

**BRIEFS/GUIDELINES ON
GENDER AND NATURAL RESOURCE MANAGEMENT**

A Desk Research carried out for the Gender Programme of ICIMOD

**By
Organisation Development Centre (ODC)
Together Develop, Transform & Grow**

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BIBLIOGRAPHY

1. INTRODUCTION

1.1. The Research and its Objectives

The International Centre for Integrated Mountain Development (ICIMOD) aims to help promote the development of an economically and environmentally sound mountain ecosystem and to improve the living standards of mountain populations in the Hindu Kush-Himalayas (HKH). In this regard ICIMOD functions as a multidisciplinary centre for documentation and information exchange on integrated mountain development along with various research, training and consultation services and advice on integrated mountain development to the countries of the HKH region.

ICIMOD, in the past years, has been conscious to integrate gender issues in all its programmes and activities. The organisation's Gender Programme activities include, among others, various research and the dissemination of information on various sectors of mountain development and gender.

In this regard, to further assist ICIMOD staff to integrate gender into their programmes and projects, the Gender Programme commissioned the Organisation Development Centre (ODC) to develop sector-specific gender briefs with up-dated information on gender issues. The sectors are forestry/rangelands, agriculture/livestock, water and energy. The gender briefs/guidelines will be made available to ICIMOD personnel working in the Mountain Farming Systems (MFS), Mountain and Natural Resources (MNR) and Mountain Enterprise and Infrastructure (MEI) divisions of ICIMOD, and also to interested others.

The main objectives of the research were to:

- Summarise the main gender issues related to the sectors outlined above
- Identify documents and websites relevant to gender and the sectoral topics
- Provide some guidelines for integrating gender into the sectors
- Outline key research questions

1.2 Methodology for the Study

The desk research was carried out to develop briefs on gender and natural resource management. In this regard, a literature review, reference study at the ICIMOD library, and browsing the Internet for relevant websites and new information was carried out.

The Gender Specialist of ICIMOD was also consulted for advice, and added many of the websites and abstracts for 'Further Reading'.

The study was conducted from June - September 2000.

2. GENDER AND NATURAL RESOURCE MANAGEMENT (NRM)

Gender defines the socio-cultural roles, functions and characteristics of men and women as they relate to each other within a specific socio-cultural context (Parker, 1993; IFAD, 1999) and is a key factor that shapes people's access to, use of and control over natural resources (Fortmann and Rocheleau, 1989; Feldstein and Poats, 1990; Feldstein and Jiggins, 1994; Leach, 1994; Rocheleau, Thomas-Slayter and Wangari, 1996; Joeke, Leach and Green, 1995). Therefore, gender issues cut across NRM activities in several ways. First, men and women do not have equal or same rights over natural resources. Second, due to their different roles based on the gender division of labour, men and women have different priorities and benefit differently from natural resource use and management (IDRC, 2000). Third, men and women have different realities (Ostergaard, 1992) and therefore, use natural resources in different ways and at different rates (Byers and Sainju, 1993). Thus, the knowledge, skills and practices of both men and women contribute to the conservation, management and improvement of natural resources (Homborg, 1993). Hence it is necessary to look into both men and women's roles, their knowledge, needs and contributions to NRM.

The focus of this paper is on mountain areas and communities, although the sectors and issues discussed are common to the lowland areas and communities too. Mountain peoples' livelihoods depend very much on natural resources not only because the methods of agriculture and livestock raising in the mountains are mostly traditional and based on NRM, but agriculture, livestock, vegetation and water are interlinked subsystems of the total mountain production and livelihood system (Banskota and Pratap, 1996).

3. FORESTS AND RANGELANDS

Forests and rangelands provide food and livelihood to the mountain communities through critical inputs to agriculture, through soil and water conservation, and through inputs of fodder, fuel and organic fertiliser (Miller and Craig, 1996). Besides this, forests in the mountains have many different values: economic, religious, cultural, social, environmental and others. Mountain communities depend greatly on forest and rangeland resources for their livelihood, and so do the lowland people. For instance, watersheds originate in the mountain forests and rangelands, and their deterioration and reduction leads to a scarcity of water for mountain and lowland people. Besides this, a large number of non-timber forest products (NTFPs) such as medicinal herbs, food items, fuelwood, fodder, etc. are also supplied from mountain forests and rangelands to the lowlands.

3.1 Key Gender Issues

1. Gender division of labour and responsibility

- Men and women have different roles and responsibilities in relation to forests and rangelands and therefore the division of labour is largely based on gender, though also affected by other characteristics such as age, health status, marital status, etc. For instance: men often are engaged more in physically labourious and heavy work such as felling trees and cutting bigger branches whereas women are engaged in collecting and fetching fodder and fuelwood.
- This difference also leads to a difference in knowledge about forest resources.

2. Access and Control

- Based on socio-cultural norms and practices, men and women have differential rights over land (Private forests, rangelands and trees).
- Even where men and women have usufruct rights to forestland, their access to forest products may not be ensured. This is because forest usufruct does not imply ownership and control of trees and different forest products. In some cases, even private ownership of land does not confer rights to use the trees on that land.
- Different members of the community or even the household may have established usufructory rights to different parts of the forest or even of a tree – e.g. non-timber products from trees are often women's responsibility, but the tree itself often lies in the realm of men (Warden, 1992).

3. Usage

- Due to their different gender roles and responsibilities, men and women use forest products in different ways. For instance the general trend is that women gather forest products for fuel, food, fodder, herbs for medicinal purposes, raw materials for small-scale income-generating activities, whereas men gather wood for selling or for construction (Jacobson, 1992; WEDNET, 1991).
- The pattern in the intensity of use differs between men and women (Byers and Sainju, 1993) – e.g. women gather fodder, fuelwood and other products for household consumption, often in smaller quantities but in a continuous manner whereas men's use pattern of forest resources, while not as continuous, may have more impact on the forest condition.
- Management and conservation practices of women and men also differ according to the methods and intensity of use.

- Men and women have different knowledge and information about the various forest products (FAO, 1998).
- Due to the differential usage there exists differences in preference of species.

4. New interventions and their impacts

- Often, new interventions and programmes such as those that replace local tree and grass species with new varieties, wasteland development programmes, tourism, etc. are planned and implemented with little or no consideration of the differential roles, responsibilities, and needs of men and women (Byers and Sainju, 1993).
- The differential usage and preferences of men and women are also not taken into consideration.
- In many cases local institutions such as community forest user groups, mother's groups, groups of traditional managers, etc. are not involved while planning and executing new interventions and programmes (Ibid.).

