, there were some interesting deviations. In Madhya Pradesh and Gujarat, for instance, I found several patrol groups constituted of both men and women. In the UP hills all-women patrols were not uncommon and some villages had even appointed female guards. Occasionally there have been shifts from an all-women patrolling effort to an all-male one, and vice versa. In one Gujarat village I visited, initial patrolling for many months was done by an all-women group. This could not be sustained, however, since women ended up with the triple burden of patrolling, housework and farm work, with men unwilling to take on any part of women's domestic workload. Finally the women handed over patrolling to the men.

More commonly, women patrol informally even while men are formally responsible. In some villages of Gujarat and the UP hills, women have formed separate informal protection groups parallel to men's because they feel male patrolling is ineffective. Elsewhere, they are the ones who have initiated protection.

Women's informal vigilance improves protection in important ways. In almost all the villages I visited women recounted cases where they had apprehended intruders, both from other villages and from their own. They also commonly state that if they catch women intruders they try and persuade them not to break the rules.

In fire fighting, likewise, women join the men. In several instances, women's alertness alone saved the forest, as in a village in Almora district (UP hills). Here the male chair of the EC had caused the fire either by accident (as he claims) or deliberately (as the women claim), and a vigilant woman leader almost single-handedly saved the protected area from substantial damage. In many fire-prone parts of Madhya Pradesh, Karnataka and the UP hills I was told both by the villagers and the forest department that the incidence of fires had declined due to greater vigilance by CFG members. The latter also have more incentive now to fight fires since they have legitimate access to the forest produce so saved.

On the one hand, therefore, most women are excluded from CFG membership and management. On the other hand, many women are contributing substantially to protection efforts, indicating their stake in forest regeneration. However, women's limited participation in decision-making, in turn, has implications for both equity and efficiency.

## **4.2 Equity**

How equitable are the CFGs in the sharing of costs and benefits?

### *4.2.1 In cost bearing*

The costs of forest protection are broadly of two types: those associated with protection and management and those associated with forgoing forest use due to closure. The former would include costs such as membership fees, the forest guard's pay, or the opportunity cost of patrolling time. The latter would include the opportunity cost of time spent in finding alternative sites for essential items such as firewood and fodder, other costs (identified below) associated with firewood shortages, the loss of certain forest-product-dependent livelihood sources, and so on. While the former costs are often borne by men, the substantial costs of searching for or dealing with shortages of items of daily use, or the loss of livelihoods dependent on the sale of non-timber forest products which women collect, fall largely on women.

Consider the effect on time taken and distance travelled for firewood collection. In many villages, women have been barred from collecting even

dry twigs. Where the land was barren anyway this caused no extra hardship. But where earlier they could fulfil at least a part of their needs from the protected area, they are now forced to travel to neighbouring sites, involving additional time, energy, and the risk of being treated as intruders.<sup>15</sup>

In the early years of JFM, Sarin (1995) had noted that in some protected sites in Gujarat and West Bengal, women's collection time for a headload of firewood had increased from 1-2 hours to 4-5 hours, and journeys of half a kilometre had lengthened to 8-9 (see Table 3). During my field visit to Gujarat's Sabarkantha district in 1995, several women said that they were not even allowed to walk through the protected area to the neighbouring one for fuelwood collection, on the grounds that they might break the rules. They were thus forced to skirt the area and spend several additional hours on their journeys. In Pingot village (Gujarat), Shah and Shah (1995) found that when protection began women were compelled to take their daughters along to help with collection, spending over six hours a day to walk five times farther, for the same quantity of fuelwood. Over time this could negatively affect the girls' education. Pingot women, when asked about the award for environmental conservation conferred on the village, expressed only resentment: 'What forest? We used to go [there] to pick fuelwood, but ever since the men have started protecting it they don't even allow us to look at it!' (Shah and Shah, 1995: 80).

The picture has not changed substantially since. In the 87 sites I visited in 1998-9, 45 (52 per cent) had banned firewood collection, of which 21 did not open the forest at all and 24 opened it for a few days per year for drywood collection and/or cutback and cleaning operating. The other sites allowed some drywood collection, usually only of fallen twigs and branches. However, even after years of protection, women reported a persistence of firewood shortages in most villages in Gujarat, the UP hills, Karnataka, parts of Madhya Pradesh bordering Gujarat, and in the Kaski and Dang districts of Nepal (Table 3 gives information for Gujarat and Nepal). The exceptions were some parts of Orissa, Karnataka and Madhya Pradesh with thicker forests, where protection had increased the firewood supply.

Women try to deal with this problem in various ways. Some seek out unprotected forests at the cost of greater time and distance travelled. Others, faced with the spread of CFG initiatives and the decline in unprotected forests

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<sup>15</sup> Sarin (1995), Agarwal (1997a), and Sundar (1997); also my field visits in 1998-9.

**TABLE 3 IMPACT OF FOREST PROTECTION ON WOMEN'S EFFORTS TO PROCURE COOKING FUEL: INDIA & NEPAL**

Situation in early 1990's: field visits by Madhu Sarin

State and village	Time/distance for gathering one headload of firewood		Frequency of Collection	Other impact
	Before protection	After protection		
<b>West Bengal</b> (Bankura South Division)				
1. Kamardanga	1.5 to 2 hrs	4 to 5 hrs	5 days/wk except monsoons	Partial switch to lantana, painful to collect.
2. Bhadli	0.5 km	4 to 5 km	N.A.	Have to 'steal' from other's forest, hefty fines if caught.
3. Barapaccha	1 to 2 hrs	3 to 4 hrs	Daily except Monsoons	
4. Karapara	0.5 km	8 to 9 kms	N.A.	Partial switch to leaves, dung, husk, weeds.
<b>Gujarat</b> (Panchmahals district)				
1. Vena	0.5 hrs	3 to 4 hrs	1 week/month	Harassment and abuse by FD staff and residents of other villages when women go to unprotected forest further away.
2. Chari	1 hr	4 to 5 hrs	Daily for one month/year	Abuse by residents of other villages; fear of being beaten by own men.
3. Malekpur* (Sabarkantha District)	1 to 2 hrs	Whole day	N.A.	Abuse by residents of other villages from whose forest women collect firewood.
<b>South Bihar</b>				
1. Saraiya (Palamau district)	N.A.	N.A.	N.A.	Switching to leaves, dung, lantana, arhar sticks, some purchasing firewood.
2. Ramua (Hazaribagh district)	N.A.	N.A.	N.A.	Switched to leaves, lantana, dung, thorny bushes, some buying coal.
3. Banaso (Hazaribagh district)	N.A.	N.A.	N.A.	Switched to dung, weeds.

*table continues...*



Situation in 1998-99: field visits by Bina Agarwal

State and Village	Protected Area (ha)	Firewood Availability and Women's Responses
<b>Gujarat</b> (Sabarkantha, Bharuch, Surat, and Panchmahals Districts)		
V1	190	Women report severe firewood shortage; switch to bushes, tur sticks, other agricultural waste. Many in the village have changed their cropping pattern in favour of tur and castor to get more agricultural waste for fuel
V2	141	Women report firewood shortage; partial switch to tur sticks, biogas and kerosene
V3	253	Women report firewood shortage; partial switch to tur sticks, kerosene, dung cakes
V4	304	Women report firewood shortage; partial switch to kerosene, dung cakes
V5	n.i.	Women report firewood shortage; steal from another forest
V6	5*	Women report firewood shortage.; many steal from another forest and report paying fines when caught by the guard
V7	47	Women report firewood shortage. Many steal from another forest, sometimes lose their axe and pay fine if caught by the guard
V8	115	No information
V9	35	Women report firewood shortage; partial switch to agricultural waste and dung cakes
V10	60	Women report firewood shortage; partial switch to agricultural waste and dung cakes
V11	40	Women report firewood shortage; partial switch to dung cakes
V12	300	Women report firewood shortage; partial switch to agricultural waste and biogas
V13	172	Women report firewood shortage, especially among the poor
V14	1500	Women report firewood shortage; partial switch to dung cakes and agricultural waste. Also distance travelled for a headload of firewood reported to have increased from 1 km before protection to 5.7 km after protection. Landless face acute shortage
V15	n.i.	Women report firewood shortage. Some have switched to biogas and kerosene, but most also use agricultural waste. Distance travelled reported to have increased from 1 km to 5 km daily after protection started
V16	n.i.	Women report serious firewood shortage for at least 4-5 months; partial switch to agricultural waste and kerosene

*table continues...*

61	V17	179.27	Women report firewood shortage. There has been an increase in the time taken for firewood collection since protection started. Partial switch to tur sticks and dung cakes
	V18	30*	Women report serious firewood shortage; partial switch to tur sticks and dung cakes
	V19	n.i.	Prior to protection there was a severe shortages.; women report there is no shortage now
	<b>Nepal</b> (Kaski and Dang Districts)		
	CF1	2.5*	No information
	CF2	24.8	Women report acute firewood shortage. They do not light a fire for space heating in winter; spend more time in cooking to save wood; steal firewood.
	CF3	156.4	Women report firewood shortage, especially among the poor. Poor women steal at night
	CF4	19	Women report acute firewood shortage. Stealing is common
	CF5	n.i.	The better-off have switched to biogas plants and stoves. The poor face acute shortage, use small twigs
	CF6	75	No information
	CF7	5.62*	Women report firewood shortage; partial switch to gas, some buy firewood
	CF8	5.5*	Women report severe firewood shortage. Switch to twigs, dung cakes. No longer heat bath water or animal feed in winter
	CF9	257	Women report acute firewood shortage. Switch to dry straw and dung cakes. No longer heat bath water or animal feed in winter
	CF10	1.75	No information
	CF11	10.8	No information
	CF12	28.4	The very poor who were dependent on firewood for sale now steal at night. They do not have enough even for food
	CF13	n.i.	Women report firewood shortage. Stealing firewood is common.
	CF14	n.i.	Women report firewood shortage. The poor steal, even though they are often caught and have to pay a heavy fine.

Sources: Adapted from Sarin (1995), Bina Agarwal fieldwork, 1998-1999.

+ Situation in the first two years of protection; some subsequent improvement due to cutback operations and distribution of firewood among villages, after women and the local NGO brought this to the CFGs attention. \* All-women CFGs.

in their neighbourhood, feel compelled to enter protected tracts in nearby villages, or go to the government reserve forest (if there is one within walking distance), facing the risk of being caught and fined by a patrol group or guard. Some common responses are given below:

We go in the morning and only return in the evening. Since the end of the rainy season, we have been going every day. I go myself and so does my daughter. Earlier too there was a shortage but not as acute (woman EC member to author, Kangod village, Karnataka, 1998).

It is women who need the forest, they need firewood to cook. ... Men preach to women about not cutting trees, but what can women do? They cannot cook food without firewood and they cannot collect firewood from other places (group discussion with women in Kabhre Palanchok, Nepal, cited in Hobley, 1996: 147).

Where possible women try and find substitute fuels. If the household can afford biogas this shift is a desirable one, but I found only a few villages (mostly in the UP hills) where small-sized biogas plants promoted by a local NGO were functioning well. In most regions women have been forced to use twigs, dung cakes, agricultural waste, even dry leaves. Fire from these fuels needs careful tending which increases cooking time and prevents women from simultaneously attending to other work. In a number of villages women report having to economize on fuel by forgoing a winter fire for space heating (even in the subzero temperatures of the Nepal hills), not heating winter bath water or heating it only for husbands, giving the animals cold feed, and so on. Moreover, dung used as fuel means its loss as manure.

Usually women from both middle and poor peasant households report such domestic energy problems, since even in better-off households firewood is gathered and not purchased, and most do not have many trees on their private lands. Women of landless or landpoor households are, however, the worst off, since without any private land they also have no crop waste or trees of their own, and few cattle for dung.<sup>16</sup> In fact, forest closure has necessitated most to

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<sup>16</sup> Jodha's (1986) study of 12 semi-arid districts in seven Indian states in the early 1980s is indicative of these class differences, even though he did not do a gender analysis. He found that village commons accounted for 9-26 per cent of total income among poor rural households but only 1-4 per cent among the non-poor. The landless and landpoor, as noted earlier, also satisfied most of their firewood and grazing needs from communal resources, compared with the greater self-sufficiency (from private land) of landed households.

sell off much of their animal stock. Women voice the problem they face in various ways:

We don't know in the morning if we will be able to cook at night (low-caste women to the author, Khut village, UP hills, 1998).

Our bahu (daughters-in-law) have to undertake a full day's journey to get a basket of grass and some firewood from the Reserve Forest (woman to author, Khut village, UP hills, 1998).

But even in the reserve forest you can be caught by the forest guard. I paid Rs 20 as fine to retrieve my axe, and all I was doing was cutting a fallen log (woman to author, Khut village, UP hills, 1998).

Poor women, in particular, have a firewood problem due to forest closure. Lohars (blacksmiths) have a problem getting wood for charcoal. The poor find it difficult to even pay a fine. They steal clandestinely at night (woman to author, Paundur village, Kaski district, Nepal).

Where there is a total ban, the women (be they from better-off or poor households) all want their forest opened for at least a few days. Where it is already opened for 1-2 days, they want an increase in the number of days. Most also want the village to deliberate on the issue and find a solution, rather than treat it as only women's concern.

Similarly, grazing is usually banned. Fodder therefore has to be procured in other ways and animals have to be stallfed. Again since cattle care is usually women's responsibility, if the household cannot afford to purchase fodder women have to spend additional time in finding other sites as well as in feeding the animals. In parts of Gujarat, women report an extra workload of 2-3 hours due to stallfeeding. And where some of the better-off households have replaced their goats with stallfed milch cattle, it has further increased women's work burden. At the same time, many poor households have lost the bulk of their animals, including the goats that were often the only assets the women possessed.

As the forest regenerates, these hardships get alleviated at best, they do not disappear. Firewood shortages, for instance, continue to be reported even 8-10 years after protection in many regions. In every Gujarat village I visited except one, women reported shortages, even when the area being protected was large (Table 3). In nine of these Gujarat sites the protected area exceeds a hundred hectares. One seven-village cluster protects 1500 ha of relatively

thick forest. By one estimate, some Gujarat villages have several times the per capita forest land needed for self-sufficiency in fuel and some other basic needs (Shah, 1997). Even allowing for overestimation, it appears likely that more can be extracted sustainably than is currently being allowed. In many places, therefore, the scarcities that women are experiencing appear to have less to do with aggregate availability than with a lack of systematic assessment of extractable potential and women's limited bargaining power in the community (as discussed in Section VI).

#### *4.2.2 In benefit sharing*

Gender inequities also lie in the sharing of benefits. First, in some cases the benefits are not distributed at all. Among the self-initiated autonomous groups in Orissa, for example, a number of all-male youth clubs have banned entry into the local forest and have been selling the wood obtained from thinning and cleaning operations, as well as selling other forest produce from the protected sites. The quite substantial funds so obtained have often been spent on a clubhouse or club functions (Singh and Kumar, 1993), or for the annual religious festival (my field interviews, 1998). Many women respond to this male control with resentment: 'Earlier it was the forest department which controlled the forest, now it is the youth clubs' (Singh and Kumar, 1993: 23).

In other types of CFGs also, normally the money is put in a collective fund to be used as the group deems fit. Women typically have little say in how it is used:

The community forest belongs to the men. We own nothing. Even the grass is auctioned off (woman to author, Ghusra village, Dang district, Nepal, 1998).

The money obtained from grass and firewood is kept by them in their fund. We have not seen one penny of it. We buy grass, which is auctioned by bundles (women to author, Ghusra village, Dang district, Nepal, 1998).

Second, where the CFGs distribute the benefits, say in the form of firewood or grass, as in some of the JFM groups, women of non-member households usually receive none, since entitlements are typically linked to membership. Often these are poor households whose members have to migrate out for work, or are out all day on wage labour and cannot easily contribute toward patrolling or the guard's wages.

Third, even in member households usually men alone receive the benefits directly, either because only they are members, or because entitlements are on a household basis, so that even if both spouses are members they get only one share, which the man receives. Of course women could benefit indirectly in some degree, say if the benefits are in kind (such as firewood); or where degradation is not acute and member households continue to enjoy the right to collect drywood or leaves from the protected area.<sup>17</sup> But where the CFGs distribute cash benefits, money given to men does not guarantee equal sharing, or even any sharing, within the family. In fact, outside the context of forest management there is substantial evidence of men in poor households spending a significant percentage of their incomes on personal items (tobacco, liquor, etc.), with women spending almost all their incomes on basic household needs.<sup>18</sup> Not surprisingly, this pattern is repeated in the context of CFGs. In many cases, the men have spent the money on gambling, liquor, or personal items.<sup>19</sup> Both women and men readily admit this:

When women go to the market, they save at least some of the money and bring it back. When men go, they drink up whatever is left. Women are more concerned with home needs, children's needs (wife of EC chairperson to author, Devjhuri village, Madhya Pradesh, 1999).

That is true, women do manage to save a little. We men drink, smoke and spend (EC chairman to author, Devjhuri village, Madhya Pradesh, 1999).

If a man gets money he uses it up. Men can't keep money in hand, they tend to drink it away (man to author at a group meeting of several villages at the Society for Environmental Education and Rural Development, UP hills, 1998).

Women themselves are usually well aware that they could be excluded from the benefits unless they receive a share directly (rather than mediated through male members). When asked about benefit sharing in a meeting of three JFM villages of West Bengal in which both women and men were present, all the women wanted equal and separate shares for husbands and wives (Sarin, 1995). Being members in their own right could be one way by which women

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<sup>17</sup> For Orissa, see Pati *et al.* (1993), Kant *et al.* (1991) and ISO/Swedforest (1993); for Gujarat see Arul and Poffenberger (1990); also observed on my field visits in 1998-9.

<sup>18</sup> See, e.g., Mencher (1988) and Nojonen (1991) for India. See also, Blumberg (1991) for some other countries.

<sup>19</sup> Guhathakurta and Bhatia (1992), and my field visits in 1998-9.

could get such benefits directly, provided that the individual and not the household is the unit of benefit sharing.

Direct membership to a CFG is also sometimes linked to additional financial benefits. For instance, in some Gujarat villages, a part of the daily wage earnings from tree planting go into a savings fund. Where women are not members, the savings go into a family account (which the men effectively control). In contrast, in a few initiatives where female membership is high, savings go into separate accounts for women and men, and women can make their own decisions on how to spend this money.<sup>20</sup>

Fourth, inequities arise because people differ in their needs, or in their ability to contribute or to pay. Broadly, three types of principles/norms can underlie the distribution of forest products: market-determined, contribution, and need. While seemingly neutral, these distributive principles have notable gender and class implications. The market principle (or willingness to pay), embodied in practices such as the auctioning of grass to the highest bidder, tends to be both unequal *and* inequitable, since those that cannot afford to pay have to do without, even if they have contributed to protection either directly (say by joint patrolling), or indirectly by deferring forest use. Since rural women, even of rich households, tend to have less access to financial resources than men, market-determined distribution through auctions tends to be both anti-poor and anti-women. Distribution according to contribution, say, by giving each household that contributes to protection an equal number of grass bundles, would be equal but inequitable for those more dependent on the commons for grass, such as the poorer households and women in general. Moreover, women's ability to contribute could be circumscribed, since even if they want to join patrol duty, norms of seclusion may prevent them. Where distribution embodies some concept of economic need, such as where poor women are given exclusive use rights to a special grass patch, in addition to the grass bundles as above, the distribution is unequal but relatively more equitable, in that those most in need get more.

In my field interviews I found that contribution was the most common criteria underlying distribution. In most villages, all those who were CFG members and had contributed toward protection had equal claims to the fuelwood or grass cut during the forest opening days. There were, however, occasional cases of auctioning in some villages, such as the auctioning of grass in the UP hills and Nepal, and of other forest produce among some of the self-initiated groups in Orissa. Seldom was distribution guided by a person's economic

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<sup>20</sup> Personal communication, NGO project officer in Gujarat, March 1995.



need. Hence for poor women, in particular, even with an equal distribution of grass or firewood, the outcome tended to prove inequitable.

In recent collective action literature, questions of equity have been raised largely in terms of whether existing economic and social equality (or its lack) affects the possibility of collective action and efficient institutional functioning.<sup>21</sup> There has been a relative neglect of whether or not the *outcomes* of collective action (in terms of, say, cost and benefit sharing) are equitable, and how those outcomes impinge on the sustainability of collective action. As argued above, equitable outcomes need to be seen as important in themselves, for evaluating institutions governing the commons, quite apart from the links between equity and efficiency (as between participation and efficiency) that are elaborated below.

### 4.3 Efficiency

Women's lack of participation in CFG decision-making, and gender inequities in the sharing of costs and benefits from protection, can have a range of inefficiency implications. As a result, some initiatives may fail to take off at all. Others may not sustain in the long run, or there may be a gap between the gains in efficiency realized and those realizable (in terms of resource productivity and diversity, satisfying household needs, enhancing incomes, etc.). These inefficiencies could arise from one or more of the following problems (see also, Agarwal, forthcoming).

