

Learning to

MERGE

MANAGING ECOSYSTEMS AND RESOURCES
WITH GENDER EMPHASIS

Edited By

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Chapter 1

Learning to MERGE

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Introduction: Conservation, Development, Community Participation, and Gender

During the last two decades, a growing consensus has emerged on the need to experiment with new ways to work with local communities to improve the management of natural resources. As development workers have become more concerned with environmental sustainability, conservationists have begun to recognize the need to work to support local peoples' livelihoods. New kinds of partnerships among governments, non-governmental agencies, grass-roots organizations, research institutions, and local community groups are emerging. These new forms of experimentation signify a comprehensive re-thinking of approaches to conservation and development, with an emphasis on learning from the diverse array of local-level initiatives and linking these experiences to appropriate macro-level policies.

The conservation/development interface poses new challenges for dealing with a multiplicity of stakeholders and social actors operating at different levels and with widely divergent degrees of power. These lead to constant negotiations of different kinds over the outcomes of conservation and development initiatives. Not only are rural communities facing off with government agencies, business interests, and non-governmental organizations, but significant differences in interests, perspectives, and power are manifest within communities.

Recognition of the complexity and dynamism of interconnected social and natural systems at different scales has led to an increasing emphasis on adaptive management strategies that directly involve local populations, and that allow for continual learning and adjustment in response to the diversity of different sites. The challenges of these changes for community-based conservation provide the focus for the activities analyzed in this book.

The concept of social learning has been used to refer to a combination of conscious learning from policy experiments with political processes in which “bounded conflict” is managed (Lee, 1993). Buck et al. (2002) define social learning as continuous dialogue and deliberation among scientists, planners, managers and users to explore problems and solutions. Learning through experimentation, and the combination of different forms of knowledge, contributes to adaptive capacity.

The MERGE program (Managing Ecosystems and Resources with Gender Emphasis) is a collaborative network of organizations that during the 1990s pursued a strategy of mutual learning focused on gender, community participation, and natural resource management in Peru, Ecuador and Brazil. The MERGE strategy used gender analysis as a point of departure to approach diversity in community-based conservation efforts. Together with wealth, social class, ethnicity, age and property ownership, gender is a key determinant in status and power structures. Knowledge about and use of resources are shaped by gender in significant ways that are often overlooked. While gender has long been recognized as a key dimension to be addressed in development work, the use of gender analysis in conservation efforts is fairly recent. For the most part, the growing recognition of women's important roles in grass-roots projects is not yet reflected in strategies to influence policy, institutions, and organizational partnerships for conservation and development.

Dealing effectively with these social complexities is difficult enough. Relating social concerns to the biophysical dynamics of conservation, which themselves are poorly understood, is even more challenging. MERGE responded to this challenge by adopting a collaborative learning approach, developing participatory techniques for conservation projects in different conditions, incorporating a focus on gender, and working through partnerships to build institutional capacity for future learning and adaptation.

The MERGE program developed and adapted training and technical assistance programs for different audiences and contexts, with a central focus on work with local communities through collaborative partnerships. The partners also were concerned with documenting, evaluating, and drawing more general conclusions from this work. Periodic workshops and meetings allowed us to learn from our collective field experiences and to build a conceptual framework for understanding some of the key gender issues in community-based conservation and resource management projects.

This book analyzes the conceptual, methodological, and human aspects of the MERGE collaborative learning experience. Despite many difficulties along the way, the experience seems to show that collaborative learning approaches work in important ways. The MERGE program found ways to unlock creativity, build confidence, develop capacity in people, and influence institutions. These experiences, and what we learned from them, can contribute to efforts to address complex challenges of conservation and development.

From Gender-in-Agriculture Training to MERGE

The MERGE initiative began at the University of Florida (UF) in 1992 as a combined effort of the Gender, Environment, Agricultural and Participation (GEAP) program and the Tropical Conservation and Development (TCD) program. GEAP is an interdisciplinary program that was formed in 1984 to promote understanding of the effects of gender roles in agricultural production practices, and the differential impact of agricultural development processes on women, children, and men. In 1986, TCD began to foster interdisciplinary research and training related to problems of biological

conservation and the livelihoods of the rural poor, especially in Latin America. TCD and GEAP supported academic research and training activities at UF, and sought to link academic training to policy issues and to field-level projects and activities.

TCD's interdisciplinary approach, together with the grant funds allocated primarily to fellowships for students from Latin America, attracted a diverse mix of students committed to conservation and development in the region, many of whom already had substantial field experience. Numerous Latin American students trained at UF through the TCD program returned to their countries to work on conservation and development projects. Despite many successes, their ability to incorporate gender issues was hampered by institutional barriers and the lack of region-specific training materials that focused on gender issues in natural resource management. UF faculty and students addressed the challenge of finding ways to overcome these constraints.

The MERGE program emerged as UF took the initiative to form a collaborative network with other universities and research institutions in both the North and South, especially Latin America, with non-governmental organizations based in the U.S and Latin America, and with local groups in specific sites where conservation projects were underway. A "cross-training" workshop on Gender Tools and Natural Resource Management, held in March of 1994, brought together a group of 23 participants experienced with gender and the environment to discuss common interests for working together. Among the participants were people from ECOGEN at Clark University, the Gender and Planning program at the University College London, the USAID-funded GENESYS program, the gender program of the Consultative Group for International Agricultural Research (CGIAR), and leading environmental organizations.

One key revelation that emerged from this workshop was the profound difference between work in agriculture and in conservation in terms of substantive focus, conceptual and methodological approaches and above all, the professional backgrounds and perspectives of the people involved. Some distinctions in the approaches of these two groups are illustrated in the chart below. Most striking is the difference in the scale that constituted the focus of agricultural versus conservation efforts. With a focus on landscapes and ecosystem protection, conservationists were interested in communities located in the buffer zones of protected areas, but had little specific interest in individual farmers or farm families who constituted the audience for agricultural scientists.

Table 1. Relevance of Gender to Agriculture and Conservation.

	Agriculture	Conservation
Audience	Limited resource farmer	Local populations near protected areas
Scale	Farming system	Ecosystem/protected areas
Unit	Family/household	Community
Approach	Farming System Research & Extension	Participatory Rural Appraisal

Fundamental philosophical differences also divided these two groups, especially with regard to the inclusion of human communities in protected areas. Conservation-minded agricultural scientists were concerned with developing agroecological systems designed to provide long-term yields to sustain human needs over generations. In contrast, biologists and ecologists in positions to collaborate with local communities in biodiversity conservation efforts had inherited a history of exclusion and outright hostility to people perceived as encroachers on natural systems. Conservationists in some organizations refused to use the word “development” and limited their work with local communities only to the buffer zones of more fully protected areas. Others simply drew the line at human-constructed systems like agriculture. Many conservationists have argued strongly in favor of return to exclusionary models of conservation, in reaction to the failures of integrated approaches to conservation and development over the past twenty years (Brechin et al. 2001; Oates 1999; Terborgh 1999; Wilshusen et al. 2001).

Although the perspectives of these two groups - agricultural scientists and conservation scientists - appeared to be similar on the surface, especially to the gender specialists who were mainly social scientists by training, they constituted profoundly different audiences for gender-sensitivity. This revelation was reinforced throughout the experience of the MERGE program. The significance of these differences, and their implications for technical training, project implementation, and policy reform, still are not fully appreciated in most of the work related to gender and natural resource management.

The crucial point is that agricultural scientists are primarily concerned about managing resources better in order to assure greater, and more sustained, production. From this viewpoint, biodiversity conservation is an instrument for improved production to benefit human population rather than an end in itself. For conservationists, maintenance of ecosystem integrity, protection of species, and preservation of habitats are goals that are often threatened by human needs and production practices. The traditional “guns and fences” approach to protected areas management epitomizes this antagonistic view of the human-nature relationship. Over the past two decades the conservation establishment has embraced a more integrated approach that seeks to incorporate local people as direct participants in conservation initiatives, although

influential sectors of the conservation community argue against this strategy (Oates 1999; Terbourgh 1999).

The reality is that most protected areas have human inhabitants, and many conservationists have come to realize that the success of their conservation efforts depends on finding appropriate strategies for working with local people. Unlike agricultural development projects, which focus on increasing production and income, community-based conservation strategies seek conservation outcomes, including restrictions on resource use, in addition to improvements in the livelihoods of local people. In most cases, conservation and development efforts entail complex negotiations among diverse interest groups and stakeholders. Despite the formidable obstacles to these efforts, they appear to pose the only realistic alternative to authoritarian strategies of nature preservation that have little hope of succeeding in the long run (Brechin et al. 2001; Wilshusen et al. 2001). Still, much more needs to be learned from the success and failures of integrated projects, and how they fit into broader natural and sociopolitical landscapes.

A second important insight from participants in the cross-training workshop was that training in gender analysis, by itself, is not enough to lead to change in institutional policies and project applications. They proposed a broader approach, working through partnerships, to build a process of learning for institutional change. A first step would be training in participatory approaches to working with local communities. With this in mind, we sought to develop a collaborative project that would allow us to explore and assess new approaches to gender, community participation, and natural resource management.

A concrete opportunity for collaboration was presented through the Gender and Natural Resource Management grants competition sponsored by the John D. and Catherine T. MacArthur Foundation. UF, along with like-minded counterparts in the Latin American Social Sciences Faculty (FLACSO) in Quito Ecuador, The Nature Conservancy (TNC) based in Washington, D.C. and the Conservation International program in Peru (CI-Peru), presented a set of linked proposals for funding, and in 1994, the MERGE program received funding from the MacArthur Foundation. The initial partnership thus included universities in the North and the South, international environmental organizations based in the U.S. and in Latin America, and the in-country NGOs with whom they worked. The latter included, among others, the Fundación Antisana (FUNAN) in Ecuador and the Agrarian Federation of Madre de Dios (FADEMAD) in Peru.

Also in 1994, a MERGE program in Brazil developed with support from USAID-Brazil through the Global Climate Change program. Building on a four-year program carried out by GENESYS, with support from USAID, UF developed a plan to work through its existing USAID grant in collaboration with PESACRE, a local NGO in Acre, Brazil, to further strengthen attention to gender in the environmental projects supported by USAID-Brazil. The Brazil program extended the MERGE partnerships to Fundação Vitória Amazônica (Manaus, Brazil) and other local organizations.

Lessons Learned

The MERGE program demonstrates how participatory approaches to mutual learning can make a difference in personal, methodological, and institutional approaches to conservation and development work. The combination of a conceptual framework, linked to mutual learning and partnerships through a rich array of events and experiences over time and space, created lasting impacts.

Essential lessons learned included the following:

- **Conceptual complexity:** Gender issues are embedded in conservation and development issues in complex ways across multiple scales. The scale of conservation issues in time and space make gender relevance more difficult to demonstrate than in the case of agriculture. A focus on conservation success in biological terms may overlook micro-level concerns of local communities or more macro-level political, economic and social concerns. People often are more visible at the level of the household labor force and family agricultural fields than they are in the broader physical and institutional landscape of biodiversity conservation. Indicators of species and habitat conservation may be measured in 50-year intervals, whereas local human communities may experience costs and benefits of conservation in the short-term. These differences in scale make it difficult to reconcile, and to measure, goals and impacts in community-based conservation. Gender needs to be strategically and explicitly incorporated at different scales in different ways. Gender's importance as a social organizing principle is most visible to outsiders at the household level, but less so at the community level where it tends to be translated into "women." Macro-level factors affect projects and planning, and gender relations in natural resource use and management. Thus, the incorporation of gender at the policy level requires skill in analyzing context and different scales. For MERGE, the evolving conceptual framework became a touchstone that helped to stimulate discussion and critical thinking on these issues.
- **Comprehensive action strategy:** The MERGE program pursued a strategy of linked activities at many levels, including training, building partnerships and mutual learning, site-level application, and applied research. Each activity was designed with multiple objectives in mind, and implemented in ways that would bring together people from different countries and organizations. Investment in coordination and group maintenance was essential for the functioning of this strategy. The rich, dense – and chaotic -- mesh of interactions at different moments and in different locations was the impetus for the long-term process of mutual learning and institutional change.
- **Mutual learning:** The MERGE approach to learning focused on change at personal, methodological and institutional levels. This included dealing with differences and conflicts among people and organizations, as well as fostering

collective learning through exchanges and networking. The mutual learning style had a positive and lasting impact on key individuals, and on some partner organizations. Among partner organizations, gender training was an effective entry point that stimulated more intense efforts to institutionalize gender. Through the network, partner organizations were tied to one another by collaborative work, friendship (as well as rivalry and discord), and a common flow of information. These strong networks of support and exchange contributed in important ways to long-lasting changes in people's approach to their work, and to the institutionalization of gender in partner organizations.

The MERGE Strategy

The MERGE strategy had three dimensions:

1. a **conceptual framework** that combined attention to gender, participatory approaches with local communities, and resource management, within particular contexts and embedded in cross-scale social and ecological systems;
2. an **action plan** that included applied research, training and training-of-trainers, policy and project implementation, monitoring and follow-up, networking, and documentation of results in case studies, all combined in a dense and rich learning process over different moments in time and space;
3. **partnerships among organizations**, from which we learned about diversity and conflict through the collaborative learning approach we adopted, and which fostered personal, methodological, and institutional change.

From the beginning, the central philosophy of MERGE was to build towards a partnership among equals, respecting and learning to deal with diversity. While sharing common interests and goals, each organization defined its own objectives and activities, and controlled its own funds. This arrangement helped to avoid tensions related to competition over resources, and allowed us to pool our resources in creative ways, bringing in other groups as we went along.

This does not mean that conflict was absent. The potential for conflict was always inherent in the mixed groups participating in MERGE program events, and among the different organizations working together in the MERGE partnership. Different cultural backgrounds, fields and levels of training, languages, ages, wealth levels, and institutional affiliations complicated communications, and created the need for constant negotiation and re-negotiation, with respect for both partnership and autonomy, even within networks of personal friends and colleagues. The investment made in nurturing and trust was important for the collaborative process.

The MERGE strategy, as depicted in Figure 1, encompassed a continual flow of activities planned collaboratively with partners: training, training-of-trainers, and development and testing of research and training materials; workshops, conferences and networks; planning workshops and development of institutional strategies; applied research; and site applications with technical assistance. The central focus of the MERGE activities, as shown in the diagram, was working with heterogeneous local

communities to incorporate gender concerns into natural resource management strategies. These activities first focused on training, then partnerships with a broader network helped to establish links to research, policy and field applications. We consciously built inopportunities to come together to reflect on our collective learning experiences and to develop a more systematic conceptual understanding. Over time, the strategy showed increased emphasis on applied research in order to explore questions that emerged from the collaborative learning that was going on in the field.

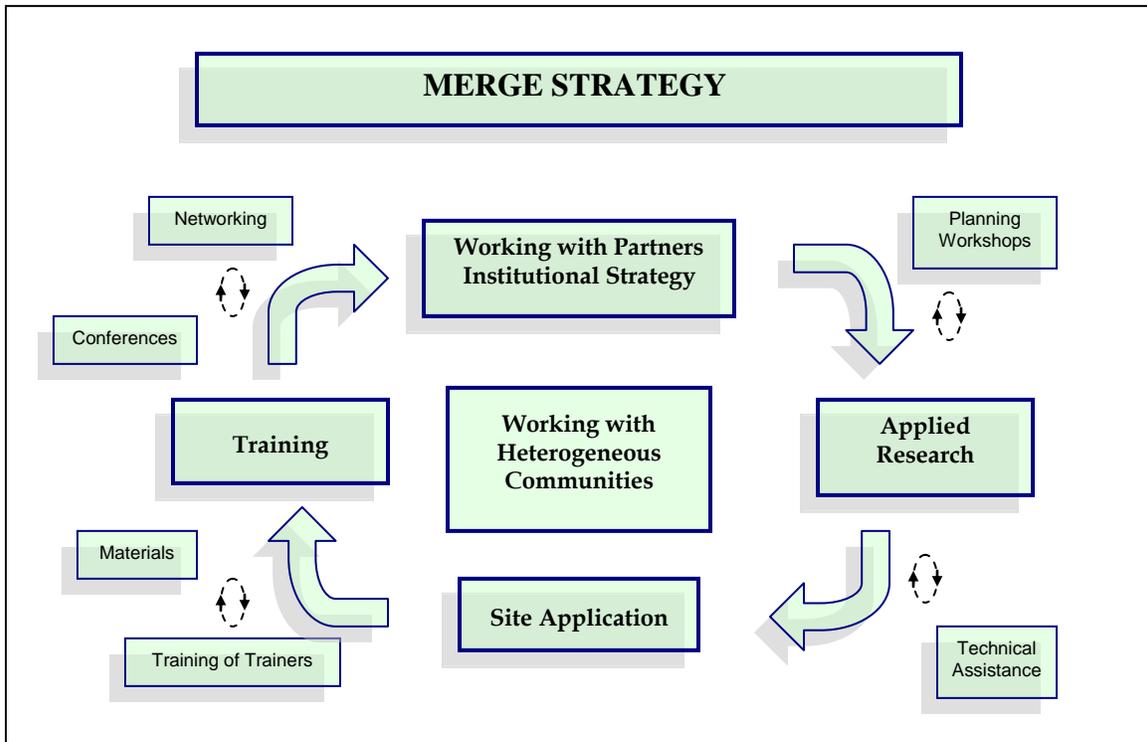


Figure 1. MERGE Strategy

Training was seen as the entry point in the MERGE strategy loop. Training exposed participants to what had been learned about gender from decades of international development experience, and enlisted them as contributing partners in a process of mutual learning about gender and conservation. They were provided figurative “gender glasses”¹ through which to see their work. Did this new perspective make them think about their conservation-oriented activities in a different way? Could the questions asked in agricultural development circles be adapted to benefit specific conservation programs and activities? Training approaches emphasized that we did not have answers, just questions about gender issues that might prove useful in rethinking conservation planning, specifically when it involved community participation. Techniques for collecting, organizing and analyzing information were offered as tools useful for answering the questions.

¹ Eileen Muirragui first introduced the gender glasses during GENESYS/Brazil training in 1994 when she distributed enormous glasses to participants to help them to “see” gender differences, and huge rubber ears to help them to “hear” different voices.

Efforts to train individuals and groups working in specific locations were reinforced by **conferences and networks** that allowed collaborating partners to meet periodically in different locations to discuss their experiences and share critical perspectives on gender, community participation and natural resource management initiatives in different contexts. A list of key meetings and workshops can be found in Appendix 1. At these events, people came together to discuss practical experiences, conceptual issues, and the logistics and politics of collaboration. Many of the meetings were held in Latin America and conducted in Spanish or Portuguese, thus facilitating local participation. These opportunities were vital to the success of the MERGE program in consolidating the collective learning process through collaborative networks grounded in strong inter-personal trust. We shared information, ideas and opportunities as "common property", and teams worked together in planning, delivery and follow-up of activities, which often led to new collaborative activities among participants. We also worked through misunderstandings and rivalries, adjusting strategies in response to concerns raised by partners. Although the conservation issues being addressed by those participating in training activities in the various countries/sites were similar, the specifics of each site were different in terms of players, politics, history, economics and ecology. It was as if MERGE participants were involved in a hike through the woods, and periodic conferences and workshops gave us an opportunity to climb a tree to see where we were – to lend a certain directionality to our diverse pathways. The MERGE program evolved as a collaborative, participatory experiment among independent partners.

Those working in the program recognized the need to **institutionalize** attention to gender by working simultaneously at different levels and in different locations. The challenge to advance a combined interest in natural resource management, community participation, and gender analysis required collaboration by many different players to experiment, evaluate, share, and refine innovative approaches. Field level practitioners needed the support of policy-oriented organizations as well as the opportunity to learn from their counterparts in other sites. Donors and implementing organizations needed information about alternative strategies and the conditions under which they were effective, as well as research approaches and findings to orient priorities. In order to refine their focus, researchers needed to understand the potential contribution of their work to policy and field project implementation, and to develop appropriate technical skills and tools beyond their disciplinary expertise. All of these groups needed to learn to see, think and act in new ways. This required that we work on multiple levels simultaneously, in what often felt like a chaotic process of collective learning.

Experiences working together in several Latin American countries demonstrated the need for more in-depth **research** on the role of gender in natural resource management initiatives in specific contexts, and produced a series of research propositions and questions that required further validation through field studies. While UF faculty and students undertook to develop a common framework to guide MERGE research, partners from Latin America rejected this proposal. The compromise involved developing applied research activities in tandem with the on-going training programs. This research-application connection provided new challenges in collaboration, as

researchers sought to define useful studies, mentor and train local social scientists with little research experience, and apply innovative, participatory research tools, and their host organizations endeavored to accommodate new demands on project staff. In many cases, researchers also participated in training and project implementation activities. It was often difficult to negotiate these various agendas between student researchers and in-country counterpart organizations. Five published case studies resulted from this work.

