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**A Guide to the Gender Dimension of  
Environment and  
Natural Resources Management**  
*Based on Sample Review of USAID  
NRM Projects in Africa*



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*Productive Sector Growth and Environment Division  
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# Contents

Foreword	v
Acknowledgments	vii
Preface	ix
<b>1. A Guide to Gender Dimension of Environment and Natural Resources Management</b>	<b>1</b>
Introduction	1
Purpose	1
Limitations of the Review	2
Methodology	2
Gender Analysis for NRM and Environmental Policy	2
Problems — The Gender and Environment Relationship	6
Implicit and Explicit Strategies to Address Gender Issues	10
General Observations	12
Postulates	13
Conclusions	14
Documents Reviewed	15



# Foreword

The consideration of gender issues in natural resources management (NRM) in Africa merits special attention. Knowledge of these issues is critical for successful project design, planning and implementation; and policy making at regional, national, and local levels.

This review of the U.S. Agency for International Development NRM projects and the associated bibliography were developed in association with the Conference on Environment and Natural Resources Policy held in The Gambia in January 1994. The Conference brought together NGOs, PVOs, USAID field staff, and ministry officials who are implementing environmental projects across Africa. The themes of participation and governance, drew attention to the issue of women's participation, as both beneficiaries and decision-makers. We can not afford to pay lip service to women in development in the face of mount-

ing evidence that shows the link between failing to integrate gender issues in project planning and failed initiatives.

This publication—*A Guide to Gender Dimension of Environment and Natural Resources Management*—navigates us through a sample of USAID environmental projects and, concomitantly, through the practice of gender analysis, revealing areas of needed improvement and gaps in our knowledge.\* Together with *A Selected Bibliography on Gender in Environment and Natural Resources*, this document will help project implementors and policymakers better understand gender issues in natural resources management, and provide guidance in addressing those issues.

Curt Reintsma  
Division Chief  
USAID/AFR/SD/PSGE

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I am indebted to Cheryl Simmons of the Africa Bureau Information Center for her exceptional responsiveness to my research support needs in conducting the topical search and review of the litera-

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Finally, I would like to thank Sheryl Andrews, my assistant on the Africa Women in Development Project, for her many contributions and patience.

Mary Picard



# Preface

There is a context for this work on gender and natural resources that stretches beyond the confines of the U.S. Agency for International Development (USAID) conference for which this was prepared. In one sense, its currency goes hand-in-hand with the discourse of participatory development, democratic transition, people-level impacts, sustainability and *broad-based* economic growth. An enquiry into the gender dynamics within the environment/development arena is illuminating, when equity is being given serious consideration and the goal is to decentralize control over resources and management plans to local institutions. Similarly, in the distribution of benefits from local environmental initiatives, gender considerations dovetail with the concern for reaching the traditionally disadvantaged groups within a community. The sustainability challenge in linking conservation and management objectives with economic benefits adds even greater value to the democratic process, i.e., the involvement of *all* resource users--of which women constitute a large proportion. The dominance of these themes within development assistance today creates fertile ground for a growing appreciation of the gender dimension of the human-environment relationship and evidence of mounting support to women's leadership roles as environmental activists, decision-makers, and guardians of the natural resource base.

This guidebook also has meaning in the broad span of women-in-development (WID)-related literature. It transects the fields of women in development, gender and environment, and ecofeminism, as illustrated in the bibliography mentioned later. It is the author's personal view that while the theoretical shift from a WID approach to gender analysis has permeated the work of most development institutions, the application in the field of the concepts, tools, and methodologies delivered by gender specialists is far behind schedule. Part of the problem

lies in the slow transfer of the responsibility for the practice of gender analysis from gender specialists to project implementors. But also at issue is the converging influence of various modes of thought and philosophies on the relationship between gender (women) and the environment (nature). Consequently, it is not uncommon that gender issues are dismissed as pure advocacy for women, the focus shifts from gender dynamics to a discussion of women's roles only, and women are treated as one undifferentiated group. Notwithstanding that the pivotal event of the United Nations Conference on Environment and Development (UNCED) Conference has united women in a struggle against the deterioration of their living conditions, the literature itself sometimes yields assumptions which, like most assumptions, deserve to be tested or contested. For instance, the idea that women's interests correlate positively with environmental interests should be treated as a thesis and not a universal truth.

