

Gender and natural resource management with reference to IDRC's Minga program

Consultant's Final Report

Dr. Susan V. Poats

Randi Randi Group - FUNDAGRO
Quito, Ecuador

March 2000

Revised and Extended in
JULY 2000

Working Paper Series

IDRC's mandate is to initiate, encourage, support, and conduct research into the problems of the developing regions of the world and into the means for applying and adapting scientific, technical, and other knowledge to the economic and social advancement of those regions.

The publications in this series are designed to fill gaps in current research and explore new directions within a wide range of natural resource management topics. Some are narrowly focused, analytical and detailed empirical studies; others are wide-ranging and synthetic overviews of general issues.

Working papers are published by IDRC staff, hired consultants and interns, and are not part of Partner-funded research activities. Each paper is peer reviewed by IDRC staff. They are published and distributed primarily in electronic format via www.idrc.ca, though hardcopies are available upon request. Working papers may be copied freely for research purposes and cited with due acknowledgment.

Working Paper 5

**Gender and natural resource management with
reference to IDRC's Minga program**
Consultant's Final Report

Dr. Susan V. Poats

International Development Research Centre
PO Box 8500, Ottawa, ON, Canada K1G 3H9

Poats, S.V. 2000. Gender and natural resource management with reference to IDRC's Minga program. Working Paper 5, Rural Poverty and the Environment Working Paper Series. Ottawa: International Development Research Centre.

Copyright © 2000 IDRC

This publication may be downloaded, saved, printed and reproduced for education and research purposes. When used we would request inclusion of a note recognizing the authorship and the International Development Research Centre.

Please send enquiries and comments to wmanchur@idrc.ca

Cover Image: Daniel Buckles, IDRC, 1999.
Design & Layout: Richard Bruneau, IDRC, 2004.

Foreword

The objective of this report is to offer a reflection on the current state of gender analysis regarding natural resources and research and environmental action, specially in relation to the current propositions to improve natural resource management. It does not aim to present a complete revision of the literature and national experience on the issue of gender and natural resources, but to propose some areas where the analitical and participatory gender approach has the potential to improve the work that the MINGA Program confronts when designing projects.

The document is divided into six parts. The first presents a short description of the MINGA Program. The second section offers a brief clarification of the term “gender” and its use in relation to natural resource conservation and management. The third presents a synthesis of the origins of gender concerns in environmental work, summarizing the principal approaches or research schools and feminist environmental action. The fourth section talks about the range of existing methodologies which can be used in and adapted to research, action and planning of work related to natural resource management. The fifth section offers suggestions for the next steps necessary to support the incorporation of a gender-research approach in areas of interest for IDRC’s MINGA Program. The last section makes a brief analysis of four experiences in the region which offer interesting and practical lessons.

Contents

Foreword	i
I. What Is Minga?	3
II. What Do We Mean by the Term “Gender”, and Why Worry about Gender in Conservation and Management of Natural Resources?	7
III. Conceptual Origins Of The Gender Approach In Natural Resource Management	11
1. Ecofeminist.....	14
2. Feminist environmentalism.....	15
3. Socialist feminism.....	15
4. Post-structuralist feminisim.....	15
5. Environmentalist	15
IV. Methodologies and Tools Available to Help Include the Gender Variable in Natural Resource Management	20
1. Local Mapping.....	20
2. Activity Profiles.....	21
3. Production, Reproduction and Community-based Resource Management Calendars.....	21
4. Different uses of Resources.....	21
5. Life Stories and Participatory Sequences of Local History	22
6. Inventory of Social Actors	22
V. Suggestions for the Next Steps	23
VI. Other Actors in the Gender and Environment Field	25
IUCN-Mesoamerica	26
FAO-FTPP	28
PRGA	31
MERGE	31
References Quoted in the Text	33

I. What Is Minga?¹

MINGA is one of the International Development Research Center's (IDRC) Program Initiatives. Its full name is "*Enfoques Alternativos para la Gestión de Recursos Naturales en América Latina y Caribe*" (Alternative Approaches for Natural Resource Management in Latin America and the Caribbean). The Program seeks to facilitate the necessary learning processes for equitable and sustainable management of natural resources in a forever-changing context of the globalization, structural adjustment and democratization processes. MINGA's principal approach is to improve the use of information and to strengthen the ability and participation of all sectors of society when making decisions with respect to effective sustainable natural resource management in chosen eco-regions of Latin America and the Caribbean.

The hypothesis which sustains the MINGA Program is that access to relevant knowledge on issues of natural resource management, appropriate technological options and policy-directed instruments, combined with more inclusive decision-making processes, will contribute to more sustainable and equitable natural resource management.

MINGA has four specific aims:

- Summarize the lessons learnt up-to-date in multi-sector approaches for sustainable and equitable natural resource management, including principles and means of organization for managing disputes regarding natural resources.
- Identify and create methods and effective approaches towards multi-sector natural resource management. Some examples:
 - Participatory methods to plan or monitor changes in how resources are managed at local, regional or other levels

¹ The information presented here on MINGA's Program is based on data obtained from IDRC's web site (<http://www.idrc.ca/minga/>).

- Progress indicators towards more sustainable social and biophysical systems
- Scaling-up methods of successful experiences to more extensive areas.
- Develop strategies to implement the lessons learnt in multi-sector natural resource management in new situations.
- Promote integration and adoption of multi-sector approaches in natural resource management by organizations, analyzing and demonstrating their effectiveness and benefits.

MINGA operates in four specific regions in Latin America: the high Andes, the Central American slopes, the Amazonia, and the coastal areas. It also supports regional projects with wider coverage.

With respect to gender, the description of MINGA's Program on its website did not mention gender when this report was written. Nevertheless, in IDRC's document on strategic goals for 2000-2005, there is a section on gender.

"The Centre maintains that the relevance of knowledge generated through research and its effective application greatly depends on gender considerations being an integral part of its analysis. Research must take into account the differential impact that the change will have on the lives of men and women, otherwise, crucial matters related to social and economic equity will be ignored. We shall make sure that any research we support will effectively include this type of analysis and we shall help researchers to identify patterns, methods and tools to accomplish this. We shall continue to ensure that an adequate number of female scientists, and gender-sensitive scientists, participate in research supported by the Centre. Likewise, we shall attempt to make a significant contribution to the international debate on gender through a clearly-defined research program on the differential impact that public policy has on women in developing countries and on relevant corrective measures."