3.2 Risks

The differential access and control over forest and trees can have several negative impacts:

- Where women do not have access and control over forest land, their workload and time consumption is more as they may have to walk to distant forests to gather the forest products they need, thus adding to their drudgery and putting their security at risk, in unfamiliar forests (Mehta, 1991).
- Lack of tenure rights can lead to unaccountability due to lack of sense of ownership of the land, which in turn can lead to neglect and degradation of the trees and forests.
- Since user rights over trees does not confer automatic rights to the ground below the tree, this frequently leads to women losing their rights to trees, thus affecting their household's livelihood. (IFAD, 1999)

Not considering the differential users and usage can lead to:

- Lopsided intervention programmes.
- Loss of indigenous knowledge on uses, management, conservation, etc.
- Increased hardship for women and their loss of livelihood opportunities

Introduction and adoption of new programmes and interventions without involving the community people (users) may lead to:

- community people, men and women not participating in or benefitting from such interventions and programmes
- failure of such policies, programmes and interventions
- such practices can lead to a whole range of negative impacts, affecting the users, which could result in reduced forests and rangelands, thus affecting the sustainability of livelihoods.
- loss of biodiversity.

3.3 Some steps for integrating gender into forestry/rangeland programmes

1. Assess the importance of wild products of the forests and rangelands to the poor households, including both men and women (IFAD, 1999).
2. Assess the existing access and control of both men and women over forests, trees and other forest and rangeland resources.
3. Ensure both the government and communities' recognition of women's rights to the benefits from and control over the trees they have planted (Ibid.).
4. Raise levels of gender awareness and sensitisation within both formal institutions (e.g. government, NGO and local groups) and informal settings (e.g. household and community).
5. Develop partnerships and links with other institutions, groups and NGOs for exchange of ideas and to raise awareness.
6. Encourage sharing of household work.
7. Encourage women's active role in decision making at the community level and not just for token representation.
8. Increase access to new technology, training and credit facilities for all users.
9. Expose groups of women and men to other communities where more gender-equitable development is taking place.

Example showing the importance of women's participation in an integrated forestry project in Nepal

Due to environmental degradation and deforestation in rural areas of Nepal, residents of rural areas who suffered from abject poverty were also faced with an unsanitary environment. Women's organisations, the Production Credit for Rural Women (PCRW) and the Small Farmers' Development Programme (SFDP), with support from the Nepalese government and UNICEF, used existing service delivery structures to launch a broad range of activities to mobilise women for conservation of the local environment, improvement of their environment at the household level and reduction of women's workload.

In 1990, eight PCRW and eight SFDP sites were selected to initiate the project. They were selected based on the following criteria: visible/prominent environmental degradation (deforestation, soil erosion, fuel wood scarcity, lack of environmental sanitation); the activeness of group members; and potential for community development programmes. Initiatives were carried out at the household and community levels with the active participation of women and small farmers.

The project has been highly effective in addressing the environmental problems identified by the women's groups and small farmers at the community level. As a result of the project, 3,002 participants, of which 40% were women, were trained and oriented on issues which have a direct bearing on the living environment of women and children. In addition, six community-based nurseries were established, and a total of 2,848 households participated in agro-forestry activities (such as the planting of 147,000 fuelwood, fodder and fruit tree saplings). Sources of drinking water were protected through fencing and tree planting. The project also led to a change in the thinking of the local community, increasing the self-confidence of women and creating a realisation of the importance of improving/protecting the environment, especially at a household level. Sanitary conditions improved and clean water became available. Local organisations were strengthened and are now playing a more active role. The project also resulted in the formation of local environment committees.

Source: "*Partners in Life*", Proceedings of the Global Assembly of Women and The Environment, Volume II, edited by Waafas Ofosu-Amaah and Wendy Philleo, October 1992. Washington, D.C.: UNEP and Worldwide Network, Inc.

4. AGRICULTURE AND LIVESTOCK

Farming systems, including the management of agriculture and livestock, provide the major source of livelihood for mountain communities. Agriculture or cultivation is still, more or less, practiced in the traditional ways, which means reliance on locally available natural resources and their management for meeting food, fodder, fibre and fuel needs. (Banskota and Pratap, 1996) Livestock rearing is an integral part of agriculture and the two are complementary to each other, as arable agricultural systems require draft animals for farm labour. In the hills and mountain regions farming systems are heavily reliant on livestock manure inputs. As in other sectors and spheres of life, in this sector too, women's and men's roles and responsibilities are socially determined.

4.1 Key Gender Issues

1. Gender division of labour

- Women work mainly on subsistence crops while men work mostly on cash crops (Bajracharya, 1994; Gurung, C., forthcoming).
- Women share half or more of the total farm work but unlike most men, also attend to domestic duties (Bajracharya, 1994; Jacobson, 1992; RAPA, 1995).
- Usually, it is found that relatively 'pleasant' tasks such as marketing are carried out by men whereas relatively 'unpleasant' tasks like carrying and spreading manure are done by women (Bajracharya, 1994; IFAD, 1999).
- Many examples show that it is common for women to perform men's tasks but the opposite rarely occurs (IFAD, 1999).

2. Access and control over assets

- Men and women do not have equal access and control over farm assets including land, labour, time, livestock, income, technology, services, training, etc.
- Household resources are not always pooled or jointly (or equally) owned by men and women (IFAD, 1999; RAPA, 1995).
- Most often men control major crops and larger livestock while women control minor crops and vegetables and smallstock. (Ibid.; Ahmad and Loutfi, 1985).
- Men and women's uses of income also differ - women generally use their income to meet daily household needs whereas men tend to use their income for longer-term investments and entertainment (IFAD, 1999).

3. Shift from subsistence to market orientation

- As more land that used to be under food crops is being brought under cash crops, women are losing control over food production and security (Bajracharya, 1994).
- As men are starting to cultivate more cash crops in larger areas, women are required to spend more time in weeding and post-harvest processing, thus adding to their drudgery (Ibid.).
- Taking over of larger and better lands by men for cash crops has led to women being forced onto smaller and more degraded plots of land to cultivate subsistence crops.
- Women's primary role in subsistence agriculture is losing status and value (Gurung, J., 1994).

4. Male out-migration

- Decrease in labour inputs of family males leads to increased workloads of women.

- Most often, the women left behind do not have the same rights and assets as the men, thus limiting their opportunities to cope with the changed conditions (Ahmad and Loutfi, 1985).

5. Differential gender interests and needs

- Male and female household members have different use of each other's labour, agricultural and livestock products (Ibid.; IFAD, 1999).
- They have different interests, needs and constraints.

6. Decision-making

- Men and women do not usually have equal decision-making power.
- Men are generally in charge of the decision-making power in regard to cash crops, major crops and large livestock (Ibid.).