Throughout the program we encouraged feedback from participants about the questions we were asking and issues we were raising. Subsequent to the courses and workshops, participants returned to their field responsibilities and applied the workshop concepts in their research or outreach activities. results of these efforts were later reported through conferences, communication networks and partner meetings. The strategy loop offered the possibility for everyone to benefit in a symbiotic way: the participants, the trainers, the partner organizations and, especially, **local communities and the natural environments** that were the focus of conservation efforts.

In summary, MERGE served as a convener and facilitator of exchanges among partner organizations of different kinds and at different levels of activity, in different locations and moments, involving a wide variety of organizations and individuals in an often unpredictable process of learning together. One goal of this convening role was to strengthen connections among organizations that could work together, at different levels, and draw on their experiences to promote a process of collective learning. As difficult as this process often was, strengthening these partnerships increased the potential for measurable impacts and for longer-term mutual learning, and fostered a greater commitment to incorporating gender analysis into natural resource management projects that work with local communities.

Mutual Learning for Conservation

The MERGE approach to learning built on important changes that began in the field of education in the 1960s and 70s, which emphasized a focus on the process of learning rather than on the process of teaching. Carl Rogers (1960s) introduced, and others further developed, non-directive, learner centered approaches in which the participant (learner) took responsibility for, and contributed to, his/her own learning. Malcolm Knowles (1970) differentiated between "self-directed" adults and "other directed" children. David Kolb (1975) emphasized that experience is the basis for training adults and introduced the experiential learning model. The MERGE program built on these insights about adult learning, and used the experiential learning model as a foundation. .

The MERGE approach to mutual learning has much in common with current concepts of social learning. Buck et al. (2002: 5-6) discuss four aspects of social learning that are important for resource management: conflict mitigation and political decision-making; innovation and problem solving; communications and relationship building; and capacity-building and community/organization development. Social learning proponents hold that these interrelated elements can be jointly improved by developing strategies,

mechanisms and conditions to enable actors to creatively collect, analyze and act on new information together. One of the key institutional arrangements discussed by Buck et al. (2002) are “platforms,” or learning spaces, that can bring together diverse stakeholders. MERGE functioned as such a learning platform.

Learning styles and approaches respond to diverse preferences, culture, and changing management needs in particular sites (Buck et al. 2002; Lee 1993). MERGE fostered diverse avenues for learning in different places and in different ways, with an emphasis on directly applied experimentation involving stakeholder participation. The program also pursued a deliberate analysis of the learning process itself (“double-loop learning”), and its impact on methodological, personal, and institutional change, in order to develop our understanding of how to build social learning for adaptive management.

The goal of the MERGE approach to mutual learning was to integrate attention to gender in participatory approaches to community-based natural resource management, through collaboration with individuals and institutions at diverse levels. The collaborative process taught us that learning takes place in distinct ways at different levels; it was continually necessary to recognize and accommodate different audiences and agendas. We experimented with different types of learning experiences at partner universities, NGOs and communities, and focused on: training-of-trainers (classroom, field, and practical experiences); concepts and skills in participatory conservation (intensive short courses and workshops); training for participatory research; nurturing, mentoring, and follow-up.

We did not start with a set of answers, or even questions, but rather set out to work with others to find them. In the process, we learned the importance of fostering a collaborative learning process with conservation audiences that enhanced our understanding of their characteristics and needs. The experience was rather like flinging a rock down a hill, hoping that it would continue its course to the bottom, but not knowing what direction it would take. This required a flexibility that enhanced our understanding of the importance of situational contexts, and stakeholders' perspectives, in natural resource management.

We quickly began to recognize that the term "training" was too narrow and did not convey all the nuances of the experiences being shared. For one thing, our mutual learning approach was a departure from the typical hierarchy of expert-to-student knowledge transfer, and granted significant authority to both parties. Moreover, we were doing far more than developing and delivering technical information in a conventional course. Our activities provided tools, opportunities and practice for analytic thinking and an open approach to discussion of critical issues to encourage local input into community decision making and thereby facilitate more participation in governance.

In addition to field training activities (discussed in more detail in Chapter 3), we also incorporated more in-depth training in university settings. From 1992-1996, a training-of-trainers program on the University of Florida campus introduced participatory approaches for research and community based conservation and development to over 60

students. These students made a commitment to stretch beyond their standard and required courses, and to develop a broader skill base that could enhance community-based conservation efforts. More than just courses, these training activities sought to encourage change in how students approached teaching and research, by recognizing the strength of participatory planning, implementation, and follow-up. Parallel to the training, MERGE coordinated a local Gainesville training network and distributed a training newsletter. Students themselves initiated research and training discussion groups on campus, volunteered to practice their skills in other classes, and organized an annual one-day training workshop for students and faculty on gender and community resource management, which has been offered annually through 2003 by successive generations of students. By training others, students further developed their skills, and at the same time constituted a new pool of future trainers and researchers – social and biological scientists, many of them from Latin America.

The capstone training effort was a 3-month-long course entitled "Communities, Gender and the Sustainable Management of Natural Resources," held at FLACSO-Ecuador from September 9 to November 1, 1996. The idea of the course, a collaborative effort between FLACSO and UF, was to deepen our training experiences, bringing together the training materials, the field methods, the conceptual framework and all of the case study experiences to date. Nineteen students participated in the course, recruited from among university-trained personnel with backgrounds in biological and social sciences, from participating organizations in Brazil, Ecuador and Peru. Funding for participants came from their home institutions, from other sources, and (in two cases) from the MERGE program. Institutions in Ecuador and in the network provided logistical support as well as salaries for instructors in the course.

The course built on earlier training in the field and at UF, but focused more on in-depth analysis. This was accomplished through use of the conceptual framework (presented in Chapter 2) to approach and analyze case studies in three formats: “living”, presented, and invited. “Living case studies” included two projects in Ecuador to which students made extended field visits during the course. In addition, MERGE case studies from Brazil and Peru were presented in class by the principal actors involved in each, and other invited cases brought in specific concepts or tools. The preparation of these case studies involved a significant investment in planning and logistics, but the strategy worked well, as students gained experience in applying and modifying the conceptual framework through its application to different cases. The combination of theoretical and practical learning was reinforced by the last module of the course, which focused on development of participants’ six-month work plans for their own institutions.

In keeping with the mutual learning approach, the FLACSO course sought to overcome barriers between professors and students, nationals and internationals, old and young. Figure 2 illustrates the interaction that occurred. On one level were the international and national instructors imparting theoretical knowledge. On another level were the most experienced participants with their wisdom acquired through years of fieldwork, knowledge of local history, and ability to innovate with the knowledge gained from the instructors. On still another level was a group of young students with great

enthusiasm for learning, and fresh ideas brought from the universities. A fourth distinct group included young professionals with field experience and many theoretical and methodological uncertainties.

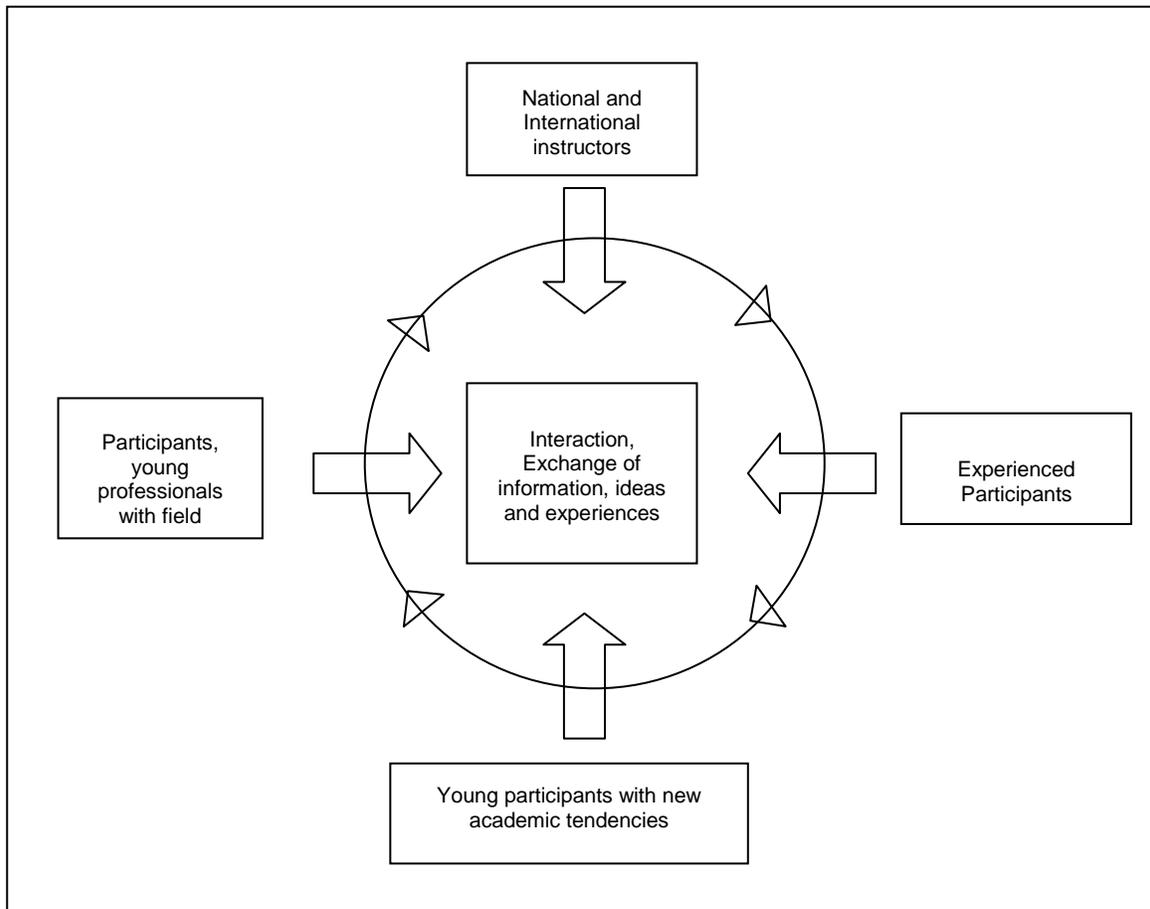


Figure 2. Interactions of the FLACSO /MERGE Course

These interactions generated rich conceptual and methodological discussions, and formed a valuable nexus of knowledge. The eight-week intensive course also set the scene for numerous personality clashes and emotional crises, which added to the instructors' burden. The intense experience brought together groups in Ecuador who still work together and function as an informal communication network.

The FLACSO/MERGE course was, in many ways, a microcosm of the MERGE program. A high investment was required in planning and consultation, dealing with group maintenance, and constant adaptation. The MERGE process built on chaos and questions to construct a platform for mutual learning that had long-term impacts. After 1997, when funding from the MacArthur Foundation's special initiative on Gender and Natural Resource Management ended, MERGE activities continued in each site in different ways, and some individuals carried their insights and skills into new positions and organizations. In Peru, the MERGE approach was applied to the new Conservation International project in Vilcabamba. In Brazil, a 1999 workshop in the Jaú National Park

focused on gender issues in protected areas management. The Ecuador network coalesced in a new organization called Grupo Randi Randi, representing people with excellent capabilities and experience with gender and natural resource management.

New partnerships that emerged continued to expand the network and its activities. Funds from WIDTECH, a USAID- funded support program, supported: the workshop in the Jaú Park in 1999; a case studies publication series.; a series of planning meetings in 2000 in the U.S., Brazil, Peru and Ecuador; and an international conference in Ecuador in 2001 (Grupo Randi Randi y Universidad de la Florida 2002), which received major support from the MacArthur Foundation.

Those who participated in the MERGE program felt strongly that the experience should be made available in order to share important lessons learned with others concerned with many of the same issues. With such a broad network of diverse participants and rich diversity of interaction, pulling together the many dimensions of the MERGE experience was no small task. Underlying north-south tensions led Latin American participants to fear that the U.S. authors would manage to claim credit for much of the fieldwork they themselves had conducted. Extended discussions of authorship rules sought ways to include everyone who participated in writing or revising chapters. Writing commitments from a very diverse set of participants eventually gave way to work and other pressures that prevented many from writing about their experiences. In attempts to capture multiple voices and perspectives we incorporated fragments from reports, and interviewed colleagues in the field on topics such as the institutionalization case studies in Chapter 4. The book project was abandoned three times, out of frustration at efforts to capture the richness and multivocality of nineteen authors from four countries. In the end, we have decided to make this unpublished version of the MERGE book available, along with the five MERGE case studies already available in English, Spanish, and Portuguese.

In this chapter, we have described the MERGE action strategy and our philosophy of mutual learning. Chapter 2 presents and discusses the conceptual framework on gender and community-based conservation. The elements of the mutual learning approach (MLA) are described in more detail in Chapter 3. Chapter 4 focuses on progress towards institutionalization of gender within organizations that were partners in the network, presenting a discussion of lessons learned, and six brief case studies of partner organizations. The five MERGE Case Studies present detailed results on application of MERGE approaches to field projects, and research on gender and natural resource management in Latin America.

APPENDIX 1: List of key meetings and workshops

Table 2. List of key meetings and workshops.

Title	When	Where	Observations
Innovations and Partnerships: Working with Natural Resource Management, Gender and Local Communities in the Tropics	March 30-April 1, 1995	University of Florida, Gainesville, Florida	See Schmink and Russo, 1995
Conceptualization Workshop	October 16-18, 1995	University of Florida Gainesville, Florida	See Schmink and Stronza, 1996
Gender and Sustainable Management of Natural Resources: Examining the Results	March 19-22, 1996	FLACSO-Ecuador Quito, Ecuador	See Poats, Arroyo and Asar, 1998
Planning Workshop	November 19-22, 1996	University of Florida, Gainesville, Florida	See Schmink, 1997
Working with Heterogeneous Communities: Workshop on Gender and Environment	July, 1997	Brasília, Brazil	Participants: MERGE-UF, PESACRE/ WID/WIDTECH and USAID/Brazil
Working Session on Communities, Institutions and Policies- Moving from Environmental Research to Results	Sept. 16-17, 1997	Washington, D.C.	Sponsored by WIDTech and the Global/WID office of U.S. Agency for International Development
Comparative Analysis of Gender and Natural Resource Management	August 12-17, 1997	Pachacamac, Peru, Conservation International-Peru	See Dávalos, 1997
Gender and Protected Areas Management	July, 1999	Jaú Park, Brazil	Participants: MERGE-UF, PESACRE, WIDTECH
Planning workshop	March, 2000	Miami, Florida	Participants: WIDTECH and UF-MERGE
Conservation and Management of Natural Areas with a Focus on Gender and Local Participation	October 19-21, 2000	Peru	Organized by CI-Peru and SEPIA
National Meeting on Experiences with Community Participation in Biodiversity Conservation and Natural Areas Management, with a Gender Focus	July 31-August 2, 2001	Quito, Ecuador	Sponsored by Grupo Randi Randi and WIDTECH
Conserving Biodiversity from the Andes to the Amazon: A Forum on Community Conservation with a Gender Perspective	March 26-29, 2001	Quito, Ecuador	Sponsored by WIDTECH, Randi-Randi, and UF-MERGE

Chapter 2

Conceptual Framework for Gender and Community-Based Conservation

Marianne Schmink and the MERGE network

Introduction: Building a Conceptual Framework

As the MERGE program developed and adapted program activities for different audiences and contexts, our central focus was on work with local communities through collaborative partnerships. Yet we also were concerned with documenting, evaluating, and drawing more general conclusions from this work. Periodic workshops and meetings allowed us to apply lessons from our collective field experiences to build a conceptual framework for understanding some of the key gender issues in community-based conservation and resource management projects.

A common framework was negotiated from participants' different perspectives and agendas. At the outset of our discussions, some people believed that women bore the brunt of environmental degradation. Others started from the assumption that women and men had different relations with natural resources, that women had less control over resource management, and that these differences would have effects on management plans and conservation. Still others within the conservation community were as yet unconvinced that gender was relevant to natural resource management or conservation. Relatively few examples were available (especially from Latin America) to illustrate the degree to which gender differences might be important in different situations. Most of the work that had been done over the past two decades focused on gender and agriculture, and this literature was not particularly suited to the concerns of the conservation community.

In keeping with the emphasis on learning and collaboration, the MERGE program did not set out to apply an *a priori* set of principles derived from theoretical reflection. Rather, our goal was to stimulate a collective learning process and to develop a conceptual framework through dialogue among ideas central to academic thinking and insights generated by field applications in different sites. The conceptual framework discussed in this chapter is a product of our collective work and reflection that illustrates the learning process within the program (Poats, Arroyo and Asar, 1998). The framework was developed, modified, translated, and tested in numerous workshops, and modified again during the writing of this book. As with other MERGE products, it generated insights and collective learning as well as disagreements, rivalries and resentments. Because UF faculty took the lead in developing the framework, Latin American colleagues feared that U.S. scholars were imposing their own thinking, a concern that was lessened when their participation led to changes in the framework. When participants

expressed discomfort with the format of hypotheses and assumptions, they were re-phrased in the form of questions. As with other aspects of the program, the conceptual framework emerged out of the chaos and questions that drove the mutual learning process. In its current form, the most powerful use of the framework is to generate a future research agenda.

Glossary of Key Terms and Concepts

- ◆ Community refers to a heterogeneous group of people who share residence in the same geographic place, and access to a set of local natural resources. Degrees of social cohesion and differentiation, strength of common beliefs and institutions, cultural diversity and other factors vary widely within and among communities.
- ◆ Community-based conservation refers to a particular form of project design and implementation that seeks to improve livelihoods through community participation in natural resource management. Community-based conservation projects are distinct from strictly preservationist projects, and from those administered without community participation. Similarly, community-based strategies differ from development projects that are solely concerned with increasing productivity or income without regard to social equity or to environmental considerations.
- ◆ Conservation refers to the long-term maintenance of ecosystem biodiversity and vitality through the management of multiple forms of resource use and preservation. The concept, as defined here, applies to the landscape scale (as opposed to genetic or species-level conservation), and includes the different human groups as well as the plant and animal species that inhabit the ecosystem. Conceptualized in this manner, conservation encompasses a broad and complex range of social and ecological interactions and negotiations.
- ◆ Empowerment means a process that allows greater voice to the perspectives and priorities of less-powerful groups, be they defined by class, ethnicity, migratory status, or gender.
- ◆ Gender refers to socially constructed differences and relations between men and women that vary by situation and context. Gender analysis requires going beyond statements about “women” and “men” to understand how historical, demographic, institutional, cultural, socioeconomic and ecological factors affect relations between women and men of different groups, which partly determine forms of natural resource management. Gender analysis focuses on the interaction of gender with other socially-important dimensions, such as age, marital status, economic roles, ethnicity, and migratory status.

Institutions are sets of formal and informal rules and norms that shape interactions among humans and with natural/environmental resources. Learning processes refer to continuous dialogue and negotiation among diverse stakeholders to explore problems and solutions.

- ◆ Livelihood systems include the strategies and practices, including natural resource management and socioeconomic forms of organization, that people use to meet their basic needs in site-specific and culturally variable ways.
- ◆ Participation can range from simply being informed, to receiving material benefits, to empowerment through full involvement in project decision-making and management.
- ◆ Stakeholders are different social actors, formal or informal, who can affect, or be affected by, the resource management issues at hand. Stakeholder analysis involves identifying the interests and relationships to resources of pertinent actors, including organizations, groups and individuals at international, national, regional and local levels, as well as different actors within local communities and domestic groups.

Theoretical and Comparative Issues in the MERGE Conceptual Framework

The MERGE conceptual framework addresses the prospects for community participation in conservation and development projects, factors that condition and limit such efforts, the relevance of gender for successful and equitable conservation, and the importance of learning processes and institutional strategies for project sustainability. Drawing on the relevant literature, we will discuss each of the propositions in turn. Working definitions of key terms and concepts can be found in the glossary (above).

1. How is the potential for community-based conservation constrained or enhanced by historical, ecological, cultural, socioeconomic and political factors at diverse scales? [Political ecology analysis]

Given the complex factors that operate at different scales of socio-ecological organization, participation by local communities is a necessary but hardly sufficient condition to achieve conservation with social equity. For example, community-based wildlife management may face particular challenges due to the migration patterns of animals at regional scales (Holling, Schindler, Walker and Roughgarden 1995). Decisions about deforestation are affected by national and international policies and markets, and by demographic and institutional factors that influence access to natural and economic resources (Schmink 1994). Other factors that affect deforestation include the impact of markets and commercial pressures on ecosystems and the livelihood strategies of local communities (Campbell 1996). External market demand may undermine local mechanisms regulating harvests of high-value products, such as medicinal plants, that have both local uses and international markets. At the same time, local decisions are not merely blind reflections of forces "external" to communities: they are forged and transformed by pre-existing perceptions and social relations among different groups that interact with change processes (Arizpe, Paz and Velazquez 1996: 93; Leach 1994: 221-227). As Leach (1994: 227) points out, a realistic strategy must recognize that the results of conservation and development projects will neither be easily negotiated nor fully predictable.