First, there are rule violations. In almost all the villages I visited there were at least some cases of violation. Violations by men are usually for timber for self-use or for sale (the latter in areas with commercially valuable trees). Violations by women (especially but not only by the poorer ones) are typically for firewood. In a detailed examination of rule violations in Bargatola village (UP hills), where the forest is used essentially for village needs, Agrawal (1999) found that women constituted 81 per cent, 83 per cent and 73 per cent of the reported offenders in 1951, 1971 and 1991 respectively. Although he does not cross-classify offenders by gender and caste, his separate table of offenders by caste allows us to infer that the majority of offenders were low-caste women who also tend to be among the poorest. Agrawal suggests that this may be not only because the poor are more

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<sup>21</sup> See, e.g., Ostrom (1990), Bardhan (1993), Seabright (1997), and Baland and Platteau's (1996) review of diverse empirical evidence on this.

dependent on the forests, but also because the high-caste-dominated forest council applies the rules more strictly to poor, low-caste women.

Of course, such rule violations by women can be from both within a village and outside it, but in either case, it indicates that CFGs in the area have paid inadequate attention to domestic fuel shortages. In addition, within-village violations reflect problems arising from women's non-involvement in rule making. In particular, where an EC totally bans collection without consulting the women or addressing the difficulties they face, they are often compelled to break the rules, given their daily need for firewood. Sometimes the need is acute enough for the women to enter into altercations with the guard. In one Gujarat village, due to daily fights with women, the guard threatened to resign. Only then did the EC call a meeting of the whole village to address the issue and agree to open up the forest for a few days annually. In parts of Orissa, women found the rule of total closure so strict, and the all-male CFG so inflexible, that they finally took up a separate patch to protect and manage. In other regions, with greater scarcity of common land, women lack this option. In general, they express deep resentment at the unfairness of the existing rules.<sup>22</sup>

If consulted or given a chance to frame alternative rules, women often suggest rules which are less stringent and more egalitarian. For instance, I found that women were consistently against auctioning of forest products such as grass and firewood and favoured equal distribution among member households.

As the women in the UP hills reasoned:

The male members of the forest committee have difficulties implementing the rules. Women could discuss these problems with the men. Perhaps more 'mid-way' rules would be, in the long run, more effective... more viable (women, UP hills, cited in Britt, 1993: 148).

A second and related source of inefficiency lies in the absence of adequate information sharing with women. Information about the rules (especially membership rules), or about other aspects of forest management, does not always reach the women. Similarly, male forest officials seldom consult the women or seek their feedback when preparing micro-plans for forest development. Some women hear about the plans through their husbands, others not at all (Guhathakurta and Bhatia, 1992). These communication

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<sup>22</sup> Shah and Shah (1995), Singh and Kumar (1993), and Agarwal (1997a); also my field interviews during 1998-9.

problems can prove particularly acute in regions of high male outmigration. In some cases, men admit that women's presence in meetings would help them better understand the problems women face, but in practice they do little to encourage their participation.

Third, inefficiencies can arise if the male guard or patrol group fails to accurately notice resource depletion. For example, men and women can differ in their abilities to assess the state of the forest. According to women interviewed by Britt (1993: 143) in the *van panchayat* areas (UP hills): 'The men don't seem to realize where fodder and fuelwood come from'. During my 1995 field visit to Gujarat, women's informal forest patrol group in Machipada village took me to their patrol site, and pointing out the illegal cuttings which the men had missed, noted: 'Men don't check carefully for illegal cuttings. Women keep a more careful lookout'. Part of this gender difference arises from the fact that women, as the main and most frequent collectors of forest products, have a greater familiarity with the forest than do men.

Fourth, and relatedly, there are inefficiencies due to problems in catching transgressors. Where protection is only through 'informal lookout', women, given their frequency of daytime contact with the forest, are more likely than men to spot transgressors from their village or intruders from neighbouring ones. But even where there are formal patrol groups I found that in virtually all the regions I visited, patrols constituted of only men as well as those constituted of only women faced problems. For instance, all-male patrols are unable to deal effectively with women intruders, because the men risk being charged with sexual harassment or molestation. In fact threats to this effect are not uncommon, when non-member women or women from other villages are caught by a male patrol or male guards. In some of these incidents, women and their families have even registered false police cases against the patrol members, or beaten them up.

Equally, however, women on their own find it difficult to do night patrolling, or to confront aggressive male intruders, or to assert authority over them, especially those from other villages. In one Madhya Pradesh village, some members of an all-women patrol were badly beaten up by a male intruder. Also, adding sole responsibility for patrolling to their other domestic duties places excessive burdens on them.

By all accounts, the most efficient solution appears to be a patrol team constituted of both men and women. Recognizing this, in some regions male

patrollers have inducted their village women into the patrol, but this is not a typical response.

When women voluntarily take up patrolling by setting up informal groups, even where there is a male guard or a formal male patrol, the efficiency of protection can improve notably. In their study of twelve *van panchayats*, Sharma and Sinha (1993) found that all the four which could be deemed 'robust' and successful had active women's associations. However, in so far as such women's groups are typically informal, they lack the authority to punish offenders who still have to be reported to the formal (typically all-male) committees. Indeed women are often used by men's groups as mere informers (Chen, 1993), and are seldom party to discussions or decisions on appropriate sanctions. This separation of authority and responsibility introduces inefficiencies in functioning. For instance, sometimes, the culprits women catch go unpunished because the male EC members fail to take the case up, causing the discouraged women to abandon their efforts. I found several such cases in Karnataka, Gujarat and the UP hills.

Fifth, and relatedly, efficient functioning requires effective methods of conflict resolution. This can prove difficult with women's virtual exclusion from the formal committees, especially when the conflict involves women, as is not infrequently the case in firewood related intrusions.

A sixth form of inefficiency stems from taking little account of women's knowledge of plants and species when preparing plans for forest regeneration. Women and men are often privy to different types of knowledge due to differences in the tasks they perform, and in their spatial domains. For instance, women as the main fuel and fodder collectors can often better explain the attributes of trees than men (Pandey, 1990); or can identify a large number of trees, shrubs and grasses in the vicinity of fields and pastures (Chen, 1993). Men are often better informed about species found in distant areas, women about the local environment where they gather and collect (Gaul, 1994). The systematic exclusion of women from decision-making and management of new planting programmes is thus likely to have negative efficiency implications, by failing to tap women's knowledge of diverse species for enhancing biodiversity, or their understanding of traditional silvicultural practices when planting species they are better informed about.

A seventh form of inefficiency can arise from ignoring possible gender differences in preferences, say regarding when grass should be cut or which trees should be planted. I found that in the rare cases when women were consulted, they often came up with alternative, more suitable, suggestions on

when the forest should be opened for grass collection. Women are also known to usually prefer trees which have more domestic use value (such as for fuel and fodder), while men more typically opt for trees that bring in cash.<sup>23</sup> This might be less of an issue where fuel and fodder are not in short supply, in which case women too might prefer commercial species (Chen, 1993), but where there are shortages, women tend to prefer use-related species. Their greater involvement in forest planning could thus better fulfil household needs and increase commitment to the initiative.

Basically, the above analysis indicates that in ignoring gender concerns the CFGs are violating many of the conditions deemed by several scholars as necessary for building enduring institutions for managing common pool resources. This includes conditions such as: ensuring that those affected by the rules participate in framing and modifying the rules; that the rules are simple and fair; that there are graduated and appropriate sanctions against offenders; that there are effective mechanisms for monitoring the resource and resolving conflicts; and so on.<sup>24</sup>

Despite women's low involvement, forest regeneration might take place, but some of the initiatives might not sustain, and others might reap less than the full potential benefits of the effort.

## V WHAT DETERMINES OUTCOMES?

The gender-related efficiency effects discussed above are in large part *secondary* outcomes, stemming from women's little participation in the CFGs and from inequities in the rules of forest use, benefit sharing, etc. Efficiency outcomes will not therefore be discussed separately below. Rather, I will focus on what underlies women's low participation and the inequities in cost and benefit sharing.

In broad terms, CFG outcomes in relation to participation and the distribution of costs and benefits can be seen to depend especially on the following factors: rules, norms, perceptions, the person's household endowments and attributes (class/caste), and the person's individual endowments and attributes. However, the types of rules, norms and perceptions that affect participation

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<sup>23</sup> See, e.g. Agarwal (1992), Brara (1987), Sundar (1997), and Hobley (1996).

<sup>24</sup> For a discussion on these conditions, see especially in Ostrom (1990), Baland and Platteau (1996), and McKean (1992). See also, Agarwal (forthcoming).

are not identical to those that affect equity of distribution, and therefore need to be spelt out separately.

More specifically we would expect women's participation in the CFG decision-making process to be a function of:

- Rules of entry: the criteria defining membership in the general body and the EC.
- Social norms that define who should attend meetings, speak up in meetings, patrol the protected area; how men and women should behave in public, and so on.
- Social perceptions regarding women's ability to contribute to meetings, or to CFG activities such as patrolling; women's knowledge about plants and species; and so on.
- Entrenched territorial claims.
- Personal endowments and attributes (such as, educational levels, property status, marital status, age, etc.).
- Household endowments and attributes (such as, the class and caste of women's households).

*Gender equity in cost sharing* is likely to be a function especially of social norms governing the gender division of labour which determines who does what (e.g. who is responsible for patrolling or for firewood and fodder collection, and so on).

Gender equity in benefit sharing is likely to depend on:

- Rules regarding entitlements to benefits (e.g. members vs. non-members; joint vs. individual shares for male and female members, etc.).
- Social norms and values that govern the principle of resource distribution (e.g. market determined, contribution, or need).
- Social norms that determine the gender division of resources within the home.
- Social perceptions about women's deservedness.
- Personal endowments and attributes.
- Household endowments and attributes.

Let me elaborate.

## **5.1 Factors affecting women's participation**

### *5.1.1 Formal rules and conventions regarding CFG entry*

In the case of State-initiated CFGs, such as the JFM groups in India or the FUGs in Nepal, formal rules determine entry into the CFG's general body or EC. As noted earlier, where the rule allows general body membership to only one person per household, it is typically the male household head that joins. Rules that allow one man and one woman per household to join are more conducive to women's participation, but they still leave out other household adults. Only where all village adults can join is the rule truly inclusive. Similarly, the composition of the EC is usually specified, as outlined earlier.

The specific of rules apart, a lack of awareness about rules, or about changes therein, can also constrain women's participation. In West Bengal, for instance, a random sample of 19 CFGs showed that even four years after the state order was amended, such that if a man is a member his wife is automatically a member, barely 2/5ths of the members were aware that women could be so included (Sarin, 1998; Raju, 1997). In Nepal again, women in male-headed households were often found to be unaware of their FUG eligibility (Seeley, 1996).

Where the CFG does not have formal membership rules, as is the case with self-initiated groups, long-standing conventions, which traditionally excluded women from public decision-making forums, also deny women entry to the CFGs.

### *5.1.2 Social norms*

Even when the rules of entry are not restrictive, women seldom attend meetings or speak up at them, due to a range of restrictive social norms, such as those described below.

*Gender segregation of public space:* social norms often dictate a gender segregation of public space. In general, village spaces in which men congregate (such as tea stalls and the market place) are spaces that women of 'good character' are expected to avoid (as elaborated in Agarwal, 1994). The restriction is somewhat less for older women, but never entirely absent. These notions are often carried over to formal village meetings. A fear of losing their reputation, or being reprimanded by their families, or because they have internalized these norms, make many women uncomfortable attending CFG meetings, unless explicitly invited by the men:



They don't call us, so we don't go (women to author, Roopakheda village, Madhya Pradesh, 1999).

The meetings are considered for men only. Women are never called. The men attend and their opinions or consent are taken as representative of the whole family—it's understood (woman in a *van panchayat* village, UP hills, cited in Britt, 1993: 148).

Rural women and men can't sit together. But we convey our decisions to them (man to author, Chattipur village, Orissa, 1998).

*The gender division of labour:* social norms also define the gender division of labour. The fact that women bear the main responsibility of childcare and housework, in addition to the load of agricultural work, cattle care, etc., makes for high double work burdens and logistical constraints. This seriously restricts women's ability to attend lengthy meetings held at inconvenient times:

There are problems in attending meetings since we need to cook and serve the evening meal. The meeting is long. We also have to feed the cattle (woman to author, Barde village, Karnataka, 1998).

Women have a lot of problems. They can cut grass quickly, but who will give grass to the buffaloes if we come to a meeting? Women's work is a constraint (Arti Shrestha, grassroots organizer, to author, Kaski district, Nepal, 1998).<sup>25</sup>

I do try and come sometimes, but I have small children (woman to author, Amapur Kaw village, Dang district, Nepal, 1998).

Men are reluctant to share responsibility not just for domestic tasks and childcare, but even for cattle care. Most women in the *van panchayat* villages she studied told Mansingh (1991) that they did not have time to 'sit around for [the] four hours that it took to have a meeting in the middle of the day'. As a result women's attendance tended to thin out over time. In Katuual village (UP hills), Britt (1993) found that the only woman member had yet to attend a meeting, even several months after being elected to the *van panchayat*.

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<sup>25</sup> She is also the chairperson, at the district-level, of HIMAWANTI (Himalayan Grassroots Women's Natural Resources Management Association)—a regional women's network for natural resource management headquartered in Kathmandu, Nepal.

However, she was interested in going and had requested that meetings be held on Sundays when other family members were home, leaving her free to go.

*Male behavioural norms:* women also hesitate to come to CFG meetings because they fear aggressive male behaviour:

If men drink and say something to us, we don't like it. They fight with us, so we don't go to the meetings (women to author, Khabji village, Gujarat, 1999).

Men drink a great deal here... they drink and start abusing us... If one woman is abused, ten men stand up and agree with the abuser saying, yes, she deserves this (women to author, Deolikhali village, UP hills, 1998).

*Female behavioural norms:* the social strictures on women's visibility, mobility, and behaviour, whether internalized by women or imposed on them by threat of gossip, reprimand, even violence, impinge directly on their autonomy and ability to participate effectively in CFGs dominated by men.<sup>26</sup>

Female seclusion norms are the most restricting. Although a large majority of the CFGs involve tribal or hill communities where female seclusion is not dominant and women's participation in economic activities is visibly high, some tribal groups have adopted upper-caste Hindu norms and are practising partial veiling, as I found in parts of Gujarat and Madhya Pradesh.

Even more pervasive, however, is the subtle gendering of social behaviour. Vatuk (1982:7) provides a graphic description of acceptable feminine behaviour in northern India, some aspects of which are still adhered to by women in the villages I visited:

'Shyness' of demeanor, avoidance of eye-contact with men, avoidance of loud speech and laughter (particularly in the presence or within earshot of males)... gestures such as rising (or crouching on the floor) in the presence of male visitors or family members...

Indeed 'shyness' was a common reason given by both men and women for women not attending meetings or speaking up.

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<sup>26</sup> See also Stewart's (1996) more general discussion on the function of norms in hierarchical contexts.

Gendered behavioural norms also restrict women by creating subtle hierarchies, such as requiring women to sit on the floor while husbands and older village men sit at a higher level on cots or chairs. Even where everyone sits on a level, typically women (including EC members) sit on one side or at the back of the meeting space where they are less visible. This makes them less effective in raising a point, while the points raised by male members who sit in front receive priority. Moreover, when senior male family members are present, women hesitate to come to meetings, or to speak up at them, or to oppose the men publicly. The hierarchy that marks 'respectful' behaviour in the family gets carried over into community spaces as well.<sup>27</sup>

The collective action literature has typically emphasized the enabling and positive side of social norms; but from women's viewpoint, these examples reflect the disabling 'dark side' of many social norms.<sup>28</sup>

### *5.1.3 Gendered perceptions*

Men often view women's involvement in CFGs as serving no useful purpose and tend to downplay their potential contributions and abilities. This is reflected in both unspoken and spoken responses. For instance, during my field interviews I often found, when talking to a mixed group of women and men, that while men were answering questions, women would listen attentively and keep the children quiet. But when I asked women some questions, the men (especially the younger ones) would start to smile, implying: 'Why ask her, what does she know'. When I persisted, they would show their lack of interest by chatting among themselves, constantly interrupting the women who spoke up, answering the questions on women's behalf, or just getting up and leaving.

Some of men's direct responses to questions are equally indicative of their perceptions:

There is no advantage in having women in the EC. We have been told by the forest officials that we must have two women in the committee, that is why we have included them (male to author, Pathari village, Karnataka).

Women can't make any helpful suggestions. Also it would mean 'beizatti' [dishonour] for us men, since men from respectable [upper-caste]

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<sup>27</sup> See also, Raju (1997), and Hobley (1990).

<sup>28</sup> Also see Putzel (1997) for an interesting discussion on the 'dark side' of social capital.

families don't allow their women to go to meetings (man to author, Arjunpur village, Orissa, 1998).

Women are illiterate. If they come to meetings, we men might as well stay at home (EC chairman to author, Ghusra village, Dang district, Nepal, 1998).

In one case I asked the man who decried my paying attention to the women, whether he himself was literate. It turned out that he wasn't.

#### *5.1.4 Entrenched territorial claims*

Where CFGs have initially started out with only male members, or where men feel they have a prior claim to the land, they resist sharing their existing benefits with new claimants.

We men go [to meetings]. Why do women need to go? Women don't need to go (men to author, Garbhe Kuna village, Kaski district, Nepal).

Women have DWARCA,<sup>29</sup> they have a savings groups, why don't you leave the CFGs to us men? (man to author, Banasur village, Karnataka, 1998).

In an Orissa village, when I asked the women who wanted to take up their own separate patch for protection why they needed to do so, they responded:

If we have our own forest, we would not need to ask the men each time for a bit of wood (women to author, Kudamunda village, Orissa, 1998).

They are not willing to give us even a patch to protect. Why would they be willing to give us a whole tree if we asked? (women to author, Kudamunda village, Orissa, 1998).

Elsewhere, in the UP hills, women from Bitholi village told me that when they closed off a patch of land which earlier had open grazing, the men said: 'What right do you have to take over men's work,' and insisted on getting the grazing reopened.<sup>30</sup>

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<sup>29</sup> DWACRA: Development of Women and Children in Rural Areas. This is an anti-poverty programme of the Indian government under which, among other things, women's groups are given subsidized loans for income-generating activities.

<sup>30</sup> Communication by the women at a meeting organized by the Society for Environmental Education and Rural Development, UP hills, 1998.

### *5.1.5 Personal endowments and attributes*

Women's effectiveness in public forums is also undermined by illiteracy and limited experience in public interaction (my field observation, 1998-9). While many male members too are illiterate, on average women's literacy levels are significantly lower, and (as noted) this is often used by the men as an excuse to exclude women or to discount their views. The fact that women typically lack personal property can also affect the weight their opinions carry.

In addition, women's personal attributes, such as age and marital status, leadership qualities, self-confidence and ability to speak effectively in public, etc., affects their participation. In many of West Bengal's CFGs, Narain (1994) found that the few women members were mostly widows. Sharma *et al.* (1987) made the same observation regarding many of the women who took an active part in the Chipko movement on a sustained basis. Likewise, district-level women representatives of FECOFUN (the Federation of Community Forest Users in Nepal), are mostly older married women living in their parental homes (Britt, 1997). Such women, as also single women, can speak more freely in public and usually carry a lower burden of domestic work than do young married women.

### *5.1.6 Household endowments and attributes*

Finally, the class and caste position of a woman's household is likely to matter, where the village is multi-caste with a dominance of the upper-caste, or where the CFG contains several villages which might be caste/class homogeneous in themselves, but which hierarchically differ in this respect from other villages in the CFG.<sup>31</sup>

The caste factor, however, need not work in a linear fashion. On the one hand, being low-caste and poor can adversely affect a person's ability to bargain for a better deal within a predominantly upper-caste community. On the other hand, low-caste women are less subject than upper-caste ones to norms of seclusion, restricted mobility, and soft speech.

## **5.2 Factors affecting distributional equity**

Gender inequitable distributional outcomes are again a result of a range of factors that were listed earlier. In terms of cost sharing, the principal one appears to be social norms governing the gender division of labour. As

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<sup>31</sup> My field visits in 1998-9. See also, Sarin (1998) and Hobley (1996), the latter for her discussion of the caste factor in the Nepalese context.

already discussed, women's primary responsibility for firewood and fodder means that the bulk of the costs of forgoing forest use, following closure, fall on women.

In terms of gender equity in benefit sharing, broadly five types of factors are seen to impinge on outcomes.

#### *5.2.1 Rules regarding entitlements to benefits*

Here both State-instituted rules of entry, and rules made by the CFG, matter. As noted earlier, access to some types of benefits is linked to CFG membership. However, for women, membership alone need not guarantee a share if the CFG has decided that the unit of distribution is the household rather than the individual. Hence even if both spouses are members, the woman may not get a separate or additional share. In recent years, this has in fact proved to be a bottleneck in inducting women members in some regions. In Gujarat, for instance, those who first became CFG members paid a nominal membership fee. On the one person per household rule, many men paid and joined. Now anyone interested can join, but new entrants have to pay substantially more than the first entrants, while the share remains the same per household. In a number of villages, women have told their executive committees that they are not interested in joining at the new rates unless individual membership is the basis of benefit sharing. Hence while women's low participation in CFG decision-making affects equity of outcome through the distribution rules, inequitable distribution rules can, in turn, constrain women's participation.

#### *5.2.2 Norms/principles underlying the distribution rules*

Broadly (as noted in Section IV), three types of principles/norms are implicit in the distribution rules formulated by CFGs: market-determined, contribution, and need. Each principle implies a different equity outcome. At present, 'contribution' (in terms of membership, protection efforts, labour inputs, etc.) is the dominant criterion underlying distribution rules in most CFGs, which allow equal access to the forest, or distribute equal amounts of, say, firewood or fodder to those contributing. Auctions are undertaken in a few cases, and distribution by need is rare.