IDRC's position on gender is quite thorough and comprehensive since it looks at gender from an analytical, institutional, personal and political side. Nevertheless, it does not indicate HOW it plans to achieve this. Neither does it indicate how IDRC is going to monitor and evaluate the projects financed to see if they comply with this principle regarding the importance of gender. Within areas of priority we find Environment and Natural Resource Management, which is divided into three sub-areas: Safe Food and Water; Environmental Management for Human Development and Health; and Equitable Access to Biodiversity. None of the descriptions of the sub-areas nor of the area in general mentions gender. Nevertheless, these matters are very relevant and need a gender approach. Within the Safe Food and Water issue, we underline the importance of the analysis of access to natural resources and the lack of equity in their use. It is always important to include the consideration of gender, generation and ethnicity in the analysis of access to any natural resource, because lack of equity is built on and reflects the existing lack of equity related to these variables. Also, a lack of equity in the access to natural resources, imposed from outside the communities can strengthen the existing lack of social equity in these same communities. An approach focused on an analysis of the complex relation between livelihoods, knowledge, resources and income, is incomplete if it does not consider the gender and generation relations which are rooted within these same relationships. In future, IDRC will be putting more emphasis on urban environmental efforts in this area. Various case studies in the Latinamerican region indicate that the urban woman is the principal actor and the principal person affected in urban neighborhoods with respect to use, management and contamination of the environment. The inclusion of a gender approach is going to be essential for research in these areas.

In specific areas of environmental contamination, such as mining, there are very few analyses on gender dimensions. It will be necessary to put emphasis on looking for researchers, male and female, to promote inclusion of the gender variable in their research for this sector.

The need to promote work on management of socio-environmental conflicts as a transversal axis of the environmental sector, is mentioned. It is very important to add the gender approach to the analysis and understanding of the causes of such conflicts and include the gender perspective in planning and implementation of management strategies. If we agree that collaborative management is the right way to face conflicts, then we must make sure that both women and men participate and that there is investment in mechanisms to assure their places at the negotiation tables where the conflicts will be managed.

The important point is that at the moment women's participation in negotiations to reach alternative solutions in socio-environmental conflicts is not being considered. There are various cases where women's interests or perspectives on a conflict are different to that of men. There can also be differences of opinion and interests due to generational differences (young women differ from older women). It is possible that if there are differences in how men and women understand a conflict, or if they have different interests or positions regarding a conflict, they can also be affected in different ways. An ideal "solution" for men may harm women or viceversa. That is why a gender analysis should be included in the diagnosis and analysis of socioenvironmental conflicts.

With this introduction to MINGA's Program and the initial suggestions for the description of the activities and interests of the Program, we go on to a presentation on gender, environment, conservation and natural resource management.

II. What Do We Mean by the Term “Gender”, and Why Worry about Gender in Conservation and Management of Natural Resources?

Today there are many definitions of “gender”. Nevertheless, that which can best serve the interests and needs of the MINGA Program is based on the definition proposed by the MERGE Program of the University of Florida:

“The term gender” refers to the differences and relationships formed socially between men and women which vary in situation, context and time. The gender approach facilitates understanding of other interrelated social variables (Schmink in Poats, Arroyo and Asar, 1998, p.6)

When we speak about **gender**, it is not the same as “sex” which is the term that describes the physical differences between men and women, that is to say morphologic differences, and generally not changeable. With the term gender we are speaking of **learned differences**, since childhood, from our mothers and fathers, from our family, from friends and neighbours in our community, from school and from church, which as a whole, form our behavior, our experiences, our knowledge and our way of seeing things which makes us different as women and men.

Therefore, we recognize that not all women are equal in their activities and desires, nor are all men equal. We also recognize that our learnt behavior as men and women is not static. We change with time, and that is why there are gender differences conditioned by generation differences. Our gender behavior is different from that of our mothers and fathers and of our grandparents. In the same way, our daughters’ and sons’ gender behavior will be different to ours.

Gender behaviour is influenced and also influences other social context variables, such as ethnicity and culture. In Latin America and specially in the Andean region, we see strong cultural and ethnic differences in the different social groups and these also influence gender systems within the groups. We also see that in areas of high diversity,

such as Ecuador, the ecogeographic contexts influence the social gender formation, and evidence is being accumulated on the changes which gender relationships bring about in the same physical contexts. We can conclude that gender is not a natural category, but a social and cultural product which has special features in different contexts, times and places.

Why do we bother about including a gender perspective in conservation of biodiversity and the search for rational forms of natural resource management? Because *gender differentiates the relationships that people establish with natural resources and ecosystems, regarding knowledge, use, access, control and impact on natural resources, and attitudes with relation to resources and conservation* (Marco Conceptual MERGE, Schmink in Poats, Arroyo y Asar, 1998, p.9.). Conservation of biodiversity requires complete participation of community members, including men and women. Their interests and needs related to nature can be very different and even conflicting. Nevertheless, frequently women's "voices" and their interests are silenced in public forums and when decisions are made on natural resources and their management. This tendency prevents complete comprehension of natural resources, their conservation and rational management. There is a strong trend among those who work with conservation to recognize the importance of community participation in achieving lasting conservation. They acknowledge the diversity that exists in the communities between stakeholders or interested parties at different levels and definitions of "community". Gender is central to achieving this approach of community-based conservation.

According to Mary Rojas², "an approach to community-based conservation is built on the vital roles that men and women play in understanding and managing their environment both in rural as well as urban contexts. The approach:

² Rojas, Mary , 1999. A Guide for Working with Community-Based Conservation with a Gender Focus, page 4. WIDTECH/International Center for Research on Women and The Nature Conservancy, Parks in Peril Project. First draft.

- promotes environmental decision-making, leadership and participation of men and women within the civil society so they may serve better as advocates for environmental matters which are important to them, their families and their communities.
- develops strategies for conservation and management of natural resources based on democratic principles, participatory techniques and an understanding of how gender influences the access to, participation in, and the agenda of collective environmental activities.
- responds specifically to the economic, social, institutional and legal barriers of effective natural resource management by men and women.”

To make the gender variable operational, we speak of **gender analysis**. Gender analysis includes the careful analysis of gender roles and internal dynamics and between homes and between social actors within a working area and its zones of external influence, and the application of this analysis to decisions in an activity or project. So, gender analysis is the systematic effort to document and understand men’s and women’s roles in a determined context.

In this analysis it is fundamental to bear in mind.

- the division of work in productive, reproductive, community management and natural resource management activities;
- the access to resources and benefits derived from said activities, as well as their control; and
- the social, economic, institutional and environmental factors that condition the two aforementioned aspects.