4.2 Risks

Unequal access and control over assets can lead to:

- Lesser role in decision-making of women (or men)
- Lower self esteem and status

Unequal access to inputs such as information, technology, training, credit etc. could result in lower production levels.

Unequal and rigid gender division of labour often results in:

- Increase in women's workload, time consumption and drudgery.
- More health risks not only for women but for the family as well.
- Women getting fewer opportunities to increase their agricultural production.
- Women getting paid less than men in case of hired labour.
- Over-looking women's (men's) knowledge in regard to crop or livestock management and conservation.
- Gender-blindness in policies and programmes.

Shift from subsistence to market orientation can lead to:

- Increased monoculture, which results in loss of diversity of crop species and varieties.
- Loss of indigenous knowledge and practices of diverse crop species and varieties.
- Increased workload and drudgery for women.
- Decrease in production of subsistence crops for family needs.
- Lower levels of nutrition within the family.

Male out-migration can result in:

- Increased workload and responsibilities of women putting greater risk to their health as well as that of their dependants.
- Breaking up of families.
- Loss of men's indigenous knowledge regarding agriculture, livestock and forestry.
- Continuation of gender-based inequality faced by women in terms of access to land rights, property, credit, improved technologies, training, etc. may lead to increase in poverty of female-headed households. (Ahmad and Loutfi, 1985)

Ignoring differential gender interest and needs may lead to:

- Increased conflicts within the household and community.
- Production can be negatively affected.

Not involving women in decision-making may result in:

- Over-looking women's interests and needs.
- Continuation and often increase in unequal gender relations.

4.3 Some steps for integrating gender

1. Raise awareness and gender sensitisation at all levels within formal and informal settings.
2. Encourage sharing of household and farm work.
3. Assess the role of agriculture and livestock produce/products in the household economy for both men and women. For example, women may use them for family food consumption, generating income, investing their savings, or as security against economic or personal risk in the future. All of this affects their response to different interventions (Ibid.).
4. Determine the gender-based division of labour over a calendar year, and women's and men's access to and control over different farm assets (Bajracharya, 1994).
5. Take into account different uses of agriculture and livestock produce/products in the local economy to provide assistance to both men's and women's agriculture and livestock production.
6. Address processing of agriculture and livestock products as well as production, because women tend to earn their income from small-scale processing activities.
7. Include marketing of agricultural and livestock products, in which women often play a key role.
8. Recognise women's constraints, responsibilities and knowledge compared with those of men's (IFAD, 1999).
9. Increase access to new technology, training and credit facilities for all users, using approaches appropriate for non or neo-literate women.
10. Encourage women's active role in decision making at the community level and not just for token representation.
11. Develop partnerships and links with other institutions, groups and NGOs for exchange of ideas and to raise awareness.
12. Expose groups of women and men to other communities where more gender-equitable development is taking place.

4.4 Case example

A Programme of the Aga Khan Rural Support Programme (AKRSP) in Northern Pakistan

AKRSP, which started working with the farmers of the northern areas of Pakistan in 1983, recognised that until women escape their traditional isolation, there could be little hope of bringing them into the development process. Thus the village organisations (VO) fostered by AKRSP were intended to provide a vehicle for both men and women to organise themselves and work together in developing their resources. Since women were often inhibited in expressing their opinions in front of men, they formed their own separate women's organisations (WO) in nearly 300 villages, which present a collective voice to the rest of the village.

There is a high rate of male out-migration, resulting in women shouldering the burden of farm work. Although the farming is geared to subsistence production, it was realised that improved inputs and techniques could bring about economic changes. Therefore, after testing various approaches with a few WOs, vegetable production package and poultry package were chosen as the ones that would work better. Both vegetable production and raising poultry were traditional activities that women were engaged in for home consumption.

Vegetable production package – The aim of this package is to increase the productivity of the traditional vegetable production through improved inputs, both physical and human. The package gave women farmers improved seeds, tools and also introduced production techniques through on-site demonstration and training on collectively managed plots. As a result, productivity as well as quality increased.

Poultry package – This package, with the aim of increasing productivity introduced high-yielding varieties of scavenging poultry and also training in new skills like vaccination and other methods of disease control and prevention. This led to substantial increase in production to the order of four or five times the traditional level.

Due to the increase in production of these the women became interested in marketing their produce and increasing their income. Since women could not themselves take the goods to the market, the VO marketing specialists became responsible for marketing.

This not only led to the provision of a cash income for women but to an improvement in the women's position in the household and village. The formation of the WOs played an important part in this – by forming an organisation with separate membership, meetings and savings accounts (the income from the sale of the collectively grown vegetables is deposited in the joint savings account of the WO), the women initiated a process that enables them to share experiences, workloads, problems and decision-making (e.g. the women make decisions about the joint savings). The fact that women are earning a cash income, and are doing so through collective work, increases their importance at both the village and the household levels. Thus the WO has enhanced the status of women within the village, particularly in the eyes of the men. In this way the women's self image and confidence too has been raised. All this has also raised women's self image and confidence. According to the women in one village in remote Ishkoman valley, before the formation of the WO, they were considered "no better than a man's shoe", and their labour had no value because it did not earn money for the family. Now with a cash income, the value and hence status of women in the village and at home has increased, giving them new self-respect and confidence. (Ali, 1991; Warden, 1992).

5. WATER

Sustainable and proper water management is of utmost necessity in today's world where signs of water stress abound – water tables are falling, lakes are shrinking and wetlands are disappearing (Postel, 1992). In this regard, the role and knowledge of men and women as users and managers of water has to be assessed and considered. Water-users have different and sometimes conflicting interests depending on their relation to resources such as land and water, and the importance of irrigated agriculture to other income-generating activities (Zwarteveen, 1994). As regards the role of men and women in water management, the traditional role of women in the collection and provision of water for the household and livestock is well known. In the sphere of agriculture and for economic activities, although it is usually men who are more involved, women too play an important role. Thus both have crucial knowledge, based on gender differences in roles and responsibilities, on different aspects of water management and conservation.

5.1 Key Gender Issues

1. Gender division of roles and responsibilities

- In most rural areas it is usually women who collect all the water for household use while men tend to assist only when water sources are at great distances, and that too, provided they have some means of transport (Directorate general for International Cooperation, Ministry of Foreign Affairs, the Netherlands, 1989).
- Most often men are more involved in water collection for selling purposes (Ibid.)
- The differential roles and responsibilities of men and women lead to differential incentives for investing time, labour and capital in water-related activities (Zwarteveen, 1994).
- Only men are considered to have a major role in the management of irrigation water, despite the fact that women often play an equal role in this.