In order to understand interactions among the complex factors that influence resource use, we propose a "gendered political ecology" approach. The proposed framework analyzes how political, socioeconomic and ecological factors condition decisions about the management of natural resources by different social agents over time. Although the term "political ecology" has been applied in varying ways, most applications share a common concern for the socioeconomic, political and ideological structures that influence interactions among human groups and the natural environment (Blaikie 1995; Bryant 1992; Peet and Watts 1993; Peluso 1992; Schmink and Wood 1987; Thrupp 1989).

All decisions about resource use are embedded in overlapping matrices of social and natural systems. The emphasis is on understanding the opportunities and constraints, and the incentives and disincentives, that influence decisions that are made by individual

actors or groups. Local communities, for example, may have a choice between hunting in nearby protected areas or raising domestic animals for protein, or between clearing the forest for agricultural fields or harvesting marketable products from forests. The political ecology framework requires analysis of both the socio-structural and the environmental context within which users make choices about resources. Considerations such as seasonal fruiting of trees, game abundance, household consumption needs, market prices, labor migration, as well as the configuration of state policy and the strength of local organizations and alliances figure into the analysis, at least to the extent that they may affect the decision in question.

By focusing on a careful analysis of particular resource-use decisions, and by pursuing a strategy of "progressive contextualization" of inquiry (Vayda 1983), the analyst is in a position to "map" how the interplay of social and environmental factors yield particular outcomes (such as over hunting). The map of conditioning factors produced by this methodology can then be used to identify those domains within the decision environment that are subject to modification, thereby leading to more desirable outcomes (such as community-based rules for game management). One merit of the approach is that it is eminently site-specific, yet also highly sensitive to the manner in which forces beyond the particular site influence local outcomes. Moreover, the findings produced by the political ecology framework not only provide a systematic understanding of the interplay of socio-environmental factors that lead to the observed patterns of resource use, but also serve to specify concrete policy interventions.

The political ecology approach, at least as it has been applied to the study of land use decisions, has rarely given priority to the role that gender relations play in resource use decisions. Yet such considerations can be easily introduced into the framework inasmuch as gender relations are a prominent feature of the context within which resource decisions are made. The task, therefore, is to introduce an explicit gender awareness into the approach, thereby producing a "gendered political ecology" framework, which draws on the "feminist political ecology" of Rocheleau et al. 1996.. This approach will be explored further below.

2. Who are the multiple stakeholder groups involved in direct or indirect negotiation over resources? In what ways are their interests complementary and/or in conflict? How do their different levels of power and resources affect the outcomes of negotiations? [Stakeholder analysis]

A community-based strategy confronts a host of formidable challenges (Brandon and Wells 1992; Brechin et al. 2001; Brown and Wyckoff-Baird 1992; Little 1994; Wells and Brandon 1992; West and Brechin 1991; Wilshusen et al. 2001). In the definition of conservation adopted here, there are always multiple users of ecosystems and resources. Resource management for conservation therefore involves direct or indirect negotiation among multiple, often conflicting, groups of stakeholders, some who reside locally and some who do not, each of whom has different levels of economic and political power.

A focus on multiple and often conflicting agendas requires analysis of the broader context that defines the relative bargaining position of different groups, and the trade-offs and limitations that are inherent in conflict negotiation and resolution (Agrawal 1997; Silva 1994). With respect to gender, explicit attention must be paid to the disadvantages women may have in patriarchal systems and in relation to state policies and the market (Agarwal 1994; Deere 1995b; Kabeer 1994; Mayoux 1995).

Conflict resolution has become an important tool of conservation work in recent years (see, for example, Chandrasekharan 1997). Some conflicts may not be resolvable through negotiation, such as when uses by different groups are exclusive or incompatible. Stakeholder analysis is a useful step in conservation projects because it illuminates potential problems, and helps to identify the less-powerful groups who may deserve special attention in order to participate in negotiations about changes in resource use (Grimble and Chan 1995; Schwartz and Deruyttere 1996: 10-12).

Stakeholder analysis involves the identification of different groups and institutions, both formal and informal, which may affect or be affected by a resource management initiative. These groups may include well organized to unorganized groups at different levels (international to local) with direct or indirect relationships to local resources, as well as different groups within local communities (Stronza 1996a). The analysis of the groups, their different interests, conflicts and complementarities, and their relative power and resources can provide useful input into project planning. Stakeholder analysis can range from qualitative "mapping" of interests and alliances, to quantitative modeling of outcomes of conflicts according to different scenarios.

3. *How can participation by different groups within local communities contribute to goals of achieving conservation with improved livelihoods? [Stakeholder analysis within the community]*

A commitment to the involvement of local communities in environmental management and development was affirmed in the 1992 Rio Declaration on Environment and Development. Recent experiments in conservation and development emerged in response to dissatisfaction with the performance of governments, the growth of NGO involvement in conservation and development, and the strengthening of grass-roots organizations. Community-based conservation is a strategy that seeks to reconcile the dual goals of biodiversity conservation and improved livelihoods for local communities. Yet the crucial task of defining objectives and monitoring progress towards these goals is complicated by the long-term nature of measures of conservation success, the competing agendas among different actors, and the necessarily subjective and context-specific notion of "improvement." Moreover, the links between the two potentially conflicting goals are poorly understood.

In what ways can local people benefit from conservation? And in what ways can local communities contribute to conservation? The most direct link is through community-based natural resource management systems that are linked to local livelihood systems (Bodmer et al. 1997). Strategies in which community management

can add value to resources and reduce the negative impact of their use provide clear incentives for conservation with community participation (Bodmer 1994). For example, local processing of Brazil nuts can help to stabilize populations living in Amazonia's extractive reserves and stimulate interest in managing Brazil nut trees and their habitat (Campbell 1996). More research is needed to explore these links between biological conservation and local livelihood benefits, and to identify the conditions under which they work well (Brandon, Redford, and Sanderson 1998; Brechin et al. 2001; Redford and Mansour 1996; Stevens 1997; Wilshusen et al. 2001).

The theme of participation engages everyone from the development establishment (GP-NET 1995; Schwartz and Deruyttere 1996) to grass-roots social movements, NGOs and academics (Escobar 1998; Guijt and Shah 1998). The meaning of "participative" is project specific and may or may not lead to empowerment of local people. Some approaches, rather than empowering local people, extract information and resources from them in order to further the agendas of outsiders (Rocheleau 1995; Thrupp 1989). Other strategies may heighten or cause conflicts, or include local participation only in the distribution of benefits dispensed by outsiders. Sometimes compensatory resources, such as health and educational services, are distributed in exchange for limits placed on local people's access to key natural resources. In other cases, transfer payments to local people are made to compensate for restrictions on their use of resources, in recognition of the contribution local ecosystems make to global environmental health. These negotiated agreements are alternatives to direct community participation. Benefits are not linked to resource management and conservation, and incentives for compliance depend on outside inputs.

The degree of participation by different local groups in project decision-making and implementation is an important factor in the empowerment of local people to defend their own interests and to develop and adapt the institutions required to sustain natural resource management strategies over the long term. Rural people's direct participation in scientific research and project implementation can contribute valuable local ecological knowledge and increase their ability to respond to uncertainty and change in resource use systems (Rocheleau 1995). Empowerment of local people for democratic participation in decision-making often is a positive goal in itself (Agrawal 1997). Yet community participation is no guarantee of conservation success, especially because of the influence of factors in the broader context, discussed previously. At the same time, outside interventions will always encounter a social and political dynamic inherent in local communities, and this resilience may lead to unexpected responses that complicate the goal of fostering community participation (Leach 1994: 221-222).

Analysis of community participation and empowerment builds on the broader political ecology and stakeholder analyses. It focuses on participation in resource management by different individuals and groups within and outside the community, and how this changes resource use, social organization, livelihood strategies, and political organization of the community.

4. *In what ways do gender roles, identities and relations differentiate people's connections with natural resources and ecological systems? (including knowledge, use, access, control, and impact on natural resources, and attitudes towards resources and conservation) [Gender relations and resources analysis]*

Gender is a key social dimension that, in interaction with other factors, distinguishes groups of resource users. Users are also distinguished by changing demographic patterns (migration, family composition, occupations) and by institutions that govern formal and informal access to resources and land (state policies, markets and property regimes) (GENDER-PROP 1996). Yet even conservationists who are sympathetic to community-based approaches do not always recognize the relevance of gender in differentiating user groups nor how those differences might be relevant to the implementation of conservation programs (Loudiyi and Meares 1993; Rocheleau, Thomas-Slayter and Wangari 1996). So far, most empirical studies of gender issues in natural resource management in Latin America focus on agricultural examples, rather than conservation (Casey and Paolisso 1996; Feldstein and Poats 1989; Poats, Schmink and Spring 1988).

Since natural resource use is only part of the social complex that defines a community and its gender-differentiated groups, understanding their dynamics requires an analysis of the broader historical and social context (Leach 1994: 26). The gendered political ecology approach focuses on the material and ideological foundations of gender relations (Agarwal 1994), including gendered sciences; gendered rights and responsibilities; and gendered participation in organizations and political activity (Rocheleau, Thomas-Slayter, and Wangari 1996). According to Rocheleau et al. (1996), the multiplicity of women's roles (producer, reproducer, and "consumer") leads them to integrate complex systems instead of specializing; for this reason, women in some contexts may be more attentive to the ecosystem as a whole.

In many situations, women's responsibilities for family subsistence and health cause them to focus more on livelihood systems and on the environment, as opposed to the more commercial orientation of men who are primarily involved in market-oriented endeavors (Paolisso and Gammage 1996; Paulson 2001; Rocheleau et al. 1996). If so, then women could constitute key potential allies in conservation strategies based on sustainable livelihoods for local communities (Arizpe, Stone and Major 1994; Kabeer 1994; Sen 1994). The sustainable livelihood approach that is more holistic and normative, has been advocated as an alternative to market-oriented conservation concepts and strategies, because it focuses on the quality of life and ecosystem over the long term, and encompasses both market and non-market values. Research is needed to assess under what conditions, and to what extent, gender differentiates goals, values, power and resource use practices among user groups.

Analysis of gender relations and gendered resource use and management is an explicit part of any strong social analysis. This involves collecting and analyzing gender-disaggregated information on livelihood systems, rights and responsibilities, resource use, and values and attitudes regarding key resources. Where appropriate, much of this

information may be gathered using participatory methods such as focus groups, resource mapping, activities calendars, and oral history interviews (Slocum, Wichhart, Rocheleau and Thomas-Slater 1995).

5. *How do mutual learning processes improve the ability of local actors to negotiate their interests in conservation? [Social learning and adaptive management analysis]*

How is social learning related to the ability of different groups to negotiate their interests in community-based resource management? The negotiation process involves power differences among people, even within close partnerships. Social learning can improve awareness of conflicts and of different perspectives within communities, as well as respect for community traditions and self-determination. How can gender analysis be useful in this learning process? Gender-focused learning strategies may increase awareness of the importance of women's and other groups' presence at the negotiating table (Poats 1995). Learning from different voices has the potential to merge different kinds of knowledge that can contribute to adaptive management strategies.

Social learning provides a mechanism to assess how project activities, costs and benefits, and other outcomes differentially affect different local groups at different stages, and how the behavior of these different actors affects the outcome of the project and achievement of goals. Goals and indicators defined collaboratively to address interests of different groups can provide useful information to inform management decisions these groups take over time.

6. *How can information on changes in biodiversity and resource use and management by local communities be linked to adaptive management? [Sustainability analysis]*

How do we expect these learning processes to translate into changes in conservation practice? Community-based conservation requires responding to local felt needs, while not over-exploiting natural resources (Bodmer et al. 1997). The definition of conservation adopted here encompasses fully protected areas (to replenish harvested populations, for example) along with managed areas (Bodmer et al. 1997). Comparative research on management of common property resources by communities around the world has demonstrated that attention to both institutional and biological parameters are essential to management success (Agrawal 1997). Community-based conservation projects need ways to monitor both socioeconomic and biological changes associated with changing resource use strategies.

Analysis of biological sustainability requires basic biological inventories of resources and habitats, and information on reproductive biology and ecology of key species, to monitor patterns of use and suggest how they can realistically be adapted through management (Bodmer et al. 1997). Information is needed on harvest impacts, economic returns, and changes in institutional arrangements, as they affect different social groups, in order to project likely biological and economic outcomes under different

scenarios. Linear programming can also be used as a predictive modeling tool to analyze sustainability (Araújo 1997; H. Arguello 1996; M. Arguello 1995; Slinger 1996).

7. ***How can mutual learning be incorporated into a broader strategy for institutional change and partnership that provides continuity in research, exchange, technical assistance and other participatory activities with local communities? [Institutional analysis]***

Process, politics, and institutional arrangements are significant factors in achieving community-based conservation over the long term (Agrawal 1997). Analysis of the institutional process includes attention to the somewhat unpredictable character of politics, both formal and informal aspects of resource management institutions, and the divergent interests both within and outside communities. An adaptive approach to long-term management based on mutual learning draws on diverse groups and perspectives, building partnerships.

Rules and norms about resource use promote stability of expectations and consistency of behavior, although they are continually being renegotiated (Agrawal 1997). Successful local resource management requires local control over making and implementing rules about conservation, use and management of resources, as well as the authority to resolve disputes about the rules (Ostrom 1990; 1992). Who represents the community, and how they are accountable to different groups, are also important questions.

Challenges for Collaborative Research: Learning and Adaptation

The MERGE conceptual framework proposes a set of research questions and approaches that address a broad range of factors that shape community-based conservation. The questions constitute a comprehensive research agenda for the future.

The framework encompasses a set of complex issues at different scales, combining research at different levels of analysis, qualitative and quantitative tools of data collection and analysis, and methods from the social, economic and biological sciences in order to address the broad set of questions. The long-term, multi-faceted nature of conservation issues requires systematic monitoring of impacts by different social groups on natural habitats over time. These challenges underscore the need to strengthen collaboration between researchers, project implementers, and local peoples to address the evolution of these complex relationships over time.

The experience of building and modifying the MERGE conceptual framework has reinforced the importance of the principles of learning and adaptation as applied to conservation work. We believe that by engaging the commitment and creativity of a broad coalition of partners through a mutual learning approach, the challenge of community-based conservation can be addressed more effectively.

MERGE Conceptual Framework (with research questions)

Table 3. MERGE Conceptual Framework (with research questions)

<p>1. How is the potential for community-based conservation projects constrained or enhanced by historical, ecological, cultural, socioeconomic and political factors at diverse scales? [Political ecology analysis]</p>	<p style="text-align: right;"><i>Historical context:</i></p> <p>What are the key historical periods that have shaped current socioeconomic and ecological conditions? How are these periods distinguished by changing government policies? What are the connections to international, national, regional and local markets for local resources? Which groups have been involved with these markets historically, and what was their relationship? How have patterns of land use and resource use changed during different historical periods? How did population density, composition, and pressure on resources change?</p> <p style="text-align: right;"><i>Ecological context:</i></p> <p>What are the key resources and ecological systems in this setting? How are they being used and how is that use changing? How much is known (in terms of scientific and local knowledge) about the biological dynamics at different scales? What kinds of protected areas exist and how are they managed? How effective are existing conservation strategies in relation to key species and/or ecosystems?</p>
<p>2. Who are the multiple stakeholder groups involved in direct or indirect negotiation for resources? In what ways are their interests complementary and/or in conflict? How do their different levels of power and resources affect the outcomes of negotiations? [Stakeholder analysis]</p>	<p>Who are the different users of the important natural resources? How are their interests defined? How do they conflict? What are the possible bases for cooperation or complementarity? How were they involved in the history of the protected area proposal? What kinds of negotiating strategies have been attempted? What were the results? What state and non-governmental organizations are involved in the area? What community organizations exist (formal and informal)? What kinds of (formal and informal) property regimes and resource management institutions currently exist? How effective are they? For which groups do they regulate access/control to key resources?</p>
<p>3. How can participation by different groups within local communities contribute to goals of achieving conservation with improved livelihoods? [Stakeholder analysis within the community]</p>	<p>What does "local community" mean? What scales are involved in community-based conservation efforts? In what ways does each community participate? Within the community, who participates, and how? Who are the relevant stakeholder groups within heterogeneous communities? Who represents them? Which "local groups" have been empowered? What kind of support or benefits do they receive? How are their activities affected? In which decisions have they participated? How has local knowledge been recognized and incorporated in planning?</p>

<p>4. In what ways do gender roles, identities and relations differentiate people's connections with natural resources and ecological systems, including knowledge of, use of, access to, control of, and impact on natural resources, and attitudes towards resources and conservation? [Gender relations and resources analysis]</p>	<p>What are the patterns of livelihood strategies practiced by different groups of households? How do gender relations differentiate links with key natural resources and ecological systems, as well as attitudes towards conservation? What are the key groups differentiated by gender and other key social dimensions (e.g. female-headed households; conch collectors or babassu-nut crackers; male out-migrants)? How do these gender differences affect resource use and biodiversity conservation?</p>
<p>5. How do mutual learning processes improve the ability of local actors to negotiate their interests in conservation? [Social learning and adaptive management analysis]</p>	<p>What steps led to the development of protected areas and local conservation-and-development projects? Who were the key actors (outsiders and local) and how did they interact? What were objectives defined? How was the project implemented? What problems arose and how did they affect the project? What kinds of training experiences have been offered to stakeholders? To whom (numbers, types and representation of participants)? For what purposes? In what way was a focus on gender and community participation incorporated? What were the results of these training experiences?</p>
<p>6. How can information on changes in biodiversity and resource use and management by local communities be linked to adaptive management? [Sustainability analysis]</p>	<p>How can improved natural resource management practices form a bridge between biodiversity conservation and livelihoods of local people? Are non-sustainable uses of resources being reduced? Are sustainable uses being enhanced? Are natural habitats being maintained? Are fully protected areas included in the management plan, as controls for harvesting programs and as reservoirs to replenish natural populations? Are local people directly involved in monitoring the status of resource populations and designing and implementing management plans? Do they recognize a connection between biodiversity conservation and economic benefits for their communities?</p>
<p>7. How can mutual learning be incorporated into a broader strategy for institutional change and partnership that provides continuity in research, exchange, technical assistance and other participatory activities with local communities? [Institutional analysis]</p>	<p>How have the results of mutual learning affected project strategies in community outreach, planning, research and evaluation? What has been the strategy for training-of-trainers? What has been the strategy for community empowerment? What has been the strategy for policy change? What organizational partnerships and networks have been developed or strengthened?</p>

Chapter 3

Mutual Learning in Action: Facilitating Field Courses for Conservation Practitioners

Jon Dain, Marianne Schmink, Susan Paulson, and Elena Bastidas

Introduction

Few people working in conservation-focused natural resource management have formal training to prepare them to consider the complexity of community organization, including gender relations. Yet according to IUCN, 85.9% of the more than 180 national parks in South America are inhabited or directly used by local people (Amend and Amend, 1995). It is not surprising therefore, that many conservation and natural resource management practitioners are beginning to look for more effective ways to work with local communities to address conservation challenges. This includes people like:

- The government-paid male park guard working with an indigenous group on management of river turtle eggs;
- The rural workers union leader negotiating land tenure rights for migrant farmers;
- The female NGO biologist from the capital city working with highland communities and ranchers to manage condor populations;
- The male field extension agronomist working on economic alternatives for forest-dwelling rubber tappers;
- The director of a park project trying to develop a management plan for a protected area
- The female U. S. researcher studying tapir reproductive cycles;

Much of the information that exists about effective approaches to community-based conservation is found only in the heads of those doing such work. MERGE training activities were designed to take advantage of this knowledge and experience by creating environments conducive to sharing information and experiences on the part of conservation and development practitioners. Participants in MERGE training activities thus found opportunities for beginning to collect and share information with and among colleagues working in the field. In the early stages of the project, workshops were offered to men and women who worked directly with communities. These learning opportunities helped project extension agents, researchers, outreach staff and project managers to explore gender issues in relation to resource use patterns, and bolstered their ability to carry out community-focused conservation initiatives. As will be described below, the training activities combined conceptual discussions of these themes along with tools for applying them, within a frameworks of experiential learning and participatory approaches.

A main goal of MERGE was to help conservation groups to develop the long-term capacity to adapt general “working-with-people” concepts to site-specific conservation challenges. In keeping with this goal, training was not itself considered an end product, but rather an important step toward institutionalizing a more effective people-inclusive approach to conservation, combining a focus on personal, methodological, and institutional change (Parker 1995). Careful monitoring and evaluation of individual course sessions produced feedback used to modify the content and focus over time. This monitoring along with our growing appreciation for the complexity of gender relations, community organization, resource use patterns and attitudes about conservation led us to ask:

- What kinds of information did conservation practitioners in the field need, to better reach their objectives?
- What kinds of information did communities need, to better reach their objectives?
- What kinds of concepts, processes, tools and skills could help either group gather, analyze and act on that information?
- What kinds of concepts, tools, skills and approaches could help consolidate stakeholder support of conservation-focused management plans?
- How could field training help people acquire those concepts and tools and develop those skills?