A move from the principle of contribution to that of need would require a shift in societal values where the better-off are willing to give up some of their claims in favour of those who need it more. Here NGOs, village leaders, etc. directing the programme, could play an enabling role.

However, even if there were a shift from contribution to need as the defining principle, whether or not women get a better deal can still depend on whether they are *perceived* as deserving more.

### 5.2.3 *Perceptions about deservedness*

There can be and often is a divergence between what a person actually contributes, needs, or is able to do, and perceptions about her/his contributions, needs and abilities. Hence, for instance, women's contribution to household income in terms of the numerous tasks they perform within the home is often undervalued, not just by family members but also by policy makers and bureaucrats implementing development programmes. An important reason for this is the 'invisible' nature of many tasks that rural women do. These are often economically invisible in that they do not always bring cash returns, say, where women are working on family farms, or collecting firewood, fodder, etc. And the tasks are rendered physically invisible when they are done within the home compound (such as cattle care, stall feeding animals, grain storage and processing, etc.). Similarly women's needs are often underplayed and assumed to be subordinate to men's needs. Systematic undervaluation of women's contributions or needs would make for a notable gender bias in the distribution of resources both within the household and outside it.<sup>32</sup>

Part of the feminist concern with assigning a monetary value to housework has been to make such work more 'visible'. In the present context, women *seen* to be participating in forest management would thus be in a better position to claim equal benefits with men, in that their contributions would be better recognized.

### 5.2.4 *Personal endowments and attributes*

Given that women as a gender (even if not all women as individuals) have fewer personal endowments, CFG shares given only to male members will typically result in inequitable outcomes for women in both rich and poor households. Again, women's personal attributes such as age and marital status can affect intra-household distribution by influencing perceptions about deservedness.

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<sup>32</sup> For elaboration see Agarwal (1997b); see also Sen (1990).

### 5.2.5 *Households endowments and attributes*

While the above factors affect all women in some degree, there are also *intra*-gender aspects that can affect equity of outcomes, although in a complex way. Women in economically better-off households are, on the one hand, faced with a less acute crises from forest closure than poor women. On the other hand they face greater strictures on their mobility, which limits their options for alternative collection sites. Similarly, poor women on the one hand face acute shortages and are less in a position to negotiate favourable CFG rules. On the other hand, they are more mobile and may be more willing, socially, to risk being caught stealing from the forest.

These differences are important to keep in mind while assessing CFGs. At the same time, it needs emphasis that for fuelwood, except those able to afford cooking gas, the class difference may not be dramatic, since many women even of middle peasant households have to depend mostly on what they themselves gather.

## **VI IMPROVING OUTCOMES: THE BARGAINING FRAMEWORK**

How can the factors identified above as affecting participation and equity (with associated fallouts for efficiency) be acted upon to reduce the gender bias?

Broadly rules are made at two levels: at the level of the State and that of the community. For instance, which category of persons can constitute the general body or the EC under JFM is determined at the State level. But what membership fee (if any) is to be charged, or whether there should be total or partial closure of the protected area, or how different non-timber forest products are to be distributed, is usually determined by the community. Social norms, social perceptions, and endowments, are, however, constituted and contested at all levels—within the State, the community, the family, and various institutions of civil governance (including NGOs).

A promising analytical framework for examining the possibilities and potential for change on all these counts is that of bargaining.<sup>33</sup> Women's

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<sup>33</sup> For elaboration, see Agarwal (1997b). In that paper, I also distinguish between bargaining *models* and the bargaining *approach*. The latter is unconstrained by the



ability to change rules, norms, perceptions and endowments in a gender-progressive direction would depend on their bargaining power—with the State, the community and the family, as the case may be. The critical question then is: what would determine women's ability to bargain effectively in these three arenas?

## **6.1 Levels of bargaining**

### *6.1.1 The State*

Before outlining the likely determinants of women's bargaining power with the State, we need some conceptualization of the State itself. To begin with, the State too can be seen as an arena of bargaining at multiple levels. For instance, the State may pass gender-progressive laws at the highest level, but it could face resistance from the local bureaucracy in the implementation of these measures. Or some departments or ministries may pursue gender-progressive policies within an overall gender-retrogressive State structure: women's bureaus or ministries are cases in point. Likewise, there are often some gender-progressive individuals within particular State departments who play key positive roles, typically but not only in response to demands by interest groups.<sup>34</sup> In other words, the State would be an arena of contestation between parties with varying understandings of and commitment to reducing gender hierarchies.

Such a conceptualization implies that the State is being seen here not as a monolithic structure but as a differentiated structure within which gender relations get constituted, through a process of contestation and bargaining.<sup>35</sup> This does not deny the gender-retrogressive nature of State-functioning in many countries or contexts, but it does mean recognizing that the State can be and has been subject to challenge and change in this respect.

The State might respond positively to demands by gender-progressive groups/NGOs for several reasons. One, such a group could build up political pressure, perhaps with the support of opposition parties and/or the media, with implications for voting patterns. Two, there could be implicit or explicit

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structure that formal modelling imposes, and allows us the flexibility of exploring how social perceptions, and a range of complex social norms (not all of which can be measured) can both affect bargaining power and be bargained over. It also allows us to analytically trace the interlinks between different arenas, and how bargaining outcomes in one arena can affect bargaining power in another arena.

<sup>34</sup> See also, Sanyal (1991) and Agarwal (1994).

<sup>35</sup> See also, Connell (1987) and Agarwal (1994).

pressure from international aid agencies (White, 1992). Three, the State might recognize the inefficacy both of market mechanisms and of its own machinery in implementing essential development programmes. In India, the State's attempts since the mid 1980s to enlist NGO support for various developmental projects, including community forestry, reflects this recognition.

We would expect women's bargaining strength with the State to depend on factors, such as:

- Whether women function as a group or as individuals.
- The size and cohesiveness of village women's group.
- Support from gender-progressive NGOs and international donors.
- Support from gender-progressive elements in the State apparatus.
- Structural parameters: caste/class composition of the women's group, women's independent command over economic resources, etc.
- Social norms (as adhered to by State officials).
- Social perceptions (to the extent that State officials themselves have gendered perceptions).

The bargaining power of such a group would be higher the larger and more unified the group; the more the political weight carried by the castes of which the group is composed,<sup>36</sup> the greater the group's command over economic resources; the more the support from NGOs, the media, academics, and individuals and departments within the State apparatus; the greater the support from international donors with the power to influence State policies in women's favour; and so on.

### *6.1.2 The community*

Within the community, implicit or explicit bargaining can occur between an individual (or a subset of individuals) and the community over the rules and norms governing economic resource use, political positions, and social behaviour, and over the enforcement of those rules and norms. Non-compliance with community rules on CFGs could be seen as a form of implicit bargaining. But sanctions for some forms of non-compliance could be severe.

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<sup>36</sup> Low-caste communities need not always be the most disadvantaged in this respect. For instance, they may have good connections with key political figures, or the mistreatment of low-caste groups may be a politically sensitive issue.

As with the State, women's bargaining power within the community would be enhanced if they had support from external agents such as NGOs. In addition the State itself could be a potential source of support. Group strength would again be important in bargaining with a community. For instance, an individual woman breaking seclusion norms could easily be penalized, say by casting aspersions on her character. Such reprisals are less possible if a group of women decide to transgress the norms. Similarly, it would be much more difficult for a woman acting alone to have a voice in public bodies, than if she were part of a group or was supported by such a group. In other words, within a socially homogenous community, a woman's bargaining power with the community would stem only partly from her individual economic and social position, and more particularly from gender-progressive coalitions within the community.<sup>37</sup>

In a multi-caste/class-heterogeneous village, women's bargaining power would also depend on the socioeconomic composition of their group and their ability to command economic resources. In the sharing of communal resources, for instance, the negotiating strength of low-caste or poor peasant women, even if they formed a group, is likely to be weaker than that of high-caste or rich peasant women whose caste or class as a whole might command greater power in the village.

To summarize, the broad factors affecting women's bargaining power with the community over, say, rules governing the distribution of forest products, or some other aspects of decision-making, are likely to be similar (but not identical) to those outlined in relation to the State. They would include:

- The size and cohesiveness of the village women's group.
- Support from gender-progressive NGOs, donors, and elements of the State apparatus.
- Structural parameters: the caste/class composition of the village women's group, the group's independent command over economic resources, etc.
- Social norms.
- Social perceptions.

At the same time, the defining features of these factors, or their relative importance, are not identical to those that affect women's bargaining power with the State. For instance, we would expect female seclusion norms to be

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<sup>37</sup> For elaboration and illustrative examples, see Agarwal (1994).

much more important and restrictive at the level of the community than that of the State.

### *6.1.3 The family*

Bargaining within the family for a more equitable sharing of benefits or tasks, or for greater freedom to participate publicly is perhaps the most complex aspect of bargaining. This complexity is spelt out in Agarwal (1994, 1997b), but broadly four types of factors are likely to impinge on a woman's intrafamily bargaining power:

- Her personal endowments and attributes (ownership of property, whether or not she earns an income, educational level, age, marital status, etc.).
- Her ability to draw upon extra-household support from friends, relatives, women's groups in the village, gender-progressive NGOs outside the village, donors, and the State.
- Social norms (which might define who gets what, or who does what within the household).
- Social perceptions (say about deservedness).

Some of the common determinants of bargaining power in all three arenas are: support from external agents (NGOs, etc.), social norms and perceptions, and group strength. Norms and perceptions and group strength require some elaboration.

## **6.2 Bargaining over social norms and perceptions**

### *6.2.1 Social norms*

Social norms, as noted, have an overarching character. One, they can affect bargaining power both directly and indirectly. For instance, norms that restrict women's presence in public spaces directly reduce women's ability to bargain for rule changes within CFGs. In addition, they can do so indirectly, by reducing women's ability to build contacts with NGOs or State officials.

Two, social norms can influence how bargaining is conducted: e.g. covertly or overtly; aggressively or quietly. In most societies, behaviour which is assertive and loud is much more tolerated in boys and men, than in girls and women. And among women in South Asia, assertiveness is more accepted from older women than younger ones, from mothers-in-law than young daughters-in-law, and from daughters than daughters-in-law. In cultures or contexts where social norms stifle explicit bargaining or voice, women may

be pushed to using covert forms of contestation within the family, such as persistent complaining or withdrawing into silence (Agarwal, 1994).

Three, attempts to change social norms would itself constitute a bargaining process. As will be illustrated in the next section, the following factors appear to make a particular difference to women's ability to bargain over social norms: the external context (especially economic) which necessitates challenging a norm or which makes a norm dysfunctional; the group strength of those challenging the norm; support from external agents; and the ability to influence the institutions (the media, educational and religious bodies, etc.) that shape gender ideology.

### *6.2.2 Social perceptions*

Social perceptions can affect women's bargaining power in so far as women's contributions and abilities diverge from perceptions about their contributions and abilities. As noted earlier, a good deal of what women do is rendered invisible and therefore undervalued by both families and communities. To the extent that women internalize these perceptions, they can self-restrict their options, or what they seek to bargain over and change.

To enhance women's bargaining power within the community or the family, a necessary step would thus be to change both women's own perceptions about their options and abilities, and the perceptions of their families, the community and the State regarding women's abilities and the legitimacy of their claims. Just as they affect social norms, so institutions that create gender ideology influence social perceptions. In addition, at least two types of factors could affect gendered perceptions: information on the value of women's work, such as the time and income contribution of domestic and non-domestic labour; and demonstrations of women's ability to do something by their actually doing it.

## **6.3 Group strength**

Group strength can prove to be a critical factor at all levels of bargaining—the State, the community and the family—and in all forms of bargaining (including over social norms and perceptions). Here village women's group strength would derive not merely from the number of women who would like, say, a change in rules and norms, but from their ability and willingness to act as a group in their common interest, an interest predicated on gender. In other words, it would depend on whether gender is a basis of group identity, over and above the possible divisiveness of caste or class. The creation of such a

group identity would need to be part of the process of improving outcomes for women.

Gender-progressive groups working outside the immediate local context (even if unrelated to community forestry) can also increase women's bargaining power by adding to gender-awareness in the larger social environment within which CFGs function, thus creating a more favourable climate for challenging gender-regressive norms.

Let us now consider the ground experience of attempts to improve women's participation and gender equity. These experiences do not illustrate all elements of the bargaining framework spelt out above, but they do reveal some key elements.

## **VII IMPROVING OUTCOMES: GROUND EXPERIENCE**

### **7.1 Bargaining with the State**

JFM experience indicates that changing the initial rules of entry formulated by the State is not so difficult to bring about. Pressure from external agents such as gender-progressive NGOs and key individuals, for instance, has led a number of Indian states to change JFM membership rules in a more women-inclusive direction. Here village women did not have to explicitly bargain for changes, but the women's movement in South Asia has brought about a sufficient awareness about gender inequalities to make such issues easier to resolve with the State, through outside intervention. On this count, therefore, village women start from a position of some bargaining strength.

Changing rules at the *community-level*, ensuring that more women-inclusive membership rules are implemented, and increasing women's effective voice in these forums have, however, proved much more difficult, as discussed below.

### **7.2 Bargaining with the community**

#### *7.2.1 Using external agent bargaining power*

As with the State, so with the community, some gender-progressive NGOs, forest officials and donors have used their bargaining power to bring about changes in women's favour, sometimes at their own initiative, at other times when village women approached them.

For instance, some Indian NGOs have sought high female membership in mixed groups as a condition for forming the group. In Gujarat, one NGO uses its bargaining strength to insist on 50 per cent women's membership when starting new CFGs. It also pushes for higher female membership when the CFG is seeking formal recognition from the forest department.

Similarly, in West Bengal's Bankura district, the District Forest Officer issued a circular stipulating that there should be a minimum of 30 per cent women in the general body. This raised female membership in several villages to that level (Viegas and Menon, 1993: 187). Again, in Haryana, the forest department instructed its field staff to ensure the participation of a maximum of both men and women in JFM discussions. The field staff would simply refuse to start meetings unless the men also called the women. No excuses were accepted from the men that the women were busy with domestic chores or were unlikely to come, thus compelling them to call the women who, on being so invited, often turned up in strength (Sarin, 1998).

Such use of bargaining power by an external agent appears to work best when women's participation is pushed from the beginning. Once men's 'territorial interests' get entrenched, women's entry can prove difficult, even if the formal rules are favourable, as noted earlier. Involving women from the start can also reduce subsequent gender conflict over rules.

In some cases, gender-sensitive NGO personnel have also helped increase village women's voice in mixed meetings by soliciting women's opinions and giving them weight, as I observed in Gujarat in 1995. Similarly, in relation to distributional equity, women's complaints about firewood shortages have been taken up in some instances by the local NGO staff in a CFG meeting, leading to a shift from total closure of the forest to its opening up for a few days annually.

However, unlike the occasional success of external agents in negotiating for a rule change at the State level, or in enhancing female membership and voice in CFGs at the community level, a larger and sustained impact would require an active input from women themselves. Also, not all regions have external agents committed to increasing gender participation and equity. The intensive efforts needed for successful negotiation would therefore be lacking in many regions.

### *7.2.2 Women's covert bargaining*

Left to themselves, typically women rely on covert forms of bargaining for changing distributional rules, such as simply ignoring the closure rules, or challenging the authority of (and even counter-accusing) the patrol or the guard who catches them. Several such cases were noted earlier. In some instances, this caused the village committee to finally open up the forest for a few days.

Persistent complaining is another way by which women seek to negotiate a rule change:

After our complaints women and men had a joint meeting and decided to open the forest for a few days for firewood collection, since everyone has to cook (women to author, Asundari village, Gujarat, 1999).

The seven day opening was inadequate. So women users complained. Now they open the forest for eleven days (women to author, Laxmi Deurali village, Kaski, Nepal, 1998).

However, complaining or breaking rules (with the risk of being caught and fined) are seldom the most effective ways of changing the rules. For effective change, women are likely to need more formal involvement in the process of rule formulation and to have the bargaining power to ensure changes in their favour. The same appears necessary to get communities to focus on problems like firewood shortages as problems of community importance that need collective solutions, such as allowing greater extraction from the forest where this is sustainable, allotting plots specifically for firewood plantations, systematically promoting low cost biogas plants, and so on.

### *7.2.3 Enhancing women's bargaining power*

Ground experience suggests that, for a start, a critical mass of vocal women is necessary to give women effective voice in mixed community forums, and to help them challenge restrictive social norms and perceptions. As some women interviewed by Britt (1993: 146) in the UP hills emphasized: 'without a good majority of women present it is impossible to express opinions (see also Agarwal, 1997a).

There is a growing consensus among gender-progressive NGOs and elements of the State apparatus that to build a critical mass of vocal women within CFGs will need, as a first step, forming separate women's groups. Although



not articulated in terms of bargaining power, effectively that is what is being sought. Maya Devi (President of HIMAWANTI with long experience in group organising) puts it emphatically:

In mixed groups when women speak men make fun of them, so women need to learn to deal with this... When women join a [separate] group they gradually lose their fear of making fools of themselves when speaking up... Women need their own small groups. This is what I know from my 22 years of experience working with the government and NGOs.

Other women leaders argue similarly (Guhathakurta and Bhatia, 1992), as do many village women: 'We have no experience. If we have separate meetings we will speak up' (women to author, Gajargoda village, Gujarat, 1998).

There is less consensus, however, on what type of group this should be. In some cases all-women CFGs have been formed. As noted earlier, in both Nepal and India a number of such groups have been catalysed by NGOs, forest officials, or donors. In some villages, women have themselves approached the forest department for a plot of forest land and formed such a group (Agarwal, 1997a). Many of these groups have done well in terms of protection. They have also increased women's self-confidence. Pratibha Mundergee's observed from her 16 years of experience with a rural development NGO in Karnataka:

Yes, all women's CFGs have changed women's lives. Women now go to government offices themselves, including the Block Development Office, they talk to the forest department officials, they meet the range officers and the forester. Earlier they did not have the confidence to do so (personal communication, 1998).

All-women CFGs also demonstrate to the community women's ability to manage such groups on their own. In addition, in many contexts, all-women CFGs may be more cohesive and sustainable than men's because of rural women's greater dependence on communal resources, their informal support networks for coping with crises, their prior experience of cooperation within agricultural labour exchange groups (in certain regions), and their greater social distance from divisive local power nexuses (for details, see Agarwal, forthcoming).

However, so far all-women CFGs (as noted earlier), have usually arisen in special circumstances, such as in areas of high male outmigration, or where women themselves staked a claim, or where the men were uninterested, or NGOs or donors thought this could simultaneously promote community forestry and women's participation. In terms of numbers and forest area protected, such groups are still marginal. Also, all-women CFGs cannot solve the problem of women's low presence and lack of effective voice in the many all-male or mixed CFGs already operating, and which are the more typical CFGs. For this, other kinds of efforts would be needed.

Toward this end, a number of rural NGOs have formed all-women savings-and-credit groups, which, unlike CFGs, do not involve a resource over which there is generalized community claim. In some regions, more multi-functional women's groups, such as mahila mangal dals in the UP hills, or amma samuhs in Nepal, are also doing well. Such separate women's groups (be it around savings or some other issue) have helped on several counts: building women's self-confidence and experience in collective functioning, promoting a sense of collective identity, enabling women to learn from other groups through 'exposure visits' organized by the local NGO, and so on. There have also been indirect fallouts, such as an increase in women's ability to deal with government agencies, a change in male perceptions regarding women's capabilities, and some change in social norms which earlier defined only the domestic as legitimate female space. Consider some illustrations of what women said to me (1998-9):

Men used to shut us up and say we shouldn't speak. Women learned to speak up in a sangathan (group). Earlier we couldn't speak up even at home. Now we can be more assertive and also go out. I am able to help other women gain confidence as well (woman leader to author, Vejpur village, Gujarat, 1999).

Initially I was shy because I did not know much. Now I have more experience (woman to author, Tallo Goungonda village, Kaski district, Nepal, 1998).

Initially men objected to our going to meetings. But our amma samuh helped men understand better. We women became united in the amma samuh, then men saw we were going good work. That also helped (women to author in Tallo Goundonda village, Kaski district, Nepal, 1998).

NGO workers reiterate these observations: 'Women used to hide from us initially, but now they have so much confidence they feel they can even teach the new workers in our organization' (male NGO worker to author, UP hills, 1998).

In fact, these experiences are not dissimilar to those of many other rural women's groups across South Asia. For instance, take women members of the NGO, BRAC (the Bangladesh Rural Advancement Committee), which works with the rural poor through group schemes for income-generation. The women, forced by poverty to break purdah norms and seek work outside the home, have been able to gain some acceptance of their public roles, over time:

Before the village elders and union-council members abused and threatened us for joining the group, now they are silent... Before we did not go outside our homes, but now we work in the fields and go to the town (cited in Chen, 1983: 165).

Now nobody talks ill of us. They say: 'They have formed a group and now they earn money. It is good' (cited in Chen, 1983: 177).

All these experiences support the view that group strength, external agency support, and activities that enable women to make a visible contribution (especially in monetary terms) can alter some social norms and perceptions.