In gender analysis, we are focusing on understanding relationships between genders regarding a need, problem, conflict or specific context. The key components of gender relation analysis include:

- Definition of **gender roles** within the context.

- Determination of how the roles influence the **division of the work force and local knowledge**.
- Analysis of the **differentiated values** allotted locally to roles and knowledge.
- Analysis of **differentiated access** to different resources, benefits, services and capabilities of decision-making owing to differentiated evaluation.
- Analysis of the **power and control relations** resulting from a differentiated evaluation of work and access that supports maintaining existing relations and gender roles.

Gender analysis is useful as a conservation and natural resource management tool because it helps in:

1. Breaking with stereotypes such as “man works the land, woman minds the home”,
2. revealing roles, typical invisible activities and knowledge of both women and men,
3. assuring representation of social diversity in all aspects of participatory conservation.
4. and revealing the multiple institutions and social groups within a community that must be considered and included in participatory conservation.

Summarizing, gender differences in experiences, responsibilities, and interests regarding natural resources are real and not imaginary and the inclusion of local women and men in activities and conservation projects improves results. Their exclusion could be their ruin.³

In an effort to understand the relationships between men and women and the environment, two main ideas stand out.⁴ The first is based on the need to stop seeing women as passive victims of environmental degradation and men only as destructive

³ Based on Rojas, 1999, p. 4.

⁴ These two ideas are the result of collective reflection of the Randi Randi Group, and not of the author.

beings. The definition of men and women as deciding actors with different knowledge and interests and different possibilities, conforms a new social balance with great potential to achieve conservation and management of natural resources. The second is to leave behind the notion that women are the solution or the non-exploited resource to solve external worries. If the connection between women and the environment is due to material conditions, we must not assume that they will always be allies for conservation. At most, their relationship with the environment must be analyzed within the context of their possibilities and the pressures imposed by the system. In the context of high zones, women, owing to changes in material conditions, may be first in the conservation line, but they may also exercise negative pressure on these areas. In this sense, the key to better understanding the relationship of women and men with their natural environment is to analyze the situations they are in.

The incorporation of a gender approach perspective and systematic gender analysis in conservation and management of natural resources improves our efforts to move forward more efficiently and equitably. Gender training must be the axis impulsing the incorporation process of the approach to conservation. For this reason, an explicit gender-approach policy within community-based conservation and management of natural resources training is the way to continue to multiply and pass on concepts to all those are involved in this ambit.

III. Conceptual Origins Of The Gender Approach In Natural Resource Management

The present state of the art natural resource management is the result and concurrence of multiple conceptual research and action trends . Recognition, conformation and analytical use of gender has gone different ways in each trend, resulting in what many times seem as conceptual contradictions. It is important to understand the relationships and contributions of the different trends to be able to understand the basis of the present state and its future potential.

The development trend in the rural environment during the 50's and 60's stimulated questioning the efficiency of development imposed from above and created various participatory development trends. The clash of this new rural development concept with the efforts of agricultural development, after the disappointments and failures with small farmers in the so-called green revolution, gave way to the FSRE. At the same time, this new rural development trend influenced forestry science to create a participatory community-based forestry trend. In the 80's, the feminist research trend broached FSRE and community-based forestry, elaborating gender approaches applied to each field and built strongly on a firm interdisciplinary field research basis. At the beginning, this caused clashes and rejections. But, little by little, owing mostly to the continuous presentation of concrete evidence of the differences and technological improvements generated when a gender approach was applied, its acceptance began, and this is more generalized today. A strong methodological exchange between both fields is generating a vast participatory-research methodology with a gender approach offering a range of instruments which can be applied in natural resource management. More is said on this in the next section.

More recently, agricultural experiences have generated a similar transformation in crops and animal sanitation, known today as the integrated management of plagues or IMP. Elaboration of the gender approach in IMP is gaining importance and is contributing to the new approaches to sustainable agricultural development. The issue which is most recently changing and "settling" for gender analysis is irrigation. Traditionally guarded by civil and hydraulic engineers, the sector has been transformed by the social analysis of irrigation systems and institutions. Today, local participatory management of irrigation systems is re-structuring how the multiple services and uses of water are conceived and planned. The geographical action space is also changing.

Before, one used to talk about the legitimate users of an irrigation perimeter, which started at the water intake. Today, these systems are being defined within the complex context of basins and catchment areas. It is redefining the space of action and the

actors involved. There is a lot of work, which has just begun, to create an appropriate gender approach for this new future context.

While a transformation in the agricultural and forestry space was taking place, in another space, normally unknown to these technicians and researchers, a parallel transformation was occurring. The population and development trend, traditionally dominated by demographers and economists, meets with the environmentalist trend and forms the population and environment field. This promotes the application of a very “Northern” hypothesis that puts the blame on the population increment as being the only cause of natural resource deterioration. It promotes an analysis of women’s blame for producing this mass of poor population, which consumes the badly protected areas of natural resources. The strong opposition of this equation by Southern feminine environmentalists and conservationists has resulted in re-thinking and redefining this narrow-minded and unilateral relation. But this position still frames different perceptions in the conservationists’ ambit between those who want to preserve the resources within reserves in various forms and eliminate or expel any human action, and those who promote conservation including human beings and their communities immersed in and connected to natural resources.

The waves of conservation trends have traditionally and disciplinarily been very separate from development trends and their members. Recently, the relationship between them was more like an acrimonious fight. Today, this has changed drastically and we find the conservationists totally immersed in the debate of community-based participation. Conservationists have “discovered” participation, and unfortunately have, at least at the beginning, tried to invent it again.

Nevertheless, the first stumbling steps are leading the way for an exchange with other experiences, having the potential to improve conservation and natural resource management. As part of this, the conformation of a gender approach in conservation is presently under way. There is still plenty of methodological development and documentation and systematization of relevant cases and experiences to go through.

If at the moment, the area for active agro-forestry research is the “source”, the conservationist innovation and experimentation area is the “protected area”. Many conceptual and methodological innovation possibilities exist where these two areas overlap.

We recognize that this brief review of the conceptual development of the present state of natural resource management is schematic, simplified and brief and we invite readers to explore the concepts in more depth. We hope that the review will help them identify the paths. At the same time, it is also useful to point out the various forms or schools that exist at present on feminist analysis and activism related to environment. Diane Rocheleau, Barbara Thomas-Slayter and Esther Wangari, in their article “Gender and Environment: a feminist political ecology perspective”⁵ present the clearest analysis up-to date of the principal schools in this field. Here we present a summary of their presentation.