Because gender analysis and participatory methods had proven effective in the development context, it seemed reasonable to believe that the same would hold true for conservation. The challenge was to link gender issues and the participation of local people in the management of protected areas, generally seen as “social issues”, with the “biological issues” of natural resource and biodiversity conservation. Training therefore focused on the analysis of gender issues, in the exploration of how human relations affected conservation needs and goals, and how conservation needs and goals affected human relations. Participatory methodologies for collecting and acting on information were the tools we taught to begin a process through which dialogues, relationships and then partnerships could be established with local communities.

Diversity of MERGE audience

Participants in MERGE training events rarely were homogeneous. Rather, they usually were a mixture of:

- men/women
- limited formal education/highly educated
- researchers/activists/extension agents local people/outsideers
- nationals/internationals
- experienced/inexperienced in conservation and/or development work
- conservationists/development workers
- young (20s)/middle aged (30-50s)

In addition to this diversity, participants came from distinct groups of stakeholders with regard to conservation. The brief profiles that follow help illuminate the variability among some of the key groups represented in MERGE field training.

- **Program and Project Managers and Directors:** These people worked for governmental and non-governmental agencies/organizations who coordinated NRM projects with conservation and/or rural development goals and objectives. Examples might include the local director of a government environmental ministry, a park director, or the manager of an NGO research project. Managers and directors, usually male, generally had at least a four-year university degree, and good administrative and analytical skills. They did not necessarily have much field experience and were generally unfamiliar with the ideas and practice of considering gender issues in NRM work. As those in power, they were important targets in terms of institutionalization of participatory methods and inclusion of a gender focus in project activities including monitoring and evaluation.
- **Field Project staff:** Project staff worked for the project managers, and included male and female extension agents, researchers, park guards and community outreach specialists. Formal education levels ranged from having completed some high school to holding a masters degree. Project staff generally had strong field experience and thus an excellent feel for local community needs, problems, constraints and strengths. As compared with project managers, project staff tended to have a less global vision of projects and their contexts, but often had a much greater understanding of gender and other social issues from their close work with communities. Project staff made up the largest percentage of participants in MERGE training activities. They were targeted as the people implementing conservation and/or development activities and represented a wide array of implementation philosophies. In addition, project staff were considered to be potential trainers who could take what they had learned, adapt it and offer training to colleagues and community members.
- **Community leaders:** Community leaders (both male and female) generally were literate but had limited formal education. Their presence in training activities was both challenging and useful. They provided links for fellow participants to ongoing or future work with their communities, and forced both participants and trainers to think carefully about their positions, opinions and strategies. Training generally did not focus on community leaders because of the emphasis on training-of-trainers, institutionalization, and cross-site partnerships among practitioners, rather than on community empowerment. However community leaders, often rural union leaders or representatives, sometimes participated in training events because of their role as project staff, project implementers or advisors.
- **University professors and other teachers:** University professors and other teachers made up a small percentage of the people trained. Those who received

training usually were researchers or academics who collaborated in some way with field projects outside their classrooms. After hearing of MERGE activities they requested training in order to incorporate gender and other social issues into their teaching, student advising, and project work.

- **University students:** Students sometimes participated in training activities with one of two objectives (sometimes both): to improve their ability to incorporate gender issues into their thesis/doctoral research, or to network with those attending a particular training activity related to their research site. This group included local (national) and foreign graduate students involved in or on their way to doing fieldwork. As future researchers, project directors, staff or teachers, this group was included with a long-term perspective in mind.
- **Representatives of donor agencies** A small percentage of those participating in training activities were donor representatives who participated with the objective of either monitoring funded activities and participants, or learning more about gender issues. Their inclusion was intended to maintain open lines of communication and encourage a “partnership” climate within the donor-grantee relationship.
- **MERGE Staff:** MERGE staff often acted as participant observers or participant trainers in training activities. These were highly trained professionals, mostly women, from different countries with significant comprehension and experience in dealing with gender, NRM, and participatory methods.

Not surprisingly, the character of the audience, and/or what we knew about it beforehand, had an impact on the design and context of each training activity . We adjusted the amount of background and context information needed for participants to understand why we were discussing participation, as well as gender and other social variables. With managers and directors, for example, we might emphasize gender concepts and their relevance to planning, monitoring and evaluation in participatory ways, and we might strive to engage them in field interviews in order to increase their awareness of community-level realities. For a group of primarily project staff, on the other hand, we might emphasize critical thinking exercises, putting their intense local challenges in a broader context, and providing practice in the use of participatory research and outreach tools. Our ability to target training activities was linked to our partner-based insider knowledge. In 90% of the courses, someone on the training team knew or knew about each one of the participants. Due to the heterogeneous nature of the participants, however, our content decisions were frequently not appropriate for all, and often some were either somewhat bored or somewhat lost. In one activity for example, held in Peru, representatives from a local indigenous community were invited to participate in a course on “gender, society and nature”. Unexpectedly, the representatives sent turned out to be a very young, inexperienced couple and their baby. The context, content, participants and culture of the workshop were so foreign to them that despite our best efforts to incorporate them, the workshop was somewhat overwhelming and had little if any impact on them.

In keeping with the mutual learning approach, the training teams for each individual event were suitably diverse and varied. The five or six core trainers, one to four of whom were present for any given workshop, each had many years of training experience previous to MERGE in field, academic and international settings. The teams usually included both men and women, social and biological scientists and host country and foreign nationals. Such a mix gave each team a broad technical base and more immediate credibility, an important factor in providing effective, short-term training. It was not always possible to have a training team with this type of balance; however, the MERGE experience suggested that it was especially important to have both male and female trainers to avoid reinforcing the stereotype of gender as a “women’s issue.” It was equally vital to have a mix of biological and social scientists to model multidisciplinary collaboration and break the stereotype of gender as purely a social science subject.

Our decision to consciously build diverse training teams, and to tailor training activities to the diversity of participants, turned a challenge into an unexpected benefit. For one thing, the trainers themselves were “walking the talk,” learning to work in a diverse team, to listen carefully to others, and to adjust their approaches through constant discussion. These were the very skills we were trying to help participants strengthen. Trainers often were amazed at how the effort paid off in more effective, creative training techniques and approaches. Even more compelling was the discovery of the degree to which diversity among participants could be tapped in training events to demonstrate the principles we were teaching about heterogeneous communities, and how such attention to diverse perspectives could unlock participant creativity and create a rich learning environment. These important lessons carried over into many MERGE trainers’ and participants’ work in communities, classrooms, policy arenas, and even personal lives.

Training within the MERGE Strategy

Within the overall MERGE strategy, training was one component of a broader approach that included organizational partnerships and institutionalization of project objectives, field application and research, conferences and networking. The focal point of the strategy, shown in the central box of Figure 1 in Chapter 1, was working with heterogeneous local communities to address conservation issues. Although variations on the approach were developed by each of the primary partners (in Brazil, Ecuador and Peru), they all agreed that for training to be effective, it had to be integrated with the overall strategy.

Partnership/Institutionalization

Partnership was the basis for all training. Individual activities were initiated by local partner organizations and carried out in collaboration with invited members of the MERGE network from other regions; thus they responded to specific host organization wants, needs, and realities, while incorporating the relevant experience, resources and expertise of others facing similar challenges. Partnership and team training also meant that the impact of a particular activity would extend beyond the host organization. While

each host organization received the technical benefit of training for its members and local partners, training team and participant partners enjoyed opportunities to develop and test training materials, acquire experience as trainers themselves, and gain comparative insight into their own projects, activities and training programs. Partnership also assured institutional support for training because, despite outside input from partners, host organizations were the primary agents in planning, financing and organizing their own training activities. Furthermore, bringing together partner organizations for training activities provided a forum for discussion of how to best institutionalize an approach to conservation that considered gender issues despite vastly different contexts. Finally, the incorporation of trained members of one organization into workshop teams of the host organization helped to consolidate a core group of experienced trainers associated with each partner. Of course, the key to institutionalization was a core group of people in each partner organization working with gender issues on a regular basis in local communities. Training activities helped facilitate the development of such core groups, and other MERGE activities including follow-up field activities and technical assistance provided continuity and longer-term support for those being trained.

Conferences and networking

Conferences and networking provided partners with a mutual learning platform to share and process their experiences with training. Three MERGE conferences had training themes, offering participants the opportunity to present and discuss lessons learned from field and training activities. Two of these conferences incorporated training workshops or expositions as part of the programs, allowing partners to share not just information, but actual training techniques, sessions and approaches. Networking was also a powerful tool when connected to training. Participants in courses helped forge new, local, regional and international partnerships and brought new ideas and experiences to the attention of trainers who often were able to incorporate them in subsequent workshops. Written summaries of training courses were also distributed to and utilized by other groups wishing to train their own members.

Field Application

Since the primary goal of training activities was to make field activities more effective (see MERGE approach model), follow-up field application of the concepts, tools and methodologies experienced in workshops was key to assuring the effectiveness of their implementation. The relationship between training and field application can best be described as a circular process in which experience from field applications (research, outreach, activity planning) was incorporated into training materials used in workshops and courses. Participants in the workshops and courses shared experiences and assimilated what they learned into their own field activities by adapting it to local conditions. The experience they gained was shared and then incorporated into subsequent training activities.

Research

The need for increased field research on gender and natural resource management in Latin America emerged from the realization that for locally focused workshops we often were forced to rely on examples from regions different from that where the event was being held. This resulted in participants feeling disconnected from the cases being used and experiencing difficulty in applying it to their experience. The MERGE program therefore began to stimulate research, and to bring researchers and their findings into the evolving training program. Research was linked to other activities through negotiation with partners to identify important and useful research questions and sites. Researchers – mostly UF graduate students – took on multiple roles, participating in training events, adapting tools, and sharing information about communities alongside their research activities. These unique opportunities greatly strengthened their overall learning and allowed them better integration into the MERGE network.

The Mutual Learning Approach (MLA)

Countless books and manuals provide guidance on effective training and facilitation (Eitington 1989, Ingalls 1984, Pretty et. al 1995, Williams et. al. 1994, Vella 1989, 1994, 1995, Williams 1994). Each one provides tips and strategies to help steer both novice and expert through the maze of challenges involved in helping people discover and learn in an effective, meaningful and enjoyable manner. In this chapter, we build on these principles to discuss how they were applied to training that integrated learning on communities, gender, and conservation. We focus on the evolution of concepts and approaches used in training, the combination of personal, methodological and institutional change, and the mutual learning triangulation of a core set of ideas and questions with unique social contexts and biological environments in different sites.

As discussed in chapter 1, the MERGE concept of training encompassed more than just the delivery of technical courses and workshops to conservation and development practitioners. It included different types and levels of training and partnership and, most importantly, feedback into institutionalization, networking, field application research, policy and partnerships. MERGE training, in which participants, trainers and partners each came away with important learning related to their needs, is better described as a mutual learning process that utilizes the mutual learning approach (MLA). Due to the multi-objective nature of the approach, terms like “workshop” and “course” do not effectively capture the MERGE training activities that took place, although they are used here to describe our experiences.

The point of departure for MERGE efforts was the well-developed experience of training in gender analysis for agricultural practitioners. However, adapting this experience to address the themes of local community participation, gender relations and natural resource management for conservation presented some particular challenges that we had not anticipated. For one thing, we quickly discovered that the target audience -- conservation practitioners -- was generally overworked, underpaid and found it difficult to spare even 3-5 days for a workshop. Working with personnel of small-scale local

conservation NGOs was quite distinct from the previous experience of conducting farming systems training with staff of large national and international centers focused on agricultural research. Moreover, whereas agricultural specialists understood farmers to be their client population, conservationists came from a tradition in which people were often viewed as threats to the natural habitats they sought to protect.

Another significant challenge was to present gender as a complex, context-specific social dimension rather than simply insist on involving women. Our approach assumed that there was no recipe for considering gender and local communities in conservation work because each site and each situation was different in myriad ways. We offered concepts, tools and strategies drawn primarily from rural and agricultural development work, conscious that these approaches were not proven for conservation work. We presented them as new ideas and tools to be tested and adapted by people working in conservation. Feedback from their field application was used in other training programs. This approach often came as a surprise to participants accustomed to a more conventional training experience.

The MLA developed by MERGE incorporated three elements in all training activities, be they concept/skills training, training of trainers, training for research, or nurturing of trainers. These elements were 1) concepts, 2) skills, and 3) training process.

Concepts

Concepts referred to the conceptual content we needed in order to be able to better address gender issues and local participation for conservation management.

Conceptual Content

- Conservation and Development: what do these terms mean, how have they evolved?
- Contextual analysis: what is going on in the work area of the participants economically, socially, culturally, ecologically and politically, and why?
- Community: what does it mean locally? What are its components? How does one work?
- Participation: what does it mean for different actors/groups? What are its forms? What are its rewards and pitfalls?
- Gender: what does it mean? Why is it important? How is it linked to age, class, ethnicity and other power relations? How does it affect resource management decisions?
- Systems: what are the links between ecosystems and political, economic, community, production, and household systems? How do they affect each other?
- Tools: how can we collect, organize, analyze and apply data disaggregated by gender and other social variables?
- Group dynamics: how do groups work? Who speaks? Who listens? Where do they meet?
- Ourselves: how do our own actions and views affect conservation programs and projects?

Box 3.1

Skills

Skills referred to what we needed to know how to do, in order to be able to better address gender issues and local participation for conservation management.

<p>Skills</p> <ul style="list-style-type: none">• Critical thinking• Group management and facilitation• Creative thinking• Conflict negotiation and consensus building• Oral and visual communication• Work in multidisciplinary groups• Critical observation, listening and interviewing• Adaptation of language and concepts to local contexts• Monitoring and evaluation• Application of research and outreach tools
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Box 3.2

Training process

Training process referred to the way in which we developed, organized, designed, delivered, and followed up on multiple learner activities and how these factors impacted the participants' ability to acquire the knowledge and skills necessary to better address issues of gender and local participation for conservation management. We needed a process that enabled us to integrate and apply knowledge/understanding and skills. Basic components of the "circular" training process, as they were developed by MERGE, are summarized in Table 3 and compared to the basic training process (Staal, 1995).

Table 3.1 Comparison of Basic and MLA Training Processes

TRAINING PROCESS	Basic Training Process Steps	MERGE MLA Approach
PLANNING	<ul style="list-style-type: none"> • Carry out needs assessment; identify objectives • Define the audience • Select training site(s) • Establish training objectives 	<ul style="list-style-type: none"> • Use experiential learning methods, drawing from previous knowledge/experience of participants to help them recognize what they already know and build upon it • Incorporate adult education theory in training activity planning • Know the audience to insure appropriate focus and materials • Organize pre-activity team planning and integration.
PREPARATION	<ul style="list-style-type: none"> • Develop the training plan (curriculum), the lesson plan, selection of techniques, methods, strategies, aids to be used, evaluation of outcome: • Determine training content (select the most important topics that should be included in the program considering timeframe and available resources, human and other) • For each specific component, list skills a participant should develop, organize a logical sequence and decide relative emphasis • Draft tentative schedule (macro-plan) • Select learning strategies, develop session plans (micro-plans) • Identify evaluation criteria 	<ul style="list-style-type: none"> • Use appropriate media for the audience (no overheads for field people; limit use of cute flipchart drawings with agronomists) • Include a training of trainers component • Link training directly to other elements of overall MERGE strategy. • Emphasize concepts, relevance, and applicability to participant lives/work. Is there a reasonable answer to the “so what?” question at every step of the activity? • Break down facilitator/participant barriers (room arrangement, horizontal dialogue approach, and emphasis on discussion not lecture.)
IMPLEMENTATION	<ul style="list-style-type: none"> • Conduct and manage the training activity • Handle logistics (scheduling, pre-event contacts, food, lodging, breaks, etc.) • Select location (building/room/area set-up, advantages, disadvantages) • Plan seating arrangement (s) • Prepare, organize and arrange training materials - (handouts, flipcharts, markers, slides, etc.) • Prepare participant materials -(paper, pens, folders, etc.) 	<ul style="list-style-type: none"> • Use “participience”: effective participation is a learned skill that requires practice and encouragement and takes time to develop (Bunch, 1980) • Be aware of “facipulation”: manipulating participants to express what you want them to instead of helping them discover their own truths (Poats, 1996) • Team training - Include local partners as members of training team. As much as possible, carry out all steps of training process in multidisciplinary (biological/social, research/outreach) and mixed sex (male/female) teams. Avoid “dog and pony show” training (many invited speakers). • Don’t present facts as much as concepts and ideas for testing and adapting together • Within activities, mix methods for different learning styles
EVALUATION	<ul style="list-style-type: none"> • Verify that established objectives were accomplished, identify strengths and weaknesses of training activity, consider next steps • Select evaluation methodology • Prepare required materials • Determine reporting method and follow-up steps 	<ul style="list-style-type: none"> • Objective, critically trained observer(s) observe the training activity and participate in immediate and thorough post-activity processing by training team. • Develop a core technical content that is flexible and adaptable • Through evaluation and analysis, constantly adapt and rework the content of sessions, presentation and approach. Incorporate feedback from partners before, during and after course. • Prepare and distribute “memorias”

Evolution of Training Approach and Content

Field training was among the first MERGE partnership activities, and had a strong influence on overall project thinking and development. Because of the emphasis on teamwork, evaluation and mutual learning, each new course incorporated the lessons of previous activities, and broke new ground in its unique application of the mutual learning approach. The sequence of field training events from 1994-1997 is listed in Appendix 2.

The first training activity to incorporate all basic elements of the mutual learning approach took place in Madre de Dios, Peru in early 1995. These elements included: partnership; local needs assessment; a diverse training team reflecting the important characteristics described earlier; a TOT component; an institutional base and strategy; and a focus on local communities. The steps to develop the workshop, which were used with minor modifications for future training events, are depicted in Box 3.3.

Steps To Develop The Workshop

Needs Assessment: Host organization identified its personal needs and local stakeholder needs as well as overall thematic focus of event. Logistics were also organized. Invited training design specialists carried out a site visit and worked with host partner staff to refine and enhance assessment while bringing in lessons learned from other regions .

Planning and Design: A preliminary workshop plan was drawn up and sent to partners elsewhere for comments and input. Local personnel identified appropriate participants from important stakeholder groups.

Pre-course meeting: After weeks of long distance communication, the training team, including both biological and social scientists, men and women, local and international, from the three MERGE partner organization met at the training site three days before the event to reassess, prepare final materials and add final touches to the workshop. Included in this and all other phases was a local staff person who took a lead role in logistical organization of the workshop, and began the nurturing process.

Workshop delivery: The workshop was held in a retreat-type setting away from the urban base and its distractions (work emergencies, etc.). Sessions were divided among members of the training team and designed with adult education and experiential learning in mind. Particular emphasis was placed on the establishment of a relaxed, creative learning environment at the beginning of the course, and daily summaries of information and activities at the end of each day. Each trainer, when not delivering a session, was assigned to observe other sessions and make notes on presentation, audience reaction, content, order and any other factor deemed useful. Evaluation by participants was both oral and written.

Post-course processing: After the workshop, the training team met to process the experience as a whole and to scrutinize each individual session. Participant evaluations were reviewed, and initial plans made for next steps and follow-up on site and in other partner countries. Trainers processed what they had learned in terms of training, MERGE project design, and the question of gender and conservation.

Workshop Report: A workshop summary publication was produced by local gender specialist and distributed to all participants and participating organizations. The gender specialist also conducted informal follow-up interviews with participants and developed locally appropriate versions of the course for specific stakeholder groups in the area

Box 3.3

Over the life of the program, the mutual learning approach that we had initiated in Madre de Dios evolved in interesting and illuminating ways in all areas aspects of training (concepts, skills, process). Changes were made in aspects ranging from the types, length and order of themes to new ways of addressing specific themes, gender in particular.

Among MERGE participants, debates about the best way to approach gender centered on two issues. First, how best to balance efforts focused primarily on women with more nuanced analyses and systemic approaches to working with gender relationships. This debate was colored by the ever-present question of whether the emphasis should be primarily on equity arguments (promoting women's rights) or efficiency (ensuring the success of a given project). The second issue of debate was between those advocating an explicit focus on gender as a social relationship, and those who felt that gender was important, but no more so than other social variables like class, ethnicity or age.

Over the course of the project, experience and discussion led to an accommodation of these different perspectives. MERGE participants agreed that gender was not a synonym for women, but rather a term that refers to roles and relationships among and between men and women. However, it was also recognized that in many (not all) arenas and communities, women have historically been limited in their self-expression, opportunities, and decision-making power. Discussions therefore also focused on women's specific needs and opportunities as a necessary avenue for greater voice and empowerment in different situations. By the later training activities, an open and inclusive working definition of gender was developed that reflected such thinking (see chapter 2). This definition noted that gender cannot be separated from other social variables like class, ethnicity or age, and that a focus on gender opens the door to a better understanding of other social issues.