But are separate women's groups adequate for enhancing the average woman's participation in the mixed CFGs? Not necessarily or automatically.

#### *7.2.4 Difficulties of integration*

In many villages, the formation of separate women's groups has sharpened gender segregation in collective functioning. Women's savings groups are seen as 'women's groups' and the CFGs as 'men's groups'. This is so even when some women's groups have taken up forest protection activities parallel to those of men, or in the absence of male involvement. Basically, working in separate groups does not adequately challenge unequal gender relations or the dynamics of *mixed* group functioning. Some women learn to speak up and serve as leaders, but this does not make for a critical mass of vocal women in the CFG. In other words, forming separate women's groups may be a necessary condition for increasing women's CFG participation in many circumstances, but it is not a sufficient condition.

For effective integration, more concerted efforts appear necessary. In some cases, all-women groups which are part of a multi-village women's organization, have been able to negotiate women's enhanced membership in mixed CFGs. In West Bengal's Midnapore district, for instance, only 2 per cent of the 8158 members in the 72 CFGs studied in the early 1990s were women, while in Bankura district female presence was marked (Roy, 1992; Viegas and Menon, 1993). In the latter district, almost all the women CFG members were also members of a local women's organization which had a substantial reach in the district. In Korapara village, the CFG shifted from zero to 63 per cent women members, due to the active encouragement of this organization (Viegas and Menon, 1993: 187).

In a few other cases, NGOs working with both women and men have sought to integrate all-women groups with the mixed CFG. A Karnataka NGO, for instance, seeks to directly link women's savings groups with CFG participation. As a result, in several of its villages, some 80-90 per cent of the women are now in the general body. They discuss CFG functioning and even collect CFG membership dues in their savings groups. In some cases, savings group members have gone from house to house to persuade women to join the CFG. As a result, several women who were not even members of the savings group joined.<sup>38</sup> The women I met in some of the villages where this NGO is working, were quite vocal in the mixed group. To bring them to this degree of outspokenness, however, has taken many years of persistent effort and trust building between the NGO, the women, and the villagers.

### **7.3 Bargaining with the family**

The family is the third major arena of bargaining for women. Most rural NGOs do not directly tackle the issue of intra-household gender relations. Forming all-women groups can however have indirect positive fallouts. For instance, I met a number of women's groups that had helped individual women negotiate with their husbands, or where being a group member had improved women's situation at home.

There are one or two men who objected to their wives attending our meetings, and said you can't go. But when our women's association came to their aid, the men let their wives go (women to author in Almavadi village, Gujarat, 1998).

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<sup>38</sup> Personal communication in 1998 from Pratibha Mundergee, former worker in this NGO.

My husband feels I contribute financially, take up employment, obtain credit for the home. This increases his respect for me (woman to author, Almavadi village, Gujarat, 1998).

In other words, there has been a loosening of restrictive social norms both within the home and outside it. In addition, women's public participation and contribution may change a man's view of his wife's deservedness, and this could make a difference to intra-family sharing of resources.

Of course some norms would be easier to change than others. A particularly inflexible one would be the gender division of labour, from which stem many of the noted inequities in the sharing of CFG costs and benefits.

#### **7.4 Domains beyond CFGs**

Any local group, including a CFG, is likely to be affected not only by its immediate locale, but also by the wider context of structural and cultural inequalities within which it is located.

For instance, both participation and distributional equity are affected by the pre-existing structural inequalities predicated on the caste and class of the households to which women belong, as well as on gender. These inequalities are unlikely to decline substantially within the parameters of CFG functioning, although an improvement in women's bargaining power could indirectly alter some of these parameters.

Moreover, equity of distribution depends, as noted, not just on the rules that determine benefit sharing, and the initial economic inequalities between and within households, but also on what principle of distribution is favoured by the community. A shift from distribution according to contribution or willingness to pay, to distribution according to need, could require a significant change in social values.

Similarly, norms and perceptions are constituted and contested not only at the village level, but also at several meso- and micro- levels. Some of the principal institutions that shape ideology, such as educational and religious establishments and the media, can influence social norms and perceptions in either gender-progressive or gender-retrogressive directions. The media can also change women's perceptions about their options. In five different villages in Nepal, women told me that an important factor that encouraged them to form a group was hearing about such groups on the radio. Media messages emphasizing more egalitarian gender relations could similarly have an impact.

Finally, a significant NGO initiative, which impinges on domains beyond the local, is the 'scaling up' of CFGs cross-regionally, by forming federations.<sup>39</sup> These, among other things, enhance the bargaining power of local groups vis-à-vis the State. However, their gender impact is unclear so far, since women's representation is not automatically assured. In Nepal's Federation of community forest users—FECOFUN (initiated in 1996 and so far covering 1000 user groups in 42 districts)—the Constitution requires a 50 per cent representation of women at all levels, from district committees to national steering committees, but it is not achieved in practice (Britt, 1997). Making such participation effective could again be seen as a bargaining process. In some cases, a two-pronged approach is being followed, by simultaneously building women's strength outside the Federation through a separate all-women network. The earlier-mentioned regional network of women's groups working on natural resources, HIMAWANTI, for instance, aims at promoting women's interests both within CFGs and within FECOFUN. As with other all-women groups, it remains to be seen how successful HIMAWANTI will be in enhancing women's participation in the national federation.

## VIII IN CONCLUSION

South Asia's CFGs are a significant example of group functioning. While many have done reasonably well in regenerating the environment (at least in an immediate sense), they have been less than successful in bringing about women's participation in decision-making, or in ensuring gender equity in the sharing of costs and benefits from forest protection. As a result, they have also failed to tap the full efficiency potential of the collective effort. This cautions against ungendered evaluations that would deem such groups success stories. It also indicates that improving gender participation and distributional equity are important both in themselves, and for their complementarity with efficiency. Equity and efficiency could thus be promoted simultaneously. It is necessary, however, to identify the underlying constraints.

It has been argued here that among the main factors impinging on women's participation in CFGs and the sharing of costs and benefits, are rules, norms, perceptions, and the pre-existing inequalities in endowments and attributes

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<sup>39</sup> For India, see Underwood (1997), and Raju (1997). Also personal observation in Gujarat, the UP hills and Orissa, during field visits in 1998-9.

both of women themselves and of their households. In the long run, changes on all these counts appear necessary for bringing about more participative, equitable, and efficient outcomes.

The paper suggests that it is useful to conceptualize such change within a bargaining framework of analysis, and to act on the factors that will strengthen women's bargaining power with the State, the community and the family. Among such factors is the support provided by external agents (NGOs, forest officials, donors, etc.) both directly, and indirectly through the formation of separate women's groups (such as savings groups) at the village level. The analysis indicates that while such separate groups can play (and have played) an important role in enhancing women's group strength and self confidence, in themselves they may be ineffective in changing women's position within mixed groups. For achieving this, more directed efforts are likely to be needed. Separate women's groups can thus serve, at best, as only one measure among the many that are needed for shaping mixed CFGs into more gender egalitarian institutions.

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Discussion Paper No. 29 Abstract

## **Gender, Property Rights, And Natural Resource**

**Ruth Meinzen-Dick, Lynn R. Brown, Hilary Sims Feldstein, and Agnes R.**

### **Quisumbing**

May 1997

This paper analyzes the ways in which gender issues affect property rights and the use of natural resources in developing countries. It examines the informal practices of resource use, usually involving multiple uses by multiple users. Traditional systems of access to land, water, and trees reflect complex dynamics among community members that must be understood in order to design successful policy interventions concerning natural resources.

Drawing on examples from developing countries worldwide, the paper identifies broad patterns in how property rights are determined. It discusses the effects of privatization and commoditization of resources, and it identifies key issues to consider in the context of proposed resource management programs.

### ***The Study***

The study combines a literature review with a review of papers and discussion at IFPRI's e-mail conference on gender and property rights, which took place during 1997.

### ***Findings***

The study found a wide gap between de jure and de facto jurisdiction over property in virtually all the cases studied. In rural areas, the use of land, water, and trees was governed by social and cultural norms and practices to a far greater extent than by legal ownership by an individual or household. For example, multiple users had access to a stream for feeding animals, washing, and irrigating fields.

The study also found that property rights, access to resources, and relationships among multiple users were significantly affected by gender differences. For example, cultural norms differentiated the ways in which women were allowed to use a forest, such as for gathering fruit, from men's activities, such as harvesting logs.

*Policymakers must look beyond legal and formal rights to understand the complex ways that access to resources is determined.*

These gender differences in access to resources significantly affect natural resource use in four main areas: (1) environmental sustainability, (2) efficiency of resource use, (3) equity of resource allocation among users, and (4) empowerment of users, particularly women.

### ***Environmental Sustainability***

Secure tenure of resources encourages investment in resource management. People with long-term access to resources have greater incentive to sustain them and thus develop better ways of preserving and regenerating them. Although it is difficult to measure the impact of property rights on sustainability, findings suggest that flexible tenure arrangements—particularly those incorporating women's input—should be encouraged.

### ***Efficiency of Use***

As is the case with environmental preservation, tenure of resources also encourages increased production and efficiency of use. Efficiency of use, however, is, in part, defined by gender. For example, the study examined the case of a forest that produced both fruit and logs. Logs, marketed by men, had a higher market value and might have been preferred over fruits, which were gathered by women for food and income. Yet if reducing child malnutrition were the goal of a project, fruits would be given priority over logs (despite their lower market value), given the propensity of women's income to improve children's nutrition. Thus it is essential to understand the full range of users and uses of a resource when designing resource management projects.

### ***Equity of Resource Allocation Among Users***

Acquisition of resources is often determined by labor contributions (sweat equity) rather than cash purchase or inheritance. While this leads to equity of resource allocation in some cases, depending on one's concept of equity, in many situations women face biases to access and production. Barriers range from social norms (as in Nepal, where women are prohibited from working in irrigation systems because of ritual "pollution" laws) to time constraints; women's additional domestic responsibilities kept them from contributing as much labor as their male counterparts to numerous land projects, essentially leaving them behind in the competition for access to resources. The study suggests that projects should aim to secure both formal and informal equity of resource allocation, by focusing not just on legal ownership but on programs for credit, legal assistance, and other critical support.

### ***Empowerment of Users***

Acquisition of property rights can significantly increase a woman's voice in her household and give her greater bargaining power among household and community members. The study finds that collective action by women's support groups is the most effective method of strengthening women's access to natural resources. It also finds that use rights are probably more important goals for policy interventions than formal ownership rights.

Another issue to consider is the privatization and commoditization of resources. The shift away from traditional tenure systems to more formalized property rights is a strong trend, especially where scarcity or value of the resources is growing. During this process, property is often transferred from the community to individuals (or corporations). Community access to the resources—now controlled and marketed as commodities—is no longer permitted in most cases. Because women are usually less able than men to acquire property legally, they are hurt most by this trend. They are far more likely than men to lose access to the water, forests, and land upon which they depend for their subsistence needs.

### ***Policy Implications***

Policymakers must look beyond legal and formal rights to understand the complex ways that access to resources is determined. The findings of this study strongly suggest that privatization programs should encourage ownership by women, and should include complementary programs to provide essential resources for production, including credit, legal assistance, and other resources. Wherever possible, alternative arrangements accommodating multiple users should be encouraged to promote sustainability of both the resources and the community. While national policy is necessary to achieve these goals, it is not sufficient to improve equity: local practices are critical, and local input must be incorporated into policy designs.

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**FCND DISCUSSION PAPER NO. 29**

**GENDER, PROPERTY RIGHTS, AND NATURAL RESOURCES**

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*FCND Discussion Papers contain preliminary material and research results, and are circulated prior to a full peer review in order to stimulate discussion and critical comment. It is expected that most Discussion Papers will eventually be published in some other form, and that their content may also be revised.*

## ABSTRACT

Attention to gender differences in property rights can improve the outcomes of natural resource management policies and projects in terms of efficiency, environmental sustainability, equity, and empowerment of resource users. Although it is impossible to generalize across cultures and resources, it is important to identify the nature of rights to land, trees, and water held by women and men, and how they are acquired and transmitted from one user to another. The paper particularly examines how the shift from customary tenure systems to private property--in land, trees, and water--has affected women, the effect of gender differences in property on collective action, and the implications for policy formulation and implementation.

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## **1. INTRODUCTION**

Property rights to resources such as land, water, and trees play a fundamental role in governing the patterns of natural resource management, as well as in the welfare of individuals, households, and communities who depend on those resources. Policies that shape property rights can play a major role in promoting (or inhibiting) economic growth, equity of distribution, and sustainability of the resource base. If we can understand existing natural resource property regimes, how they are determined, and the role played by policy in that determination, we can begin to devise policies that are supportive of broad-based economic growth, especially in rural areas.

Property rights include far more than titles and pieces of paper specifying "ownership" of a defined piece of land or other resource. They encompass a diverse set of tenure rules and other aspects of access to and use of resources. If we understand property rights to refer to an individual's capacity to call upon the collective to stand behind his or her claim to a benefit stream (Bromley 1991), then property rights describe relationships between people. We would argue that the success of any policy, whether designed to prevent further depletion or degradation of the natural resource, or to enhance the resource base, or to ensure sustainable resource utilization, or to improve household welfare, depends on an ability to successfully anticipate the responses of individuals. Time and again, however, actual responses differ from anticipated responses.

An important reason for this is that the focus of property rights analyses has too often been on the rights held by a household, and the *de facto* or *de jure* male household head, without a recognition of how these are differentiated between individuals based on gender, age, or other intrahousehold characteristics.<sup>1</sup> There has been considerable work that describes how gender, *ceteris paribus*, is an important determinant of how rights, responsibilities, and resources tend to be allocated—either within households, communities, or institutions (Poats 1991; Moser 1993, Thomas-Slayter and Rochleau 1995). This does not imply that men's and women's interests are necessarily opposed. There is often a great deal of complementarity of interests, roles, and resource uses. Yet these differences and complementarities are easy to overlook if we use gender-blind conceptual, analytical, and measurement approaches. Because it highlights such complementarities as well as actual and potential conflicts, gender analysis is an appropriate tool to apply to a study of property rights, particularly when the goal is successful policy design.

Given the enormous diversity in property regimes, gender relations, cultural and environmental conditions, it may be heroic—or indeed foolhardy—to assume that we can identify patterns of resource use that apply beyond a specific case. This is especially true if we look beyond a single resource such as land or trees, to the range of natural resources. However, we believe it is at least possible to identify a common and probing

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<sup>1</sup>Clearly, differentials in property rights do not only occur along gender lines. Other differentials can be observed to occur along class, caste, or age lines, for example.

set of questions that can be used to elucidate the link between gender and property in a wide range of cases. In this way, gender analysis can lead to a better understanding of complexity, and open our eyes to a broader range of shared, complementary, and conflicting rights and uses. Furthermore, comparisons across resources and regions highlight certain common trends (as in the effects of privatization) and bring to light new possibilities, such as the flexible, multiuser tenure systems for trees in some areas, that might also be applied to accommodate men's and women's needs for other resources such as water or rangeland.

The purpose of this paper is to cast a gender-analysis lens on the allocation and determinants of property rights to natural resources. In doing so, we intend to identify critical gender asymmetries in property rights and how these asymmetries affect the efficiency of natural resource use, environmental sustainability, equity of resource distribution, and the empowerment of resource users. The paper highlights broad patterns in how rights are transmitted at various levels, the effects of commoditization and privatization and the implications of property rights for collective action and gender relations. Our paper draws from papers and discussion generated in IFPRI's recent e-mail conference on gender and property rights (IFPRI 1997). Many of these themes are discussed in more detail in Lastarria-Cornheil (1997) on land, Zwarteveen (1997) on water, and Rocheleau and Edmunds (1997) on trees. Our paper concludes with the implications for policies that can improve the outcomes of natural resource use by dealing explicitly with gender asymmetries in property rights.

## 2. OUTCOMES

### EFFICIENCY

One of the basic arguments for attention to property rights is that secure tenure encourages investment in a resource, which leads to higher productivity and efficiency in its use (see Besley 1995; Place and Hazell 1993). But if women are blocked from certain avenues of investment (e.g., in tree planting), or if they know that particular investments and increases in productivity will lead to the loss of their access to land, their insecurity of tenure can be a barrier to productivity. This is more likely to be a factor in areas of Africa (e.g., in The Gambia—see Dey 1981), where men and women have separate land, than on "family" holdings (e.g., in South Asia—see Agarwal 1995). Beyond economic incentives for investment, it is important to look also at women's ability to invest in resource enhancement. Ownership conveys the right to manage the resource (as discussed below under the nature of the rights), and is a major source of collateral for credit. Extension agents often favor landowners, thereby giving them preferential access to information (Agarwal 1995). Without title to the resource, women may therefore be constrained from investing, whether through lack of knowledge or an inability to secure credit.

But looking at these issues through a "gender lens" can also highlight some of the shortcomings of traditional analyses of "efficiency." If poverty reduction is an important goal, we need to look beyond productivity/yield impacts to also know (1) the effect of gender differentials in property rights on the control of income, as opposed to just the



level, and (2) the effect of income control on welfare. For example, should the equivalent of a rupee (or dollar, or kwacha) of cash crop output that goes to the male head of household receive the same weighting as an equal "value" of food crop output controlled by the female head of household? This is especially an issue if alleviating malnutrition is an objective, given that women are more likely to spend a higher proportion of additional income on household food and inputs into child health and nutrition (Quisumbing et al. 1995).

The gender lens also allows us to see a wider variety of uses of the resource, and hence to a more accurate accounting of productivity. Property regimes and resource management systems that maximize output of a single commodity may appear to give the highest returns under conventional analysis, but when we look at the full spectrum of uses, other property regimes may have a higher value of output.<sup>2</sup> For example, do we only look at the marketed logs as the output of a forest, or at the total value of fodder, fruits, "minor forest products," and kindling as well? Do we consider only the "crop per drop" by measuring paddy output of an irrigation system, or also the fisheries, vegetable gardens, domestic water supply, beer making, cattle watering, and recharge of the water table?

Looking at the broad spectrum of resource use, however, is not without its problems. The maximization of one output from a resource, for example, fruits, may be

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<sup>2</sup>This is related to the broader question of accounting for women's productivity, including both home and market production. See Beneria (1992) and Quisumbing (1996) for reviews of these issues.

in conflict with the maximization of another, for example, logs, and thus hard choices may have to be made. What choices are made depend on the objective to be achieved. Some would argue for market valuation of products. Thus, if logs have a higher market value, then they are preferred and some fruit output may be sacrificed. There may be gender differentials if, for example, logs are marketed by men and fruits are gathered by women and provide a source of income and/or food. In our example, if reductions in child malnutrition were the objective, fruits should receive a higher weight in the decision than logs, despite their lower market value, given the propensity of women's income to enhance child nutritional status. Thus the objective of policy design is a critical factor when selecting a property regime or resource management system recognizing the full range of users and uses of a resource.

## ENVIRONMENT

Studying the impact of property regimes on environmental sustainability is extremely difficult. It is difficult to find appropriate indicators of sustainability, more difficult to get data on these, and still more difficult to find data on changes over time.<sup>3</sup> Even where this information is available, it is hard to link the changes to property regimes, because there are so many intervening and compounding factors. Is a change in the condition of the range due to the property regime, or to other physical conditions such

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<sup>3</sup>Some researchers are exploring the use of aerial photographs and, more recently, satellite images to track changes in ground cover and forest cover over time. However, the time series is limited, as satellite imaging dates back only to the late 1960s.

as drought or animal disease, or to an economic policy such as raising the return to crop production by reducing taxation? Changes in water tables are especially problematic, because of the difficulty in observing groundwater, and in tracing the interactions between surface and groundwater use.

Despite these difficulties in measurement, property rights affect the time horizon for resource use, and the incentives for conservation, as well as for investment in improving the resource. Without rights to manage the resource or exclude others from using it, it is difficult for users to sustain the resource condition. Full ownership rights, including the rights to dispose of the property through sale or inheritance, are often assumed to provide the strongest incentive to maintain the resource over time (Schlager and Ostrom 1992).

However, private ownership does not necessarily lead to sustainable use, especially if the owners use a high discount rate. Studies of common property regimes (e.g., Ostrom 1990) have shown that norms and rules can have a strong influence on sustainable management, particularly if users are involved in rule setting, monitoring, and enforcement. Pursuing flexible tenure arrangements as alternatives to freehold titles, as suggested by Rocheleau and Edmunds (1997) and supported by others in the Gender-Prop E-mail Conference, would therefore require greater understanding of the formal and informal rules governing particular uses in each location. Particular attention should be paid to women's involvement in the local institutions that make and enforce rules governing resource exploitation.

## EQUITY

Improving the equity of resource distribution is a strong explicit and implicit theme in the analysis of gender and property rights. But we should note that definitions of equity vary. Equity is not the same as equality, but is linked to the concept of fairness. An equal, or identical distribution of resources (per person? per household? per hectare of land owned?) may not be seen as equitable, or fair. In game theory, there is a growing literature that searches for fair solutions to various cooperative games that are based on widely accepted axioms (Farmer and Tiefenthaler 1995). Fairness concepts map closely onto concepts in social psychology regarding the effects of parental beliefs about equity in intrahousehold allocation (Engle 1988). For example, the fairness literature's "proportional split" rule is equivalent to the intrahousehold "contributions rule," which implies that resources should be distributed in proportion to the individual's contribution to the household. The "equal outcomes" concept in the fairness literature corresponds to Engle's "needs rule," where more resources are given to the more disadvantaged member of the household (e.g., the weaker child) to bring him or her up to the level of the less disadvantaged member. The equality rule is that of equal split, where each person receives an equal share of the resource.

