

# **MERGE**

**MANAGING ECOSYSTEMS AND RESOURCES  
WITH GENDER EMPHASIS**

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## **Conceptual Framework for Gender and Community-Based Conservation** *Marianne Schmink*

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# GENDER, COMMUNITY PARTICIPATION AND NATURAL RESOURCE MANAGEMENT

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Tropical Conservation and Development Program  
Center for Latin American Studies  
University of Florida  
P.O. Box 115531  
Gainesville, FL 32611  
E-mail: [tcd@tcd.ufl.edu](mailto:tcd@tcd.ufl.edu)

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The MERGE Case Studies Series on Gender, Community Participation and Natural Resource Management, supported by grants from the John D. and Catherine T. MacArthur Foundation and WIDTECH, is designed to show how a gender focus has been relevant and useful in natural resource management projects. The cases focus on concrete examples from extension, applied research, and participatory planning activities involving rural communities, especially those in and around protected areas primarily from projects in Latin America with which the MERGE program has collaborated. The format lends itself to practical applications as well as training in gender and natural resource management. The cases are translated into English, Portuguese and Spanish, and are available on the Internet (<http://www.tcd.ufl.edu>).

The following are the first case studies of the Series:

1. **Conceptual Framework for Gender and Community-Based Conservation**, by Marianne Schmink, 1999
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**Case Studies Series on Gender, Community  
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**Conceptual Framework for Gender  
and Community-Based Conservation**

*Marianne Schmink*

April, 1999

# Conceptual Framework for Gender and Community-Based Conservation

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*Marianne Schmink*

During the last two decades, a growing consensus has emerged on the need to experiment with new ways to work with local communities on efforts 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 for the benefit of 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 diversity 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 dynamics lead to constant negotiation 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 within the communities there are also significant differences in interests, perspectives, and power. It is within rural households and communities that differences shaped by gender are most apparent. While gender has long been recognized as a key variable to be addressed in development work, gender analysis within conservation efforts has only begun. The growing recognition of

The growing recognition of women's important role in grass-roots projects is not yet reflected in strategies to influence policy, institutions, and organizational partnerships for conservation and development.

women's important role in grass-roots projects is not yet reflected in strategies to influence policy, institutions, and organizational partnerships for conservation and development. Still less have conservation initiatives adopted more fundamental analyses of gender relations and their implications for natural resource use and management.

The MERGE program (Managing Ecosystems and Resources with Gender Emphasis) is a collaborative network of organizations working to address these issues. In 1994, the program received support from the MacArthur Foundation for a training, research, and capacity-building program involving the University of Florida, the Latin American Social Sciences Faculty

(FLACSO) - Ecuador, Conservation International -Peru, and the Nature Conservancy as well as local partner organizations in Ecuador and Peru. At the same time, a MERGE program in Brazil began with support from the U.S. Agency for International Development USAID-Brazil Environment program.

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 to build a conceptual framework for understanding some of the key gender issues in community-based conservation and resource management projects.

### Glossary of Key Terms and Concepts

- ◆ Community refers to a heterogeneous group of people who share residence in the same geographic area and access to a set of local natural resources. The degree 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 achieve social equity 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 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 natural 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 “leveling the playing field” in a manner that gives equal voice to the perspectives and the priorities of less-powerful groups within the community, 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 variables, such as age, marital status, economic roles, ethnicity, and migratory status.
- ◆ Institutions are sets of formal and informal rules and norms that shape interactions of humans with others and nature.
- ◆ Learning processes refer to learning in a collaborative mode that incorporates analytical and social skills, including a focus on gender, along with technical information and local perspectives and knowledge. Outside and local partners work together to test, apply, and adapt emerging concepts.
- ◆ 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 different levels of analysis and relationships to resources, including organizations, groups and individuals at international, national, regional and local levels, as well as different actors within local communities and domestic groups.