The principal research and feminist action schools on environment are five.

1. Ecofeminist

The ecofeminists propose a direct relationship between women and nature based on “a shared history of oppression by patriarchal institutions and a dominating Western culture, together with positive identification of women with nature”. There are extreme positions that explain this connection with “intrinsic biological attributes (an essentialist position)” while “others see the woman-nature relationship as a social conformation that must be promoted.”

⁵ Rocheleau, Dianne, Barbara Thomas-Slayter and Esther Wangari, 1996, “Gender and Environment: a feminist political ecology perspective”, in *Feminist Political Ecology: Global Issues and Local Experiences*, Dianne Rocheleau, Barbara Thomas-Slayter and Esther Wangari, eds. London and New York: Routledge International Studies of Women and Place.

2. Feminist environmentalism.

Feminist environmentalism is presented as a social conformation where gender-differentiated interests in specific resources and ecological processes, based on gender differentiation in work and daily responsibilities, are analyzed and emphasized. The relation between work and gender is very closely defined and has similar aspects to the position of the “efficiency” arguments in the agricultural development ambit to justify gender incorporation.

3. Socialist feminism.

The socialist feminists “have focused their work on gender incorporation in political economy, using the concepts of production and reproduction to outline women’s and men’s roles in economic systems. They identify women as well as the environment with reproductive roles in economies with unequal development and criticize biological eco-feminism which represents women only as mothers.”

4. Post-structuralist feminisim

Post-structuralist feminists explain gender differences in environmental experiences as “ *A manifestation of different knowledge formed by multiple identity and difference dimensions, including gender, race, class, ethnicity and age among others. This perspective is informed by feminist criticism on development and science. This school also looks for complexity instead of simpleness (from feminist environmentalism) to clarify relations between gender, environment and development*”.

5. Environmentalist

Finally, many environmentalists have started to treat gender “*from a liberal feminist perspective to work with women as participants and colleagues in conservation programs*” Rocheleau, Thomas-Slayter and Wangari use these five perspectives or schools of thought to elaborate a new conceptual framework which they call “feminist political ecology”. In this perspective they combine the perspectives of feminist cultural ecology and political ecology with feminist geography and feminist political economy.

For feminist political ecology “gender is a critical variable in the formation of access to and control of resources and it interacts with class, race, culture and ethnicity to formulate the processes of ecological changes, women’s and men’s struggle to maintain an ecologically viable survival, and the possibilities of any community to achieve sustainable development.” This new conceptual framework “tries to understand and interpret local experience in a context of global processes of environmental and economical change.”

Rocheleau, Thomas-Slayter and Wangari suggest that there are three critical issues which must be inter-related in this context. The first is **gendered knowledge**, reflected in the emerging “science of survival” which recognizes: the multiple roles of women and their integrated ability to manage a home, community and panorama; that women’s roles impose specific environmental risks to them; the close relationship between health and ecology and the special, differentiated knowledge between men and women regarding plants and medicinal practices; and the difference between male and female scientists in their approach to science.

The second critical issue is **the recognition of environmental gendered rights and responsibilities**. This includes having different gender resources and that men and women have different responsibilities in obtaining or managing resources for the family or the community. This issue incorporates an analysis of power relations regarding gender and control, differentiated by gender, over the environmental quality of rural and urban spaces.

The third critical issue concerns **gendered environmental policies** and **basic gendered activism** and includes conformation of participatory political processes regarding environmental decisions and environmental activism by women for women.

To give an example from the Andes, within the environmental discourse in Ecuador up to the present gender has received very little attention and there are few opportunities or momentums for critical elaboration of a local or national gender environmental

concept. A critical analysis of global propositions for a feminist ecological policy has not yet occurred locally. There are a few problems and barriers obstructing this analysis. One of these is the lack of people and professionals specialized in the three areas necessary to encourage this analysis: socio-environmental sciences, gender analysis and local participation. This deficiency is reflected in the academic areas where the first two issues are usually treated separately and the third does not exist. Due to this, there is no generalized conceptual framework for local participation in natural resource management, neither from a legal aspect, nor in practice or regarding methodology, much less from a gender perspective. An important factor which contributes to the lack of a clear conceptual framework to guide local work is the gap which exists between science or conservation experience and the long and extended national experience in rural and agricultural development, where certain success has been achieved in incorporating a gender perspective.

The lack of interdisciplinary people who can work in the socio-environmental ambit contributes to maintain this gap. It is also fed by a generalized tendency to stick to proposing local community-based conservation actions without prior research on their socio-environmental aptitude. When they run into problems, the tendency is to blame the community for being problematic, instead of recognizing that the proposals and actions have problems from a conservation point. Together with this, there is a tendency to depend too much on brief consultancies regarding gender and social sciences, making these contributions to the science of conservation temporary and external. Very few institutions which are dedicated to the conservation or management of natural resources have invested in incorporating gender and social sciences in a permanent way.

Finally, it is important to recognize that Ecuador is not the only country in this situation. This gap and its results are fairly common in the conservation of biodiversity in general. To reduce its size, it is necessary to invest in the conformation of a local conceptual framework and in appropriate research and field work methodologies, within the various national ecosystems. At present, the Ecuadorian páramo is one of the

ecosystems where there is a systematic effort to include the gender approach. Here is an example of the strategy we are using to incorporate gender in a project on management of the páramos (headed by the University of Amsterdam and financed by the Government of Holland).

Páramos are very strategic areas for Ecuador due to their ecological functions, specially in maintaining sources of water. The planning and management process of the páramos requires a combination of methodology and analysis, both biological and social, which must be sustained by the participation of actors involved in these areas. Upon incorporating actors or groups interested in the páramos, it is vital to analyze situations from an ecological policy and analysis of the actors perspective, crossing this with gender analysis.

A combination of these perspectives leads to understanding that the historical processes of the high zones influence how the various actors relate to their natural environment, which in turn predicts how natural resources are used. For example, in Ecuador, in the páramo near Quito, we see that communities established on land that belonged to the State before the agrarian reform, presently have more land in the páramo than the communities of the private estates. This is because in the process of reform, the workers on State properties had options on larger areas of land, especially in the páramo, than did the workers of the private estates. This process of having access to and use of the highlands was different for men and women, and is the base for present uses and perception.