2. Access to water rights - Better and easier access to water is the key to reducing women's drudgery.

- Men and women possess different socio-political authority with regard to access to water rights (Von Benda-Beckmann, et al., 1997).
- Men and women do not have equal access to water users' groups (where such groups have been formed).
- Due to women's primary responsibility for water collection for the family and household needs, easier accessibility is more directly important for them.
- Women are not considered as independent farmers and so do not have or have less access and rights to irrigation water (van Etten, 1998).
- There are unequal opportunities and access for men and women to use water for income generation (Merrey and Baviskar, 1998).

3. Decision-making

- Men and women have unequal rights to decision-making in consulting, operating and maintaining water schemes for use and management (van Etten, 1998).
- Collective decision-making, specially for irrigation and for water-related income-generating activities mostly falls under men's responsibility (Zwarteveen, 1994).

5.2 Risks

Lack of access to water rights:

- Affects sanitation and leads to health problems for women as well as the family.
- Can increase drudgery for women.

Female-headed households are likely to get less access rights to irrigation water and for economic activities, affecting the agricultural productivity negatively.

Most often benefits of irrigation water go to males and the rich and powerful people (van Etten, 1998).

Ignoring the differential gender roles and responsibilities can lead to

- Overlooking and under-valuing women's roles, skills and knowledge in irrigation and income-generating water activities.
- Less cash benefits for women.
- Increased drudgery for women.

Women's limited role in decision-making at household and community level in regard to water management leads to:

- Non-consideration of their needs and constraints.
- Overlooking their contributions, skills and knowledge.

5.3 Some steps for integrating gender

1. Raise awareness and gender sensitisation at all levels (formal and informal)
2. Take into account the gender-based division of labour, access to and control over water resources.
3. Consider the various economic issues that arise out of water needs and management.
4. Assess the different knowledge and skills of men and women in management of water.
5. Encourage sharing of household and farm work
6. Encourage women's active role in decision making at the community level and not just for representation.
7. Increase access to new technology, training and credit facilities for all users.
8. Develop partnerships and links with other institutions, groups and NGOs for exchange of ideas and to raise awareness.
9. Expose groups of women and men to other communities where more gender-equitable development is taking place.

Case Example

Development Programme of an NGO in U.P. Hills, India

Example of a successful development programme by an NGO, which led to easier access of water as well as more free time for women. Region: U.P. Hills, India.

In the village of Mavuni, Uttar Pradesh, the water source is uphill and it takes four hours to fetch water. An NGO came in and held talks with the villagers about water and sanitation. Talks were held with both men and women which developed into open debate between men and women as they realised that women were doing more work. As a result of this process, it was agreed that women would take Sunday as a holiday.

Next, they took “Healthy Home” surveys, drafted a list of qualities of a “Healthy Home” and regularly checked on their progress. Children in the community were also enlisted to help with clean water systems. Representation of women for the process was 41% and some clusters that met were 100% female. Representatives of each cluster held a large meeting to discuss water and sanitation plans as well as other aspects of their lives including literacy, environmental planning, water systems maintenance, cash flow, labour and community development. Working with OZ Green, they developed a manual to help the communities in the process. They explored water options such as spring gravity, stream gravity and rainwater collection. They financed the village’s contribution to the project through cash and other donations from each family. Part of the contribution could be made from direct labour so the village came up with a labour plan to allow for those contributions to be made.

Thus, not only was water made more easily accessible but women also got more time for themselves.

(Source: Role and rights of Women in Water Issues for Present and Future: Proceedings of the Second International Women and Water Conference, August 30 – 4 September 1998, Nepal, Co-organised by INHURED International, Nepal and Federation of Business and Professional Women Nepal and Women for Water San Francisco, USA.)

6. ENERGY

The forest resources of wood and leaves and agricultural crop residues provide the main source of most of the domestic energy used in the mountain regions. As a result of deforestation, increasing population and changes in land-use and social organisations, fuelwood has become increasingly expensive in terms of time and/or cash. There is a growing recognition that the role of poor rural women in meeting their families' basic fuel needs are of critical importance to the improvement of family welfare. Case studies done by the ILO show that although women are largely responsible for fuel collection, children and men too play important roles in this activity (Ahmad and Loutfi, 1985).

6.1 Key Gender Issues

1. Gender-based division of roles and responsibilities

- In general women are involved in collection of fuel wood for household use whereas men are more likely to be involved in collection and production of fuelwood for sale and in cases when fuel collection involves long distances and therefore the use of animal or other transport. (Ahmad and Loutfi, 1985).

2. Rights and access

- Socio-cultural, and sometimes legal, practices and norms give unequal land rights to men and women including different rights and access to energy sources.
- Deforestation and privatisation of forests have led to less rights and difficult access to fuel or energy sources, especially for women (Ali, 1991, Rodda, 1994).
- Conversion of forests into croplands has also limited the access.
- Even where men and women have equal rights and access, women's rights may be limited, i.e. they may be allowed to collect only certain types of fuel (e.g. wood, leaves, straw, dung) while men are allowed to collect branches for commercial purposes (Ibid.).

3. Health

- Due to the labour and time demands of collecting fuelwood, women have less time for rest, thus affecting their health.
- Scarcity of good fuelwood means use of poor quality fuel-wood, which also affects their health through smoke inhalation.
- Use of traditional cooking stoves which are often poorly ventilated, add to increased health risks of women in the mountain regions due to exposure to highly concentrated smoke and soot.
- The nutritional value of the family diet too, depends largely on the availability of fuelwood for cooking the staple foods.

4. Commercialisation

- Increasing prices of fuelwood and charcoal has led to involvement of men in collection of these for selling, leaving less fuelwood available to women (Directorate General for International Cooperation, Ministry of Foreign Affairs, The Netherlands, 1990).

6.2 Risks

Limited access to fuel sources leads to:

- Increased workload and time-consumption of women.
- Health hazards for women and the families.
- Illegal cutting of wood thus damaging the forests and environment.