Against the backdrop of this broader context, this guidebook has clear limitations. It most closely resembles other attempts to organize and transfer the tools of gender analysis in natural resources and agriculture, but it differs in two ways: (1) it is tailored to the current audience of project and program implementors and based on a review of USAID project designs and evaluations in natural resources projects; and (2) it gives the user an opportunity to test conventional wisdom through the presentation of hypotheses derived from an up-to-date literature review.

Beyond USAID projects and programs, a final caveat on the topic of gender and natural resources is in order. While most writing on the topic to date tends to emphasize the general case, as do the hypotheses in this document, a good deal more research needs to focus on the specifics, e.g., how and under

what conditions gender dynamics as power relations change over time and, hence, how men's and women's relationship with the resource base changes; how disenfranchised women in Africa are mobilizing to acquire legal rights over resources; how class, age, ethnicity, ecological zone and a myriad of social science variables factor in to the analysis of the problem; and how men and women are interpreting and

assimilating *democratic* institutions and processes to improve community-based environmental management.

It is the author's hope that a certain level of monitoring at the field level will inspire and eventually generate the kind of long-term, academic research which has its place in the future design of appropriate, sustainable development programs.

# 1. A Guide to the Gender Dimension of Environment and Natural Resources Management

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## INTRODUCTION

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A review of 11 U.S. Agency for International Development (USAID) natural resources / environmental projects in Africa for their treatment of and information about gender issues was conducted specifically for the Conference on Environment and Natural Resources Policy held in The Gambia, January 18–22, 1994. The review and a companion document—*A Selected Bibliography on Gender in Environment and Natural Resources*—are intended as resource materials for USAID project implementors and participants of the conference. Project and field staff are encouraged to provide feedback to staff of the U.S. Agency for International Development, Bureau for Africa, Office of Sustainable Development, Productive Sector Growth and Environment Division (SD/PSGE). Feedback should be based on:

- project experience that will add to the collective knowledge of how effectively gender analysis improves project performance;
- gender-differentiated problems in projects; and
- strategies or interventions to best address the problems.

Finally, it is hoped the use of this guide will spur more crossfertilization among Missions, projects, and nongovernmental organizations (NGOs) directly in the field on lessons learned in integrating and addressing gender issues in agriculture and natural resource management projects or at the level of formulating environmental policy.

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## PURPOSE

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The purpose of this review was to gain some insight into how various kinds of natural resources management (NRM) projects have treated gender (or women-in-development) issues in the design and other stages of the project cycle. It was equally intended that this effort would give some indication of the trends or improvements in the approaches to gender considerations in project and policy planning. The first part of the review investigates the degree to which certain kinds of gender analysis questions were explored as part of the social or gender analysis and resonated throughout the project paper.

In a second section, a set of *common problems* or phenomena that relate to gender and environment was identified, and projects reviewed to determine whether or not the problems pertained to the individual country and project. In a third section, projects were scrutinized for the implicit or explicit strategies used to address gender issues. This is followed by an overview of some general observations on the review of projects.

Overall, the paper provides insight into the ways in which gender issues have been or can be conceptualized as part of a design effort and, most importantly, the many substantive and nonsubstantive ways that *benefits to and participation of women* has been defined. It was not the purpose of this exercise to prescribe solutions or strategies. The problems clearly require scrutiny within the respective ecological and social context, as well as within the context of available resources to carry out essential steps. However, this paper should give project staff a broader frame-

work for deciding what questions need to be asked or what steps need to be taken in their particular situation.

A section on postulates for further research and monitoring purposes is added at the end of the review section, followed by conclusions. Postulates such as, “Women’s participation in project planning, design and implementation can not only reduce the damage to [the] interests [of women and women’s groups], but *also enhance overall project success* (original emphasis),”<sup>1</sup> can guide project implementors in identifying causal factors and in monitoring and evaluating their projects.

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## LIMITATIONS OF THE REVIEW

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The major limitation of this review is its sole focus on documentation as the source of information. In the absence of discussion with field personnel associated with the projects reviewed, the paper is not considered to offer any conclusive evidence. With one or two exceptions, the project documents did not provide adequate information as evidence to ascertain the applicability of problems or hypotheses posed. For this reason, illustrations of individual project experience were kept to a minimum. At best, the information drawn from written sources is treated as merely *indicative* of past and current approaches to gender in natural resources management and may be compelling enough to spur follow-on investigation of the issues in the field within the context of USAID’s projects and programs in NRM.