The analysis by those concerned within this context shows the relations of power which exist between various groups (property owners, peasants, men, women, enterprises, scientists, etc) based on the interests of each group. The gender analysis illustrates the reality of social relations between men and women of different social ranks and thus influences decisions made with respect to use and management of the highlands.

The strategy proposed for inclusion of the gender approach in the Páramo Project in Ecuador is summarized by Susana Albán in “Cómo incluir género en un Proyecto de Manejo del Páramo: La Experiencia del Proyecto Páramo” (en Medina, G., C. Josse y P. Mena, eds., 1999. Género y Páramo. Serie Páramo 2. GTP/Abya Yala, Quito) (How to include gender in a Páramo Management Project: The Páramo Project Experience) (in Medina, G., C. Josse and P. Mena, ed., 1999. Gender and Páramo, Páramo Series 2. GTP/Abya Yala, Quito). The fundamental point of the strategy is that it functions as a transversal axis and not as a separate component, as was originally set out in the design of the Páramo Project. So gender success in the Project is everyone on the team’s affair and responsibility, and not only of those on the gender team.

Gender is included analytically in all the steps to arrive at adequate management of the páramo areas, as of the diagnosis, crossing the participatory research of technical management issues, explicitly set out in community management plans, and in monitoring the implementations and impacts of the plans. Up to date, the gender and páramo analysis has indicated that poverty in the páramo-related communities affects women more, both aborigines and half-breeds. During the past years, these areas have suffered important migration, mostly of adult men. This implies that women had to take over not only the agricultural tasks, but also those of managing the páramo. This has deep implications regarding changes and possibilities of proposals for improving management, especially when these require more labourers. *The gender analysis has revealed that men and women make different use of the páramo’s natural resources and, therefore, have different problems, needs and interests in the páramo. These problems and needs must be researched and solved by those directly affected We have learnt that, with gender analysis, we have better information and our perception of the reality is more exact, which allows for more permanent plans to be made.* (S. Albán, *ibid.*)

IV. Methodologies and Tools Available to Help Include the Gender Variable in Natural Resource Management

There is a range of examples or products, taken from the different application of existing participatory methods and tools, and used with a gender approach in diagnoses on the issue of natural resource management. I do not intend to reproduce them here, but rather to mention those which have been most useful up to the moment. The idea is to promote the use and adaptation of existing methods and instruments, instead of investing in the development of new ones. There are very good examples of these and how to use them, and I strongly recommend adapting and not inventing, at least when starting to work.

1. Local Mapping

When working with natural resources on a community scale, it is always recommendable to start with the geographic aspects. Since MINGA projects usually work with a specifically located ecosystem, it is important to begin with the question: where is the ecosystem located and how is it related to the community? The members of the community are always able to draw maps of their daily reality. With the help of technicians, they can also add elements of geographic precision to their drawings and compare their maps with professional geographic maps or with photos and/or satellite images. In order to analyze results from a gender perspective, one can ensure that women from the community also participate, giving them room to offer and analyze their knowledge and vision regarding the community's territory. It is useful to generate moments when men and women can analyze their realities both separately and together.

Participants from the community can be asked to jot down on their maps the location of the areas they use, what they are used for, who or whom manage them and with what benefits and for whom. Areas where there are conflicts, problems and needs can be indicated and on whose part and who is affected by them. It is useful to include maps with different perspectives, such as from a bird's eye view, transects, and critical areas.

This last item is very useful in identifying areas which the community or its members believe are critical for their protection or management. It is also useful that technicians or concerned outsiders participate in the discussions which arise during the drawing of maps in order to hear the views and questions of the participants.

2. Activity Profiles.

The maps can define the productive activities of community members. Profiles can be drawn up for each production section to identify who performs which part of each section. For example, caring for the cattle can be a task for men or women or both, according to the community.

Although one gender may have the final responsibility for a certain production section, another person may take part in the manual labour or in decision making. Drawing up profiles helps understand details of human activities in relation to specific natural resources and helps understand who does what, who is responsible for what, in order to look for alternatives if they are required.

3. Production, Reproduction and Community-based Resource Management Calendars.

The activity profile information can be transformed into calendars by asking “when?” For example, a community calendar regarding the páramo can indicate when there is more demand on pastures, when there is more rain in the páramo, when it is dry, when straw is gathered for different uses. The calendar must include “who” for each activity, so as to observe and analyze bottlenecks regarding women, men, children, and elderly peoples’ free time for new activities. It also allows the identification of opportunities during the year for new responsibilities.

4. Different uses of Resources.

Based on the maps, profiles and calendars, we can proceed to find out about the specific resources of the users. Just one resource, such as straw or water, can have

multiple uses, depending on who uses it. Uses can be compatible or may be conflicting. Before proposing any change in use, it is necessary to find out who the users are and if the change can affect its possibilities or availability. Changes proposed with an intention of improving management could aggravate latent conflicts between users, and in the end not contribute to improved management if they are not adopted.

5. Life Stories and Participatory Sequences of Local History

Understanding the history of the use and management of natural resources has been very useful in the diagnosis of their use and users. This history varies according to men's and women's perspectives, since they experienced it differently. The reasons behind the present usage patterns can be understood once the history of occupation and use is clear. We also frequently discover that not all present users, especially young people, are aware of the history of a local ecosystem. Socializing this history obtained from life stories or participatory sequences can help the entire community understand and respect its past, identify traditional uses which can be taken up again and practices which can be reactivated.

6. Inventory of Social Actors

Finally, the inventory of social actors and people concerned has also been very important in the diagnosis of natural resources. Men and women differ in their recognition of local groups and concerned outsiders. To have a clear idea of who is interested in a resource, a list of the actors, from a gender perspective, is very useful. Once the list of actors is available, their interests and conflicts regarding the resource can be analyzed. The results are indispensable to proceed with the elaboration of adequate management plans.

There are other methods, but these have been the most useful up to the present. A strong lesson from the experiences up to date, with the inclusion of a gender approach in the diagnosis of natural resources, is that if you are able, with any tool, to inspire or make men's and women's roles visible in the present management of resources, and

are able to show that their actions, knowledge and desires are different, this information is a powerful thrust towards an analysis of the reasons for these differences, and this opens the way to gender analysis and its application.

Gender analysis, as a whole, is complicated and complex. It cannot be accomplished in just a moment, but must cross all actions. At the beginning, it is not so important to be an expert, nor completely correct, but rather simply to start and maintain an open mind, learning along the way.

V. Suggestions for the Next Steps

To end this section, I would like to leave some suggestions for the next steps towards the incorporation of a gender approach in environmental work, and above all, for natural resource management in the MINGA Program.