The resolution of these debates had a great effect on the approach used by MERGE to link gender considerations and conservation efforts. Yet despite the consensus on gender approaches reached by the project partners, many participants in training programs remained subtly or overtly skeptical of the value of considering gender issues in conservation work. For some gender was part of "northern feminism"; for others it seemed an esoteric, complicated and useless concept. Over time, it became increasingly apparent that the problem was not so much resistance to the idea of gender, as it was confusion about how to apply gender-disaggregated information in one's own work. The realization that much participant resistance stemmed from frustration at the challenge of drawing links between gender and natural resource management led to important shifts in the way MERGE addressed gender issues in training.

a. Communities as a point of departure. The concept of community became a reference point for addressing gender issues with a conservation audience. Initial MERGE workshops presented gender analysis as a vital tool for understanding human interaction with the natural environment and for improving management of fragile ecological areas. Unfortunately, the road from gender to landscape ecosystem was a long one, and participants often got lost along the way. As we strove to improve the overt relevance of gender concepts and analyses to participants' work, participant feedback and post-course trainer discussions helped us to realize that a modified

approach was required. Our conservation audience was very interested in pursuing people issues, but at the community, rather than the household level.

Whereas biologists working in agricultural could understand discussions of household enterprises and farm practices, conservationists were focused on ecosystems and landscapes. Managers and upper-level staff, in particular, were not familiar with or interested in human-managed systems such as agriculture. However, conservation practitioners realized that communities in and around fragile ecosystems needed to be engaged in conservation efforts. That realization led to the question, which workshop participants sought to answer: how does one work with a community?

Once we began to focus on the challenge of working with communities, and not “why gender is important,” our arguments became much clearer to participants.

<p>Why work with communities?</p> <ul style="list-style-type: none"> • If we want to practice effective conservation in Latin America we need to consider communities. • To work with communities requires understanding communities. • Communities are heterogeneous entities. Participatory approaches can help us consider that heterogeneity. • Issues to consider when analyzing community heterogeneity include gender, age, class, ethnicity, religion and/or others depending on the specific site. • Once community complexity and stakeholders are understood more clearly, conservation initiatives can be designed to maximize the potential for community support and involvement, thus increasing sustainability and effectiveness.

Box 3.4

b. Gender and communities. The next evolutionary step in the development of our conceptual approach was to further decrease emphasis on gender as a separate issue in itself, and instead make gender an integral component of each and every learning phase, from introductions and icebreakers to participatory research and extension tools. A simplified model in Box 3.5 shows the evolution of our approach to thematic content:

<p>Evolution of MERGE’s approach to Major Theme Content</p>	
<p><i>Original</i></p> <p>GENDER - COMMUNITY - ECOSYSTEM - CONSERVATION</p>	
<p><i>First Modified</i></p> <p>COMMUNITY - PARTICIPATION - GENDER COMMUNITY - ECOSYSTEM - CONSERVATION</p>	
<p>Later Modified</p>	<p>COMMUNITY (gender) - PARTICIPATION (gender)</p>

Box 3.5

c. Importance of context. Another content shift intended to increase receptivity to our message was related to the issue of context. It became increasingly apparent that any discussion of gender and participation was more effective if placed in the context of: first, the overall picture of conservation and development; and second, the reality of local conservation challenges. Not surprisingly, participants needed to understand the specifics of gender and participation in terms of their own work. This meant encouraging participants to ask themselves “so what?” at every stage of the workshop and make sure that there was a satisfactory answer that connected the workshop to their own reality. It also required recognizing and emphasizing that every conservation site is different from other sites in important ways. Participants needed to analyze how their work fit with conservation and development goals globally, regionally and locally, as a foundation from which to broach site-specific strategies for community involvement. Such analysis validated their work and linked them to a larger cause in which the issues of gender and participation were becoming increasingly important.

Gender is an often-ignored dimension of social life that has important implications for conservation work. It requires highlighting so as not to be lost in planning; however it does not stand alone and should not be presented as an isolated variable. Gender is about roles and relationships that are embedded in culturally and historically specific relations of power and domination, and that vary by age, class, ethnicity, religion, etc. Gender cannot be usefully understood without considering these other variables in the process. Although the MERGE learning workshops continued to highlight gender, over time we increased attention paid to the context and to these other variables, in workshop sessions. Starting with an analysis of gender issues proved useful for opening the door to understanding social dynamics in general, and community heterogeneity in particular.

d. Integration and application of concepts and skills By definition, field training takes place away from the classroom and is primarily for those people carrying out management plans, applied research and outreach. We were quickly reminded that field personnel have immediate, practical needs: they required the theories and concepts necessary for understanding and applying the tools of their trade, but were more immediately pressed by questions of how to do things. Not surprisingly, this translated into demand for workshops that prioritized presenting and practicing the use of tools for collecting, organizing and analyzing data and for applying results.

The needs of participants created a chicken and egg dilemma for the training teams. With limited hours available for any given workshop, should the focus be on a field practicum that provided methodological experience or on the conceptual background needed to apply participatory methodologies in an effective and meaningful way? Each is of limited utility without the other. Not only did it become clear that both dimensions were necessary, but also that other specific skills were needed before tools could be applied. These included critical thinking, observation; and listening and interviewing skills that are critical for participatory approaches and for considering gender issues.

In a framework developed by Save the Children, Rani Parker (1995) proposed that for gender training to be effective and sustainable, it must address three levels of organizational

change: personal, institutional and methodological. Our experience bore out her theory, and over time workshops began to address each of the three levels. Ignoring any one level seemed to leave workshop participants feeling frustrated about their ability to incorporate gender issues and participatory methodologies in their work. If personal change was ignored, it was difficult for participants to accept participatory philosophies. If institutional questions were ignored, participants were often frustrated by the limits of their superior's, or organization's openness to new ideas. Finally, if methodological concerns were not addressed, participants understood the ideas, but were left without any means for applying them.

Insights on Workshop Design and Approach

How facilitators organize a training workshop and its content is driven by philosophical approaches to training. The experience of operationalizing MERGE's philosophical approach through mutual learning as described above gave rise to important lessons about how training workshops link together with other strategies for promoting work with gender and participation.

a. Present concepts and tools for testing, not cookbook answers: Almost without fail, the initial expectations of participants in MERGE workshops included learning HOW to encourage community participation in conservation initiatives. The desire was for a step-by-step guide that laid out exactly how to get people involved in reaching conservation goals. However, the concepts of gender and participatory approaches are somewhat new to the field of conservation, and methods are untested in conservation settings. We had little case study material to provide examples of how things might be done or to provide an idea of the kind of results that could be expected.

Our option was to openly approach the workshops as experimental activities, and to establish a partnership of experimentation. Instead of presenting guides and guidelines, we proposed concepts and tools that could be tested and adapted together with the participants. We had the use of gender concepts and participatory approaches that had proven very effective in agricultural development and health fields, so there was reason to believe that they would be just as useful for practitioners of conservation. The partnership, or mutual learning approach was a way to openly admit that we did not have all the answers, or the proof of success, and to enlist collaboration in discovering them.

Benefits of MLA

This mutual learning approach did three important things:

- it gave participants a stake in adopting the practices,
- it reduced the need for facilitators to prove their credibility as “experts”
- it allowed/encouraged participants to incorporate the new approaches into their existing work instead of demanding that they start over from scratch.

Box 3.6

b. Training is a long-term process; workshops should not stand alone. The challenge in preparing a chapter on field training is that a workshop is not a separate, stand-alone activity. The effectiveness of isolated workshops is limited because there is no follow-up to answer questions, no guarantee of organizational support, and no forum for sharing successes and failures and disseminating lessons learned. Because training is so integrally linked to other activities, individual workshops should not be seen or designed as one-way delivery systems. Rather, they are more effectively used as part of a process that includes feedback and collaborative mutual learning, long-term inter-institutional strategies with mentoring and follow-up, and local trainer capacity building.

c. Team training. Team training is more expensive, more complicated and more time consuming than training led by one workshop facilitator. To function effectively, it requires well-matched and complementary trainers, careful planning, checked egos and dedication to the concept. So why bother? The answer is that the potential benefits are well worth the challenges and the advantages numerous (See Box 3.7).

In summary, team training means effectively practicing what you preach by using trainers and approaches from different disciplines that reflect consideration of gender, participation and mutual learning. This simple principle was a surprisingly important element in the success of our training efforts. In any team, demonstrating multiple perspectives lent credibility and contributed to a more open learning environment.

Considerations for teams

- **Trainers from different disciplines:** Team training provides a model for multidisciplinary initiatives by allowing participants to see how trainers from different fields work together, presenting different perspectives in a complementary way. A forester may have more credibility with a conservation audience than an anthropologist, but a forester and an anthropologist together have more credibility still, and are better equipped to answer a broad array of questions than is a single workshop leader. Multi-disciplinary in this case refers to combinations of those with biophysical and socioeconomic training and/or researcher and outreach perspectives. It should be noted that there is a crucial difference between a multidisciplinary TEAM and “guest speakers” from different disciplinary perspectives participating in a workshop. The former work together on the training process and are equal partners; the latter pop in, relay sometimes valuable information and then leave without being able to assure that their message has been understood or put into context. The important thing is to avoid “dog and pony show” training where there is no coherent thread linking messengers and messages.
- **Male and female trainers:** Discussing gender issues is much more effective if the trainers are not all women or not all men. Team training allows for balanced teams of men and women which diminishes the superficially threatening nature of the topic, particularly to men, who may equate it with feminism. Tired as the stereotype may be, men often relate better to men and women to women.
- **Local trainers:** When possible, having local trainers on a team is also desirable, contributing tremendously to both credibility and understanding of the issues at hand. A local person usually knows the local ecosystems, issues and players which is invaluable for addressing context topics, and they can provide relevant examples, setting up a practicum and interpreting participant concerns.
- **Training of trainers (TOT) and capacity building:** Building local training capacity is crucial if training impact is to be sustainable. Integrating a training of trainers component into a workshop is a very effective, hands-on technique for developing such capacity. A local person(s) with technical expertise and/or interest in the topics at hand can be incorporated as part of a training team and learn about the process by being a participant-observer with experienced facilitators. A local trainer can multiply the number of local people trained well beyond that of a single training event, provide follow-up training to those already involved in participatory and gender-focused work, and even work with other regional groups interested in building their capacity. One training experience does not make an effective trainer, but a TOT component can be part of a broader, nurturing strategy. The key knowledge targeted in a TOT process should be training philosophy/theory; methods and logistics; and technical information concerning gender and participatory methods.
- **Mutual learning at the trainer level:** With team training, facilitators can provide each other with feedback at planning, delivery and evaluation stages (see below), learn from each other’s successes and mistakes, recognize problems and learning opportunities that a single facilitator might miss (it is impossible for an individual to focus on everything at once) and provide leadership in their area of expertise at appropriate moments in the workshop. In cases where there is a training program and not a single training workshop, teams truly have the possibility of building on the feedback that they receive from participants and from each other at future workshops. In this way, trainers become better trainers for future activities and participants receive better quality training.
- **Sustainability:** More than one trainer means more than one person intimately familiar with workshop design, philosophy, content and lessons learned. If one trainer is unavailable for follow-up activities, others are there to take their place or prepare replacement trainers.
- **An objective observer:** An excellent method of obtaining professional-level feedback is to designate a critical observer to watch and comment on individual sessions and the overall learning workshop, which was invaluable for improving facilitator performance, and thus participant learning. It also encouraged trainers to seek feedback in a constructive manner.

Box 3.7

d. Pre and post-course planning and processing: Holding pre-workshop planning meetings and post-workshop processing sessions on-site was fundamental to workshop effectiveness. Having the training teams arrive a minimum of 2-3 days before any training activity allowed them to examine training facilities, meet with sponsors and sometimes participants, collect materials and in general assure that sessions and ideas were appropriate. Oftentimes despite extensive preparation, schedules were changed, sessions replaced with new ones designed to meet unforeseen needs, audio-visual props prepared and field trips finalized during this period. It was also a time for trainers to brainstorm and share lessons learned from other, related activities that were relevant to the task at hand.

Similarly important and useful were the post-course processing meetings. At these ½ to 1-day meetings, held immediately after the workshop while the details were still fresh, the training team dissected the workshop hour-by-hour. Each facilitator was offered the opportunity to critique her/his own sessions and received additional feedback from the other trainers. When the individual session reviews were completed, the event as a whole was discussed and participant evaluations reviewed. Finally, lessons learned from the experience were brainstormed and recorded, so that at a later date the collected information could be put into appropriate training reports. The insights gained at these processing sessions (and to a lesser extent at the pre-workshop meetings) often went well beyond lessons for field training, contributing strongly to other MERGE activities, from academic classes to the conceptual framework described in Chapter 2. The reverse was true as well, with field training benefiting immensely from lessons learned in other activities.

e. Evaluate Learning: It is fairly easy to prepare an end-of-workshop evaluation that provides data showing that participants learned a great deal. Finding out if they REALLY learned anything is much more challenging. There is no one way to verify learning, but using a combination of methods was our strategy. These included written (individual) and oral (group) evaluations, and in later workshops written (confidential) individual commitments for applying workshop skills and concepts, that were followed up by the training team after specific periods of time had elapsed, be it three months, six months or one year. The best and only way to truly verify learning and usefulness is to see participants apply what they have learned in their work, yet another fundamental reason for linking training to other strategies like institutionalization and partnership. Such indicators of learning are often qualitative (Vella 1995) and require interaction with those who were participants in a training program. For example, after a MERGE workshop held in Brazil, a participant accompanied members of her NGO to a meeting with a small community living in an ecologically fragile area. At the meeting, a livestock specialist colleague presented a proposal for improving the efficiency of local community pig production. The idea was to provide alternative protein sources that could also serve as a source of income generation. She watched him become increasingly frustrated and then disheartened at the lack of interest by “the community” despite his seemingly compelling arguments. Subsequent to the meeting, she pulled him aside and pointed out what he had completely missed, outside the immediate circle of male participants in the meeting were women. They were holding children, preparing food and just observing, AND were displaying great interest in the project, something the livestock specialist had been unable to see because he was focused on the men. In this community, unlike some others where the NGO worked, women cared for the small

livestock, including pigs. As a result of their conversation, she accompanied him back to the community for a presentation to the women and the project took off. In another reverse-stereotype example, local extensionists working with an indigenous group realized that it was counterproductive to include women in a river turtle-egg management project. They would bring their children along on egg census counts and the children would immediately dig up and eat the eggs being identified for protection. It was culturally unacceptable for mothers to forbid their children to eat healthy and available food.

Conclusions

Over a period of three years, through intense partnerships, and in over twenty training events, MERGE developed a mutual learning approach that allowed us to adapt and improve technical content, skills building, and the training process itself. Combined attention to concepts, skills, and the training process itself, and the diversity of people involved in the courses, led to continual experimentation in course design and chronology. Among the most important conceptual lessons were to:

- respect and accommodate different understandings of gender
- place gender within the full socioeconomic, political and cultural context, at different levels
- focus on internal heterogeneity with communities
- use stakeholder analysis as a starting point for gender analysis

The focus on diversity among participants and trainers was an important source of creativity and learning that stimulated people to reflect on different perspectives and, perhaps most importantly, their own views and behaviors. This was a powerful opportunity to use differences as a conscious part of the learning strategy, and to test and negotiate concepts and applications of complex understandings of gender and community resource management. The power of reflecting on diversity was one of the most enduring lessons from MERGE training activities.

The approach to workshop design itself became a key activity in the mutual learning process because of the potential to link to other activities in the broader MERGE strategy: research; project application; TOT; comparative and cross-site exchanges; cross-institutional dialogue. The effort to link training, the core activity of the MERGE program, to the broader set of activities and relationships, was the key to the long-term success in institutionalizing gender concerns among participating organizations.

APPENDIX 2: LIST OF COURSES**Table 4.** List of courses

Title	Focus	When, How long	Where	Trainers	Participants	Institution
Gender Specialist Retreat	Critical thinking, advanced gender analysis.	5 / 94 4 days	São Luis, Maranhão, Brazil	3-person team	6, GENESYS sponsored gender specialists.	GENESYS/ MERGE Brazil
Gender Analysis Tools	Mapping (social, resource, calendars, etc.). Included field application.	6 / 94 6 days	Rio Branco, Acre, Brazil	5-person team	18, researchers, extensionists, community development workers, project coordination technicians.	GENESYS/ MERGE Brazil
Monitoring and Evaluation For Conservation and Development Projects	Gender-focused monitoring and evaluation for NRM projects. Included field exercise.	8 / 94 9 days	Novo Airão, Amazonas, Brazil	3-person team	15, researchers, extensionists, community development workers, project and program directors, technicians, community leaders.	GENESYS/ MERGE Brazil
Participatory Research and Extension in Agroforestry Systems	Participatory, gender-sensitive R&E methodology. Participants carried out RRA/PRA later used by PESACRE for work in targeted communities.	11 / 94 2 weeks	Rio Branco, Acre , Brazil	5-person team	25, researchers, extensionists, community development workers, project and program directors, technicians.	PESACRE
Gender Analysis for Natural Resource Management and Conservation Projects	Awareness of social/ecological issues, gender analysis, stakeholder analysis, participatory research and analysis tools.	2 / 95 3 days	Puerto Maldonado, Peru	5-person team	19, project managers, extension agents, community leaders, union representatives and researchers from 15 local NRM organizations.	CI-Peru MERGE
Incorporation of a Gender Perspective in Conservation and Resource Management Projects	Gender awareness, relationship between households, communities and ecosystems, stakeholder analysis, participatory tools for collection/organization/analysis of data disaggregated by gender, considering gender in participant projects.	3 / 95	Iberia, Madre de Dios, Peru	CI Gender project Coordinator, Assistant Coordinator [2 W; anthropologist, teacher]	11, INADE (National Development Institute; Madre de Dios) [10 M, 1W].	CI-Peru PROGEMA Project
Incorporation of Gender Analysis in Resource Management and Conservation	Gender awareness, relationship between households, communities and ecosystems, stakeholder analysis, participatory tools for collection/organization/analysis of data disaggregated by gender, considering gender in participant projects.	3 / 95	Puerto Maldonado, Peru	CI Gender project Coordinator, Assistant Coordinator and two FADEMAD community leaders	12 FADEMAD (Agrarian Federation of Madre de Dios - a rural workers union) leaders and staff. [10 M, 2 W]	CI-Peru PROGEMA Project
Gender, Conservation and Population	TNC's Conservation Training Week. Analyzing people/nature and conservation/development	5 / 95 4 days	Quito, Ecuador	5-person team	35, park directors, NGO directors, NGO and government	The Nature Conservancy

	issues, gender, community and stakeholder analysis, Participatory research/analysis tools. Field practicum in Antisana ecological reserve				project managers, extension/research staff from 15 countries.	
Population and Resource Use. CUI-AO Project	Turtle egg management by local Indigenous group. Project evaluation and planning for park guards involved in project, linking population and resource use, gender issues and analysis, observation and reflection and other tools for organizing thoughts, data and follow-up, development of an activities timeline for working with Indigenous group on turtle egg management	7 / 95	San Antonio, Santuario Nacional Pampas del Heath, Madre de Dios, Peru	CI Gender project Coordinator, workshop assistant [1W, 1M; anthropologist, photographer]	6, SNPH park guards [6 M]	CI-Peru PROGEMA Project
Gender and Natural Resource Management	Analyzing people/nature and conservation/development issues, gender, community and stakeholder analysis, participatory research tools. Field practicum in Antisana ecological reserve	6 / 95 4 days	La Mica, Ecuador	5-person team	21, NGO and government project managers, extension agents and researchers from 11 conservation NRM organizations	FLACSO, Fundación Antisana, MERGE /UF
population and Resource Use	Self-analysis workshop for the community of San Juan Grande including community natural resources and needs assessment/planning for a fruit tree nursery project	7 / 95	San Juan Grande, Madre de Dios, Peru	CI Gender project Coordinator, FADEMAD representative [2 W]	40, community members [26M, 14W]	CI-Peru PROGEMA Project, FADEMAD (Agrarian Federation of Madre de Dios)
Comparative Analysis of Socio-economic Research in the Amazon	Sharing of research methods and results among NGO (non-governmental organization) researchers working with gender and other socio-economic issues, data analysis, developing shared baseline data indicators, training and activity needs assessment	7 / 95	Icoaracá, Belém, Pará, Brazil	4-person team [2 W, 2M; 2 anthropologists, sociologist]	16, project managers/staff, researchers, extension agents, community outreach specialists, workers union representatives, indigenous rights advocates	MERGE, ISPN (Institute for Society, Population and Nature)
The Gender Perspective: Society and Nature	Gender roles and patterns of class and culture, relationship between people/nature, relationship between conservation/development, skills for improved community outreach, access and control analysis, stakeholder analysis, and critical thinking skills.	9 / 95 5 days	Sachavacayoc, Madre de Dios, Peru	7-person team	16, project managers/staff, researchers, extension agents, community outreach specialists, workers union representatives, indigenous rights advocates.	CI-Peru, MERGE
Specialized Training Program in: Forestry and Social Science Research, Data Analysis and Training of Trainers	Individually tailored, 4-module training program for Brazilian professionals	10-11 / 95 2 months	Gainesville, Florida	5-person team	2, researchers/extensionists from Amazonian NGO. (PESACRE)	USAID/SUNY, MERGE/UF
Gender, Community Participation and Natural Resource Management	analyzing people/nature and conservation/development issues, community extension skills, gender issue awareness, systems analysis.	5 / 96 4 days	Belém, Pará, Brazil	6-person team	25, NGO and university project staff, extension agents and researchers from 14 conservation, NRM, and community development organizations.	MERGE/UF, IPAM (Environmental Research Institute)
Participatory Research and Extension in Agroforestry Systems	Participatory, gender-sensitive R&E methodology. Participants carried out RRA/PRA later used by PESACRE for work in targeted	6 / 96 2 weeks	Rio Branco, Acre, Brazil	7-person teams	15-2, researchers, extensionists, community development workers, project and program	PESACRE