From an academic viewpoint, because the *problems* put forward in section two were intended to reflect what the literature itself has produced, they also lapse into a more narrow focus on women. While the gender analysis questions in the first section convey how practitioners *should* be thinking, the *prob-*

*lems* section illustrates the reality of how and what the literature has been reporting to date.

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## METHODOLOGY

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While this documentation-based study sought to review as many USAID projects/programs in NRM or environment initiated over the last decade as possible, both time and availability of documents limited its scope. Moreover, during the review process, some projects, deemed peripherally relevant, were eliminated as part of the study. Project documents consisted mostly of project papers with their annexes, but also some midterm evaluations and amendments. The review did attempt to capture some diversity, both in terms of the region and type of project. Hence, the areas covered were conservation (national parks and reserves), wildlife management, livestock management, agriculture/natural resources, forestry and reforestation, and environmental policy. The countries included Madagascar, Mali, Senegal, Lesotho, the Gambia, Rwanda, Zambia, Namibia, Botswana, and Uganda.

Only the aggregate experience is presented below, with selected examples at the country or project level.

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## GENDER ANALYSIS FOR NRM AND ENVIRONMENTAL POLICY

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Before proceeding to a set of guiding questions, three principal spheres of analysis for conducting an enquiry on the gender dimension of environment and NRM initiatives are presented:

- **gender relations** — Within the social unit of analysis (household, community, livelihood system) explore gender-based disparities in access to and control over resources, decision making, economic opportunities, among others, and investi-

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1. Clones, J. 1991. *Women’s Crucial Role in Managing the Environment in Sub-Saharan Africa*. Technical Note. Washington, DC: The World Bank.

gate the level of bargaining and negotiating between the sexes that is tolerated and under what conditions.

- **gender roles and responsibilities** — Depending on the cultural gender division of labor, men and women have varying interests and motivations to conserve, protect or manage their resources. These need to be ascertained to create appropriate incentives.
- **sociospatial dynamics** — Mobility, displacement patterns, and the spatial location of human activity are commonly differentiated by gender as well as by other social variables. The “where” of these activities and their boundaries—abstract or real—are central to the relationship between humans and the environment.

Though less empirically supported than the preceding three spheres of analysis, a possible fourth relates to **behaviors and attitudes**. Notions of stewardship of the environment and a certain conception of nature may also be gender-differentiated. Ecofeminists argue that women have a biologically grounded affinity for nature. If this could even be proven, then women’s relationship with the environment should transcend place and culture.

A set of gender analysis questions pertinent to the design of NRM projects or to the formulation of environmental policy is introduced below. Some of the questions, such as the identification of roles and responsibilities or access to resources, are generic in that they can apply to any sector (agriculture, enterprise development, etc.); others are more specific to the relationship between people and natural resources. Each question was asked in the review of a sample of eleven USAID projects. The findings from the review, according to the question asked, follow each question.

**1. What is the gender division of labor in agricultural livelihood systems, domestic chores (e.g., fuelwood collection), and the management and exploitation of natural resources?**

In all but two of the eleven projects some attention was given to the gender division of labor in agriculture, natural resources management, and/or household chores. Most described, to some degree, the gender differences in production tasks, or they elaborated the multifaceted responsibilities which women have. In seven of the eleven cases, the firewood and water collection tasks of women were mentioned. In all cases except two, the fact that both men and women utilize and exploit natural resources was explicit. However, the management of those resources was not consistently discussed.

**2. Within the household and within the community, what is the gender division of resources (access to and control over land, other natural resources, and productive resources)?**

Only five of the eleven projects alluded to the access to and control of resources according to gender, despite some discussion of the issues (use, access, security, etc.). What was especially important here was the use and rights over the resources central to a project, such as trees for forestry or livestock for livestock projects. Other relevant access or control issues, such as rules governing use of open-access grazing and forest lands, licenses for selling forest products, and ownership rights to cattle, were not gender-differentiated. No project raised the issue of access to labor, particularly female labor. Only one project made a further breakdown by age.

**3. How does land tenure, in particular, affect men and women in the community? Who has ownership rights?**

Overall, this issue received a fair amount of attention, which likely reflects the longer history of land tenure research in agriculture. In six of the projects, the gender impacts were featured prominently, while three gave it cursory attention, and two did not explore the land tenure issues at all. In all reported cases, women do not have rights to land,

and, under customary law, they lose control over land upon divorce or death of the spouse. Women as land borrowers, as in the Gambia, have even lost control over land in which they have invested and utilized for productive purposes to village headmen who can reclaim communal land they have allocated to users. Only in Madagascar is the situation for women, at least in the highlands, not as inflexible. Both sons and daughters may inherit land, although the plots for women tend to be smaller than for men.