- It is necessary to promote an effort to extend and clarify the gender conceptual framework regarding its application in conservation of biodiversity and natural resource management, especially at local and community levels. To achieve this, I propose a series of possible activities. First, it is necessary to promote development and analysis of case studies, both positive and negative. We must extend analytical knowledge of gender systems and how they interact with environmental systems. This requires an approach not only of what women do, which may have been invisible up to now, but also a reevaluation of what men do. We must encourage further comparative analysis, within national and international ambits. We must use comparative analysis within the gender approach, to identify tendencies by ecosystems, if they exist, and analyze the implications. It is important to construct analytical tests for the gender conceptual frameworks, to strengthen the national analysis and gender interpretation capability and to strengthen the conceptual frameworks themselves. Finally, I believe there is work to be done constructing and analyzing usage and management typologies differentiated by gender within

and between different analytical geographic units, especially regarding protected areas and watersheds.

- It is important to encourage better analysis of the relation between different degrees of environmental analysis and gender relations between users of natural resources. I suggest that it would be useful to encourage the development of mechanisms to connect gender analysis and community participation with the geographic information system (GIS) technology.
- We must document not only our own results, but also the processes and methods used to achieve our aims, in order to extend the panner of methodologies available for field work and systematic analysis.
- We must clarify local participation concepts and methods through a gender, generation and ethnic approach. It is always important to cross these variables in environmental work and above all in the participatory management of natural resources.
- We must identify and give priority to natural systems and critical resources in order to incorporate a participatory gender approach and encourage research with a gender approach on specific resources such as water, the páramo, the mangrove swamp, the wetlands, etc.
- It is important to encourage research on training in the region directed towards gender transformation in management of natural resources and in general environmental management.
- There is a need to promote integration of training, action, systematization and development of concepts and methods in projects addressing environmental management. This must be accomplished by an effort to improve critical thinking and deep analysis of gender results and actions.
- We must promote the comparative analysis of results and processes to arrive at a gendered conservation science. The space opened up by the MINGA Program through listserve and national spaces such as that of “Grupo de Trabajo en Páramo en Ecuador” (Group Working on the Páramo in Ecuador) is adequate to begin discussions at different levels on gender and natural

resources. But it is necessary to move on and extend towards other experiences in the future. A more enduring space is required for the comparative analysis of gender work related to other environmental issues.

- It is important to promote research and analysis regarding policies and environmental laws with a gender approach so as to encourage innovative changes and alternatives. Also to identify areas which are biased and lack equity to propose changes. We shall have to search for people with these analysis skills and convince them to work with a gender approach.
- It is necessary to promote institutional analysis of experiences regarding incorporation of the gender approach in environmental work and natural resource management. I believe it will be important to encourage creative and innovative spaces in order to promote an exchange of experiences and lessons learned in the regional ambit. In these events it is important to see that both men and women, leaders and field researchers and policy-makers participate. It is also important to include young researchers, both male and female, so that they may learn from the experts and contribute new perspectives.

Finally, I would suggest that we need to find ways of sharing the risks of changes and innovations resulting from conservationist action. This implies association with social actors, men and women, who live with natural resources in need of conservation and better management, and to be more responsible for our recommendations.

VI. Other Actors in the Gender and Environment Field

In Latin America there are a few regional efforts to actively promote the inclusion of gender in research, action and management of natural resources. Although there may be others, I am going to summarize and comment on four of them: IUCN's Regional Office for Mesoamerica, FAO's FPHP Program, CGIAR's Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation (PRGA), and the MERGE Program led by the University of Florida.

IUCN-Mesoamerica

The World Conservation Union (IUCN) led an effort to incorporate gender in natural resource management by its Regional Office for Mesoamerica (ORMA). Lorena Aguilera⁶, who led this effort, has documented the progress made and its results. Starting from an analysis that *the disparity of classes, ethnicity, as well as the disparity between men and women, points out the need to provide women with supplies/resources in order that they overcome their subordination and achieve social change, a change in their position, becoming development subjects. In the case of men, it is important that they understand the possibility for change in gender relations, since male participation is fundamental in this process (Aguilera et al, 1995).* The ORMA team recognizes that *the relation between women and nature cannot be seen as a natural or easy one (Aguilera et al, ibid.)* Starting with its analysis, the team coordinated research in Central America, with support from the Embassy of Holland, to delve deeper into the relation between management of natural resources and the gender category, in order to contribute towards the design and implementation of more equitable and sustainable development strategies. For this study they chose six organizations in Central America to develop case studies in the communities where they were working. The authors, all natives of the communities, were trained in gender and the methodology for preparing case studies. In spite of social and ethnic differences between the communities chosen, they all shared similar environmental problems. The cases were published (Aguilera et al, ibid) and were useful as a guide for the ORMA team's successive actions in the region. At present, IUCN-Mesoamerica is actively participating in support of the regional governments' inclusion of gender equity when formulating their environmental policies.

In a recent document (Aguilera, 2000) the state of this process in the region and the main weaknesses or needs of the institutions involved in environmental activities are identified. These are summarized in the following:

⁶ Lorena Aguilera is presently regional coordinator in the Social Area of IUCN's Regional Office for Mesoamerica.

- Gender units or departments, which could influence the regulatory bodies' implementation of strategies, do not exist within the institutional structures.
- Lack of training at all institutional levels.
- Lack of information systems segregated by sex.
- There is no practical methodology available for the application of gender equity perspectives.
- Adequate environmental indicators are required to reflect the impacts on the transformation of the lack of equity.
- Application of the equity gender approach is insufficient and inadequate, and the prevailing concept is wrong; it is seen as a fashion or a style, or as a mechanism to obtain resources or work for women.
- There is a lack of human, financial and material resources to implement gender equity.
- There is resistance from officials and technicians to adopt an equity gender approach.
- There is a need to disseminate the gender equity policy by formulating a series of proposals which define recommendations and procedures.
- Gender is seen as an uncoordinated component and not as a mainstream issue.

Aguilera summarizes the present problems or limitations when she says that, in general, appreciation and recognition of the equity gender approach is partial, fragmented and insufficient. IUCN's proposal for the region focuses on five areas: institutional strengthening within the entities regulating the environment; development of practical skills by technicians in the region to incorporate a gender perspective in environmental activities; influence policies and national laws on environment; establish monitoring and evaluating mechanisms to measure impacts; support the incorporation of a gender approach in the activities of the Comisión Centroamericana de Desarrollo y Ambiente (Aguilera, 2000).