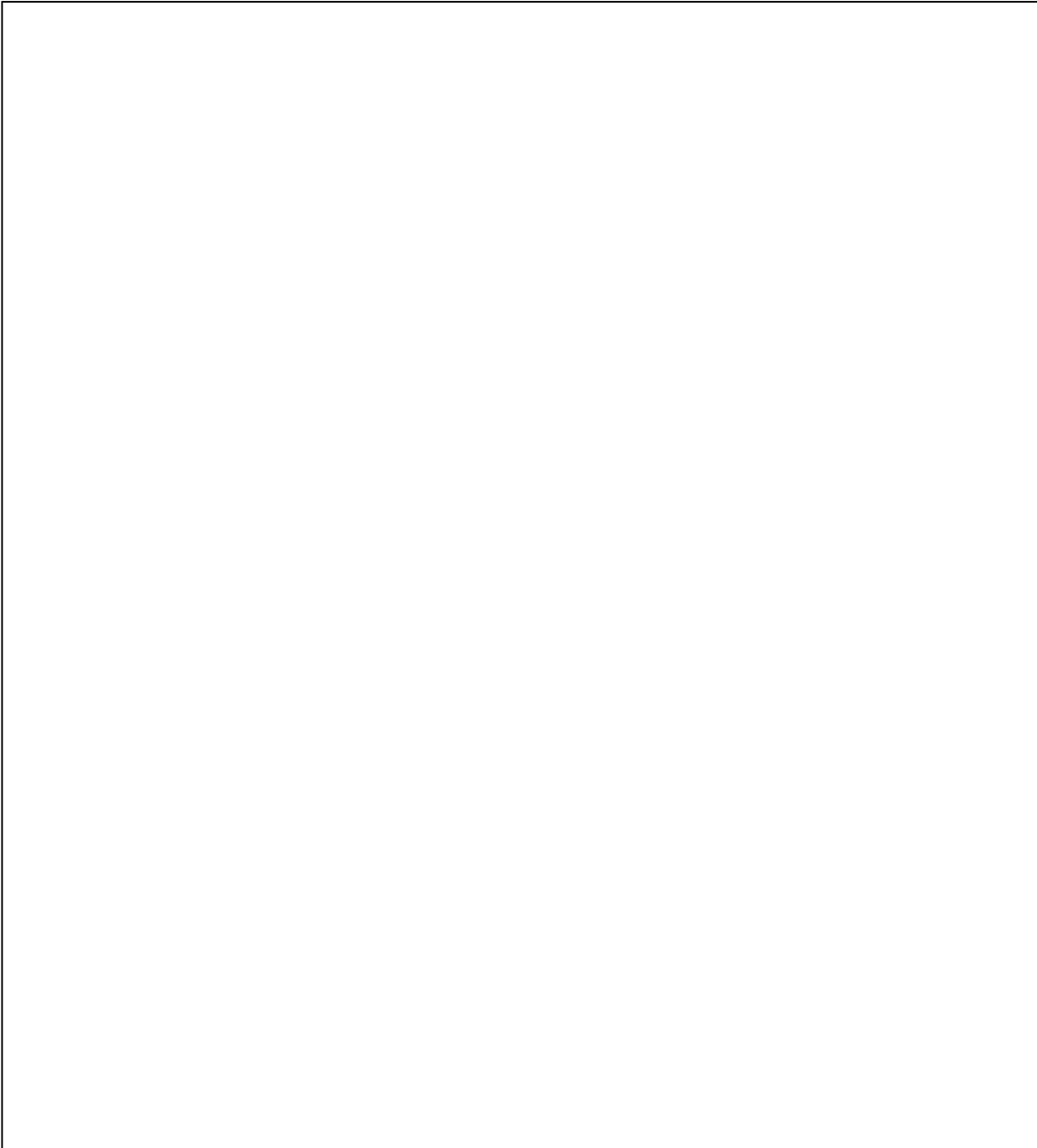
Continuation of the existing gender-based division of roles and responsibilities leads to an increase in women's workload and drudgery, leading to health risks.

Commercialisation of fuelwood can lead to:

- Less availability of fuelwood and charcoal for household use.
- Increased drudgery since women have to walk longer distances to collect fuelwood.
- Less time for other household chores and income-generating activities.

6.3 Some steps to integrate gender

1. Raise awareness and gender sensitisation at all levels (formal and informal).
2. Assess the constraints faced by men as well as women in regard to access of energy sources, especially regarding community and government sources.
3. Encourage sharing of household and farm work.
4. Assess the different knowledge and skills of men and women in use and management of energy sources.
5. Energy needs and concerns of rural women and their households should be introduced into national-level planning.
6. Encourage women's active role in decision making at the community level and not just for token representation.
7. Increase access to new technology, training and credit facilities for all users.
8. Develop partnerships and links with other institutions, groups and NGOs for exchange of ideas and to raise awareness.
9. Expose groups of women and men to other communities where more gender-equitable development is taking place.



7. Broad Categories of Gender Issues

The gender issues mentioned in the above sectors of NRM cover a wide sphere and must be examined in a broad context considering other factors that may influence the issues, e.g. cultural beliefs, social structure, land tenure system, environmental policies and geographical conditions. All the issues in the various sectors can broadly be grouped into three categories: socio-cultural issues, economic issues, and policy/planning issues.

Socio-cultural issues are those that are related to:

- Limited gender awareness at all levels in all cultures (RAPA, 1993).
- Socio-cultural constraints to women's rights and participation, e.g. women's triple burden, male domination in most cultural and social norms, customs and laws (Ibid.).
- Distortion, erosion, undermining and under-valuation of traditional knowledge systems on the one hand and inaccessibility of new knowledge to rural women on the other hand (Ibid.).

Economic issues are those that are related to:

- Limited ownership of productive assets (land, water, forest, etc.) and access to inputs (credit, information, technology, training, etc.) and markets (Ibid.).
- Gender inequality in remuneration, opportunities, conditions of service, access, etc., rural/urban and highland/lowland biases and inequity (Ibid.).
- Changes in macro-level economic policy, including terms of trade and cropping systems, which do not include gender considerations (Ibid.).

Policy/Planning issues:

- Marginalisation of women in the planning process –there are very few women in the official decision-making positions of planning and policy making (Ibid.), and very few women professionals working in the NRM sectors.
- Policy statements addressing gender issues are often vague or ambiguous and easily overlooked (Ibid.).
- Policies often overlook or exclude gender-equity considerations (Ibid.).
- Inadequate appreciation of the impact of policies on women. Especially in food security, land tenure and credit (Ibid.).

7.1 Some steps to integrate gender in NRM

1. Recognise that there are gender-based differences in the roles, responsibilities and contributions of men and women and take these into consideration (FAO, 1998).
2. Recognise the value of men's and women's knowledge, skills and practices and their rights to benefit from the fruits of their labour (Ibid.).
3. Ensure sound and equitable policies to provide incentives for both men and women for sustainable use of natural resources. (Ibid.)
4. Ensure fair and equitable sharing of benefits from their use. (Ibid.)
5. Ensure active participation of both men and women in planning and decision-making at levels. (Ibid.)
6. Ensure recruitment of women professional staff in the NRM sectors at all levels.

7. Encourage organisational development for gender equality to be practiced within local organisations, NGOs, government agencies, and INGOs, with the active and equal participation of men and women.