The relevant fairness concept may depend upon the types of resource, the resource constraints of the household, and the characteristics or values of the resource allocation

(Engle 1988).<sup>4</sup> Farmer and Tiefenthaler (1995) argue that understanding the relevant fairness concept is important to policymakers because the outcome of government interventions may be affected by the fairness concept of the target group. Indeed, it is possible that the policymakers' concept of fairness may differ from that of the intended beneficiaries. If the intended beneficiaries believe in equality of *outcomes*, for example, an equal split of *resources* by the government may not be popular. This brings us back to the point of local variability: definitions of equity differ from one place to another, one time to another, and even one person to another. But identifying norms of equity is needed in both research and in setting policies.

The second major point is the need to be clear about *both* de jure and de facto equity of access to resources. Formal legal equity of access is important as a goal. Examples of efforts in this regard include Costa Rica's titling to women among the unmarried poor (Tinker 1995a); the new intestate inheritance laws in Ghana, which ensure that some land does go to wives and children upon the death of their husband or father (Awusabo-Asare 1990); and legal provisions protecting women's interests in Thailand's family law (Vandergeest 1996). Nor are these efforts restricted to government policies: Rocheleau and Edmunds (1997) report that in Kathama, Kenya, men are now

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<sup>4</sup>In a survey of findings from the psychological literature, Engle and Nieves (1993) found that equal split is more likely in noncapitalist cultures. In more communally organized cultures, such as India and China, both needs-based distributions and equal split of resources are likely to dominate. Equal split is more likely within the family, while contributions rules are more likely to apply outside the household. Women are more likely to follow an equally split rule than a contributions rule.

providing land to unmarried daughters with children, recognizing them as the sole support of their children.

The extent of equity in the actual distribution of resources needs to be examined in addition to the formal legal definitions. Analysis should pay particular attention to the reasons for divergence between de jure and de facto equity. This is of particular importance for program design. For example, acquisition of resource rights through labor contributions ("sweat equity") appears to be a more equitable route than cash purchase or inheritance for resource-poor households and individuals. But this does not always hold in practice. Some irrigation systems in Nepal prohibit women from contributing their labor for system maintenance because of concepts of ritual "pollution." According to Pradhan (1995),

In such a situation, female-headed households have to either find cash to "compensate" for the labour (that they were in the first place denied the right to contribute), or pay some other male labourer to contribute the labour. In some of these systems, untouchables are also not allowed to contribute their labour for the same "purity and pollution" reasons.

The barriers to women's access may not be as explicit: they may also be constrained by time, owing to the additional domestic responsibilities which they bear, from contributing sweat equity to irrigation, trees, or land development projects. Many studies have

documented the long hours spent by women compared to men in productive activities (Brown and Haddad 1995; McGuire and Popkin 1990).

Looking at the complementary inputs required to obtain rights may also shed light on the barriers to equitable access. Often, land titling requires political connections and know-how, as much as cash. Even common property or open access resources may require some private resources to exploit (e.g., grazing lands require cattle, marine fisheries require boats, groundwater requires wells and pumps). Creating a level playing field for women may require addressing these hurdles as much as the formal rules and laws relating to resource tenure.

## EMPOWERMENT

Agarwal (1995) defines empowerment as "a process which enhances the ability of disadvantaged ("powerless") individuals or groups to challenge and change (in their favor) existing power relationships that place them in subordinate economic, social, and political positions." Property rights fit into this process in two important ways. One is titling itself. Ownership of a resource contributes to empowerment. Where those with greater wealth can buy out others, it is the former who are empowered and those with lesser means who lose ground (literally and figuratively). A growing literature on intrahousehold allocation shows that increased income accruing to different individuals affects the "sharing rule" within the family (Thomas and Chen 1994). In developing country contexts, this is linked to women's rights to inherit, since inherited assets

(particularly land) are a key determinant of nonlabor income (Quisumbing 1994). This suggests that in societies where women can inherit, their position is stronger within the family. In another example, where landless women can purchase a borehole and sell water in Bangladesh, they are empowered (see Koppen and Mahmud 1995). Timely and appropriately structured credit was enabling in this instance.

The second source of empowerment is the organization and support of women's groups to attain rights, whether ones to which they are already entitled or ones that need to be established. In describing the complexity of land, tree, and other resource rights, Rocheleau and Edmunds (1997) make a strong case for (1) the value of making visible at the local level what the distribution of use and ownership rights actually is and (2) the benefits to women of their local political empowerment. Here attention is more to use rights than ownership rights. Working collectively, women are often better able to gain rights where they can most benefit and by means that they construe to retain the complementary nature of their and their families' livelihoods.



### 3. NATURE OF THE RIGHTS

Any analysis of gender and property rights needs to look beyond who holds legal title. For land, water, or trees, we need to look at complex bundles of rights held by different people, rather than a single "owner" of any given resource unit. The rights to access, withdraw, manage, exclude others from the resource, and to transmit or alienate rights all must be considered (see Schlager and Ostrom 1992). The overlapping categories of use have been examined more extensively for trees (see Rocheleau and Edmunds 1997), but apply also to land and water. Men and women often have rights to use the resource in different ways: for different crops, grazing, and gathering on land; for irrigating, washing, watering animals, or other enterprises using water; for timber, fruits, leaves, firewood, shade, or other products from trees.<sup>5</sup>

Land rights have received the greatest amount of attention. As a fixed and (generally) enduring asset, it is easier to define the boundaries of the resource unit. At the other extreme, water and fishery resources are inherently mobile and transitory. Rights are usually defined in terms of access to and use of water over time, rather than ownership of a particular unit of water. However, the source of water—local streams, irrigation systems, boreholes or other single point sources—will affect its accessibility and the kinds of rights "available." Its fungibility does not necessarily constrain its use as an asset, as in the Bangladesh case where women's groups, often made up of landless

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<sup>5</sup>Although rights to access but not withdrawal from the resource are rare, Kendrick (1996) provides an example of women needing coastal areas to dry fish, a case in which rights of access can be very important.

women, own boreholes and sell the water to users (Koppen and Mahmud 1995). Water rights have often been poorly defined, and actual distribution patterns often differ from formal allocation rules. Water rights are also often tied to responsibility for maintenance of water conveyance infrastructure.

Tree rights are similarly often tied to responsibility for planting and tending the trees. What is a tree and the nature of the production of the tree is directly affected by management—where planted and whether and how it is pruned. For instance, in western Kenya, where women can use bushes but not trees, judicious pruning keeps a woody species a bush (see Rocheleau and Edmunds 1997).

In many cases, there are strong links between land, water, and trees. Water rights are often accorded based on ownership of irrigated or riparian land near rivers. Rights to land may be obtained by either planting trees (where trees are scarce), or clearing trees (in forested areas). The latter example illustrates another connection: control over physical resources is often related to control over labor. Hence, men who control land may also control women's labor, and the ability to mobilize labor may be necessary as a "buy-in" to gain rights to certain types of property. On the other hand, Otsuka (1995) hypothesizes that in Ghana, the increased labor requirement of cocoa farms, which is met by women's labor, is leading to greater symmetry of property rights between men and women. This can be thought of as indirect sweat equity, driven by higher demand for women's labor, and the need to give them incentive to work on the land. The extent to which "sweat

equity" requirements affect women's ability to gain property rights merits greater attention in both research and policy or program design.

Over a long time horizon, direct property rights to land, trees, and water can be thought of in a hierarchical or nested fashion—trees, land, water. In many cultures clearing land of trees (in forested areas) or, conversely, planting trees (in open areas) can establish or reinforce land rights. Often the establishment of land rights confers the rights to other resources on the land, such as water. Other direct paths to land rights include inheritance, cash purchase, and state legislation or political process, including land allocations by village chiefs or elders. These paths apply particularly to land that would never have supported trees but also to land that may have been cleared of trees several generations ago. Direct paths to water rights independent of the land right are cash purchase and sweat equity or other investments in the infrastructure that controls water.

There are thus a number of pathways for acquiring and transmitting property rights, including (1) market purchases; (2) inheritance, inter-vivos transfers, or gifts; (3) labor or other investment in improving the resource; (4) use over a period of time (prior appropriation or "squatters' rights"); (5) receiving the rights from the state; and (6) membership in a community (especially in communal or common property regimes).

Identifying these pathways to property rights enables us to consider what are the gender implications of each path and the specific barriers women may face under each. Munk-Masden (1995) points out that "On a theoretical level the market is gender neutral, it is not gender but money that decides the power position. But women are not strong

competitors in land markets for cultural and political as well as for economic reasons."

There is less evidence on gender aspects of water markets, but Cleaver and Elson (1995) argue that women will face similar obstacles, especially where "willingness to pay" is not matched by ability to pay.

The pattern of land inheritance is generally male, whether the system be patrilineal through sons, or matrilineal through nephews. Lastarria-Cornhiel (1997) points out how the spread of Islam and colonialism have eroded traditions of female inheritance in parts of Africa. But looking narrowly at inheritance patterns for one resource may be misleading. For example, in rural areas of the Philippines, transmission of land to men through inheritance is balanced by favoring the education of girls (Quisumbing 1996).<sup>6</sup>

The evidence on the gender implications of various types of investment as a basis for resource claims is varied. Tree clearing is almost exclusively a male task in most societies, and thus precludes women establishing a land right. Women are more likely to be involved in tree planting, but it is still largely a male activity. Additionally, in many cases for women to plant trees, they must already have some land right. In some ethnic groups in Ghana, if women plant cocoa trees, it gives the wife rights to land on marital dissolution. Do other forms of "sweat equity" create hurdles to women's acquisition of rights? Certainly the extensive involvement of women in public works projects, both in

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<sup>6</sup>By law, both sons and daughters inherit equally from land held under ownership title in the Philippines. However, while sons may be favored in the distribution of tenanted land, girls obtain more schooling. Indeed, a study of five rice-growing villages in the Philippines showed that, among children 18 and older, daughters had higher schooling attainment than sons (9.54 years and 8.53 years, respectively), while sons were slated to receive twice the land to be given to daughters (0.76 versus 0.32 hectares) (Quisumbing 1996).

South Asia and Sub-Saharan Africa, suggests that manual labor per se is not an insurmountable barrier, but the consequences of the manual labor may be high. Female public-works program participants in Bangladesh are among the poorest women and reported that they were unable to take proper care of their children as a result of their involvement (Ahmed and Shams 1994). Where women's nutritional status is already compromised, or at risk, demanding physical labor may have significant negative effects on their nutritional status, as suggested by a Ghanaian study (Higgins and Alderman 1992).

Official policies toward granting rights from the state range from favoring men (as in many irrigation systems—see Zwarteveen 1997) to giving preference to women or women's groups. Even where official policies are gender-neutral in government-allocated rights, women may have difficulty in acquiring those rights (Lastarria-Cornhiel 1997). Limitations to access include money, where legal or illegal administrative payments are made, little knowledge of the public institutions, and distance. Limited access also results from traditional expectations of women's place and behavior that keep women in the private domain.

Social and cultural norms have a considerable effect on women's water rights that are allocated through community membership. There is a tendency to idealize community resource allocation as being very equitable. Indeed, communal tenure systems often provide for all households to have some land (though women's rights may be subordinate to men's—see Lastarria-Cornhiel 1997). The poor depend heavily on

common property resources such as pasture or forests available to members of a community (Jodha 1992), and many communities have norms that no one should be denied access to basic drinking water. But even the use of the commons may require access to other complementary means of production, such as animals to use grazing lands, favoring those with more resources (see Brouwer 1995). Community norms regarding the appropriate status for women may even be the greatest barriers to women's control over resources, especially independent rights to the resource.

The above speaks principally to formal rights of control, such as exclusion, sale, and making land available to others. Women's *access* to resources for their own productive and reproductive activities is more prevalent than their control. The patterns of access are more complex and more nuanced. Community norms, including those of gender relations, interplay with economic opportunity. It is in the informal rights of access where we are more likely to see the flexibility and subtleties that characterize actual practice. In either case, support of women's groups has strengthened women's access. The effect of gender relations on formal and informal property rights suggests that policymakers need to look beyond legal rights, to look at removing gender-based constraints to other services and rights, which combine to limit women's access to property.

#### 4. COMMODITIZATION AND PRIVATIZATION

The shift from customary tenure systems to more formalized private property systems is a strong trend that cuts across land, trees, water, and other resources. In many cases, this is driven by increasing scarcity or value of the resource. As a result, the resource becomes a commodity, and a market develops for rights to the resource (see Lastarria-Cornheil 1997; Zwarteveen 1997). Privatization can refer to two different types of transfers: from the state to groups, or from customary tenure to titling in the name of an individual. While privatization does not necessarily mean an individualization of rights (many of the largest holders of private property are corporations), in many cases the privatization of land, water, and tree rights is accompanied by a transfer of property from the community to individuals. Furthermore, there is often a move to assign all rights to a single holder, rather than having multiple claimants on the resource. While this reduces transactions costs and facilitates market exchange of the resource as a commodity, it cuts off many who formerly had customary access rights to use the resource for the production of goods and services.

What are the implications of this? Women may not be formally cut off from markets per se, but they often have less access to money, political connections, and other resources needed to acquire title. In the process of privatization and reducing the complex bundles of rights into a single unitary right, many women and marginal users lose out. This has been demonstrated repeatedly, as far back as the Enclosure Movement in eighteenth-century England (see Baland and Platteau 1996).

Rocheleau and Edmunds point out that rights to trees are embedded in the question of land ownership. In traditional systems that recognize multiple users and rights, specific rights to or ownership of trees are accommodated. Where land ownership is privatized and land is exchangeable, the traditional rights to trees and their products may be jeopardized as part of the reduction to unitary ownership.

The policy implication is that privatization programs need to be designed so that women can get title, but this may not be sufficient to allow women to intensify production. That requires access to credit and other inputs in support of resource utilization. Limited access to markets, credit, and inputs may be because they are not there at all, or skewed because of normative or legal gender bias restricting women's access. This implies a need for complementary programs to provide credit and legal assistance along with appropriately designed rules.

However, there is also a need to explore alternatives to freehold tenure that allow more flexible use patterns, which can benefit women as well as men. To do this requires good examples of tenure arrangements that accommodate multiple users. Since many of these are customary rather than statutory arrangements, there is a need for more written documentation that could be disseminated to policymakers and others involved in shaping tenure arrangements. Especially important in this regard are examples where the resource or the products of that resource have entered the market, rather than remain subsistence products with more limited demand.



## 5. LEVELS OF AUTHORITY OVER RESOURCES

A fundamental question with respect to property rights is "who is in charge?," de jure and de facto. What institutions or individuals have the authority to transmit, distribute, enforce, and/or adjudicate property rights? The question applies at four levels: the national policy and administrative level, the local administrative level, the community level, and the individual level. How do institutions at these levels affect resource use and intrahousehold allocation?

National policy on rights to land varies. National laws may provide for registration and titling, inheritance, sanctioning of local custom, and conditionalities on land use. Policy may be said to be "gender neutral," i.e., not specifically indicating who is eligible to own land. The question is: is "gender neutral" good enough? Or is it a case of being "gender blind" to the absence of a level playing field and the differential capacity for access? Where women's rights are not stipulated, they are likely to be overlooked. There is a strong case for national-level action in the form of laws that sanction equity for women or prohibit discrimination against women because it provides a national standard and a right to be fought for. "Progressive laws (and policies) are both a signal of intent about the values a society holds and a means by which grassroots groups and individuals can legitimately fight for social change. The relationship between law and social change is a dialectical one" (Agarwal 1995).

With regard to water, national-level action is most evident in the administration of water systems or irrigation systems, establishing the legal framework for users'

associations, and determining priorities for water use. While most national policy statements give highest priority to domestic water supply, this generally means municipal water supply systems. The domestic water supply of smaller and poorer communities (whether in villages or urban slums) are often overlooked (Vani, Ballabh, and Shah 1995). Informal domestic use of water and women's own irrigated activities can disappear altogether, unless there is effective representation of women and their interests in decisionmaking bodies.

For trees, the predominant national-level jurisdiction is over forestlands and their preservation. The national government's role is manifest in controlling access and use, in order to preserve forest cover. While such environmental preservation is certainly important, Rocheleau and Edmunds stress the desirability of protecting access rights of local communities, especially for gathering activities.

Whatever the equity statements at the national level, it is important to focus on the institutions—national or local—that are expected to implement the policy (Agarwal 1995; Fourie 1995). The Irrigation Department or Forest Service staff who act as gatekeepers may not be trained or sympathetic towards ensuring women's access to the resource. Adjudication of rights may support or undermine national intent. This may be due to favoritism towards men or certain classes because of local custom and power relations, or because of the overall difficulty of access to the national and local administration.

The community level is also critical as governments and development agencies look to user organizations to take on a greater role in the "ownership" and management of

resources, including land, water, trees, wildlife, and fisheries. With respect to land, it may be local units of central government or local elders who make decisions with regard to title to or other rights. These institutions, as well as many user organizations for irrigation systems, have been male dominated, so that decentralization policies have not increased women's access in many cases. However, women's organizations have been particularly important in securing rights to land, water, or trees for a group, even when individual women have had little right to that resource (e.g., Agarwal 1994; Hoskins 1995; Koppen and Mahmud 1995). In any of these community institutions, rules of membership are a key area to look for representation or bias against women (see Zwarteveen 1997).

Where customary or traditional property rights and gender relations are strong, they are likely to dominate the distribution of rights within and around the landscape. Local forms can be followed to introduce a new practice. For example, in Ghana, there are rituals when men make gifts *inter vivos* to wives. An *inter-vivos* transfer is formalized at a meeting with witnesses (usually village elders and members of the extended family) where ceremonial drinks are offered and a sheep may be slaughtered. Rocheleau and Edmunds (1997) point out how at the local level, rights to use different parts of the landscape may be very flexible and responsive to exogenous factor such as drought.

Local norms also play a substantial role in shaping property rights institutions. Rocheleau (1995) and Rocheleau and Edmunds (1997) characterize these as "the presence of omnipresent and pervasive extralegal rules which govern us all." Definitions of

"stealing," generosity, and other values shape the application of formal rights (for example, see Hoskins 1995).

Finally, the individual level is important because individuals hold many rights and, ultimately, make the decisions of how resources will be used. Furthermore, it is individuals that transmit property through inheritance, purchase, and inter-vivos gifts. Variability among individuals needs to be explicitly acknowledged. Not all men or women are the same—in terms of the assets they hold or how they use them. For example, the husband "owning" all household land may place severe constraints on the woman in one household, but not in another. We may try to identify patterns of when this may happen (e.g., based on wealth, culture, education level, etc.), but ultimately institutions are built upon the actions of individuals.

This implies that national policy is necessary, but not sufficient, to improve equity. Policymakers therefore need to recognize local-level practices as a critical filter on the implementation of any policy. Laws and formal programs are important as a statement of commitment by the government and a potential tool for women to claim their rights. Such policies can weight the odds in favor of local equity, but governments are not alone in this enterprise. The actions of nongovernmental organizations (NGOs) can provide a further catalyst, and the way people themselves assert their rights ultimately determines the outcome.

## 6. COLLECTIVE ACTION

Property rights are strongly linked to issues of collective action. First, the concept of collective action can include communal or collective assent to a particular property rights regime by the group affected. This would cover the situation Rocheleau and Edmunds (1997) describe for Kathama, where there is a complex layering of rights and acceptable practices, flexible under conditions such as drought, which everyone understands and uses. Such norms and practices may or may not work to the benefit of women, but, in some cases, informal practices by women have been effective in securing rights to women that were not part of the formal structure. For example, Zwarteveen describes how in the Chhattis Mauja scheme in Nepal, women were able to use informal mechanisms to get water to suit their needs with respect to timing and costs, both cash and labor.

Second, property rights specify or describe existing relationships between people. Agrawal (1995) suggests that the pattern of particular rights reflects political realities, not the reverse. Where this is the case, collective assent may in fact be the assent of the powerful and the less audible dissent or indifference of the less powerful.

Third, different forms of property regimes (e.g., individual freehold versus common property) require different degrees and types of coordination and collective action. These range from almost none (implied by assent to individual ownership) to tenancy, to mixes of access to land and associated conditionalities, to formal holdings in common. Common property regimes require a high degree of collective action to prevent

deterioration into open access regimes and the "tragedy of the commons." Holding and managing property in common can be a potent bond among people and form a basis for collective action. Even communal tenure, in which property is held by a lineage (i.e., in common for all its members but allocated by a patrilineal or matrilineal hierarchy and operated as parcels held by individuals with usufruct rights) reinforces bonds of family and locality by limiting the rights of "outsiders" (Vandergeest [1996] provides examples of this from Malaysia and Sarawak).

What are the implications of collective action for women's rights over resources (and vice versa)? In many cases, collective action by women has been instrumental in securing rights for women, either as a group or individually. Where women are blocked from holding land individually, they may be able to obtain a parcel for a women's group to use for a collective garden or nursery, for example. In addition, collective action may lead to a change in the rules, permitting individual women to obtain stronger rights over the resource (see Agarwal [1994] for good examples from South Asia). While there is a large number of both NGOs and local self-help groups, an important question in each area is the presence (or absence), shape, objectives, and membership of women's organizations as vehicles for learning more about women's roles and needs and as a potential base for women's asserting their needs.