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 from the insights generated by field applications in different sites. Thus the MERGE conceptual framework discussed in this case study is a dynamic

product of our collective work and reflection that illustrates the learning process within the MERGE program (Poats, Arroyo and Asar 1998). It also helps to guide future research and documentation efforts. The framework builds on the work of others interested in participatory conservation, gender and environment to develop a specific focus on gender issues in community-based conservation.

## Theoretical and Comparative Issues in the MERGE Conceptual Framework

The logic of the MERGE conceptual framework covers the prospects for community participation in conservation and development projects, conditioning and limiting factors, 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]*

Because of a variety of 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). In the social sphere, 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). An example is 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.

To identify the complex factors that influence resource use, and to understand the interactions between them, requires what we refer to as a "gendered political ecology" approach. The proposed framework permits the analysis of how political, socioeconomic and ecological factors, over time, condition decisions about the management of natural resources by different social agents. 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 the interaction of human groups and the natural environment (Blaikie 1995; Bryant 1992; Peet and Watts 1993; Peluso 1992; Schmink and Wood 1987; Thrupp 1989).

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.

The approach views all decisions about resource use as behaviors that are embedded in an overlapping matrix of social and natural systems. The emphasis is on understanding the opportunities and constraints, and the incentives and disincentives, that influence the 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

the user makes 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 are found to 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 overhunting). The map of conditioning factors produced by this methodology can then be used to identify those particular domains within the decision environment that are subject to modification, thereby leading to more desirable outcomes (such as community-based rules for game management). The 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 resources 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. In the Peruvian Amazon, for example, proximity to market is associated with differences in the gender division of labor, in access and control over resources, and in patterns of decision-making (Espinosa 1998). The task, therefore, is to

introduce an explicit gender awareness into the approach, thereby producing a “gendered political ecology” framework. This point will be explored further below.

***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]***

For all of its advantages, a community-based strategy confronts a host of formidable challenges (Brandon and Wells 1992; Brown and Wyckoff-Baird 1992; Little 1994; Wells and Brandon 1992; West and Brechin 1991). 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 is endowed with different levels of economic and political power.

The 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 (Agrawal 1994; Deere 1995b; Kabeer 1994). These inequalities may constitute obstacles to social equity that can be resolved only by strategies to “level the playing field” (Mayoux 1995).

Conflict resolution has become an important tool of conservation work in recent years (see, for example, Chandrasekharan 1997). Some conflicts may

Resource management for conservation therefore involves direct or indirect negotiation among multiple, often conflicting, groups of stakeholders

not be resolvable through negotiation, such as where 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, who 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 complementarity, and relative power and resources can provide useful practical input into project planning. Stakeholder analysis can range from qualitative "mapping" of interests and alliances, to quantitative modeling of outcomes of conflict according to different scenarios.

### ***3. How can participation by 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. Dissatisfaction with the performance of governments, the growth of NGO involvement in conservation and development, and the strengthening of grass-roots organizations all contributed to the emergence of recent experiments in conservation and development. 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 contribute to local livelihood systems (Bodmer et al.

1997). Strategies to add value to resources and reduce the negative impact of their use through community management 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 under what conditions they work well (Brandon, Redford, and Sanderson 1998; Redford and Mansour 1996; Stevens 1997).

The theme of participation engages everyone from the large development establishment (GP-NET 1995; Schwartz and Deruyttere 1996) to grass-roots social movements, NGOs and academics (Escobar 1998; Guijt and Shah 1998) Yet participation in conservation by local people can range from simply being informed about a project to full involvement in decision-making and management. The meaning of "participation" 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).

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Other strategies may heighten or cause conflicts, or include local participation only in the distribution of benefits dispensed by outsiders. These include the distribution of compensatory resources, such as health and educational services, in exchange for limits placed on local people's access to key natural resources. Similarly, transfer payments to local people may 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 true 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 a key factor in empowering local groups 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 invaluable local ecological knowledge and increase the potential flexibility in responding 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 "empowerment" (Leach 1994: 221-222).