8. General Criteria for Selecting Good Practices

(Please note that not all criteria need to be present in each selected good practice)

The good practice should:

- Lead to an actual change that contributes to gender equality or breaks new ground in non-traditional areas for women. There should be a link between the ‘good practice’ and some visible or measurable change in gender relations, gender balance, or women’s options and opportunities;
- Have an impact on the policy environment, to create a more conducive or enabling environment for gender equality. This could include impact on legislation, the regulatory environment, or resource allocation. It should include an assessment of the degree of institutionalisation of the identified good practice;
- Demonstrate an innovative and replicable approach. In the context of this set of good practices, this implies the capacity to demonstrate what is new or unique about the initiative—either its product or process—and offer opportunities for the initiative to be replicated in other countries and contexts;
- Be sustainable. In this context, the commitment of mainstream or institutional sponsors or participants in the initiative—whether Government, academia, media, the UN, NGOs, etc.—needs to be a component of the best practice.

Special interest exists in good practices that:

- Emerge from a participatory process, involving a range of actors (civil society, private sector, government, etc.).
- Have significant scale or ‘reach’.
- Involve inter-agency collaboration.
- Address discrimination and inequalities faced by men and women in various spheres of life
- Demonstrate government commitment to further action and resources.

(Taken from: <http://www.undp.org/gender/practices/guidelines.html>)

9. Some research questions to be considered concerning gender issues

1. How do men and women interpret their gender roles in their culture and society? (Gurung, C. and Okali, 2000).
2. Are roles really embedded in cultures or do they simply reflect daily practical needs? (Ibid.).
3. If roles are embedded in culture then how are they legitimized in the cultural symbolism? (Ibid.)
4. How has all this affected gender relations? (Ibid.).
5. What are the determinants of social status and who takes decisions and decides on the various issues?
6. How do gender roles influence decision-making processes?
7. How do women interact with the natural environment as members of larger social networks and communities? (Directorate General for International Cooperation, Ministry of Foreign Affairs, The Netherlands, 1990).
8. What role do contemporary practices and attitudes play in the exercising of rights and responsibilities of men and women over forests, trees and forest products? (Ibid.).
9. To what extent do women and men have conflicting interests in trees or certain species of trees? (Ibid.).
10. What are the local perceptions, and in particular those of women, of the ecological functions of trees, forests and rangelands? (Ibid.).
11. If men hold primary control over land for agriculture then how can women, who may lack security of tenure (and resultant lack of access to credit), have incentives to invest and/or benefit from their roles in, and contributions to, the conservation and use of genetic resources? (Bunning, Hill and Spillane, 1996)
12. How have changes in farming practices, population pressure, migration patterns, legislation, etc., affected the rights of women in contrast to men? For example, what influence has a change in state land laws had on the application of customary laws, and on the rights of men and women? (Ibid.).
13. Why are men related with major crops and women with minor crops (or men to larger cattle and women to smallstock) despite women doing the same and equal work in both? (Gurung, C. and Okali, 2000).
14. What are the implications of this in regard to gender relations and interventions? (Ibid.).
15. What conditions (besides the immediate practical needs) determine men's and women's preference in crops (cash crop versus subsistence) or livestock species and varieties? (Ibid.).
16. Is the level of agriculture diversity maintained in different farming systems related in any way to level of education, income and social status of farmers and the intensity and duration of their contact with formal agricultural sector technologies, inputs and marketing channels? (Bajracharya, 1994; Bunning, Hill and Spillane, 1996)
17. What are the cultural/practical rights as well as obstacles to men and women's access and control over water (sources as well as decision-making)?
18. What specific skills and insights can they contribute?
19. What is at stake for men and women in water management?
20. Who has what rights to what fuel sources in what places, under traditional and changed circumstances respectively?
21. As regards the way in which technical interventions have impacted gender relations and the status and position of women and men in relation to all the sectors of NRM, a key question is: What are the circumstances under which women and/or men might bargain for control over a particular intervention? (Gurung, C. and Okali, 2000)

10. USERS' LIST

This User's List includes some useful websites and some recent publications on gender and NRM.

10.1 Some Useful Websites on Gender and NRM

1. CGIAR: The Consultative Group on International Agricultural Research focuses on five major research thrusts:
 - Increasing Productivity
 - Protecting the Environment
 - Saving Bio-diversity
 - Improving Policies
 - Strengthening National Research
 - <http://www.cgiar.org> – CGIAR home page
 - <http://www.ifpri.cgiar.org/themes/mp17/gender/gender.htm> – GENDEV Network on intrahousehold and gender aspects of food and agriculture research
 - <http://www.cgiar.org/cgpubs.htm> – to access IFPRI discussion papers on gender
 - <http://www.cgiar.org/imwi/resprog/GPW.htm> – Gender, Poverty and Water page of IMWI
 - <http://www.cgiar.org/prgaprogram.org> – Participatory Research and Gender Analysis system-wide programme of the CGIAR
 - <http://www.cgiar.org/isnar/publications/gender.htm> – publications on gender and agricultural research

2. FAO:
 - <http://www.fao.org/gender/> - gender and food security
 - <http://www.fao.org/sd/links/gebio.htm> – gender, biodiversity and local knowledge
 - <http://www.fao.org/sd/Wpdirect/default.htm> – Women and Population Section of Sustainable Development Department of FAO
 - <http://www.fao.org/sd/nrm/nrm.HTM> – gender dimensions in NRM, including tools and methodologies, research and analysis
 - <http://www.fao.org/sd/seaga.htm> – Handbooks for Socioeconomic and Gender Analysis Programme
 - <http://www.fao.org/gender/static/Casest/Pak/paktoc-e.htm> –gender and participation in agriculture development planning, lessons from Pakistan
 - <http://www.fao.org/gender/static/Casest/Ind/indtoc-e.htm> – from Sikkim
 - <http://www.fao.org/gender/static/Casest/Nep/neptoc-e.htm> – from Nepal

3. IFAD (International Fund for Agriculture Development)
 - <http://www.ifad.org/pub/memoryle/mem.htm> – Memory Checks for Programme and Project Design, Household Food Security and Gender

4. The World Bank
 - <http://www.worldbank.org/gender/tools/check.htm> – checklists by sector for gender issues
 - <http://www.worldbank.org/devforum> – Engendering Development Report