	communities.				directors, technicians.	
Training-of-Trainers	Training/communication skills, adult and experiential learning, practicum	7 / 96 4 days	Rio Branco, Acre, Brazil	2-person team	19, NGO and university project staff (extension agents, researchers, community outreach specialists)	MERGE/UF, PESACRE
Participatory Community Planning with Gender Emphasis	Community planning methodology, Participation theory, gender/stakeholder analysis and other research and extension tools, group dynamics.	8 / 96 5 days	Puerto Maldonado, Peru	7-person team	16, rural worker and indigenous union leaders, community representatives, NGO extension agents.	CI-Peru, MERGE
Training-of-Trainers	Included practicum	10 / 96 5 days	Quito, Ecuador	2-person team	21, graduate students	FLACSO/MERGE
Participatory Extension	Models of extension, community analysis, farming systems, gender, local participation, facilitation, extension methods	6 / 97 4 days	Rio Branco, Acre, Brazil	2-person team	18, NGO, government and university project staff (extension agents, researchers, community outreach specialists)	MERGE/UF, PESACRE
Training of Trainers	Training skills/techniques, facilitation for community meetings/work, session/workshop design, group dynamics.	7 / 97 5 days	Rio Branco, Acre, Brazil	2-person team	19, NGO staff from Acre and Rondônia (extension agents, researchers, community outreach specialists)	MERGE/UF, PESACRE
Monitoring and Evaluation of Socio-Environmental Projects	Building systems for monitoring and evaluation	8 / 97 4 days	Rio Branco, Acre, Brazil	1trainer	17, staff from NGOs and government agencies in Acre and Rondônia	PESACRE
The Heterogeneous Community: US Agency for International Development (USAID) Gender Workshop	Gender issues and research tools, understanding communities, planning next steps for USAID/Brazil's gender program.	7 / 97 2 days	Brasília, Brazil	6-person team	13, GCC program staff and grantees	USAID/Brazil

[# W] = Number of women

[# M] = Number of men

Chapter 4

Institutionalizing Learning about Gender, Participation and Natural Resource Management

Paulina Arroyo, Susan Poats, Sandra Russo and Marianne Schmink

Introduction

The MERGE approach to mutual learning worked to integrate attention to gender in participatory approaches to community based natural resource management through collaboration with individuals and institutions at diverse levels. A long-term goal of this strategy was to stimulate the institutionalization of learning about gender, participation, and natural resource management. We were aware that the process of institutional change and learning is not linear, rapid, nor easy. In keeping with the strategy described in Chapter 1, gender training was seen as the entry point for a flow of activities that linked collaborative planning, applied research, site-specific technical assistance, training-of-trainers, and strengthening of personal and institutional ties through conferences and networks, all with a focus on conservation and development work with heterogeneous communities. In some cases, these complex connections contributed to mutual learning by a group of key individuals who were able to make significant and long-lasting changes in their institutional environments.

We were surprised and pleased to find, some eight years after the beginning of the MERGE program, that its activities corresponded with enduring institutional change in diverse organizations in several countries. Most of the partner organizations had continued or expanded their work with gender and community participation, and some had institutionalized gender concerns in their work plans, institutional missions, or work philosophy. Many individuals who participated in MERGE had moved to new positions where they had worked to integrate a gender focus into other organizations. Moreover, the strength of the latent network was demonstrated by the active participation of MERGE participants and many new faces at the International forum “Conserving Biodiversity from the Andes to the Amazon” held in Quito, Ecuador in 2001. Important connections were made with new people and organizations, such as WIDTECH and the Community Conservation Coalition in Washington, D.C., the BOLFOR project team in Bolivia, SEPIA and Flora Tristan in Peru, and IUCN. While much remains to be accomplished, these findings validate the usefulness of the integrated mutual learning approach as a promising way to promote institutional change.

We polled MERGE partner organizations, asking them to evaluate the functioning of the network, the partner organizations and the institutional linkages that were built,

strengthened, or not used during the project, and to describe how and what components of the process and social networks continued after the project funding ended. This consultation yielded some insights on the network itself, as well as the factors that contributed to institutionalization of gender in specific partner organizations.

Previous chapters have discussed the specifics of the conceptual framework and the training courses and activities carried out by partners over the past several years. In this chapter, we focus on the institutionalization of gender and natural resources by examining the participating organizations themselves, and the variety of relationships among and between the trainers, the communities, and the organizations involved in the network. First we discuss some of the key elements of institutional change and lessons learned from the MERGE successes in institutionalization of gender, then we present six brief case studies of institutional change in the MERGE network.

Mutual Learning and Institutionalization of Gender

Hamerschlag and Reerink's work (1996) in assessing the institutionalization of gender policies raises the following questions:

Questions regarding institutionalization of gender policies

- **Are gender policies and programs**, demonstrated in documents that describe the issues, values, principles and mission of the organization? Are these statements elaborated with the active participation of all members of the organization, with commitment from the highest levels?
- **Has gender been integrated into work plans?** Does this include explicit application of gender in programs and projects, monitoring and evaluation, as well as actions and responsible persons designated in all programs?
- **Does gender training** concentrate on consciousness-raising, sensitization, planning and analysis? Is training followed up with specific tools and methodologies to institutionalize gender in the organization?
- **Do gender and hiring** issues include equal opportunity policies, clear job descriptions and productivity measures, both women and men in directive positions, and active strategies to hire women in decision-making positions?
- **Is there a pro-family policy within the workplace?** Does this include flexible work arrangements, maternal and paternal benefits, and child care support?

Box 4.1

The incorporation of training in efforts to institutionalize gender has been recognized as important by many authors (Hamerschlag and Reerink 1996; Levy 1996; Poats and Russo 1989; Seed, 1999). The MERGE strategy to institutionalize gender was grounded in a mutual learning philosophy embedded in a comprehensive approach that brought together a broad network of individuals and organizations. The strategy addressed three key elements of organizational change (Parker et al. 1995): methodological (tools and concepts); institutional (relations between people and their colleagues); and personal (family and daily

life). We will discuss each of these elements before presenting the case studies from the MERGE network.

The training program with its incorporation of conceptual content, skills building and an iterative training process, focused much of the program's activities on **methodological change**. Methodological training is linked to the other two factors of organizational change because it leads to analytical reflection on institutional characteristics, and allows the assimilation of experiences in personal life (Parker et al. 1995). MERGE participants emphasized the importance of clear and consistent methodologies that enabled teams to build on local women and men's realities in their efforts to institutionalize gender. As part of this training in tools for analysis, one especially important process was collective involvement in building the conceptual framework.

However, experience has shown that training and methodological innovation alone are not sufficient to lead to organizational change (Parker and Smith 2000; Poats and Russo 1989; Rao and Friedman 2000; Porter and Smith 1999; Seed 1999), and MERGE experience demonstrates that mutual learning and cross-site collaboration provided a stronger basis for **institutional change**. The deliberate use of the MLA approach gave participants experience in a more democratic and engaged learning process that they could later reproduce in their own organizations and networks (MacDonald et al. 1997; Weatley 1992).

In addition to methodological and institutional change, the MERGE emphasis on nurturing key individuals, and on linking training activities directly to participants' work plans, fostered a parallel process of **personal change**. This focus empowered individuals as change agents whose impact sometimes went far beyond their own organizations.

Lessons Learned About Institutionalization of Gender

Institutions do change; many incorporated gender into institutional and technical strategies. All of the organizations involved in MERGE had missions that were defined before participating in the program. These missions varied from biologically-oriented conservation research to indigenous rights to sustainable development. The impetus for integrating gender came later, as the organizations sought to make their work more effective through active community participation in conservation and development work. They hoped that a gender perspective would lead to more balanced participation and allow them to take into account the less visible groups in the communities. In most cases, organizations also were encouraged by donors to incorporate a gender perspective into their projects, but none of the groups turned to a gender focus solely due to external pressures.

The effectiveness of gender training is limited unless it is part of an on-going process, and individual lessons learned in training are fully incorporated into an organization's policy, practices, procedures and structures. The high-level administrators of MERGE partner organizations showed different degrees of support and explicit commitment to gender. In some organizations, such as PESACRE and EcoCiencia, influential people within the organization's hierarchy were strongly supportive, and provided unconditional support for training in gender. These two organizations incorporated explicit commitments to gender in

their institutional statements, and became recognized for their expertise in gender and environment. They are now sought after as trainers for other organizations. In other organizations, such as Arcoiris and SOS Amazonia, gender-focused activities were incorporated into certain technical work, but did not achieve a significant level of explicit institutional commitment. Over time, MERGE participants often gained in responsibility within their institutions, or moved to a higher position in another organization, where their sphere of influence was expanded. For example, Francisco Cartaxo Nobre and Denise Garrafiel, both PESACRE Coordinators trained during the MERGE program, ended up bringing their gender sensitivity to the state government of Acre, Brazil, when both took important cabinet positions related to natural resource management and training. One strategy that was pursued to a greater or lesser extent by all the MERGE partner organizations was to establish the integration of gender as the responsibility of all, not just one person or unit. In CI-Peru, the three Ecuadorian organizations, and PESACRE, gender was integrated across many technical programs. In CI-Peru, what began as a MacArthur-funded MERGE project was later incorporated into the organization's community planning program, and extended to other regional projects.

Key individuals affected major changes

In 1990, Poats and Russo conducted an extensive survey of WID/gender analysis training programs in agricultural development. One of their findings was that powerful advocates who hold key positions greatly improve the effectiveness of gender programs in an organization (Poats and Russo 1989). That survey found that the sex of the person leading the training programs influenced how they were carried out: the most intense training programs in integrating gender were directed by women, often women in high-level positions in the organization. Seed (1999) concurs, noting that in Oxfam, the attitudes of individual managers seemed to be crucial in determining the range and quality of gender work and gender training, regardless of policies that mandated the integration of gender into all of Oxfam's work.

Training a critical mass of people who could think about and understand gender, community participation and conservation, as an interconnected system, was important to the operationalization of gender within partner organizations. Gender training helped those with a more theoretical interest in the subject to strengthen their commitment and to link gender issues and analysis to concrete actions. For those with many years of field experience, training provided an opportunity to reflect on their philosophies and approaches, and to incorporate new ideas and methods. The opportunity to learn from persons of many different kinds of experience and perspective enhanced creativity and innovation in concepts and methods.

Throughout the network, evidence was clear that the individuals who took the initiative to lead the integration of gender into their organization's work were those who had had the most in-depth formal training, either in the MERGE/FLACSO course or at UF, through GENESYS and MERGE in Brazil, or through "nurturing" over a period of years. These included men as well as women, biological scientists as well as social scientists.

However, as in almost all NGOs around the world, the majority of individuals involved in incorporating gender work were women.

The personal relations and position of these individuals within the organization were important factors in their effectiveness. Persons at higher levels, such as Rocío Alarcón in EcoCiencias or Avecita Chicchón in CI-Peru, were able to directly influence overall organizational policy and to assure that others in the organization understood the importance of incorporating gender in their research and field work. Others such as Bolivar Tello at Arcoiris and Denise Garrafiel at PESACRE, had sufficient influence as founding members of the organization to influence policy directions.

The conceptual framework stimulated learning and institutionalization

The conceptual framework also contributed to the lasting impact of training and institutionalization efforts. In the agricultural development training programs reviewed by Poats and Russo (1989), a gender analytical framework was found to be essential for gender and agriculture training. For MERGE, the evolving conceptual framework became a touchstone -- a framework to lean on, to return to, to examine and critique, and from which, where necessary, to step boldly away. Linking the training and research activities around the conceptual framework strengthened the process, which often had far-flung participants, settings, and ideas. The conceptual framework helped organizations to learn how to incorporate gender. It also stimulated further demands such as skills in managing conflict, and how to better integrate socioeconomic with ecological analysis and conservation.

Training and nurturing led to the multiplication of training efforts

The decision to maintain a core training team and to emphasize training of trainers allowed for the kind of systematic, long-term training that was important to support field actions carried out by diverse partner institutions. This long-term process requires a designated training coordinator and institutional commitment to training. There was a full-time training coordinator at UF during the MacArthur project, 1994-1997, and after this funding ended, training and cross-site collaborative activities declined, while on-campus efforts continued with less intensity. Individuals within each local organization were identified as trainers, although they might not have been assigned full-time training duties, and the positive learning environment created by MERGE motivated many of these to transmit what they had learned to their colleagues. We are seeing the results of this training several years later in the multiplication of efforts in various countries.

Networks facilitated and supported learning

Strong networks of support and exchange contributed in important ways to the institutionalization of gender in MERGE partner organizations. UF acted as the communications center and mainstream location of responsibility (Levy 1996), providing leadership for agenda setting and implementation, and maintaining the flow of information among partners. Partner organizations were tied to one another by collaborative work, friendship, and a common flow of information—facilitating all the aspects of organizational change. UF and FLACSO worked with local partners on workshops and kept information flowing; other partners interacted through reciprocal site visits, often for the purpose of

participating in workshops. Participation in the MERGE network provided access to information, support, and material resources (FAO 1996; Schrum 1997).

The network of students from the FLACSO/UF course constituted a critical mass that strengthened the efforts of each individual to follow through with his/her gender work, and eventually led to the creation of Randi Randi. Likewise, organizations in far-flung locations of Brazilian Amazonia were able to maintain sporadic contact and exchange through the MERGE program. The periodic workshops cemented ties between individuals in different fields of study, experience and work focus, sites and countries.

Mutual learning requires a significant investment

Considerable financing and human resources were required to cover the substantial “transaction costs” incurred through mutual learning across sites. We spent a large amount of time consulting and processing with all of the partners on a frequent basis, by phone, electronic mail, and in person. Through various funding sources, matching funds and donated staff time, we were able to creatively squeeze many training events out of a relatively small amount of funding. A stream of funds channeled through a dedicated group of partners would be required to continue the productive collaboration.

In the meantime, the mutual learning process continues through the multiple efforts of individuals in organizations throughout the MERGE network. The seeds of the institutionalization of gender concerns have been planted through changes in people, their connections, and their commitments to institutional change. These impacts demonstrate that the substantial investment in mutual learning can yield enduring long-term benefits.

Case Study 1

Resource Management with a Gender Perspective: Institutionalization of Gender and Community Participation in CI-Peru

Avecita Chicchón y Lucho Dávalos

Conservation International- Peru

- Conservation International is a non-profit organization founded in 1987, whose mission is to build a society based on the conservation of nature.
- CI works in more than 40 key ecosystems of high biodiversity, in 22 countries, promoting the sustainable use of natural resources.
- The CI-Peru program began in 1989 and now has a staff of over 60 people who work with local populations on inter-institutional agreement for conservation-based development in areas of high biodiversity in Peru.
- Since 1995, CI-Peru has worked with other organizations and local authorities to carry out the multifaceted PRODESCOT program (Conservation of Tropical Ecosystems and Sustainable Use of Natural Resources in the Tambopata-Candomo Reserved Zone).

Box 4.2

Since 1990 the Tambopata-Candomo Reserved Zone (ZRTC)², a protected area of about one and a half million hectares located in the departments of Madre de Dios and Puno, has been the focus of an innovative process of planning and action with the involvement of a wide array of civil and state organizations. Originally conceived as a traditional protected area emphasizing preservation, scientific research and ecotourism, the management of the ZRTC now emphasizes participatory research, training and extension activities as a basis for sustainable productive activities. CI's PRODESCOT program (defined above) activities included mapping of vegetation types; wildlife, forest and fisheries management; mining impact evaluations; legal diagnoses; and studies of health and socioeconomic conditions.

The PROGEMA Program

PRODESCOT's component on Training and Extension (T&E) with gender emphasis, which has been fundamental in project planning processes and training, was the combined product of two previous projects, PROGEMA and PPC. The objective of the PPC was to strengthen the capacity of local communities to plan and implement solutions to their own problems. PROGEMA was the project funded by MacArthur as part of the MERGE program. Its principal objective was to respond to local demand to attend equitably to both

² The ZRTC was created by a resolution of the Ministry of Agriculture in 1990. In accordance with Peruvian law, the "reserved zone" is a transitory category that protects natural resources while necessary studies are carried out to define its permanent status.

men and women as participants in conservation and development projects in Madre de Dios. Supported by a powerful advocate, CI-Peru Program Director Avecita Chicchón, the program emphasized long-term training and application in the organization's on-going programs.

After the two projects were merged in 1996, PPC gradually began incorporating a gender perspective while PROGEMA adopted PPC's participatory methodology in its work with local populations and organizations. A training program directed at professionals and local leaders focused on gender analysis and natural resources to avoid exacerbating inequities between men and women. For example, PROGEMA worked with the Cui'ao project managed by PRONATURALEZA, a local NGO in charge of administering Pampas del Heath National Sanctuary, a strictly protected area. As a strategy for capacity building with communities near the sanctuary, the T&E program opted to train community members as "Integral Promoters," trained in participatory planning methodologies and techniques for managing Brazil nuts, fish, wildlife, and others.

A gender perspective was very important to the project's work in wildlife management as it provided a much broader vision of hunting practices. In a workshop focused on wildlife, discussions of hunting activities described many activities carried out after the animals were captured, including skinning and preparing the meat, which were primarily women's responsibility. The disaggregation of tasks related to hunting by gender revealed the importance of both men's and women's participation in planning for management activities.

The integration of gender into CI-Peru's training and extension programs has carried over to projects in other regions, including a major new initiative in Vilcabamba. Two trainers nurtured by the MERGE program were CI-Peru staff members who have continued the gender-focused work, even after the departure of Director Chicchón in 1999 to join the staff of the MacArthur Foundation. One individual also took the lead in organizing a Peruvian gender group and secured funds to support an international conference in Peru in 2002.

Case Study 2

Supporting Institutionalization of Gender in the USAID -Brazil Environment Program

Denise Garrafiel, Constance Campbell, and Marianne Schmink

MERGE-Brazil and the USAID-Brazil Environment Program

In Brazil, MERGE worked primarily through partner organizations that were supported by the USAID-Brazil Environment program. This remarkable network of many of the key agencies and organizations working in the Amazon region met annually to learn from one another's experiences. The Environment Program was made up of U.S.-based grantees (primarily NGOs and universities) that channeled funds to their partner NGOs in Brazil, in partnership with whom they produced some of the most excellent and pioneering work in the region. With the program's focus on deforestation, biodiversity conservation and alternative management systems, a broad array of research, extension, and policy-oriented work was carried out over more than a decade.

UF was a partner in the USAID-Brazil program with PESACRE, whose mission was to support training, applied research and community work in Acre, Brazil (see Case Study 3). UF also collaborated for over a decade with USAID on activities to support gender integration among partner organizations. USAID-Brazil did not impose or systematically require grantee organizations to incorporate gender into their work or reporting, but instead took advantage of Washington-funded support mechanisms to bring in gender expertise. The infusion of funds from Washington over several years, responding to the Agency's internal policy mandate on gender, provided considerable support for developing local organization expertise in gender and community conservation

Initially, the focus on gender responded to the Agency's institutional mandate from Washington, and some U.S. and Brazilian organizations resisted the imposition of this concern in their projects. Some refused to participate because they saw gender as beyond their organization's mandate or expertise, or because they thought that they already were addressing gender issues in their own ways. Over time, people from some local NGOs, the USAID office and U.S.-based grantees adopted a commitment to gender analysis in their work. This interest, particularly on the part of some Brazilian NGOs, has persisted in unexpected ways, despite recent periods of limited funding for training and technical assistance.