The analysis of community participation and empowerment builds on the broader political ecology and stakeholder analyses. It focuses on the 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 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 among the key variables that, in interaction with other factors, distinguishes groups of resource users. Furthermore, users are also distinguished by changing demographic patterns (migration, family composition, economic strategies) and institutions that govern formal and informal access to resources and land (state policies, markets and common 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 roots of

Stakeholder analysis involves the identification of different groups and institutions, both formal and informal, who may affect or be affected by a resource management initiative.

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 may be more attentive to the ecosystem as a whole.

In many situations, women's responsibility for family subsistence and health causes 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; 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). This approach, which is more holistic and normative, has been advocated as an alternative to market-oriented concepts and strategies, because it focuses on the quality of life and ecosystem over the long term, and both market and non-market values. Research is needed to assess how realistic such an approach is, 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. Does stakeholder participation in gender-focused learning processes improve the ability of local actors to negotiate their interests in conservation? [Project analysis]***

If we accept that a gender focus is useful for conservation, how can gender analysis be useful in learning processes to empower local groups? How do we expect these learning processes to translate into changes in conservation practice? How are they related to empowerment of different groups in relation to community-based resource management? In keeping with the need to "level the playing field", gender-focused learning strategies may increase awareness of the importance that women and other groups be able to sit at the negotiating table (Poats 1995). Because the negotiation process involves power differences, empowerment entails sensitivity to conflicts and to different perspectives within communities, while respecting community traditions and self-determination.

Project analysis builds on political ecology, stakeholder and gender analysis to focus on 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. Different conservation and development organizations have radically different project frameworks and forms of monitoring and evaluation, among other key institutional issues, that must be addressed.

### ***6. How are changes in resource use and management by local communities linked to biodiversity conservation? [Sustainability analysis]***

Because the negotiation process involves power differences, empowerment entails sensitivity to conflicts and to different perspectives within communities, while respecting community traditions and self-determination.

Community-based conservation requires responding to local felt needs, while not over-exploiting natural resources (Bodmer et al. 1997). Within the definition of conservation adopted here, fully protected areas are included (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). In addition to the socioeconomic information required, community-based conservation projects need ways to monitor the biological changes associated with changing resource use strategies associated with socioeconomic changes.

Analysis of biological sustainability requires basic biological inventories of key resources and habitats, and information on reproductive biology and ecology of key species, to identify sustainable and non-sustainable patterns of use and 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 stakeholder learning contribute to conservation success in the long run? How can it 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]***

Success in community-based conservation projects depends, in part, on a combination of stakeholder learning processes, institutional arrangements and partnerships for continuity, and community participation. 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 nature 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 will require attention to all these factors.

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 key questions with respect to heterogeneous communities.

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## **Challenges for Collaborative Research: Learning and Adaptation**

The MERGE conceptual framework proposes a set of research questions and approaches that address the broad range of factors that condition experiments in community-based conservation. Given the lack of systematic comparative analysis of cases in particular sites, the questions constitute a comprehensive research agenda for the future.

The framework suggests the need to combine 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. Moreover, the long-term nature of conservation issues requires systematic monitoring of impacts on different social groups and 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. Only by engaging the commitment and creativity of a broad coalition of partners can the challenge of community-based conservation be addressed.

## **MERGE Conceptual Framework (with research questions)**

***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]***

### **Historical context:**

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?

### **Ecological context:**

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 (scientifically, and in terms of 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?

***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]***

Who are the different users of the most 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?

***3. Under what conditions does participation by local communities contribute to goals of achieving conservation with improved livelihoods? [Stakeholder analysis within the community]***

What does "local community" mean for this case? 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?

***4. In what ways do gender 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]***

What are the patterns of livelihood strategies 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?

***5. Does stakeholder participation in participatory learning with a gender focus improve the ability of local groups to negotiate their interests in conservation? [Project analysis]***

What were the steps that led to the development of protected areas and local conservation-and-development projects? Who were the key actors (outsiders and local)? What were the objectives? 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?

***6. How are changes in resource use and management by local communities linked to biodiversity conservation? [Sustainability analysis]***

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?

***7. How can stakeholder learning contribute to conservation success in the long run? How can it 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]***

How have the results of training 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 strengthened?

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