The other side of this issue concerns the integration of women as rights-holders and decisionmakers into traditionally male-dominated institutions for collective resource management. Zwarteveen (1997) raises this issue for water management, and it comes up

again in Rocheleau and Edmunds' (1997) discussion of trees. Policies of devolution of authority from the state to local institutions for resource management make it all the more critical that the local institutions function. But how does the gender composition of local institutions affect their strength and effectiveness? Male emigration or diversification out of agriculture makes this increasingly important in many parts of the world. A related question is whether women are better off by integrating into existing male-dominated groups, or in setting up their own groups for resource management (e.g., nurseries, social forestry action, etc.). Examples from other arenas tend to indicate that the different roles and responsibilities of women can prejudice their ability to successfully integrate in mixed groups. A food-producer cooperative set up in 1992 in Gbafi in Ghana with grant funding conditioned on 50 percent of the members being female initially had a membership level of 59 percent women. Members were required to provide labor to the cooperative fields, receiving a profit share in proportion to their labor input. However, women's domestic responsibilities prevented them from being able to supply the labor needed when required, lowering their profit share and causing many women to withdraw. By 1995, the number of male farmers exceeded the number of women (Ahenkora et al. 1995).

Groups made up of all men or all women do not necessarily imply homogeneity and the ability of all to participate. A credit program in Mali was targeted to women utilizing group formation as a "collateral" mechanism through peer group pressure to repay. An evaluation indicated that women with preschool children were less able to use

the credit to generate a positive return than those without preschool children (De Groot et al. 1996). Homogeneity of groups' members in terms of the activity or its goal may be more important than gender per se (compare Baland and Platteau 1996). This requires empirical determination, and the lessons from successful and unsuccessful cases to be shared more widely.



## 7. DIFFERENTIATION AMONG WOMEN

That women cannot be treated as homogeneous does not need to be belabored. Class and caste; land owning versus landlessness; tenant and owner; life cycle stage; where there is polygyny, the marriage order; whether a female head of household or part of a joint or male-headed; and household composition are all sources of variance that may be greater than their common interests as women. Class and power relationships crosscut gender. In Mexico, privatization to individual tenure dominated by the well-to-do has led to the marginalization of poor men as well as women, with men migrating out (Goldring 1996). Ethnicity may be important, as in Ecuador, where indigenous and mestizo women have differential access (Ahlers 1995). Nor, in discussing women's property rights, should we forget urban women, whose position vis-à-vis resources may be analogous to that of their rural counterparts, with safety nets and male support often lacking (Tinker 1995b).

Researchers and policymakers who are unfamiliar with gender issues frequently identify female-headed households as the target for providing benefits or promoting equity. The types of households in a given area need to be observed and questions asked to determine whether or not they are different from one another, controlling for resource level or other factors.

Differentiation among female-headed households can be on the basis of de jure versus de facto status; on whether or not remittances are forthcoming from absent household members; their status as widows or divorcees; whether they are in a matrilineal

or patrilineal inheritance system; as well as by the sources of variability described above.

Ahlers (1995) cites the examples of well-off widows whose resources allow them the same opportunities for investment and returns as a well-off male household. Whether female-headed households are disadvantaged relative to their peers in male-headed or joint households in each instance should be a testable hypothesis, not an assumption.<sup>7</sup>

Especially important in this regard is the pattern of temporary and/or permanent migration and its effect on local capacity to use a resource. Are men and women equally likely to migrate? Do they migrate for longer or shorter periods, or is migration sequential, with women following men after a number of years, as in Mexico (Goldring 1996)?<sup>8</sup> Does the outmigration of family members lead to remittances that either reduce incentives to use the land (e.g., Honduras) or provide capital for land improvement? Or is the absence of male labor an important handicap to using the resource; or is the *de facto* (as opposed to *de jure*) status of women managers an obstacle to getting credit?

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<sup>7</sup>A review and evidence from 10 developing countries shows that, among the very poor, differences between male- and female-headed households are not sufficiently large to declare that one is unambiguously worse or better off (Quisumbing, Haddad, and Pena 1995).

<sup>8</sup>Migration may also be linked to life-cycle events and family objectives. For example, in Malaysia, women are more likely to make more marriage-related moves than men (Smith and Thomas 1996). In the rural Philippines, young women migrate to cities and make regular remittances to their parents (Lauby and Stark 1988), justifying parents' preferential investment in their education (Quisumbing 1996). There are regional differences in migration patterns as well. In Africa and parts of Asia, the migration of men to cities leaves women in charge of farming. In Latin America, the predominant rural-urban migration flow is composed of young single females in response to growing economic marginalization in the rural areas. Their ability to find unskilled jobs motivates them to migrate to urban areas at a very young age (Crummett 1987). It has been argued that dualistic, bimodal patterns of development, such as those experienced in Africa and Latin America, are conducive to individual migration, while broad-based rural growth, as in the successful East Asian economies, induces family rather than individual migration (Lele 1986).

Given this complexity, "what are women's interests?" becomes difficult to answer. Measuring the sources and levels of variation within a given location often requires exhaustive and expensive surveys, but failure to recognize differentials among women, as well as gender differences, can be even more costly in terms of undesirable outcomes.

## 8. IMPLICATIONS FOR POLICY FORMULATION AND IMPLEMENTATION

Undertaking analysis of property rights without examining gender asymmetries in rights, responsibilities, and access to resources leads to partial understanding and incorrect conclusions. As important as this may be in research, it is even a more critical problem in policy formulation. The history of development efforts is littered with examples of policies that failed to take into account both women's and men's needs for access to and control over resources. The consequences in terms of wasted resources or negative effects on household welfare and resource use are significant (e.g., see von Braun, Puetz, and Webb 1989).

Just as good technical design of projects requires a thorough analysis of the physical conditions in which the project will operate, so also good socioeconomic design requires understanding the production systems, resource base, distribution of labor, and bargaining power of men and women of different classes. Care should be taken to understand local norms for equity and how resources are distributed in the larger web of production activities and access to benefits. It is also important to determine how effective those norms and practices are for sustaining de facto equity. However, these elements are not static; policy interventions should be expected to change these patterns. Analysis of the rules that govern resource distribution and production systems may help in anticipating how they will change, but there is no mechanistic determination.

When using gender as a variable in policy analysis, it is essential that we not overlook deeper underlying differences. For example, differences between men's and

women's productivity may not be due to their gender per se, but because of other factors such as differential access to education, credit, markets, time, or labor. Unless these differences are also addressed, giving women title to resources will not improve their productivity, nor necessarily improve their access to resources. Projects also need to ensure that there is appropriate infrastructure to support women's exercise of their rights, including legal services and mechanisms for monitoring and sanctioning those who infringe upon their rights. Organizing groups of local women to demand a voice has been an effective alternative (or complement) to such efforts. It is also useful to look for local norms and rules to safeguard women's interests as well as contemporary forces, such as commercialization, that may be undermining these rules.

Community participation does not guarantee that gender asymmetries will be acknowledged and taken into account in project design. While participatory approaches have become increasingly common in development projects, there may be a tension between objectives of involving local organizations in project management, and those of improving gender equity. Many "traditional institutions" are based on inequality in control over resources. Yet creating viable alternative organizations to represent the interests of women and men of different classes requires substantial investment, and a commitment that goes beyond the time frame of most individual projects.

It is nonetheless important to develop policies that attempt to protect or strengthen women's claims on resources. Any program to assign rights to resources (whether through titling laws, privatization of state or communal holdings, or allocation of land

and water in settlement or irrigation schemes) should be checked for overt or implicit barriers to women obtaining rights. This applies in both the design and implementation of programs. Legal systems need to be developed and adapted to assist women in obtaining or protecting their rights. In many cases, this requires moving beyond simple ownership to a recognition of flexible, multi-user tenure arrangement.

Policies designed by outsiders cannot anticipate all potential changes, nor simply legislate equality of access between men and women. As institutions, property rights are influenced not only by policies, but also by the specific history, environmental conditions, norms, and understandings in each society. Changes in property regimes are therefore path dependent—conditioned by the experiences and expectations of men and women in the society (North 1990). Therein lies the richness of diversity and the potential for institutional change.

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**A Typology:**

*Participatory Research  
and Gender Analysis in Natural  
Resource Management Research*



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**No. 15**  
**A Typology: Participatory Research  
and Gender Analysis in  
Natural Resource Management Research**

Yianna Lambrou



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# **A TYPOLOGY: PARTICIPATORY RESEARCH AND GENDER ANALYSIS IN NATURAL RESOURCE MANAGEMENT RESEARCH**

*Yianna Lambrou\**

## **Introduction**

The Consultative Group on International Agricultural Research (CGIAR) system and collaborating institutes aim to help the poor and poor rural women gain greater access to appropriate technology. This aim will be achieved by improving the understanding and application of participatory methods and gender analysis (GA) in natural resource management (NRM) research.

This chapter provides a framework for classifying different approaches to participatory research and gender analysis (PRGA) in NRM research. The typology is a first approximation, to be tested empirically by researchers and farmers in the field and was originally developed to provide a unifying framework for the funding of small-grant projects. The typology divides PRGA into seven grades that measure farmer participation in research, from minimum to maximum levels. It is offered as a framework that permits identifying subcategories and/or intermediate levels when applied to specific cases. Although developed for research in general, the typology is largely based in the NRM context given the case studies, literature, and dialogue amongst colleagues who helped its development.

## **Background to a PRGA Typology**

### ***Participatory research approaches***

The demands for more successful, efficient, and effective NRM research led to studies that have shown "participation" to be a critical component. This led to a growth in including participatory research (PR) as part of the work of agencies, nongovernmental organizations (NGOs), government departments, and banks. During the past 20 years, different schools of thought on "how to do" PR have also emerged.

Despite the complexity and diversity of approaches, some common principles unite them. Pretty (1995, p 174-5) identifies some of the approaches practiced in at least 130 countries that either have highly specific locales and limited scope (e.g., Samuhik Brahmma in Nepal) or have more extensive applications (participatory rural appraisal). He writes that:

- (1) The methodologies are cumulative and group based, seeking to involve all participants,
- (2) The values of different perspectives and different world views are accepted and recognized,
- (3) Strong emphasis is laid on group inquiry and interaction that brings together researchers from different disciplines and sectors and outside professionals working with local people,

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- (4) The adaptation of these approaches is flexible, according to new conditions and cultural contexts,
- (5) Transforming ongoing activities to bring about what people regard as "improvements" is emphasized,
- (6) The "expert" is best seen as someone who will help others to achieve what they believe is important, and
- (7) Efforts lead to action and change, which represent an accommodation between divergent views. The debate and/or analysis define the changes and also motivate people to take action to implement the changes.

### *What is participation?*

The word "participation" has multiple meanings although people assume some common understanding of the term. Rarely do researchers challenge any of the ideological differences that may lie behind its use. Participation can be **a means** to accomplish the goals of a project more efficiently or cheaply, or it can be **an end in itself** whereby those who manage the entire process exercise control from the start. Both these types of participation imply different relations between members of a community, and between them and the state, agency, or research institution (Nelson and Wright 1995, p 1). Thus, a key issue for researchers is whether farmer participation is seen as **a means** or **an end**.

Similarly, participation can increase or decrease opportunities for change and so can be empowering or disempowering (Oakley and Marsden 1984). McCall (1987, p 1) takes this further and distinguishes three uses of people's participation:

- (1) To facilitate the implementation of outside interventions and policies selected by higher level authorities (state, region, or party);
- (2) To mediate, that is, as a means of modifying, guiding, and reformulating higher level interventions and centralized power so as to reflect more genuinely local needs, aspirations, and resource constraints; and
- (3) To empower the weakest rural group's power in terms of access to, and control over, resources and their social distribution.

We need to define "participation" by looking closely at different ethnographic contexts and observing at firsthand how interactions work in reality with its conflicts and negotiations. Our aim is to be as aware as possible of the diversity of existing conditions, so as to act upon them. Thus, we need to know about local conditions to realistically help women and marginalized people to "determine choices in life and to influence the directions of change" (Moser 1993, p 1815).

Participation processes have two central axes: production of knowledge and empowerment. Knowledge is gained whenever two parties interact, although it may emerge in different forms, either consciously or subtly. When interaction aims at gaining knowledge then participation will more likely ensure that the resulting knowledge and action are directly useful to those who participate. Empowerment works through a process of "conscientization" (Freire 1973). This involves people constructing and using their knowledge so that they can "see" how established

interests monopolize the production and use of knowledge (Reason 1994, p 48), not for the benefit of all. Those who participate in NRM research can better understand the causes of their NRM problems and therefore can mobilize resources and action to change their situation.

### *Is it really empowerment?*

Participation is also used to mean “empowerment” of the poorest and weakest sectors of society. However, well-meaning development organizations may not always achieve empowerment, given its many ideological meanings. In the last 30 years, many definitions and much debate from different points of view have ensued (see Chambers’ work, for example). The word “empowerment” now has a gradation of ideological hues used by such diverse organizations as the World Bank, the military in Guatemala, and radical political movements.

The notion of power underlies any discussion of empowerment. Nelson and Wright (1995) describe three models of power currently in use to analyze different aspects of participation and empowerment. They are based on different definitions of power and its use.

- (1) The “**power to**” model is described as one of human growth and assumes people’s capacity to grow personally into power without necessarily negatively affecting one another. At the personal level this involves developing confidence and overcoming internalized oppression. This strength enhances the ability to negotiate and influence close relationships and to work collectively for stronger impact than if one worked alone (Nelson and Wright 1995, p 8). Achieving “**power to**” means that internally stronger individuals can begin to challenge the status quo.
- (2) The “**power over**” model involves gaining access to “political” decision making as equal partners in a process of development. The challenge is for marginalized groups such as farmers, unskilled workers, or women to be treated as equals in a system where power may be viewed as a finite sum—if one sector gains power then another loses it. In this analytic model, power is seen as coercive and centered on government institutions with some spillage into other societal groups. How power works in practical situations when the impact is felt rather than being visible (e.g., caste or religion) is not explained.
- (3) The “**power for**” model, in contrast to the previous view, asserts that power is not a “thing”, a tangible substance possessed and acted out by an institution viewed as powerful. Instead, “**power for**” is found more in the social discourse of actors and institutions that manage and shape events. The logic may not be immediately visible, but the outcomes are influenced by a worldview and a way of “knowing” that shapes concepts and creates subjective realities without reference to the reality. For example, poverty becomes a theoretical concept for “development”, unemployed laborers become “the informal economy”, local elites become “partners for empowering the poor”, and government bureaucracy becomes “local executing agency”. The discourse of the development apparatus functions on its own logic (often not immediately visible) and on the basis of an unknown and labyrinthine power structure that may hinder rather than facilitate farmers or women exercising “**power to**” to have “**power over**” their lives. Overall, it is an extraordinary assumption associated with participation and participatory models that through “empowerment” some can act on others to “give” them power or enable them to realize their own potential!

Empowerment has to be understood within the different social and cultural contexts that determine it. Burkey (1993, quoted in Vainio-Mattila, 1996) identified five basic issues that make planning for participation and empowerment difficult:

- (1) The problems and obstacles that participants face influence each situation. Initiatives to promote participation cannot necessarily be based on previously defined standards and objectives that may actually prevent initiatives.
- (2) Poor participants may need to see their economic situation improved if they are to participate. This in turn may lead to conflict with the more economically powerful elements in their communities.
- (3) Self-reliance and the need for external assistance must be balanced to avoid newly created dependencies. Promoting participation in initially non-participatory, dependent situations, often requires some external help that has to be carefully weighed to avoid new dependencies.
- (4) Organization is a prerequisite for participation; however, care must be exercised to avoid organizations becoming centers of formal power controlled by the few. Those who are directly involved and will benefit from their organizations should also have genuine control over them.
- (5) Participatory processes seldom begin spontaneously. A leadership whose visions may be external to the perceptions and aspirations of those concerned usually initiates these processes. This inherent contradiction must be resolved and mere mobilization surpassed to create genuine support for an externally defined cause or issue.

### *Role of researchers*

Nelson and Wright (1995) question how researchers and development bureaucrats, who are part and parcel of existing power structures, can actually “empower others”. The question is how do those who have **power over** others actually empower them without inadvertently strengthening their hold through the invisible workings of the system? Ultimately, because research is a political process, introducing participatory methods means shifting the balance of power, which threatens the status quo.

Thus the dilemma is how researchers, who are part of a powerful system of externally funded, managed, and accountable development mechanisms, can engender **power to** among people whom they have considerable **power over** through their research. In the last 30 years, ideas about PR have raised questions on the role of researchers in this dilemma, challenging ideas of simply understanding social events without transforming or being transformed by them in the process. Increasingly, feminists, anthropologists, and academics have challenged the view of researchers being the single authority in the research process. The voices of marginalized women and the poor have not been heard, but they have with ample experience about water, plant breeding, or resource management resources. Their knowledge has increasingly become respected. These hitherto silent actors are now using their **power to** challenge and negotiate with researchers and bureaucrats who possess institutional **power over** them.

Therefore the PR process as practiced by development agencies to be truly participatory requires vigilance, critical analysis, and a continuous checking of the balance of power,

particularly because the organizational structures of development agencies may not be amenable to putting into practice their participatory rhetoric. Although agencies may wish to be participatory, in practice they may maintain centralized control by managing finances in the North, implementing research in a top-down hierarchical way, or by maintaining patriarchal decision-making structures. Working with "communities", for example, may exacerbate problems because agencies often assume a homogeneity of interests that rarely exists in real life. Communities are composites of different groups and are not necessarily as consensual as outsiders would wish.

For funding agencies, the potential risks emerging from the differences between their institutional expectations and actual social relations are especially high in planning research. To be effective, agencies need to know in advance what objectives are realistic and achievable and how success can be appropriately measured. The risks and difficulties inherent in these disparities are particularly evident in seeking measures of phenomena that are not measurable (how does one measure "empowerment" or "increased gender sensitivity"?), and where short project times or cycles expect results that in reality take longer to express themselves. (Often, because of their institutional needs, agencies will work mostly on technical programs that can show quick results.)

Similarly, environmentalists and feminist writers in the face of ecological degradation have vociferously criticized formal scientific traditions and modern technologies. They say that technological development does not happen spontaneously and is often undertaken without considering the political or economic context. They also claim that the science and technology structures and systems should be socially accountable in some degree to those whose needs are supposedly being met. For example, Mies and Shiva (1993) are critical of the assumed gender neutrality of science and technology. They argue that men's historic exploitive dominance of nature is now being duplicated when Third World women are pressured to accept (not always appropriate) technologies to achieve equality with men. Therefore it is important to identify who controls the choice of technology, who manages the process of technology introduction, and where the benefits and risks lie in the adoption of these technologies. The central theme in promoting technology is control (Vainio-Mattila 1996, p 140). Control needs to be based on existing technology options and skills related to the locale and to those who will be involved in adoption.

A related debate on PR concerns the relative importance of theory and practice. In a developing country context, the issue is seminal given that research conducted within a development context has been considered related to the process of social change by development practitioners. Participatory research similarly has sought to create a research situation that does not separate theory from action, is based on practical problems, and serves to transform the social context, especially in post-colonial societies. Borda (1987) further argues that theory and practice (or knowledge and action) are absolutely inseparable and thus neither the object nor the subject of research. Knowledge is not produced in a vacuum, but within a social reality and process. As a result, any research framework must emerge with the participants and from their social reality for them to benefit from the research. Borda also insists that people can create and possess knowledge that is scientifically valid if this validity is determined in terms of social action.

### *Roles and responsibilities*

The researcher's role in PR then becomes different than that in the traditional sciences, where a breach occurs between those researching and those being studied. In PR, the stakeholders are neither mere observers nor objects of the study, but are actively involved in the whole research process. Their role as experimenters and innovators - one they have acted out for millennia - needs to be acknowledged and incorporated into scientific research. In any participatory NRM research process, who participates and how they participate must therefore be addressed. Understanding the individuals and the nature of their participation in the community management of resources entails knowing what social roles and responsibilities men and women have in agricultural production.

### *Using gender analysis*

Gender analysis is an extensive methodology that examines the interactive roles of men and women in terms of labor relations, access and control to land and to natural and financial resources, decision making, and specific knowledge about NRM processes. The debate over gender analysis has focused on how to include women's contributions in planning and decision making at the same time showing this as efficient and desirable. This type of analysis evolved after development experiences showed that just as economic benefits do not "trickle down" to the poor, social benefits do not trickle down to women. In practice, the "special consideration of women" in projects, or separate add-on projects organized for "women's special needs" replaced the previous systematic exclusion of women from development planning.

Men and women manage their "theoretical knowledge" about NRM differently and this influences their "practices", especially because women have a unique outlook that comprises both productive and reproductive aspects. Thus, different NRM decisions and outcomes are to be expected. This diversity of views also indicates the different types of cultural context in which researchers engage and an extensive (young, old, poor, rich, farmer, non-farmer, low or high caste, etc.) variety of men's and women's needs that must be kept in mind in any research design.