- <http://www.worldbank.org/gender/know/publications.htm> – the World Bank's publications on gender issues
5. IDRC (International Development Research Centre)
 - <http://www.idrc.ca/gender/examples.html> – examples of gender analysis in research
 - <http://www.idrc.ca/cbnrm/news/newsletter> – IDRC's Community-Based Natural Resource Management Newsletter
 - http://www.idrc.ca/minga/gender_back_e.html - IDRC papers on gender and natural resource management in Latin America and the Caribbean
 6. ENERGIA – <http://energia.org> – network on women and sustainable energy
 7. Wageningen Agricultural University, the Netherlands
 - http://www.sls.wau.nl/crds/bdp_gs.htm – Gender Studies in Agriculture bibliographies, database and publications
 8. Women in Development Cooperation, Institute of Development Studies, U. of Sussex, UK
 - <http://nt1.ids.ac.uk/eldis/hot/wid.htm> – many links on integration of gender policy into development projects/programmes
 - <http://ids.ac.uk/bridge> – briefings on gender and development
 9. UNDP:
 - <http://www.undp.org/gender> - papers on gender, good practices, guidelines and programmes
 - <http://www.undp.org/tcdc/bestprac/agri/cases> – gender and biodiversity in India
 - http://www.undp.org/seed/eap/Projects/Gender_and_energy.pdf – Gender and Energy: How is gender relevant to sustainable energy policies?
 10. Asian Institute of Technology (AIT) Gender and Development Programme:
 - <http://www.ait.ac.th/AIT/schools/serd/gendev> – information on GenDev's publications, including the internationally refereed journal, *Gender, Technology and Development*; also contains list of interesting websites on gender and development
 11. The Global Water Partnership (GWP)
 - <http://www.gwp.sida.se> -The GWP Water Forum provides links to various databases, libraries and other web sites and offers an independent venue for international agencies, individuals, local communities, the private sector, academia, governments, and non-governmental organisations wishing to exchange information and explore topical issues...
 12. ICIMOD Gender and Development Programme
 - http://www.icimod.org.sg/focus/gender/gad_toc.htm - various types of information related to gender and mountain development, including more websites

10.2 Further Reading

1. *Gendered Fields: Rural Women, Agriculture, and Environment* by Carolyn E. Sachs, 1996.

Applying a feminist and environmentalist approach to her investigation of how the changing global economy affects rural women, Carolyn Sachs focuses on land ownership and use, cropping systems, and women's work with animals in highly industrialized as well as developing countries. Viewing rural women's daily lives in a variety of circumstances, Sachs analyzes the rich multiplicity of their experiences in terms of their gender, class, and race. Drawing on historical and contemporary research, rural women's writings, and in-depth interviews, she shows how environmental degradation results from economic and development practices that disadvantage rural women. In addition, she explores the strategies women use for resistance and survival in the face of these trends. Offering a range of examples from different countries, *Gendered Fields* discusses commonalities and differences in women's knowledge of and interactions with the natural environment.

2. *Environment, Development and the Gender Gap* by Sandhya Venkateswaran, 1995.

The author argues against lumping all women in developing nations together and points out the diversity between urban and rural women and among rural women of different classes in this study on women's roles in activities relating to the environment. She discusses the impact of environmental degradation on women and their marginalization from environmental management policies, using case studies and empirical data from research in issues such as crop lands, forest and water resources, and energy

3. *Getting Institutions Right for Women in Development* by Anne Marie Goetz, 1997.

Gender and development or women in development policies have been promoted in development organizations for almost three decades now. Although they have helped improve the immediate material conditions of women, by and large such policies have involved organizations in reproducing the ideological and material conditions for women's subordination in the family and the economy. This book offers a gendered analysis of development organizations in a range of different institutional arenas. It builds a conceptual framework for exploring the politics and procedures internal to the institutions which design and implement policy, and then applies this to the analysis of empirical case study material. Other contributions reflect on strategies to help organizations internalize or institutionalize gender equity and to make accountability to women a routine part of development practice. Thirteen articles, from the perspectives of academics, civil servants, gender trainers, and NGO activists, reflect on how to institutionalize gender equity in developing nations. The volume is divided into five sections that treat theoretical perspectives of gender equity, institutionalizing equity in state bureaucracies and NGOs, and the role of individual agents and women's grassroots organizations.

4. *Work Intensity, Gender and Well-Being* by Cecile Jackson and Richard Palmer-Jones. U.N. Research Institute for Social Development, 1998.

Employment is central to current understandings of poverty and well-being, as well as to prescriptions for poverty reduction. Labour-intensive growth, and greater labour force participation by women, are major policy recommendations in the discourse on Women in Development. But gender analysts paint a complex picture of women and work. They note that women often face social and ideological constraints when seeking, obtaining and performing work outside households, with responsibilities for child bearing and rearing generating particular problems. And the objective of increasing female employment can- in the context of long working days and added household duties – contribute to what has been termed “time famine”, with negative effects on women’s health and well-being. Finally, it is important to analyse the specific content and character of work – and especially its physical arduousness.

5. *Training Manual – Gender and Natural Resources* by Govind Kelkar and Andrea Esser, 1999.

This manual is designed to enable development practitioners and fieldworkers to understand how women and men differ in their uses of natural resources, and therefore in their interests and priorities with respect to projects/programs affecting such resources. The manual is divided into seven chapters; introduction, gender analysis tools; gender and natural resource management indicators; gender analysis in forestry; gender analysis in land and agriculture; gender and water; gender issues in energy; gender analysis of disaster management.

6. *A Guide to Gender Analysis Frameworks* by Ines Smyth and Candida March, Oxfam, 1998.

This is a single-volume guide to all the main analytical frameworks for gender-sensitive research and planning, based on a pack developed for Oxfam staff and partners. Different frameworks that have been developed are described, as well as step-by-step instructions for their use, with summaries of the advantages and disadvantages of each one.

7. *The Two-Headed Household: Gender and Rural Development in the Ecuadorean Andes* by Sarah Hamilton, University of Pittsburgh Press, 1998.

The Two-Headed Household documents gender relations in a indigenous farming community in the Ecuadorean Andes and examines the dynamic interactions of tradition and change that engender processes of rural development in the central Ecuadorean sierra. It looks at factors including access to means of production and to social and political institutions, and control of sexual reproduction, detailing the daily lives and attitudes of several families in the region. What makes *The Two-Headed Household* unique--besides its findings of gender equality--is that the author finds that neither 'planned' or 'unplanned' development have served to undermine women's status within the household or the community. The author also locates her results in the relevant literature and explores the factors that have maintained gender equality in this region. The book's strength lies in the excellent use of ethnographic data to

explore household decision-making processes." *Two-Headed Household* presents a thorough analysis of the theoretical and country-specific literature.

8. *The Andean Women, Food Technology and Food Security Contest: An Appropriate Model*; UNIFEM, no date. gopher://gopher.undp.org:70/00/unifem/poli-eco/eco/susta/contest

This paper documents the mechanism, experiences and lessons learned from UNIFEM's 'Andean Women, Food Technology and Food Security Contest'. The model which aims at the economic empowerment of rural women, has been validated, repeated and replicated in another geographical area, namely in Yucatan, Mexico. It has proven to be very effective for highlighting women's indigenous knowledge, experience and specific needs, related to their economic activities and natural resource management. In addition, the project mechanism increased women's access to appropriate technologies and it has promoted the exchange of experiences among women. It has also played a catalytic role in the development of communication channels between grassroots women and technical support organisations.