FAO-FTPP

One of the programs which has had an important impact on the inclusion of a gender approach in management of forestry resources in Latin America, especially in the Andean area, has been FAO's Programa de Bosques, Arboles y Comunidades Rurales (FTPP or Forests, Trees and People Program) and its national community forestry development projects promoted by FTPP.

National projects linked with this program in the Andean area have been financed mainly by the Government of Netherlands and have had explicit gender content, together with participation of international gender experts and counsellors. An international seminar was organized in 1995 on the advances and results of these efforts, called "Integrating the Gender Approach in Participatory Forest Development" (FTPP 1996). Results in Ecuador, Peru, Guatemala, Honduras, Mexico and Bolivia are set out in the seminar's report, and also the progress made by ORMA-IUCN, which in no more than a decade is noticeable, in spite of being a "process in the making" (FTPP 1995:45). In this moment of reflection, the participants underlined the fragmentation and professional isolation they find when trying to include the gender approach in their projects (ibid.). They "qualified the pressure exerted by international cooperation to include the gender approach in the countries and the use of participatory methods as being positive" (ibid, p. 51) but at the same time the participants, both male and female, made a very pertinent and critical analysis of international cooperation regarding gender. Since it is related to the present issue, I include it hereunder textually.

However, the scarce negotiation between development agencies, national organizations and agencies for international cooperation, regarding the election of issues, objectives, goals and components for the forestry projects, was questioned. There was agreement that the NGOs, the peasant organizations and, in general, the national agencies which receive international funding have little or no participation in the definition of priorities. International cooperation is rigid when it comes to setting the criteria for execution of projects, and opposes any type of participatory planning. Nor does the international cooperation take into account that participatory processes and

incorporation of the gender approach require more time and effort than vertical planning. Another aspect which international cooperation does not consider is that results cannot and should not always be measured only with quantitative parameters; the qualitative ones are also very important.

As a result of this reduced participatory attitude and predefined goals, activities which are not a priority for the community at times, although they are for international cooperation, are financed.

This outline, which was qualified as vertical, restrains integration of the gender approach in forestry projects and prevents equal consideration of the heterogeneous interests of national counterparts in international cooperation policies. (ibid.).

Based on this analysis, the whole of the seminar recommended adoption of a multi-level strategy to help improve institutional coordination and make achievement of the projects' sustainability easier (Ibid. P. 53.). We can identify a first important lesson from this forestry space: the need to encourage interinstitutional spaces at different levels of operation and administration. It is critical to reach coherence and collaboration between the outside efforts so that they do not dilute or duplicate the work at a national level. Forming alliances and allies in the search for implementation of the gender approach is very important.

In 1997, the FAO-INEFAN-Holland Project "Support for the Implementation of PAFE (the Ecuadorian Forestry Action Plan)" organized a workshop "Integrating the gender approach in PAFE". With a difference to the international workshop mentioned above, this was centred on the results of an effort to integrate the gender approach among PAFE's proposals, "these programs, projects and actions include activities towards improving women's access to economic, technical, social, cultural and environmental benefits which the national forestry sector offers" (PAFE 1997).

In order for women to become actresses with their own identity within the Plan, it is necessary to deploy simultaneous efforts on three levels: guaranteeing that they are represented in the decision-making instances, especially in the Inter-institutional Council of PAFE; applying positive discrimination in the different institutions which compose the Ecuadorian forestry sector; and applying gender analysis and a participatory methodology at community and local levels. However, the gender approach needs to settle within a social perspective in order to acquire legitimacy and to make sense (PAFE, 1997:17)

Before ending the section on peasant forestry development, it is pertinent to quote some phrases from a recently published book which gathers all the lessons to be learnt from these projects in the Andean area, “Construyendo Cambios” (Building Changes), by Charles B. Kenny-Jordan, Carlos Herz, Mario Añazco and Miguel Andrade.

In practice, it has not been easy for men and women to participate in development, enjoying the same opportunities. It has been necessary to break many rules or obsolete traditions, demolish many taboos, create or recreate self-esteem, touch consciences and speak of the basic rights which all humans have, and also the commitments we have with our environment. I am worthy, you are worthy, we are all worthy, respect me, I respect you, we all respect each other, more than verbal phrases, are truths which must be defended day by day (Kenny-Jordan et al., p. 44).

...the gender approach enables us to value the importance of equity in relations between men and women of all ages, within a reconciliatory effort, dialogue and tolerance between different actors involved in local development.....The gender approach must be understood as something which goes beyond participating in workshops or the use of tools. It is a process which enables the exercise of power, liberation, creativity and of concerted proposals for equity. (ibid., p. 45-46).

PRGA

The CGIAR Program, _Systemwide Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation PRGA (www.prgaprogram.org/), intends to promote organizational methodologies and approaches which integrate a gender perspective within participatory research referring to phyto-improvement and management of crops and natural resources.* Headed by CIAT, the program operates at a global level, but pays great attention to Latin America. PRGA focuses its gender-related attention and action on three areas: gender analysis in participatory research processes and stakeholder analysis; development of skills (training and creation of partnerships); and dissemination of information.

MERGE

The Management of Ecosystems and Resources with Gender Emphasis or MERGE Program, is an inter-institutional initiative headed by the Centre for Latin-American Studies of the University of Florida, Gainesville (UF). It began in 1994, with a collective effort of the UF, the Facultad Latinoamericana de Ciencias Sociales (FLACSO), Ecuador, The Nature Conservancy and its partner Fundación Antisana in Ecuador, and Conservación Internacional in Peru. This union between two universities and two international conservation NGOs resulted in four sister projects financed by the MacArthur Foundation, which promoted a series of courses, workshops, and international encounters between 1995 and 1998 which trained a group of critical specialists in conservation and natural resource management with a gender approach. It also generated a series of case studies and other material being used in training courses (Poats, Arroyo y Asar 1998).

One of MERGE's strategies was to begin with the achievements, results and material produced previously on gender within the field of social forestry and research, extended to productive systems FSRE , and adequate them to the conservation context. This expedited a direct jump to participatory workshops where local experiences in resource management from a gender perspective could be depicted.

MERGE's projects in this period left an important mark regarding the preparation of a critical mass of skilled people to organize and head gender and natural resource training, to create innovative research within the gender conceptual framework and tools. Since the projects financed in the first phase of MERGE ended, people, some with institutional changes, have maintained the exchange collaboration network. Now they are starting a new initiative to take the pulse of regional progress in implementation of the gender approach in conservation through a series of regional workshops and an international encounter scheduled for March 2001.