Gender in the USAID-Brazil Environment Program

For over twenty years, USAID has recognized the crucial role played by women in socioeconomic development. In 1981 the Agency established a Women in Development policy and created the Office of Women in Development (G/WID), the first steps in a long journey toward implementation of gender in their programs. From 1990 to 1998, Brazil's Environment Program (first called the Global Climate Change program) supported a series of efforts to strengthen the gender focus of activities supported under the program. During an initial period of strong funding support (GENESYS program, 1991-1995), the program invested in support and training for local gender specialists in several Brazilian NGOs who were partners in the USAID program. The MERGE program (1994-2002) continued to carry on gender training and technical assistance with over a dozen Brazilian NGOs in the environment program, although declining levels of funding led to a focus on just a few organizations in the last few years. Despite the funding declines, and continued resistance of some organizations to discussions of gender, a decade of gender-focused activities strengthened the work of a number of local organizations, and linked them to the broader MERGE network and mutual learning approach. In 1997, a meeting at USAID in Washington, D.C. highlighted the MERGE work and the USAID-Brazil Environment program as an important example of long-term commitment to incorporation of gender.

Some key accomplishments under the MERGE program in Brazil were:

- Progress in the construction of a conceptual framework for natural resource management with gender emphasis
- Training of several key local people
- A deeper impact in a few organizations such as Fundação Vitória Amazônica, PESACRE, and SOS Amazônia

Box 4. 3

A Vision for Institutionalization of Gender in USAID-Brazil's Environment Program

Beginning in 1997, the USAID-Brazil office began to participate more actively in gender-focused activities through the personal interest of environment program staff. At the January 1997 meeting of USAID-Brazil's Environment Program grantees, UF and PESACRE stimulated a vigorous debate on how gender could be incorporated into the results indicators required of grantees. As a result of this discussion, two gender-specific indicators were added to the results tables required of grantees. One indicator required organizations to include socioeconomic analyses, with an emphasis on gender, as part of their process of developing and testing alternative production systems. Another indicator required organizations to "institutionalize gender" (in their objectives and strategic planning) as part of their process of "institutional strengthening." Part of the controversy over the addition of these indicators was due to resentment of the perceived imposition of gender concerns from USAID and the "gender specialists" at UF and PESACRE. There also was confusion over

what the indicators really meant and how they should be measured. Without clear agreement of the meaning of gender analysis, each organization was left to interpret the indicators as they saw fit.

While GENESYS and later MERGE had been working for years with individuals in the Brazilian NGOs where much of the project work was carried out, little discussion of gender had taken place among the U.S. grantees themselves. Local field staff often had an intuitive understanding of gender and its relevance to their work, but employees of U.S. organizations often lacked this proximity to the field, and had little concept of gender as it related to their conservation work. The discussion at the 1997 meeting revealed different levels of knowledge and understanding of gender, of how gender could be incorporated into activities, and of how to document results in reports to USAID. This led to a decision to organize a workshop on gender for all the Environment Program grantees, not just Brazilian organizations.

In July of that year, a MERGE team from PESACRE and UF worked with USAID-Brazil and WIDTECH to organize a two-day workshop in Brasília entitled “Working with Heterogeneous Communities: Workshop on Gender and Environment.” Twenty-one people from all over Brazil participated, including representatives from six U.S. grantee organizations. As a follow-up to these efforts, MERGE received support from Washington-based WIDTECH to develop a strategic plan for future gender-focused activities in the USAID-Brazil Environment program. In keeping with the MERGE mutual learning approach, MERGE consultants from Brazil and the U.S. visited and consulted with partner organizations in Belém, Rio Branco, Manaus, Salvador/Ilhéus and Brasília after the workshop. The interests of each organization and details of the activities that were proposed by these organizations are presented in Table 1.

In keeping with the comprehensive MERGE strategy, the Strategic Plan proposed a broad set of activities including: training; research; technical assistance; seminars and workshops; and production of case study materials related to gender and natural resource management within specific local realities. The inclusion of a new group of grantee organizations in the gender program indicated the growing importance of the topic in Brazil. Seven of nine organizations consulted were interested in training, seminars and workshops, and institutionalization of gender, and six also requested technical assistance and the opportunity to develop case studies. Four identified a need for research related to gender.

Table 4.1

Interests and Needs Indicated by MERGE/USAID/Brazil Partner Organizations

ORGANIZATION	Role in USAID Program	Inst. Of Gender	Training	Research	Technical Assistance	Seminars and Workshops	Case Studies
JUPARÁ	Sub grantee Pathfinder	X	X			X	X
PESACRE	Sub grantee Univ. Florida	X	X	X	X	X	X
SOS-AMAZÔNIA	Sub grantee TNC	X	X		X	X	
IESB	Sub grantee CI	X	X		X	X	X
IPAM	Sub grantee WHRC	X	X			X	X
FVA	Sub grantee WWF	X	X	X	X	X	X
IMAZON	Sub grantee WWF	X	X	X	X		
PATHFINDER	Grantee			X		X	X
FFT	Grantee				X		

The MERGE consultants proposed that the strategic plan be implemented as a means to contribute to the institutionalization of gender in the USAID-Brazil environment program (see Figure 1). Support for training, technical assistance, case study development and research would help organizations to incorporate gender into their work, and these experiences would be shared and discussed in seminars that would stimulate mutual learning and contribute to the institutionalization of gender. Within a broadened vision of natural resource management and power relations, this would help to ensure that different social groups participated, that projects were more efficient and equitable, and that they were monitored using appropriate indicators. In this way, it was hoped that the process would contribute to more sustainable and successful programs.

In October of 1999, a preliminary version of the written plan was distributed for comments and suggestions, and discussed at the program’s annual meeting in Pirenópolis. Later the plan was revised and a budget was added. Ironically, just as the long-term program efforts culminated in an integrated plan, funding to support the implementation of these activities dried up completely due to changes in USAID personnel and priorities. During 1999-2002, funding limitations permitted only minimal coordination, and participation in workshops. Although its concerted implementation is now in limbo, the plan still remains a useful vision of what would be needed to institutionalize gender in the program in Brazil, and an example for environment programs elsewhere.

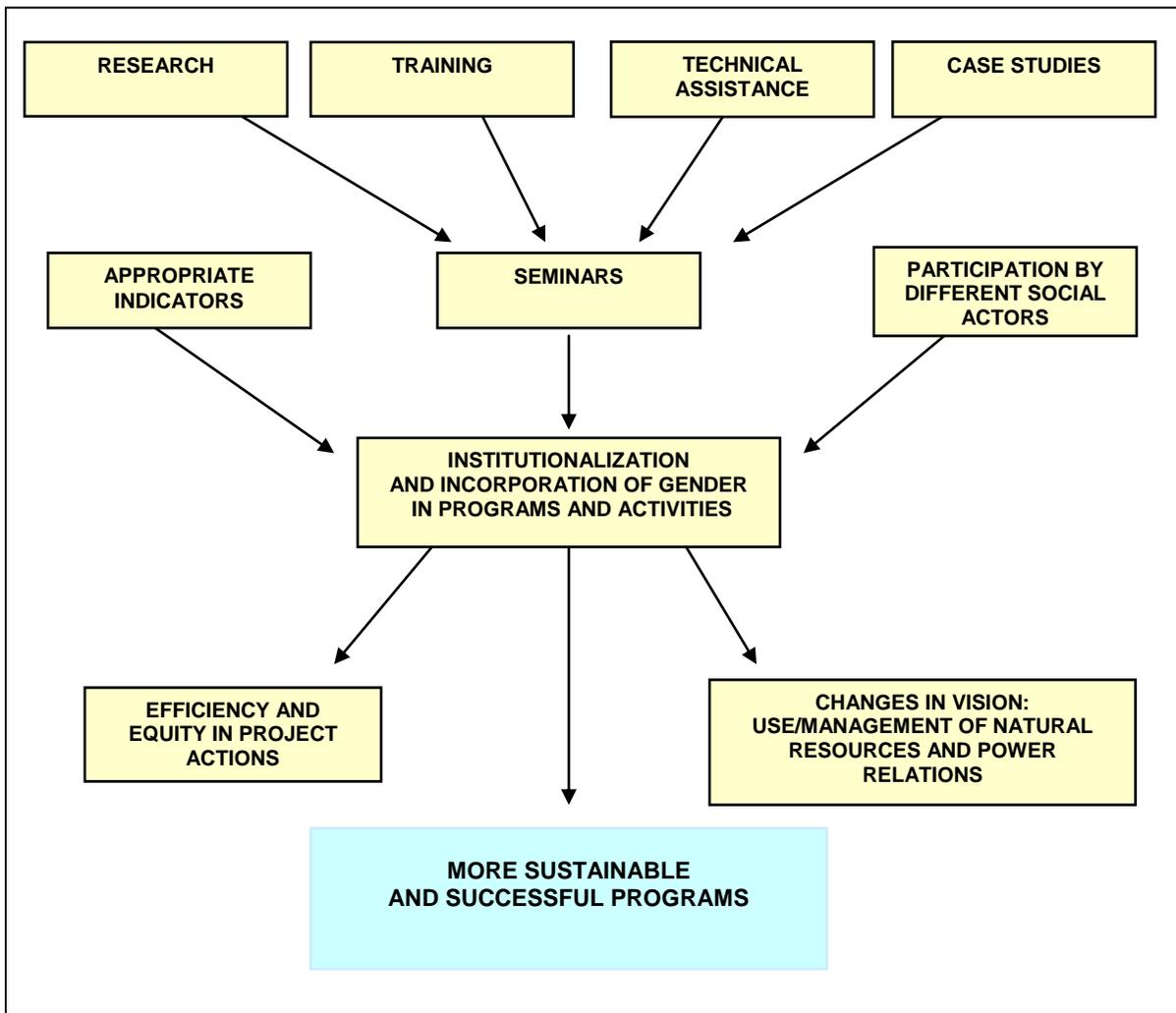


Figure 4.1: Framework for Institutionalization of Gender in USAID-Brazil Environment Program.

Case Study 3

Contributing to Conservation and Development through Participation, with a Focus on Gender: PESACRE

Denise Garrafiel and Marianne Schmink

What is PESACRE?

- The Research and Extension Group in Agroforestry Systems of Acre (PESACRE) is a non-governmental organization dedicated to studies and research on the sustainable use of natural resources, strengthening the effective adoption of sustainable natural resource management practices for the benefit of local traditional populations and future generations .
- With a multidisciplinary team, PESACRE implements several projects and actions aimed at environmental conservation and the development of technologies for the correct use of the natural resources of the region. Its activities include: participative research and extension on agroforestry and forestry practices and technologies; organization and self-administration of communities, with an emphasis on gender; dissemination of alternatives for the sustainable use of natural resources as a process of environmental education; and training of professionals and rural producers to strengthen local knowledge.
- Founded on July 6, 1990, PESACRE emerged from a group of participants in a research, extension and training program based on the “PESA” methodology (Research and Extension in Agroforestry Systems), as a result of a partnership established in 1996 between the Federal University of Acre (UFAC) and the University of Florida (UF).
- Funding to PESACRE, provided over a twelve-year period from the USAID-Brazil Environment Program through a partnership with UF, allowed them to establish permanent field teams and an enduring administrative structure, as well as a presence in the policy debates in Acre. During this time, PESACRE concentrated on training, extension and research in collaboration with communities of agricultural colonists, forest extractivists, and indigenous peoples. In recent years PESACRE expanded its work into different areas of the state, and diversified its funding sources. A major new initiative to develop a model sustainable settlement project in São Salvador, western Acre, incorporated the lessons learned by PESACRE over the years in communities in the eastern part of the state

Box 4.4

Social Issues and Gender in PESACRE

Initially, PESACRE had few members from the social sciences, but the organization soon perceived the need to create a “social team” that could contribute to on-going technical activities and community mobilization. In 1992, USAID’s GENESYS program provided support to begin a long process of reflecting and taking steps toward the incorporation of gender into PESACRE’s activities (see Case Study 2). In the beginning gender was discussed within the “social team,” which then consisted of five persons: a nurse, a historian, a social scientist and two agronomists. This group was able to dialogue with PESACRE’s

Coordination and with project coordinators in order to incorporate a gender perspective more broadly into PESACRE's work, and over the past decade the organization held a series of trainings and discussions concerning gender.. Despite these efforts, however, staff turnover and lack of interest on the part of some technical staff have made it difficult for the gender perspective to penetrate into all of the organization's field activities.

Impacts of the MERGE Program in Acre

From 1991-1995, the GENESYS program provided training and support for a local "gender specialist" at PESACRE, who participated in several social surveys carried out by PESACRE. Participation in the MERGE program provided continuity in training and collaboration since that time, with additional support from WIDTECH. Because of the existing partnership and the strong training experience at PESACRE, the MERGE program invested in developing a critical mass of expertise there. A MERGE research project funded by the International Food Policy Research Institute (IFPRI) brought in and trained another social scientist who was later absorbed as part of the organization's research-extension team. A core group of PESACRE staff who had been trained in gender analysis and in training skills went on to provide training to many others in workshops over the years. As a result of this long investment, gender has been incorporated explicitly into PESACRE's institutional mandate. For example, in the list of activities posted on its web page (www.pesacre.org.br), PESACRE includes a focus on organization and self-administration of communities, with an emphasis on gender; PESACRE has gained a reputation in the state as the organization that carries out community extension with a social focus and a gender emphasis. In 1998, when the NGO community in Acre developed a policy proposal for the state government, PESACRE staff were instrumental in promoting the inclusion of gender considerations (GTA, Comitê Chico Mendes and Projeto Aquiri 1998).

After 1999, when the progressive "Forest Government" of Governor Jorge Viana took office in Acre, many of PESACRE's key staff members took up important positions in the state government, such as Secretary for Technical Assistance and Rural Extension; Secretary for Extractivism and Family Production; Director of Extension; Director of Production; and Coordinator of Planning for the Secretariat of Production. PESACRE was invited to train all the state's extension agencies, and to participate in many other policy and program initiatives. Within the participatory style of the government's ambitious program to promote sustainable development, PESACRE contributed directly to the integration of social and gender issues into the heart of the state's policies and programs. For example, PESACRE incorporated gender as a theme in the training provided to all of the state's extension workers. While the loss of these individuals impaired PESACRE's own gender efforts, their impact through the state government has been instrumental in the incorporation of gender at a broader policy level.

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Case Study 4

Communities, Gender and the Podocarpus: The study of gender incorporation into the Arcoiris Foundation³

*Paulina Arroyo M. and Susan V. Poats
with Bolívar Tello*

Translation by David Salisbury

What is the Arcoiris Foundation?

- The Arcoiris Foundation is a private organization, created in 1989, by a group of high school and university students and volunteers. The formation of the group was based on the goal of conserving the Podocarpus National Park in the provinces of Loja and Zamora Chinchipe. Over time the group of high school and university students became young professionals in different areas related with conservation and many of them are still affiliated with Arcoiris.
- The goal of the Arcoiris Foundation is to contribute to the conservation of the environment, biodiversity and natural resources of the Podocarpus National Park (PNP) and the southern region of Ecuador, through programs of environmental education, community development, research and public action. The foundation has a board of directors formed of external members and representatives of local society.
- While the organization has a regional focus, it has a national presence as a member of The Directorate of the Ecuadorian Committee for the Defense of Nature and the Environment. Locally, the Arcoiris Foundation is an active member of the Committee for the Defense of the PNP.
- The Arcoiris Foundation carries out several regional conservation projects with the support of international organizations. Projects have focused on the PNP and the native forests of Loja province since 1993. The PNP projects are coordinated with the support of The Nature Conservancy (TNC) and the Loja projects are in conjunction with the Andean Native Forests Program, the United Nations Small Grants Program, The Ecuadorian-Canadian Development Fund and the CARE Foundation through the FORDES program.

Box 4.5

Initial Contacts with the MERGE Program

When a group of young professionals formed Arcoiris, they recognized their lack of background in the social sciences along with the need to learn new methodologies centered

³ Paulina Arroyoa and Susan V. Poats wrote this case study following two interviews with Bolívar Tello, and both written and oral communication with Fausto López, director of The Arcoiris Foundation.

on community-based conservation and alternative economic strategies. Therefore an important step for Arcoiris was the participation of Bolivar Tello (a forester and founding member of Arcoiris) in the Gender, Communities, Population and Environment workshop in May of 1995. This workshop was conducted by TNC, FLACSO, the MERGE program and FUNAN during the TNC conservation week in Quito. Shortly after this event, MERGE, FLACSO and FUNAN repeated the workshop, training three Arcoiris technicians (biologists and foresters) who quickly incorporated their newfound knowledge into both environmental education and community extension programs. Despite the training, there was still some doubt as to how to proceed with community-based conservation and how to confront multiple stakeholders working in the area.

Later, in 1996, Bolivar Tello, trained in the TNC workshop, participated in the Communities, Gender and Sustainable Natural Resource Management specialization course (2 months fulltime) organized by MERGE/FLACSO. This training helped to consolidate the process of institutionalization of gender in Arcoiris. TNC's flexibility and decision to finance a community development position at Arcoiris, without strict guidelines, allowed technicians latitude in trying out new gender, development and conservation ideas.

How did a gender focus contribute to the evolution of the Arcoiris community development program?

The innovative technicians trained by MERGE used the participatory methodologies and gender analysis techniques to formally create the community development branch of Arcoiris. From the start, the technicians used the gender perspective to design and manage new community development projects with an emphasis on strengthening community organization and natural resource management. The gender focus within community-based conservation allowed technicians to identify projects to stimulate income generation while reducing pressure on natural resources.

One of these cases involved an irrigation project already in progress. From the start, the women had not participated in project meetings or installation activities. Gender analysis identified the women's desire for a smaller irrigation project enabling them to water their gardens in addition to the larger system geared towards irrigating the men's open fields. The project adjusted to create two separate irrigation systems, fulfilling both women's and men's priorities. In addition, a group of promoters, both women and men, became skilled in the facilitation of gender workshops within the context of the project.

Arco Iris' role in organizing the 1997 course, "The Importance of Gender in Rural Development," with the National University of Loja established the NGO as a gender promoter at the institutional level. Challenges surrounding the workshop required a radical restructuring of traditional academic teaching methods. At the outset, the course was viewed with skepticism. Foresters, agronomists and other natural scientists dominated the audience. However, after two weeks, the participatory methodology and the gender and natural resource management concepts had engaged students and professors. Currently, the University is trying to teach the course every year, as a requirement for students in the natural sciences.

A bi-product of the course was the 1997 initiative to form discussion groups integrating different Loja institutions with different levels of skills and knowledge for gender analysis. The discussion group brought together ten organizations in Loja, identified as working with gender analysis, and the group currently meets periodically to discuss and promote the increasing incorporation of the gender focus into these institutions. Arcoiris has invested heavily in the training of male and female community promoters in facilitation skills (applying tools learned in the MERGE/FLACSO course) and natural resource management with a gender emphasis. At first men participants in the promoter courses dominated the discussions, and over time women began asking important questions. This worthwhile investment has empowered both women and men to become community leaders. One women promoter said she found the opportunity to break cultural barriers and train men an incredible experience.

Challenges in the Institutionalization of Gender

Arocoris' efforts to promote the integration of the gender focus have had uneven results across the landscape due to the lack of knowledge of technicians in other areas. The Arcoiris Foundation promotes development projects in two geographic sectors. One sector is the buffer zone of the PNP and the other lies in the western forests of Loja. Technicians trained in gender manage the first sector's projects. However, the second sector's technicians have not received any formal training in gender issues. This dichotomy of experience creates a lack of uniformity in project quality with regard to gender.

Another challenge has been to work with the foundation's directors to transmit the concept and importance of gender focus on an official institutional level. The personnel trained in gender analysis have great power within their community development department but little political power within Arcoiris as a whole. This led Arocoris' directors to design a conceptual framework and methodology that would include a gender emphasis to guide the organization's current and future conservation and development activities. The elaboration process, initiated by department technicians, resulted in a draft framework that includes the formal incorporation through training of the concepts and methodologies of gender, participatory extension and facilitation. Afterwards, the framework was discussed with other departments with the goal of refining it and incorporating it into the whole institution.

Arcoiris also wrestles with the challenge of assuring employee stability while maintaining continuity in the application of institutional concepts and methodologies. One management change that demonstrates progress in the administration's gender awareness is that women and men with children now receive paid maternity/paternity leave.

What does the future hold?

Much progress remains to be made. One principal challenge is to ensure recognition of the gender work done within the institution. The director shows great interest in gender after witnessing donors' commitment to continue funding gender projects. Taking advantage of this enthusiasm requires the continued promotion of community projects with gender

emphasis. In addition, it is vital that all personnel take responsibility for the institutionalization of gender. However, above all, the Arcoiris Foundation, currently in this crucial stage of institutional development, needs to devise its own strategic plan. The greater the success of the projects, the greater demand for more projects and thus the greater demand for a transparent policy on conservation and development with a gender focus.

Case Study 5

Weaving gender into ECOCIENCIA: The institutionalization of gender in ECOCIENCIA⁴, Ecuador

*Paulina Arroyo M. and Susan V. Poats
with Rocío Alarcón*

Translation by David Salisbury

What is ECOCIENCIA?