Participatory strategies promoting women's involvement in NRM projects are seen as attempts to include their needs. However, just increasing their numbers will not necessarily lead to their emancipation or to the equitable sharing of benefits. Social gender inequities occur in the ownership of resources and in social and economic status, for example, that need to be addressed if women are to truly benefit. NRM projects have usually been based on the "male norm", which implicitly or explicitly excludes women because it requires a minimum level of skills, resources and time, some formal education, and a level of mobility—to none of which women have immediate access.

An extensive literature (Moser 1993; Mosse 1995; Agarwal 1997) indicates that women are disadvantaged on all counts. They are poorer, have little or no freedom to travel or to interact with men, have less free time, and daily need to spend unavoidable time with family and food preparation responsibilities. The degree to which women will benefit from participation in NRM research projects will thus depend on how the underlying inequalities they face in accessing



power and resources are addressed (Mayoux 1995, p 250). Awareness of gender inequalities must be raised in both men and women before any PR methodologies can be applied (Guijt 1994). Simply saying that gender is important and will be considered is not enough. Serious questions must be asked about which women can get involved and how, what sort of participatory methods will be most appropriate for their work loads, and how exactly will they benefit in gaining greater access to income or other benefits.

Participatory research is not automatically gender-sensitive. PR methodologies rarely incorporate a thorough gender-differentiated analysis. However, if used carefully, they can address practical, analytical, and institutional questions as, for example, when:

- (1) Participatory research is equally amenable for use by men and women (rich, poor, educated or not, caste, etc.);
- (2) Gender has been used as a guideline in selecting and setting up PR approaches; and
- (3) The institution uses the findings of gender-sensitive PR to benefit women (Guijt and Shah 1993).

Obviously some long-term gender problems need political and strategic solutions that have to be addressed nationally and intentionally. For our purposes here, we must stress that PR does not automatically or necessarily address, accommodate, or accrue benefits to women. Instead, conscious efforts have to be applied to examine **who** participates (because special mechanisms may be needed to bring in and prepare disadvantaged stakeholders) and at **what level**, on **whose terms**, and at **what cost**. The terms under which women and men can and will participate in NRM research should be thoroughly addressed to enable them to get involved in the “right ways”, that is, in ways that increase their power to change their own situation.

Both gender and intra-gender issues should be considered such as age, wealth, ethnicity, caste, race, marital status, and literacy level. When considering gender as an analytic category, “stakeholder” or “actor” might also be useful terms because they include gender and intra-gender characteristics. How these characteristics combine in stakeholders might shed light on how they tackle and solve any NRM problem.

### ***Defining issues for creating a typology***

Some issues are involved in applying PR methods and GA that affect their implementation. These issues are not easily resolved and so pose challenges for researches committed to PR and GA. However, addressing these issues or being aware of their complexities contributes to an overall ability of researchers to interact with stakeholders in ways that lead to mutual benefit.

***Selecting PR methods and levels.*** Once researchers decide that engaging farmers (men and women) in the research is desirable and necessary, the next issues to consider are how to involve stakeholders and to what extent. Many innovative manuals are available worldwide for a range of contexts involving groups, teams, and the use of a variety of sampling methods, interviews, and visualization or diagram methods. A prerequisite is to determine the intent or objective of participation. For this, a researcher must assess the potential impact of the research and determine how stakeholders can contribute to that goal and what they can gain from the research

process. Impact refers to the eventual outcome related to the projected expectations or goals of the research.

As a starting point, note that researcher and stakeholders may have different interests in conducting the research. The farmers may be looking for a solution to an NRM problem; the researchers may also want to explore some additional scientific hypothesis. This should result in collaboration of a certain type. Farmers and scientists may identify differently what will ultimately be considered the “success” of the research outcome at the beginning or end of the research process. Although two separate definitions of success may exist, they are not necessarily contradictory or immediately compatible. Practical involvement and a negotiated commitment to the process will determine the outcome.

Part of the goal equation for the research is also knowing what the farmers will obtain from the research process. Have farmers (male and female) expressed a need to solve a practical problem through technical research? Is the research goal to build the farmers’ capacity for them to make demands on the formal research system? Can the research experience strengthen farmers’ existing experimentation and research capacity by providing needed inputs? Or can a goal of the research be to enhance and conserve indigenous knowledge? Most importantly, can the research empower women and men to take action to solve their own problems (Ashby 1996, p 20-21)?

Thus, who defines the goals, what is “success” for the research, and by what criteria, are crucial first questions in identifying the choice of participatory approaches. For example, is the research goal to develop a record number of technologies that farmers and women will adopt in record-breaking time? Is the goal a one-time research activity for an urgent NRM problem? Or is the goal to develop fewer and perhaps humbler technologies that will be adopted more slowly, but more systematically? What social grouping is the research going to benefit the most? Is the goal to complete a research process in the fastest and least expensive way, recognizing that taking the time and investing the resources (human, economic) to implement a more inclusive participatory process may slow down the research and be more costly? Who will sustain these technologies? What are the benefits to farmers (men and women)? How do they differ?

Initially, a range of impacts or results can be identified when using PR methods:

- (1) Increased social benefits/empowerment – evaluated local knowledge and greater social involvement (equity, increase in welfare of women and children and increased food security); benefits may vary for women (poor, low caste, rich, higher caste, etc.).
- (2) Greater control of the decision-making process by stakeholders (various types) – control may vary depending on who the stakeholder is. Different stakeholders may have to negotiate their diverse interests between them (i.e., farmers, consumers, processors, etc.).
- (3) Increased economic benefits for farmers (women and men, rich and poor, etc.).
- (4) Building farmer capacity to identify problems and do research for their own benefit. A diversity of women and/or farmers may mean different impacts and different capacity needs.
- (5) Acceptance of technical improvements – more easily adopted technology, better designs for farmer use, increased use and benefits of technology for women and men, and different needs for technology types.

- (6) Institution building – such as community organizations, conflict resolution mechanisms between different stakeholders, and effective NRM for collective local capacity building.
- (7) Increased information flow and better communication among farmers, women of various social strata, and between researchers and farmers.

Other factors to be considered are standard research planning criteria, but those that take on particular significance in PR. Some of these factors are important in setting goals and choosing an appropriate research approach. They include:

- (1) The number of technologies to be completed and adopted according to the project's objectives and schedule.
- (2) The time frame or adoption rate, i.e., speedy adoption versus slower one. Is this time frame feasible considering local agricultural or resource practices and such factors as cultural norms? (Non-participation may be the fastest option.)
- (3) Cost limitations in participatory versus non-participatory approaches in terms of training, upgrading farmer skills, engaging more personnel for doing PRA, et cetera.
- (4) Balancing the need to see practical results immediately with long-term requirements (especially required by an empowerment process, particularly in the case of women who may need more preparation over a longer time period).
- (5) Acquiring new skills by the researchers, and farmers, prior to engaging in PR.

Therefore, goals and project objectives have to be defined and costed at a variety of levels – economic, social, technological, temporal, cultural, and ideological (i.e., empowerment as a value and as an end in itself).

Further criteria for selecting participatory approaches are:

- (1) Is it possible to have involvement in the decision-making process at all stages?
- (2) Can symmetrical relations of power exist?
- (3) Is information sharing two-way?
- (4) Who controls the resources? Who gives access to resources?
- (5) Are interaction and involvement continuous?
- (6) Where does the research originate? Who initiates the process?
- (7) What kind of information or input is shared?
- (8) Where are decisions made, inside or outside the community (discouraging expert/client relations)?

Some specific issues will arise in the research process once the PR method is selected. For example, researchers have often noted the difficulty in balancing the practical benefits of research with the potential political results. The latter have a long-term and often structural impact on the lives of farmers and women, but the immediate practical benefits are more identifiable and measurable, and therefore administratively preferable. Although a typology will not automatically determine how to resolve these operational challenges, it should provide some guidance to researchers on what to expect as they engage farmers, and the limits of that engagement.

## Recommended PRGA Typology

The PR typology proposed here outlines a gradient of participatory methods that range from those least involving farmers to those that are most inclusive—from the most passive research (formally led by researchers) to the most inclusive and active (farmer-led). Each type includes an assessment of the costs and benefits of working more or less with farmers at each stage of the NRM research process. This typology includes the methodologies used and discusses some of the possible outcomes associated with each stage.

A grade from 1 to 7 (from least to most) is used to conveniently delineate the levels of farmer involvement and participation in the process of NRM research. Note that different research situations and different time frames call for different grades of participation. The typology does not necessarily suggest that one should aim always for the highest grades. Grades as a concept are perhaps too sequential with an inherent hierarchical bias. The challenge is to determine what degree of participation is needed in a particular research activity (diagnosis, technology) and how to move from one grade to another as time and resource conditions evolve.

Further, in applying the typology several factors influence what is appropriate at each stage: the nature of innovation involved (technical or social), the nature of the research (basic, strategic, or applied), and the range of stakeholders in a research activity (scientist-farmer, scientist-farmer-extensionist).

### ***Grade 1: Positivist theoretical research***

This is the least inclusive and most passive of the methodological approaches in terms of participation. This type of research emerges from a tradition where theory is reduced to its logical structure, which is then regarded as the probable description of a pattern (Harre 1981, p 3-4). This also can be referred to as Gramsci's inorganic traditional intellectual approach to viewing situations "from the outside" without engaging the problems from within. This research involves literature searches and preliminary research done to understand, prioritize, and propose potential solutions or technologies for the problems. It is a most theoretical approach, which focuses research on "cause and effect" in the prioritized problems without farmer participation or a distinct gender analysis.

Researchers who may have some inkling about a problem and only have a theoretical understanding of it and few practical solutions to offer use this type of least participatory and most passive approach. It may work well if it evolves and remains as pure research done in a laboratory with no outside input and without any concern for social action. If it is not discussed or tested with anyone outside the research community, is published as data only for use by a peer academic community, and is not introduced in the field as a reliable tool, then it may not need to include stakeholders substantively.

However, this approach has potentially enormous negative consequences if used for farmer application. The results may be irrelevant to farmers' needs and research interests. Outright rejection of the research by farmers is a possibility, which would make the research extremely

expensive. This approach has no impact on social change and empowerment of farmers and may be the most costly in terms of developing expensive technologies that no one will want.

#### ***Grade 2: Passive information sharing***

This approach only involves stakeholders receiving information, that is, being told what is going to happen in the research. Researchers or project managers unilaterally organize and implement it without seeking the stakeholders' response. The research data are gathered, developed, and managed solely by external "experts". The researcher operates at the level of scientific peers without any pursuit of farmers' ideas or knowledge. The process is conceived and managed in an entirely top-down manner by outsiders who inform "beneficiaries" of the process and outcome of the research.

With this method, farmers have no opportunity to express their needs or offer their ideas. Farmers are unlikely to have any input in what is being suggested and will most likely passively accept the results of the research as long as it appears expedient for them. They will reject most of the intervention, or at best they may modify it to suit their needs. In this scenario, researchers ostensibly are gambling that their assumptions and definitions of need are accurate.

#### ***Grade 3: Consultative stage***

This approach involves more participation in the initial research and design when farmers are consulted and includes some discussion of their needs in defining the problem. Questionnaires and participant or observation techniques may be used. Some gender analysis or consideration may be attempted. The researcher remains the sole manager of this process of setting and defining the parameters of the research, but the stakeholders are acknowledged as possessing relevant knowledge. A limited role for farmers is also seen as a pragmatic resource for building rapport with communities that will facilitate the research process or help the speedy adoption of results.

This approach is a little more inclusive, but remains highly centered on the formal expert, "the researcher". Farmers might later reject technologies developed only by consultation, making the research expensive. The consultative approach may be selected when time is limited for carrying out extensive participatory research, or as a first identification of a problem or situation. Women farmers may not be included and the outcome of a gender analysis may not be incorporated.

#### ***Grade 4: On-farm testing***

Moderate participation takes place when a researcher formulates a preliminary research design, involves stakeholders in preliminary field tests, seeks some ongoing feedback from farmers, and begins to test research validity by analyzing results with farmers. Farmers' knowledge and practices are valued in these situations and they in turn are able to learn something from researchers, the research process, or the research outcomes.

The researcher continues to determine the process, but some recognition of the farmers' expertise allows for qualitative involvement in developing a more relevant technology. If properly field-tested, a gender analysis can and should be included, because it can lead to practical opportunities for assuring quality research. Recognizing the different roles of men and women and identifying different stakeholders (some of whom scientists will train in field testing methods) may help with reformulating the expected goals of the proposed technology.

Actual field-testing may be inexpensive if farmers use their own plots and provide their labor. The resulting technology or product will be more appropriate, but with little capacity building for farmers and certainly no change in the relations of power between researchers and farmers. Their self-confidence will not increase. The farmers' decision-making process will lack control, and socioeconomic benefits will be minimal beyond payment for field-testing. Women may continue to remain largely excluded unless specifically included in the training and field testing of technologies, although the expertise and knowledge of both men and women farmers will be generally recognized.

#### ***Grade 5: Evaluation***

In this type of research, farmers are involved in assessing the process and results of the research from the start of the intervention. They remain with the testing and their input helps to adjust the course of research trials and their outcome. Gender analysis provides knowledge of gender roles that enhances the inclusion and consideration of men's and women's different experiences in the evaluation process by refining their varying needs. Farmers' expertise is definitely acknowledged and some capacity building is given in evaluation techniques. Women (rich, poor, different castes) are (and should be) more involved in assessing research outcomes.

Greater recognition leads to the enhancement of farmers' knowledge and potential for replication or independent production. This approach could also include an element of post-intervention evaluation when ideas for further research, experimentation, and solutions could include the farmers. Researchers are here seen as equals and allies of the farmers because their knowledge is valued and therefore a more constructive rapport is possible between the players.

#### ***Grade 6: Collaborative planning***

When researchers work from the start with farmers to define problems and arrive at an acceptable design that includes farmer expertise, needs, and future expectations, then a high level of participation occurs. Gender analysis carried out from the start identifies the social, cultural, and contextual limits and possibilities for research; and the practical implications of applying new technologies or products are identified. Researchers are ready to alter their research design to accommodate the needs of identified stakeholders. This approach recognizes the problem-solving skills and traditional and/or innovative knowledge of farmers and encourages them to organize themselves to accomplish what they want.

The research design is more relevant to the problem at hand and thus leads to a more appropriate use of technologies. Shifts in power in the relationships between researchers and farmers lead to greater capacity building and enhance farmers' own organizational skills. This

approach builds on existing knowledge and can ultimately be less costly because it will be more easily adopted, with a higher potential for success in resolving technical concerns. More social and economic benefits are also possible, because more possibilities occur for introducing social change.

### ***Grade 7: Partnership***

At this level, researchers and farmers engage in the research process from the start, both acknowledging and recognizing each other's expertise in identifying the problem, designing and testing a solution, and adjusting the process involved. Farmers may initiate research and engage researchers in solving problems while offering their own innovative solutions. Gender analysis is a prerequisite. Women will be involved alongside men as equally capable researchers in their own right.

This long-term approach is difficult to achieve in real life because it requires researchers skilled in developing human resource capabilities, able to communicate, and having the patience and resources to work with men and women farmers. The farmers must also take risks and devote extensive time and energy that may conflict with other life requirements (and clash with cultural contexts).

When stakeholders collaborate or participate extensively, this changes conventional roles in research, leading to a higher degree of technology adoption, and a greater sense of self-respect and self-empowerment. The farmers could become the focus for greater social change in their community given their newfound power and recognition of knowledge. They could challenge existing social institutions; particularly those based on gender and caste. Partnership of course includes a post-intervention continued dialog, which further enhances and strengthens the farmers' accomplishments and perceptions and ensures longer-term benefits.

### **Uses and Application of the Typology**

Analysis of 121 water supply projects in 49 countries in America, Africa, and Asia found that participation was the most significant factor contributing to project effectiveness, maintenance of water systems, and economic benefits (Narayan 1993 in Pretty 1995). However, the projects scored low (about 21%) on interactive participation. All mentioned "community participation", but good intentions had not been translated into practice. The best results occurred when people were involved "in decision making during all stages of the project, from design to maintenance. If they were just involved in information sharing and consultations, then results were much poorer" (Pretty 1995, p 172).

Narayan summarized the study by stating that beneficiary participation in decision making was critical for determining project effectiveness, maintenance of water systems, environmental effects, community empowerment, and strength of local organization. But relatively few externally supported projects had achieved meaningful beneficiary participation. Even fewer had empowered women.

The type of participation then must be carefully selected and monitored. Its specific application should be stated clearly, and appropriate ways (social, cultural, and economic) should be found to shift from the more passive to the most active approach. Depending on whether participation will be a “means to an end” or whether participation will be an “end in itself”, researchers are responsible for deciding what they want to accomplish and with care set out to do so. A research manager in using this typology could make decisions about what type of participatory approach to use depending on the objective, for example:

- (1) If the objective is to build the capacity of men and women farmers to organize research that will lead to solving their own problems and engage their communities, then go to Grade 6 approach (Collaborative planning) in the typology.
- (2) If the objective is to get farmer input in identifying solutions for a potential NRM problem, then go to Grade 3 (Consultative stage) in the typology.

Other contributions offered are:

- (1) A basic contextual understanding of the situation is needed;
- (2) Typologies can be used both for whole projects and at different stages;
- (3) The typology can be used as an analytic and as a conceptual tool;
- (4) This conceptual typology model could be used as a baseline model;
- (5) The model should not assume that we already have knowledge about all aspects and are ready to act – we should not be expected to have a “complete” picture; and
- (6) Different grades of the typology can be used at different times in the life of a single project.

Finally, ideas and suggestions were amalgamated into a “Wheel diagram” called “Types of Participation”. The colored “Wheel” has two transparent disks mounted one on top of the other and moving freely to create new colors depending on their position with the light shining through them. This design should be viewed as three-dimensional given that it is intended to capture an idea of movement across time, with different outcomes where each choice is made (as a colored wheel would similarly produce different colors depending on the mix). The “Wheel” concept removes any moral judgement about the choice of participatory methods and instead focuses on the aim and movement of making choices depending on the different stakeholders, time, events, and resources.

At opposing ends of the “Wheel” are two archetypal areas of participatory outcomes, the **transformative** and the **functional**. At the transformative area the concern is with social and political **position** aiming for **empowerment**. At the functional area the concern is with material **condition** and aims for efficiency. As the wheel goes either way, we can be moving through time and different stages either closer to one or the other archetypal configurations depending on what participatory method we use.

The **transformative category** includes consultative and collaborative partnership (between colleagues), and community-initiated methods. The **functional category** ranges from manipulative to passive to contractual. The time wheel at the center captures the circular notion of time.



These methods are defined below in no particular order of importance because they are in a circle and are connected.

- The “manipulative” may be undertaken by well intentioned (or not) individuals or groups who may press their ideas. This method is close to the “community-initiated” approach, which may also include aspects of the manipulative process.
- The “passive” entails extracting information and only seeking nominal involvement.
- The “contractual” involves agreeing to a mutual set of respective obligations without necessarily having a full understanding of what is involved.
- The “consultative” involves no role in the decision-making process as such, but a measure of consultation and feedback.
- The “collaborative” is based on planning joint action and decision making.
- The “partnership” is a relationship of equal partners or “colleagues” who share a common outlook, and goals, and function in a mutually responsible relationship of equals.
- The “community-initiated” is action-defined and led by community interests, but may have the danger of being manipulated by stakeholders who have social power depending on other intra-gender characteristics.

So the circle returns to the starting point, yet having no starting point and being able to begin and end anywhere depending on who the stakeholders are and how they interact with the problem at hand.

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I recognize in appreciation the collective imagination and work that produced both the Wheel and all the input given in the plenary discussions of the Second International Seminar and Planning Workshop, Quito.

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## **FUTURE HARVEST**

Future Harvest is a non-profit organization that builds awareness and support for food and environmental research for a world with less poverty, a healthier human family, well-nourished children, and a better environment. Future Harvest supports research, promotes partnerships, and sponsors projects that bring the results of research to rural communities, farmers, and families in Africa, Latin America, and Asia. It is an initiative of the 16 food and environmental research centers that are primarily funded through the Consultative Group on International Agricultural Research.

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The Consultative Group on International Agricultural Research (CGIAR) works to promote food security, poverty eradication, and sound management of natural resources throughout the developing world.

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In recent years the CGIAR has embarked on a series of Systemwide Programs, each of which channels the energies of international centers and national agencies (including research institutes, non-government organizations, universities, and the private sector) into a global research endeavor on a particular theme that is central to sustainable agriculture, fisheries, and forestry.



The purpose of the CGIAR Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation (PRGA Program) is to assess and develop methodologies and organizational innovations for gender-sensitive participatory research and to apply these in plant breeding, and crop and natural resource management.

The PRGA Program is cosponsored by 4 of the 16 centers that make up the CGIAR: the International Center for Tropical Agriculture (CIAT), which serves as the convening center; the International Maize and Wheat Improvement Center (CIMMYT); the International Center for Agricultural Research in the Dry Areas (ICARDA); and the International Rice Research Institute (IRRI).

PRGA Program activities are funded by Canada's International Development Research Centre (IDRC), the Ford Foundation, the Rockefeller Foundation, and the governments of Germany, Italy, the Netherlands, New Zealand, Norway, and Switzerland.



CIAT's mission is to reduce hunger and poverty in the tropics through collaborative research that improves agricultural productivity and natural resource management. Headquarters in Cali, Colombia.