The main objective of the encounter is to impulse the conceptualization, analysis and application of a gender perspective in community-based conservation activities in association with protected areas of the Andes and the Amazon. The specific objectives are: 1) share the best practices and lessons learned from the experiences of gender integration in conservation; 2) identify the conceptual frameworks, analytical techniques, institutional arrangements, and government policies which best define and strengthen the connections between gender, community-based conservation and protected areas; 3) produce and disseminate publications documenting the progress made from different parts of the regions; 4) strengthen the networks among professionals working on these issues; and 5) define and facilitate concrete future actions to impulse gender integration in community-based conservation for protected areas.

The organizers of the international encounter hope that the exchange of field methods, analytical techniques, and experiences from bases in the field will gather the best practices and lessons in the region. They hope to be able to identify what works, what doesn't work and catch a glimpse of the steps which are necessary for the future. Through the networks gathered at the encounter it is hoped to promote a continuous exchange regarding strategies, practices and results to improve community-based conservation.

References Quoted in the Text

Albán, Susana. 1999. Cómo incluir género en un Proyecto de Manejo del Páramo: La Experiencia del Proyecto Páramo. En Medina, G., C. Josse y P. Mena , eds., 1999. Género y Páramo. Serie Páramo 2. GTP/Abya Yala, Quito.

FTPP Programa Bosques, Arboles y Comunidades Rurales 1996. Integrando el Enfoque de Género en el Desarrollo Forestal Participativo. Memorias del Seminario Latinoamericano, Cuenca, Ecuador, Octubre de 1995.

Grupo Randi Randi. 1999. Una Propuesta para la Inclusión de un Componente de Género en el Proyecto Páramo: La Conservación de los Ecosistemas de Páramo del Ecuador. Presentado a la Universidad de Amsterdam, Facultad de Ciencias Geográficas.

Kenny-Jordan, Charles B., Carlos Herz, Mario Añazso y Miguel Andrade. 1999. Construyendo Cambios: Una Propuesta de manejo participativo de los recursos naturales renovables para el nuevo milenio. Quito, Ecuador: FTTP/FAO.

Poats, Susan V. 1999. Análisis de Género y el Manejo de Páramo: Explorando las Necesidades y Potencialidades. En Género y Páramo, No. 2. Noviembre. Grupo de Trabajo en Páramos del Ecuador.

Poats, Susan V., Paulina Arroyo y Rodolfo Asar, editores. 1998. Género y Manejo Sustentable de Recursos: Examinando los Resultados. Memorias de la conferencia internacional de MERGE, Quito, Ecuador, Febrero 1996.

Reyes, Viki, Paulina Arroyo and Susan V. Poats. 1999. Integrating Communities and protected areas in Ecuador: Using Gender to _Crack the Case_ of Inga Montserrat. Draft manuscript presented to the MERGE/WIDTECH Publication Series.

Rocheleau, Dianne, Barbara Thomas-Slayer and Esther Wangari, eds. 1996. Feminist Political Ecology: Global Issues and Local Experiences. London and New York: Routledge series of International Studies of Women and Place.

Rojas, Mary. 1999. A Guide to Working with Community-Based Conservation with a Gender Focus. WIDTECH/International Centre for Research on Women, Washington, DC. Draft manuscript presented to the MERGE/WIDTECH Publication Series.

Schmink, Marianne. 1998. Marco Conceptual para Género, Conservación y Gestión de los Recursos Naturales. En Poats, Susan V., Paulina Arroyo y Rodolfo Asar, editores.

Género y Manejo Sustentable de Recursos: Examinando los Resultados. Memorias de la conferencia internacional de MERGE, Quito, Ecuador, Febrero 1996.

The Rural Poverty and Environment Working Paper Series

1. Rusnak, G. 1997. *Co-Management of Natural Resources in Canada: A Review of Concepts and Case Studies.*
2. McAllister, K. 1999. *Understanding Participation: Monitoring and evaluating process, outputs and outcomes.*
3. McAllister, K. and Vernooy, R. 1999. *Action and reflection: A guide for monitoring and evaluating participatory research.*
4. Harrison, K. 2000. *Community Biodiversity Registers as a Mechanism the Protection of Indigenous and Local Knowledge.*
5. Poats, S. 2000. *Gender and natural resource management with reference to IDRC's Minga program.*
6. Lindayati, R. 2000. *Community Forestry Policies in Selected Southeast Asian Countries.*
7. Meltzer, J. 2001. *Assessment of the Political, Economic, and Institutional Contexts for Participatory Rural Development in Post-Mitch Honduras.*
8. Brooks, D.B., Wolfe, S. and Shames, T. 2001. *Local Water Supply and Management: A Compendium of 30 Years of IDRC-Funded Research.*
9. Lee, M.D.P. 2002. *Community-Based Natural Resource Management: A Bird's Eye View.*
10. Sick, D. 2002. *Managing Environmental Processes Across Boundaries: A Review of the Literature on Institutions and Resource Management.*
11. Mujica, M. 2002. *Assessing the Contribution of Small Grants Programs to Natural Resource Management.*
12. Frias, G. 2003. *Invasión Forestal: Khla Nagnegei Taiñ weichangepan.*
13. Ghose, J.R. 2003. *The Right To Save Seed.*
14. Wiens, P. 2003. *The Gendered Nature of Local Institutional Arrangements for Natural Resource Management: A Critical Knowledge Gap for Promoting Equitable and Sustainable NRM in Latin America.*
15. Goetze, T.C. 2004. *Sharing the Canadian Experience with Co-Management: Ideas, Examples and Lessons for Communities in Developing Areas.*
16. Currie-Alder, B. 2004. *Sharing Environmental Responsibility in Southeast Mexico: Participatory Processes for Natural Resource Management.*
17. Suzuki, R. 2005. *The Intersection of Decentralization and Conflict in Natural Resource Management: Cases from Southeast Asia.*
18. Bruneau, R. 2004. *Watershed Management Research: A Review of IDRC Projects in Asia and Latin America.*

List Updated May, 2005

Postal Address:

PO Box 8500
Ottawa, ON, Canada
K1G 3H9

Street Address:

250 Albert Street
Ottawa, ON, Canada
K1P 6M1

Tel:

(+1-613) 236-6163

Fax:

(+1-613) 238-7230

E-mail:

wmanchur@idrc.ca

Website:

www.idrc.ca