- ECOCIENCIA is a private Ecuadorian scientific non-governmental organization founded in 1989. ECOCIENCIA's mission is to conserve biodiversity and create harmonious human-nature relationships through scientific research, environmental education and the recuperation of traditional knowledge for natural resource management.
- ECOCIENCIA works nationally on research, conservation and development projects. In the Cotacachi-Cayapas Ecological Reserve ECOCIENCIA collaborates with the SUBIR project, an integrated conservation and development project focusing on buffer zones of critical Ecuadorian protected areas. The project is trying to demonstrate that biodiversity conservation can be combined effectively over the long-term with sustainable community development. SUBIR is managed by CARE in coordination with the Wildlife Conservation Society, the Ecuadorian Institute of Forests and Natural Areas (INEFAN)¹, local communities and local NGOs, and is financed by USAID¹.
- Rocío Alarcón, an ethnobotanist, directed the ECOCIENCIA research department. She had 20 years of experience in natural resource management and biodiversity research. She also participated in the 1996 Specialization Course led by FLACSO and UF in Quito in 1996 "Communities, Gender and Sustainable Management of Natural Resources." Rocío was the key individual responsible for the incorporation of the gender variable within ECOCIENCIA. Fortunately, the directors and technicians of ECOCIENCIA supported the process.

Box 4.5

The institutionalization of gender in ECOCIENCIA is full of lessons for other environmental organizations thinking of incorporating a gender focus. ECOCIENCIA was an organization focused exclusively on biological research and biodiversity conservation.

⁴ Paulina Arroyo and Susan V. Poats wrote this case study after interviewing Rocío Alarcón, Director of Research at ECOCIENCIA, and reading her written communications.

After years of pursuing this course, they became aware of the need to work with rural communities. After entering the social field, researchers began to inquire into anthropological concepts and participatory methods. In this way, they learned of gender analysis and its implications. Following this, the institution decided to begin integrating a gender focus at all institutional levels.

The following case relates the history of this process in ECOCIENCIA, the changes that occurred during the process and the future challenges ahead.

Flirting with the gender concept

ECOCIENCIA had talked of gender since 1994 because of the members' profound interest in the topic. Yet, there was little understanding of how to apply it. Two male scientists had studied abroad, come in contact with the concept and mentioned it to their colleagues as something to remember when conducting research or starting projects. These scientists supported the process of incorporating gender into the institution, though each admitted that he would not use gender within his own work. No concrete steps had been taken to use the concept in training and projects, much less for its adoption by the entire institution.

The executive director recognized the doubts that existed within the research department and the importance of training to dispel them. In addition, the research department was the only one that incorporated local people into ethno-biology and biological inventory activities. The department saw this incorporation as an excellent opportunity to involve women and men into resource management. Finally, the personal motivation of the department's director was pivotal. She worked in the field using a gender focus. However, she did not formally recognize the concept "gender," but rather she simply recognized that women and men had differing knowledge of different resources, and that this was significant for her work.

ECOCIENCIA elaborated a document about how communities are affected by protected areas. The case study was the community of Cofán de Sinangoé in the Cayambe-Coca Ecological Reserve. This investigation reflected the knowledge of both women and men and analyzed both from a biological and ethno- botanical perspective of habitats, carefully investigating who knows what about different plants and animals. The institution unanimously approved this gender-sensitive approach, and had both personnel interested in using gender tools in the field and personnel interested in integrating the gender focus into the institution. In addition, beginning the process would allow for gender incorporation into the program for male and female para-biologists.

The MERGE Training

The first concrete step towards the institutionalization of gender began with an invitation from FLACSO and MERGE for ECOCIENCIA to participate in the 1996 Communities, Gender and Sustainable Natural Resource Management regional specialty course. An important and attractive aspect of the course was the methodological approaches for gender analysis. Particularly exciting, for the ECOCIENCIA participant (Rocío Alarcón) was the use of Social Transects during the field visit to Carchi province, a tool that integrates

both biological and social science (see Box 1). ECOCIENCIA proceeded to practice this methodology with the communities with whom they worked.

The Integration of Biological and Social Knowledge in the

Elaboration of Social Transects

During the Carchi trip, the group worked on the transects with anthropologist Jorge Recharte. Transects are commonplace in biological research but Jorge, an anthropologist, had another perspective on the transect. In Carchi, we did a transect of the edge of a forest, on a farm or home garden. Our perception was that the people had lost the entire natural habitat. But, when we did the transect, strips of forest skirted the edges of the farms; thus we worked with the people to find out the significance of these forested edges. Course participants thought the edges nothing more than a living fence demarcating the land, but the local people had a totally different perspective. This forest was a source of high quality firewood due to its diversity of species. The edge was a retreat for wildlife, an important source of food during certain parts of the year. In addition, the edge protected crops inside the farm. In the end, we found four or five reasons for the edge. These findings, discovered after applying various methodologies, reinforced the course content. Although, our perception was that the farms were not important due to their monoculture systems, we learned that there is biodiversity in the system. Out of this came the questions: Who has decision-making power over the biodiversity? What does biodiversity mean? It meant a great deal of things for the local people. It was an amazing experience to work with someone with a different perspective but with whom I shared a common goal. We were able to share our different thoughts on landscape and biodiversity. An idea blossomed of connecting the El Angel Ecological Reserve with the farm edges to better feed the farmers. We could build animal trails to create more interaction between the reserve and the farms. At the conclusion, we were able to integrate local concepts of development and conservation into the transect

Box 4. 6

The impact of MERGE training on ECOCIENCIA

During the course, Rocío and other participants shared new ideas with the 15 biologists of ECOCIENCIA's research department. Participants discussed how to incorporate the course ideas into their work. During the course, situations arose back at ECOCIENCIA requiring immediate attention, which served as opportunities to apply newly learned skills. For example, in the community of Cuellaje, north of the Cotacachi-Cayapas Ecological Reserve, an opportunity arose to collaborate with fifteen women to create an ethno-botanical garden and gene bank. ECOCIENCIA applied some new tools to strengthen the group and in particular, raise the self-esteem of the women. In this way, the group worked independently and trained other groups in the reserve buffer zone.

Progress was made with some difficulties. The development of the ethnobotanical garden initially created conflict between women and men during the time of the training course. Many ideas subsequently were generated to support the Cuellaje group through informal conversations and sharing ideas with a veteran of gender analysis and women's empowerment, also participating in the course.

In the words of Rocío, *"The application of the advice helped as the group is still working two years later. The women earn income, and have a beautiful garden with inputs from the buffer zone and a gene bank. They have reached agreements with the men, who now help capture water and build garden terraces. The husbands have accepted the idea because they value the increased income and realize that the women are not wasting their time. They constructed a meeting area so that the women no longer meet in the street, and take care of the children while the women meet. In summary, the interaction with course members during the conflict allowed the formulation of strategies to manage it."*

At the conclusion of the FLACSO/MERGE training program, (WHO/ HOW was the decision made? Executive decision? Council?) ECOCIENCIA decided to take the following steps:

1. Change the institutional mission/vision to incorporate gender concepts.
2. Change the administrative procedure manual to incorporate gender issues.
3. Accompany these actions with a training process for institution personnel.
4. Formulate projects incorporating a gender perspective.

How did the process of institutionalization continue after the course?

Before the course there was just one social scientist collaborating with the institution. After the course came the revolution. The organization that started with the word gender rarely spoken, now incorporated gender as a variable at every level. ECOCIENCIA decided not to create a special gender program because the gender focus responsibility is everyone's, not just that of one department or individual. The ECOCIENCIA model is interesting because one group of actors integrated the focus bit by bit, each time assuming more responsibility in a) the application of the gender focus or b) supporting the institutionalization of gender, though not applying it directly.

The future of ECOCIENCIA and gender work

There is much still to do even though concrete changes are now part of the process:

1. The institutional mission/vision has changed to reflect a gender policy.
2. The administrative procedures manual has been modified to incorporate issues of gender equality.
3. Each department designs projects with gender analysis.
4. ECOCIENCIA now seeks gender focused training opportunities for technicians.

In 1998 ECOCIENCIA questioned why did we add this focus? And what effects does it have? The response from within was: the institution is convinced, especially the 30 members of the research department, that economic, social and environmental sustainability depend on the gender variable. Thus, the institution will continue to apply gender analysis. On one hand, personnel need to continue to be trained. On the other hand, the results need to be measured to learn more about gender and its application. Currently, the SUBIR project is managing a model analyzing the effects of incorporating a gender focus. This involves comparing and measuring the changes in the communities that worked with SUBIR to the changes in the communities that have not worked with SUBIR.

Box 4.7

- ECOCIENCIA simultaneously started projects incorporating more people from the social side while obtaining PNUD financing to apply a gender focus and validate it in community projects.
- The SUBIR project asked ECOCIENCIA to elaborate a proposal for a gender strategy. This was accepted by the project and shared with CARE International in Denmark and with other actors. Afterwards, ECOCIENCIA took charge of the gender component in all activities of the SUBIR project.
- In the field, ECOCIENCIA works with 15 parabiologists. After the FLACSO/MERGE course the established network was broken and local community technicians accepted a woman parabiologist. During the first congress of parabiologists and paratechnicians, groups of women were given the floor and were listened to in the debates.
- ECOCIENCIA began training technicians of other institutions through the SUBIR project. Such is the case with 15 technicians of Foundation Jatun Sacha¹⁰, a private NGO also involved in the SUBIR Project. Immediately, Foundation Jatun Sacha and ECOCIENCIA applied gender tools within the SUBIR project. To date, ECOCIENCIA has trained 80 people from within and outside of the institution.
- In the high altitude region of the Cotacachi-Cayapas reserve a workshop was organized for community members. At the start, the technicians asked: What right do we have to enter a community with a gender message? This was overcome, however; the workshop was carried out and women and men signed a document recognizing that both sexes' environmental knowledge should be recognized before making environmental decisions. For example, in the national arena, as part of the SUBIR project, ECOCIENCIA created a group of toquilla straw weavers and cultivators. This action was not undertaken to promote any feminist concept; rather, it was to create opportunity for women in toquilla straw production.
- Work began with both women and men to identify species needing protection in forest-use zones. The extraordinary results showed men wanting to protect hunting areas while women focused on understory areas. In general, men wanted to protect the canopy and timber while women were interested in the understory and its useful species (lianas, shrubs and herbs). After conducting this exercise with men and women, zones of forest-use were designed based on the concerns of both women and men. This is the first time that forest use maps reflected both perspectives. The conclusion is that, after recognizing the resource protection knowledge of both men and women, the protection for all of the biodiversity is improved.
- Ethnobotanical studies show that plots worked just by one gender have a lower level of biodiversity than one worked by both. Meanwhile, in plots worked by both genders, women know the herbs and short cycled plants while men know more about coffee and cacao production. Therefore, the ideal model is to join both gender's knowledge to work in one place and obtain food security. This is the approach used in the SUBIR project: the integration of women and men's work and knowledge for improved farm production.
- In addition, from the biological perspective, transects have found 220 more species of birds and almost that many more mammals in plots worked by both genders than plots worked by men or women alone. In plots worked by both genders, the women insist on a three or four meter border filled with different varieties of plants. This creates a habitat capable of attracting more mammals and people, especially women, can hunt field mice for food without needing to travel far.
- The biodiversity hypothesis has changed after the MERGE experience and has been validated by biologists, foresters and agronomists because of its study of space with a gender focus.

Box 4.8

In addition, Ecociencia found that the following themes need to be researched in greater depth:

- **Conservation, biodiversity and natural resource management with a gender focus.** It is necessary to ask: why conservation? and for whom?
- **The application of gender in social development.** Although ECOCIENCIA works in the social development sphere, it is principally from a conservation perspective. More study needs to address the development perspective and how gender can support the development process connected with biodiversity. The historical tendency of the country is the exploitation of natural resources and the empowerment of targeted groups that are not necessarily women. For example, the sale of timber impoverishes local groups and the most negatively affected are women and children. In the Amazon, oil and monocultures cause a loss of biodiversity while local people become poorer.
- **The planning and focus of gender.** For example, how to integrate gender into management plans. Analyze how gender can contribute to the sustainability of those plans.
- **Continued interaction with other course participants to measure the effects of gender on conservation and development.** This means case study analysis in the Amazonía, Sierra, Coast and Galápagos regions. The analysis must demonstrate the effect of gender in each region while recognizing distinct conditions, actors and interests. For example, research could measure the effects of gender in the oil exploitation of Amazonía, or analyze how gender influences the use of the páramo in the Andean region.

Because of the MERGE training, a discussion group formed consisting of five people working in gender analysis in the field. The group promotes an interchange of ideas and experiences of gender to support the group and the Foundation. ECOCIENCIA has entered into an irreversible process of increasing integration of gender into politics and work plans of the institution. The ECOCIENCIA case is a model with concrete examples for other research and conservation organizations. Projects end and technicians change jobs but the profound impacts of the gender focus remain.

Case Study 6

Dreaming of Gender⁵

The integration of gender into The Quichuan Institute of Biotechnology of Ecuador⁶

*Paulina Arroyo M. and Susan V. Poats
with Rosa Vacacela*

Translation by David Salisbury

"We are a group of dreamers...."

The women and men of the community of Yanayacu, in the extreme south of Pastaza province, are saving and enlightening their ancestral knowledge through a gender focus. This knowledge is needed to manage the biodiversity within their 120,000-hectare territory. The Quichuan Institute of Biotechnology (IQB) is helping make this a reality. Indigenous professionals manage the Institute, an NGO founded in 1992. All of the professionals are from natural science disciplines with the exception of one social scientist -- an anthropologist.

Since its creation, the IQB has pursued the construction of a sustainable development model based on the management of community territories, their ecosystems and biodiversity. This objective is realized with indigenous knowledge (both recuperated ancestral knowledge and current knowledge) and participatory methodologies applied to natural resource management. The professionals of the IQB never received formal training in gender analysis, but the nature of their work with indigenous communities facilitates recognition of gender variation in the knowledge and management of biodiversity and territory. Despite this, they wanted to integrate a gender focus into their work in more comprehensive ways.

The IQB is an organization without a bureaucratic structure, administrative personnel, and capital investments. The organization is interwoven into the communities where the

⁵ The technicians of the IQB describe themselves as "dreamers" focusing on community work and the recognition of indigenous ancestral knowledge. For the quichuas of Pastaza the *muscu* or dream, is very important, as it always is realized and all daily activities are guided by the *muscu*. To dream about gender implies a profound commitment that is carried out and applied in daily life.

⁶ Paulina Arroyo y Susan V. Poats wrote this case study after interviewing Rosa Vacacela of the IQB and reading her written contributions.

members live and work. Extension agents usually come from the communities they work in and generate projects through the IQB. Therefore, free communication between collaborators is crucial to interchange methodologies and experiences. This accumulation of experiences enables the IQB to advance in the biodiversity conservation field even as it ensures ancestral rights and recuperates the traditions of the indigenous communities.

How did MERGE training change the IQB's methods?

In 1996, FLACSO and UF trained two institute technicians through the Regional MERGE Specialization Course called "Communities, Gender and Sustainable Natural Resource Management." The two participants from the Institute were Víctor Vacacela, a forester, and Rosa Vacacela, an anthropologist. Each absorbed the gender concepts through the lens of their distinct professional backgrounds. IQB policy requires personnel to apply new knowledge in the field and disseminate it throughout the institution. This policy encouraged Víctor and Rosa to lead a training workshop on gender and resource management for the indigenous technicians of IQB and collaborators from other institutions, including the Organization of the Indigenous People of Pastaza (OPIP). This workshop spread the concepts of gender analysis throughout the IQB technical staff. The MERGE course allowed technicians to strengthen their approach towards the recuperation of gendered knowledge in order to improve the conservation and administration of Amazonian biodiversity.

Applying a gender focus helped the IQB to formulate new strategies for more efficient biodiversity conservation. The strategies also promoted new ways to value and apply the ancestral knowledge of both women and men. The incorporation of a gender focus within IQB projects revealed that women have more knowledge of fruit and palm species of the forest. A process of species selection for cultivation of fruit and palms had been started, but was stalled because of uncertainty about which community members to include. After conducting workshops in the community, the IQB established that women had more knowledge of species. Thus, women and children collected and selected seeds while young men climbed to collect the larger trees' seeds. The final selection of quality seeds and the cultivation of plants was done only by the adult women considered by family and community to possess *paju*.⁷ Once the IQB realized these facts, it reorganized activities in the genetic resources management program, dividing work between women and men according to ability and knowledge. The inclusion of the gender focus established an awareness of gendered and generational division of access, use and control of existing resources within both community space and ecosystems.

The IQB also identified gender differences in the knowledge and skills involved in planting crops and seed bank and nursery construction. At the beginning of the project, women were solely responsible for all activities. After gender analysis, the IQB redistributed responsibilities according to the ability and knowledge of the women and men. Thus, the men's activities relied more on physical force: transporting seeds, soil preparation and

⁷ *Paju*, quichua word that translates as having the knowledge and energy to do something, in this case plant cultivation..

digging holes for tree planting. Women, on the other hand, were responsible for planting and seedling care since only they possessed the "paju."

This did not change the concept of conservation but it did change the strategies used to carry it out. In addition, ancestral knowledge applied to strengthen biodiversity conservation was recuperated while participation of women and men expanded. The 1993 Yana Yacu community chacra (family garden) resource inventory indicated a lack of diversity through the loss of traditional chacra management. IQB recognized women's knowledge of phytogenetic resources in the chacras. However, a gender analysis of the inventory and the access, control and use of chacra resources revealed that elderly women had the greatest knowledge of these resources and resource management.

The IQB undertook the task of learning about the elderly women's knowledge of traditional chacra management systems. These Quechua-Amazon systems have a significant diversity of flora and fauna that is vital to each family's economy. The family manages the chacra and creates an extremely diverse type of secondary forest, full of fruits, palms and medicines. Families initially cultivate short-cycle plants like cassava, fruits and spices while on the edge spiny palms, a longer-cycle plant, are used to control pests and disease (for example *Bactris gasipaes*, *Astrocaryum vulgare* among others). While harvesting short-cycle crops, the family plants new long-cycle crops in the whole chacra until it becomes a ushun. In an ushun, one can plant fruits, some palm species, medicinal plants and plantains.

After eight years of growth, the secondary forest or purum has become a habitat rich in large tree, palm and fruit species. An impressive variety of wildlife is drawn to forage for fruit in the purum. Men manage the space outside the purum, and women harvesting for the family control the interior. The purum is also where young boys learn to hunt, a skill vital to the survival of both family and quichua tradition. Thus, the chacra not only maintains biodiversity but also gives women power over resource access and control. Eventually the commercialization of chacra products might give women income to improve their social status in the community.

The IQB technicians did not immediately identify all of the subtleties in this complex process. The team anthropologist, a woman, understood the importance of the women but the agronomists, all men, had difficulty seeing the magnitude of the women's role and how to encourage this role for community benefit. During the IQB internal workshop, it was impressive to see how those technicians reluctant to recognize the women's role became proud of their successful application of the gender focus in their projects.

Another example of the gender focus revealing overlooked potential is the management of *moritia flexsosa*. This plant creates habitats important for the reproduction of mammals, birds and reptiles. Men find these areas to be excellent for hunting while women find the same places to be ideal for seed collection. These two uses can cause conflict when fruit and seed collection require the cutting of palms. The standing palms attract game, and thus their cutting negatively impacts hunting. The IQB technicians analyzed this potential gender conflict in a series of workshops.

Within the workshops, the community analyzed each resource according to gender use. The community developed a phenological calendar for plants and fruits and identified reproductive habits of fauna (principally parrots, turkeys and tapir). Finally, the women and men of the community created a calendar of resource use to avoid future conflict.

What does the future hold?

The institutionalization of the gender focus in the IQB extends from the community to the internal organizational structure of the quichua people. This extension is constructed through successful project implementation by technicians trained in gender analysis. Currently, the gender focus is applied throughout the project. Since the IQB has no administrative body, gender has not altered the institutional mission. In this case, the goal is to create concepts and practice of natural resource management with a gender focus from an indigenous perspective.

The following are some of the dreams of the professionals of the IQB:

- Continue with gender training, not only for the IQB but also for the four institutions that collaborate with the IQB.
- Elaborate management plans for three quichua communities located in areas crucial for biodiversity conservation. This requires resource management with a gender focus.
- Formulate a model for biodiversity management of the quichua territory in Pastaza.
- Continue with gender focused biodiversity management of wild medicinal plants in botanical gardens managed by women and supported by men.
- Continue researching the gender differences in ancestral knowledge of biodiversity in three additional communities.

Box 4.9

The act of making the invisible visible through gender analysis is critical to the IQB goal of biodiversity conservation and ancestral knowledge recuperation in the Amazon. In this way, the technicians can continue dreaming of how to promote conservation through the recuperation of ancestral knowledge of both indigenous women and men.

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