CIMMYT is a nonprofit scientific research and training organization engaged in a worldwide research program for sustainable maize and wheat systems, with emphasis on helping the poor while protecting natural resources in developing countries. Headquarters in Mexico City, Mexico.



ICARDA's mission is to improve the welfare of people through agricultural research and training in the dry areas in poorer regions of the developing world. The Center meets this challenge by increasing the production, productivity and nutritional quality of food to higher sustainable levels, while preserving or improving the resource base. Headquarters in Aleppo, Syria.



IRRI is a nonprofit agricultural research and training center established to improve the well-being of present and future generations of rice farmers and consumers, particularly those with low incomes. It is dedicated to helping farmers in developing countries produce more food on limited land using less water, less labor, and fewer chemical inputs, without harming the environment. Headquarters in Los Baños, The Philippines.

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## **B. Additional Readings (this section was compiled jointly by Miatmon and Larissa Parriag)**

This section of the SAGA Eastern Himalayas Resource Kit provides articles and books that are useful supplementary resources on SAGA. Where possible, readings focused on SAGA in natural resource management and/or the South Asian/ Eastern Himalayan region are presented.

### ***Journal Articles and Other Papers***

- (1) Swiss Agency for Development and Co-operation - India. 1999. *What is gender?*

This paper explains the concept of gender. It looks at gender as a social construct, dependent on the positioning of men and women. Other topics explored in this paper are co-operation in spite of differences, including men in gender explorations, emancipation and transformation and separate and collaborative space. Three diagrammatic presentations that assist in illustrating concepts are included.

- (2) Pasteur, K. 2002. *DRAFT - Gender analysis for sustainable livelihoods – frameworks, tools and links to other sources*. Available at <http://www.prgaprogram.org/gender.htm>

This is an overview paper on the use of gender analysis in livelihoods analysis. It presents background on gender analysis, the Department for International Development's gender analysis framework, an introduction to gender policy analysis and tools for gender analysis. Throughout the paper links to useful websites are provided, such as for other gender analysis frameworks or for matrix calendars and diagrams to conduct roles and responsibilities analysis.

- (3) Meinzen-Dick, R. and M. Zwartveen. 1998. *Gendered participation in water management: issues and illustrations from water users' associations in South Asia*. Agriculture and Human Values 15: 337-345.

This paper takes a closer look at the effectiveness and equity of water user groups in South Asia. The authors review the influence of gender in natural resource management organizations generally and then specifically in water users' organizations. The gender bias in membership and participation in water users' organizations in South Asia is presented through examination of the formal and informal membership criteria, and costs and benefits of participation. The authors also discuss women's informal means to obtain irrigation services, which are typically less secure and the implications of women's "non-participation" for the effectiveness of water user organizations.

- (4) Neupane, R.P. 2002. *Gender and agroforestry in the hills of Nepal: a report on the division of household responsibilities*. Gender, Technology and Development 6 (3): 427-437. New Delhi: Sage Publications.

This article examines the gender-related difference in the distribution of household responsibilities and decision-making, in subsistence farm households in the Nepal Agroforestry Foundation - initiated agroforestry project in Dhading district, Nepal. Based on

household surveys in both project and non-project villages during May-October 1998, the study findings show that women work longer hours than men in all activities including livestock management, fodder and fuel wood collection, land preparation, production of seedlings, and harvesting. However, their involvement in marketing and decision-making was much lower than that of men. The results further indicate a gradual shift of household responsibilities between women and men as a result of the project intervention. The article concludes by discussing that gender-specific change is a key criterion for implementing agroforestry projects, and must be viewed as an issue of policy concern. The authors felt that agroforestry programs should focus on women farmers, as they are deeply involved in both household and agroforestry work.

(5) Lama, A. and M. Buchy. 2002. *Gender, class, caste and participation: the case of community forestry in Nepal*. Indian Journal of Gender Studies 9 (1): 27-39. New Delhi: Sage Publications.

Based on extensive literature and a field survey of two forest user groups in Nepal, this paper explores how participation in community forestry is affected by social status and more so by gender. The paper presents the reasons why and the ways in which women, despite the current rhetoric, remain excluded from any meaningful participatory processes. This paper also explores gender, class and caste relationships that determine decision-making power, and access to and control over resources in two forest user groups. Obstacles to the participation of women and the poor, and equity aspects in benefit sharing and decision making are also discussed. The article concludes that community forestry in Nepal does not currently achieve its objectives of empowerment and equity. People are discriminated against on the ground of gender, class and caste, and these socially defined groupings determine the level and nature of participation in the community forestry program.

(6) Chauhan, J.A. 1995. *Gender issues in joint forest management*. Arunachal Forest News 13 (1&2): 29-31.

Forests have always been considered common property resources (CPRs) in India. With increasing population and development, there is increasing demand for forests and hence CPRs are dwindling day by day. In this paper, the role of joint and participatory forest management in involving the local populace in CPR management is analyzed, with special emphasis on the role of women and gender. A brief discussion on gender roles and gender analysis is included followed by a discussion of the strategic requirements for involving women in Joint Forest Management (JFM). Finally, the author describes the division of labour between men and women among tribal communities in Arunachal Pradesh. It concludes that women should be more fully involved in social forestry and extension activities. By ensuring women's involvement in the JFM programme the authors feel that conservation can be better achieved, as women have extensive knowledge of biodiversity.

(7) Veittal, S.K. 1999. *Watershed management/integrated natural resource management in the North East In Participation: Concept, Approaches and Technique*.

This article takes a closer look at watershed management (WSM) in the North East of India. In the introduction the authors discuss the central role of jhum cultivation in the North East and the need for alternatives to jhum cultivation for natural resource management (NRM) to succeed. The author feels that many solutions have been suggested without understanding

the contextual issues such as location specific problems, people and environment linkages, constraint and potentials. The need for evolving, learning-centred approach to NRM for community participation is described. One of the issues discussed is the necessity for WSM and NRM to address the resource needs of small and marginal farmers, landless and women. WSM is described as being comprised of six "e" s: economy, equity, empowerment, employment and export.

(8) Danda, D.G. 1998. *Gender inequalities in Arunachal Pradesh: some observations* In Raha, M.K. and A.K. Ghosh (eds.) North-east India: The Human Interface. New Delhi: Gyan Publishing House.

In this paper, gender inequalities in Arunachal Pradesh are highlighted by briefly examining socio-economic features of several tribes including the descent/marriage structure, authority structure and rules of inheritance, economic role of women, social status and literacy levels.

(9) Royal Government of Bhutan and UN Agencies. 2001. *Gender pilot study report: Bhutan*. [http://www.undp.org.bt/Gender\\_Study\\_Report.pdf](http://www.undp.org.bt/Gender_Study_Report.pdf)

This paper presents the results of a gender study conducted in support of Bhutan's Ninth Plan. It is a joint initiative of the government of Bhutan and several UN agencies. The study was conducted over six districts in Bhutan including two urban areas. Details of the methodology including constraints and strengths are provided. The study collected and analyzed gender-disaggregated data on livelihood activities, patterns of property ownership and inheritance, household level activities, decision-making patterns, savings and credit trends, migration, access to education (literacy), training, skill building, participation in governance and socio-cultural dimensions. Based on this data recommendations were made to improve gender mainstreaming in the Ninth Plan.

### **Books**

(10) Zehol, L. (ed) 1998. Women in Naga Society. New Delhi: Regency Publications.

This book is a collection of papers presented at a seminar entitled "Status of women in the Naga society". The papers present the varied perspectives of several anthropologists. The guidelines for the papers included investigation into issues such as property rights, occupations and livelihoods, inheritance rules, marriage/divorce issues and participation in religious ceremonies. Other key features of the guidelines were the necessity to comment on the status of women in traditional society and in the emerging new situations, to examine the status of women as mother/daughter/sister/wife and to examine the growth of women welfare organizations. Twelve papers are included in the book, which highlight the role and position of women in prominent Naga tribes.

(11) Swaminathan, M.S. (ed) 1998. Gender Dimensions in Biodiversity Management. Delhi: Konark Publishers.

This book is a compilation of seven case studies documenting gender roles in biodiversity management in seven states in India including Arunachal Pradesh and Mizoram. Apart from the case studies it also presents essays which highlight methods of strengthening research on the gender dimensions of biodiversity management and on the need to renew on-farm

biodiversity conservation traditions of tribal and rural women. The case studies are also available on-line at <http://mssrf.org/fris9809/gender-management1.html#top>



## C. Websites and Electronic Information

This section of the SAGA Eastern Himalayas Resource Kit provides (1) websites and (2) guides, books and kits on issues of SAGA. Where possible, websites focused on SAGA in natural resource management and/or the South Asian/Himalayan region are presented.

### **Websites**

#### **(1) SEAGA (Socio-economic and Gender Analysis) Programme**

<http://www.fao.org/sd/seaga/>

The SEAGA programme was established by the Food and Agriculture Organization, the International Labour Organization, the World Bank and the United Nations Development Programme to assist development specialists in incorporating socio-economic and gender considerations into development programmes and policies. Key outputs of the programme include a set of handbooks and guides which provide case studies, tools and methods for integrating socio-economic and gender analysis at different levels (ie macro, intermediate and field) and for different sectors eg. irrigation. The SEAGA newsletter and a list of related sites on socio-economic and gender analysis and mainstreaming can also be accessed from the website.

#### **(2) SD Dimensions – Gender Dimensions in Natural Resource Management**

<http://www.fao.org/sd/nrm/nrm.HTM>

The website shares information generated by the Women and Population Division (SDW) of the FAO on the gender dynamics of natural resource management. The three main sections of the site are (1) research and analysis, (2) tools and methods and (3) the gender, biodiversity and local knowledge systems project. The research and analysis section provides case studies, analyses and fact sheets from a range of NGOs, international organizations and research organizations grouped under the topics of biodiversity, land, gender and livestock production, forest products and others. The tools and methods section provides technical guides, a bibliography and weblinks. The gender, biodiversity and local knowledge systems project is a portal to the FAO Links Project that explores the linkages between these three issues in four southern African countries.

#### **(3) BRIDGE**

<http://www.ids.ac.uk/bridge/index.html>

BRIDGE is a specialized information service on gender and development based at the Institute of Development Studies, UK. BRIDGE aims to support gender-mainstreaming work by bridging the gap between theory, policy and practice with accessible gender knowledge. The BRIDGE resources are extensive and include reports on key gender and development issues many of which are available online, annotated bibliographies of gender resources, the Development and Gender in Brief Bulletin (available online) and glossaries. Another useful resource is Siyanda, an online database of gender and development materials which also provides access to participate in a network. Additionally, Genie, the gender information exchange provides gender mainstreaming resources from donor agencies including policy

documents, background papers, good practice cases, country gender profiles and contact information for gender experts and consultants world-wide.

#### **(4) Eldis Gender Issues**

<http://www.ids.ac.uk/eldis/gender/wbgender.htm>

The Eldis Gender Issues site provides a list of web links to multilateral organizations, statistics, research centres and networks (worldwide), documentation services, internet directories, rights and health information and discussion lists. It also provides a search engine to access materials on a range of gender and development topics (eg. environment and rural development) and to find gender country profiles.

#### **(5) The GENDEV Network**

<http://www.ifpri.org/themes/mp17/gender/gender.htm>

The GENDEV Network, sponsored by the USAID/WID "Strengthening Development Policy Through Gender Analysis" project at IFPRI, is an e-mail network on intrahousehold and gender aspects of food and agricultural research. The aim is to link researchers at a range of institutions including CGIAR centres, national institutes and universities who are involved in gender and intrahousehold issues in the areas of agriculture, natural resources management, food security, and nutrition. Information on how to subscribe to the network is included. It also provides issues of the online Gender CG Newsletter and a list of commissioned papers on topics such as gender and property rights.

#### **(6) Royal Tropical Institute (KIT) Gender & Natural Resources Management (NRM)**

[http://www.kit.nl/specials/html/gn\\_gender\\_and\\_nrm\\_home.asp](http://www.kit.nl/specials/html/gn_gender_and_nrm_home.asp)

The Gender and Natural Resources Management (NRM) page is part of KIT's website. KIT is a Dutch not-for-profit organization that promotes knowledge and expertise in the areas of international and intercultural cooperation. This page provides guest contributions such as papers by development practitioners, a bibliography of selected references some of which are available on-line, tools and methods for incorporating gender analyses at different levels, links to organizations and useful websites and links to news and events such as conferences.

#### **(7) PRGA Gender and Stakeholder Analysis**

<http://www.prgaprogram.org/gender.htm>

The PRGA Gender and Stakeholder Analysis website provides access to tools for conducting gender analysis, publications and websites. The publications are on topics such as women and agricultural technologies. The websites provided are those of organizations involved in gender and development or for gender research networks.

#### **(8) IUCN Participatory Management Clearinghouse – Gender**

<http://www.iucn.org/themes/pmns/topics/gender.html>

The IUCN Participatory Management Clearinghouse – Gender is a list of links to various gender resources relating to natural resource management and conservation. The first section is a list to various papers on topics such as the gender dimensions of biodiversity

management: cases from Bhutan and Nepal. Some of the papers are focused on cases in the Himalayan or South Asian regions. The second section links to various project websites such as the Gender-Balanced Mountain Development site of the International Centre for Integrated Mountain Development. The final section provides links to UN, international organizations and NGO gender sites.

**(9) Community-Based Natural Resource Management (CBNRM) Asia Virtual Resource Centre (VRC)**

<http://www.cbnrmasia.org/>

The CBNRM Asia VRC is an IDRC-supported web portal for accessing and sharing information on CBNRM in Asia. The site is intended for a range of users including researchers, development workers, grassroots workers, natural resource managers and others. The types of information that can be accessed include project documents and updates, resources on particular ecoregions, countries or issues, research tools and methods and a discussion forum to pose questions and share information. It is also possible to do a metasearch on the site for resources on six other related sites as well as CBNRM Asia VRC.

**(10) Gender, Science and Technology (GST) Gateway Gender Advisory Board**

<http://gstgateway.wigsat.org/intro.html>

The GST Gateway provides links to research, practice, policy and partners focussed on gender equality and sustainable development. There are two ways to access the information in the Gateway, by transformative action area or by region. There are seven transformative action areas ranging from gender equity in science and technology education to improving the collection of gender-disaggregated data for policy makers. The types of information accessed under each transformative action area include statistics, key issues and research, ongoing initiatives and case studies and best practices. By region, for example Asia, resources are categorized by transformative action area and then further differentiated into sectors such as natural resource management and food security. The resources accessed by region include case studies, research papers, lessons learned, statistics etc. Finally, there are four other key sections on the website: (1) development, technology and gender resources including, tools, methods, papers and databases; (2) reviews of the performance of the UN agencies in gender, science and technology; (3) internet resources such as e-newsletters, listservs and websites; and (4) an expert database of NGOs, research organizations, policy groups and other organizations.

**(11) Social Capital Home (World Bank)**

<http://www.worldbank.org/poverty/scapital/index.htm>

The World Bank's Social Capital website provides a wide range of social capital resources that can be used in development. It contains a searchable social capital library of abstracts, a bibliography, calendar of events, list of key readings, a database of papers in progress and a defined list of sources of social capital and a paper on how social capital is measured including measurement resources.

### **(12) Social Analysis (World Bank)**

<http://lnweb18.worldbank.org/ESSD/essdext.nsf/61ByDocName/SocialAnalysis>

The World Bank Social Analysis website has several social analysis resources geared towards the use of World Bank staff and clients but relevant to a wider audience. The Social Analysis Sourcebook, available on-line presents a framework and description of how to incorporate social analysis into project design, implementation and monitoring and evaluation. Additionally, there is a link to the Poverty and Social Impact Analysis site which is devoted to providing descriptions, tools and examples of the impact of policy reforms on different stakeholder groups, with particular emphasis on the poor and vulnerable. Other important links are to case studies, tools and methods, training and events and a glossary of key terms.

### **(13) The Stakeholder/Social Information System**

<http://www.carleton.ca/~jchevali/STAKEH.html>

The Stakeholder/Social Information System site is still being developed and should be fully completed by Fall 2003. However, at present it provides an in-depth description of the interactive Social Information System (SIS) module, a project currently under development and soon to be available on the website and on CD-Rom. The SIS project, supported by IDRC, will combine social analysis tools, stakeholder-enabling methods, the flexibility to scale techniques up or down according to project need, participatory methods, practical tools, a user friendly project manager, methodologies that cut across disciplines and a modular approach. There is also a link to a comprehensive bibliography on stakeholder analysis, with on-line access provided to literature where possible. Jacques Chevalier, one of the SIS developers, also provides a discussion of stakeholder analysis on the website touching issues of origin, advantages, constraints, methods to improve it and its role in empowerment and participatory action research.

### ***Guides, Books and Kits***

### **(14) Gender and Biodiversity Research Guidelines, IDRC**

[http://www.idrc.ca/biodiversity/tools/gender\\_e.cfm](http://www.idrc.ca/biodiversity/tools/gender_e.cfm)

IDRC's Gender and Biodiversity Research Guidelines are an initiative of the Sustainable Use of Biodiversity Research Program. The guidelines are divided into four sections: 1.0 Rationale for Integrating Gender Analysis into Biodiversity Research, 2.0 Gender and Gender Analysis: Key Concepts, 3.0 Methodology for Gender Analysis in Biodiversity Research and 4.0 Training of Trainers: Literature Resources.

### **(15) Gender Analysis for Sustainable Livelihoods**

<http://www.livelihoods.org/info/tools/pas-GENDER.rtf>

This is a succinct draft paper that focuses on the importance of gender analysis and gives frameworks and tools for incorporating gender concerns into a livelihoods analysis. Sources of frameworks etc. are linked to their websites and additional sources and references are provided at the end.

**(16) UNDP Gender and Development Programme, Learning and Information Pack, Gender Analysis**

<http://www.undp.org/gender/capacity/lcb/GIDPGMPacks/GenderAnalysis1.doc>

The UNDP Gender and Development Programme, Learning and Information Pack for Gender Analysis is a comprehensive gender analysis resource that can be used for training. Therefore the material is provided in formats that can be used in training such as slides, reading material, handouts and worksheets. There is also a section on internet and other resources. The four issues covered in the Pack are: (1) What is gender analysis? (2) How can gender analysis and policy be linked? (3) What are the key concepts and tools in social and gender analysis? (4) Men and masculinity in gender analysis.

**(17) Cultivating Peace, Conflict and Collaboration in Natural Resource Management**

[http://www.idrc.ca/acb/showdetl.cfm?DS\\_ID=2&Product\\_ID=389&DID=6#toc](http://www.idrc.ca/acb/showdetl.cfm?DS_ID=2&Product_ID=389&DID=6#toc)

Cultivating Peace, Conflict and Collaboration in Natural Resource Management was published by IDRC and the World Bank. It presents case studies and essays on issues of conflict over natural resources and moving from conflict to collaborative natural resource management. Chapter 5 is devoted to stakeholder analysis and conflict management. It describes the meaning of stakeholders and stakeholder analysis and proposes a conceptual framework for relating two common situations: (1) where stakeholders share enough consensus to collaborate and (2) where conflict is a reality and stakeholders are not certain about the worth of joint decision-making or negotiation.

**(18) The CBNRM Social Science Resource Kit**

[http://www.idrc.ca/cbnrm/documents/CBNRM\\_Toolkit/ResourceKit\\_HomePage.htm](http://www.idrc.ca/cbnrm/documents/CBNRM_Toolkit/ResourceKit_HomePage.htm)

The CBNRM Social Science Resource Kit is geared to IDRC-supported researchers of CBNRM in Asia. The Resource Kits contains 9 Resource Books on Gender; Community-Based Natural Resource Management; Participatory Research; Indigenous Knowledge; Institutional Analysis; Common Property; Stakeholder Analysis; Participatory Monitoring and Evaluation; and Resource Tenure. Each Book contains citations of readings from books, reports, training manuals and academic journals, which cover methodologies, tools and case studies. Each book also contains an annotated bibliography and lists of references and web resources.

## **D. Exercises Based on Case Studies**

This section of the SAGA Eastern Himalayas Resource Kit provides exercises based on the five case studies that can be done individually or in groups.

- (1) For several cases eg. Chittagong Hill Tracts: A Preliminary Study on Gender and Natural Resource Management and Gender Issues in the MRC – GTZ Sustainable Management of Resources in the Lower Mekong River Basin Project, the methodologies and/or presentation of data were wholly qualitative. This is reflected in the descriptive approach to the presentation of results and absence of actual numbers of participants, demographic data, tabulation/graphical representation of data etc. Discuss the limitations and strengths of using this approach in your own research project, keeping in mind issues such as the target audience(s) and linking of research to practice and policy.
- (2) Using any of the case studies think about and discuss how the outcomes of the gender analyses conducted can be used to improve livelihoods of women and men in the study areas. For example, if the case is associated with a project, ways to improve implementation may be suggested. What is your role as a researcher in supporting wider transformative action (eg. promoting gender equity) within the community you are researching? What approaches should you emphasize in your research in order to achieve transformation?
- (3) Tiwari in her paper Chittagong Hill Tracts: A Preliminary Study on Gender and Natural Resource Management, analyzed in depth her identity as a researcher and outsider, and the multiple ways in which this manifested itself. Consider your own identity as a researcher and (if applicable) outsider in the community in which you work. How do you identify yourself in different situations and with different groups? How does this affect the way people perceive you? How do your multiple identities impact on your research?