8. *Irrigation in the Andean Community: A Social Construction* by Rutgerd Boelens and Frédéric Apollín, International Water Management Institute, 1996. <http://www.cgiar.org/imwi/resprog/GPW.htm>

The video and booklet "Irrigation in the Andean Community: A Social Construction" provides colorful and substantive insights into successful participatory processes for gender-balanced community based rural development. The kit documents detailed steps involved in the inclusive planning of a technical irrigation project, and highlights how initial investment in infrastructure determine water rights for both women and men. IWMI is constantly looking for best practices in water management that are socially inclusive and enhance food and livelihood security, and therefore felt that this training kit is relevant to a larger audience than the Spanish-speaking inhabitants of Latin America, as it was initially intended by the authors.

9. *Women in Agriculture: Farming for Our Future* by Margaret Alston. 1st International conference; University of Melbourne 1-3 July 1994, Charles Sturt University, Wagga Wagga, Australia: Centre for Rural Social Research. <http://www.csu.edu.au/research/crsr/ruralsoc/v4n2p29.htm>

A report from the First International Conference on Women and Agriculture meeting in Melbourne in July 1994: The report outlines the main objectives of the conference and explores three key issues under the various topics-Women in Agriculture; Production and Land; and Sustainable Development and Economics:

- address production, environmental, economic and social issues affecting agriculture nationally and internationally.
- promote a co-operative relationship between Australian and international agricultural networks through women in agriculture.
- raise awareness of the contribution women make to agricultural and rural development, and increase the awareness of the economic, social, legal and cultural factors affecting their status.

- provide a learning opportunity to develop new skills and access to information and networks.

- 10 *Women and Agribusiness – Working Miracles in the Chilean Fruit Sector* by Stephanie Barrientos, Anne Bee, Ann Mataear, Isabel Vogel . NY: Macmillan 1999.

Fresh fruit exported from Chile, and many other developing countries, has become commonplace in supermarkets during the winter months. Employment in this branch of agribusiness is mainly seasonal and employs large numbers of women workers. This book provides an in-depth examination of the 'fruit explosion' in Chile and its effect on rural women. It explores the structure of the agro-export sector and the role of seasonal female employment. The authors ask how women combine this new type of work with their more traditional roles, and consider state politics to support seasonal workers. Both the local and global implications of women working in this sector of agribusiness are considered. The book ends by discussing the possible effects of supermarket codes of conduct on temporary, female workers in agribusiness. The book takes an interdisciplinary perspective and provides an important contribution to research on women and agribusiness.

- 11 *Change and Diversity: Opportunities for and Constraints on Rural Women in New Zealand* by Mary-Jane Rivers, Ann Pomeroy, Dianne Buchan, Brian Pomeroy and Rachel Fogarty, MAF Policy Technical Paper 97/11, October 1997 <http://www.maf.govt.nz/MAFnet/publications/change/change.htm#E13E1>

The report discusses the dramatic and rapid change, which the processes of globalisation, technological advance, demographic change and economic reform have brought to rural New Zealanders. It looks at the paid work of rural women and the visibility of their unpaid work, their involvement in decision making, and how the media and advertising portray them. An analysis is made of the strategies which women (and men) can use to ensure that the work undertaken by rural women receives appropriate recognition, to increase their involvement in decision-making, and assist women and men to adjust to their changed roles and achieve their aspirations and goals. Finally the report reminds us why it is important that rural women should participate in the economy and why constraints which impact on their participation should be removed

- 12 *Woodfuel and Gender Concerns in Different Forest Management Systems of Nepal* by Govind Kelkar and Suman Subba, Asian Institute of Technology, 2000.

The major objective of the research is to investigate the integration and non-integration of woodfuel within different forest management systems and its gender specific effects within five different forest management systems in Nepal. They are government-managed forest, community forest, protected forest, leasehold forest and religious forest. It explores major research questions such as: how do local women and men manage their fuelwood requirements within different forest management systems? Are there any gender-specific considerations in the use and management of these different types of forest? And what are the sustainable ways of integration of woodfuel as a main source of energy?

Publications of the International Food Policy and Research Institute

(To obtain copies, see <http://www.cgiar.org/cgpubs.htm> or send requests to M. Hoffman, Food Consumption and Nutrition Division, IFPRI 2033 K Street, N. W., Washington D.C. 20006, USA).

1. *Gender and Forest Resource Management: A comparative study of selected areas of Asia and Africa* by Keijiro Otsuka and Agnes R. Quisumbing. Report submitted to the United Kingdom Department for International Conference, October 16-17, 1998, Yale University, New Haven CT.

2. *Gendered Participation in Water Management: Issues and Illustrations from Water Users' Associations in South Asia* by Ruth S. Meinzen-Dick and Margaret Zwartveen, in *Agriculture and Human Values* 15(4):335. 1998

3. *Gender, Property Rights and Natural Resources* by Ruth Meinzen-Dick, Lynn R. Brown, Hilary Sims Feldstein, and Agnes Quisumbing in *World Development*. 25 (8); 1299 – 1309. August 1997.

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 generalise 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.

4. *Gender and Property Rights*, Proceedings Volume of Gender-Prop International E-Mail Conference convened June 1995 – March 1996.

5. *Women's Economic Advancement Through Agricultural Change: A Review of Donor Experience* by Christine Peña, Patrick Webb, Lawrence Haddad.

This paper reviews donor experience with the design of development projects that are sensitive to gender-specific constraints. The review finds that the gap between intentions and implementation as regards gender-sensitivity is larger in agriculture than in health and nutrition. One of the reasons forwarded for this gap is the dearth of quantitative studies documenting the foregone benefits in terms of agricultural productivity of not promoting the economic advancement of women in agriculture.

6. *The Importance of Gender Issues for Environmentally and Socially Sustainable Rural Development* by Agnes R. Quisumbing, Lynn R. Brown, Lawrence Haddad, and Ruth Meinzen-Dick, in *Agriculture and The Environment: Perspectives on Sustainable Rural Development*, Ernst Lutz, ed. Washington DC: The World Bank, 1998.

7. *The Long-Term Effect of Environmental Degradation on Women in the Hills of Nepal* by Priscilla Cooke. Paper presented at the Supplemental Studies Workshop for Strengthening Development Policy through Gender Analysis, International Food Policy Research Institute, September 17-18, 1998

8. 'Women in Agricultural Systems' by Agnes R. Quisumbing; in N. P. Stromquist (ed.), *Women in The Third World: An Encyclopedia of Contemporary Issues*. New York & London: Garland Publishing, Inc., 1998

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