**4. How do gender-based entitlements to income from sale of agricultural or resource-based outputs correspond to the use, access, and control of resources? Do men and women have separate accounting units in the household?**

Very little discussion was made of gender-based entitlements, and only eight of the eleven provided information at least partially relevant. In most cases, the information implied some separation of accounting units for men and women in reference to the products that women sell as derived from their own labor or income-generating activities for women. No analysis is done on who reaps the benefits of using or managing the resources within the particular cultural context. Only Namibia lent importance to the issue in the statement that “. . . it is important to assess the extent of control which women exercise over the income derived from their productive activities.”

**5. Are services such as extension, inputs, and credit, directed equally at men and women resource managers?**

There was a good deal of variation in the response to this question. Four projects sought to confront the issue, three acknowledged the problem, and four made no mention of it. In four cases the need for women to gain access to training or technical knowledge was noted, while four projects reported access to extension or availability of female extensionists as a problem. Other documented constraints to women

included access to inputs (chemical fertilizers); land, loans, and credit; education and literacy; rural employment; marketing supplies; and labor.

**6. What is the gender-based indigenous knowledge of natural resources?**

The projects know very little about this topic. One project raised the importance of women's role as transmitters of basic values in conserving natural resources; one related the relevance of indigenous knowledge to environmental education programs without mention of gender differentiation; and the remainder did not address indigenous knowledge.

**7. How do sociocultural factors affect women's (vs. men's) visibility and voice at the household and community levels?**

Some attention was given to women's voice within the sociocultural context in eight of the eleven projects. Evidence was given that most formal decision making structures are male-dominated, although this occurrence is not sufficient for an assessment of the influence or decision making power of women in the household or their community in various socio-cultural settings. Only four cases were explicit about some form of women's subordination, e.g., women in Namibia “rarely participate in household and community decisions and as a consequence do not articulate their problems and needs readily.” In other cases, the cultural taboo against women as leaders in the public domain is addressed but also does not necessarily denote a lack of influence or authority. Madagascar reported that women in the central highlands actually play a prominent role in the public domain and attend meetings of the local government. Two projects mentioned conflicting interests between men and women on resources and their use but did not go further to examine how such gender-based conflicts are resolved.

**8. Are policies or legislation governing the exploitation, management, and conservation of natural resources expected to affect men and women differently?**

The response on policy impacts ranged widely. Legislative reform was not an integral part of every project, although devolution of authority to the local level applied in all cases. The one effort, which focused specifically on the National Environmental Action Plan in Uganda, very clearly emphasized the need to examine policy impacts, i.e., how the implementation of freehold tenure would affect women's ownership or use rights to land. A policy study is being proposed to investigate gender and land tenure patterns and their impact on women's roles in NRM. Other responses ranged in their degree of attention to gender considerations, as demonstrated by the following: (a) basically gender-blind assumptions about how revisions in tenure codes will stimulate greater investment in the resource; (b) recognition and, in one case, acceptance that male-dominated local authority structures could have negative impacts on women; (c) a statement by another project about how it will carefully determine the impact of policy changes on men and women and, in one case, a commitment to ensure women's access to resources; and (d) a direct objective to include women in the environmental planning process and not just at the local level.

**9. How do women and men organize to mobilize labor and other resources?**

In five of the eleven cases women's and men's traditional ways of organizing. In four instances, it was reported that women are accustomed to forming their own groups for purposes of resource mobilization or for village events. Questions such as whether women and men traditionally have separate organizations, work cooperatively in the same organization, are even cohesive enough within their gender-based group, or prefer to work as individuals, should figure in to design choices on which groups to pro-

mote and how to include representation by women. Should women's groups be represented on local committees making decisions about revenues from resource management and conservation? Should women's groups be targeted directly and separately for project activities? As one example pointed out, men's cooperation must be sought alongside targeting village women because men can and have resisted activities directed exclusively to women's groups without their consultation.

**10. How do women figure into the decision-making process in government, ministries, scientific or research institutions that apply to the environment?**

In three instances, women's low level of participation in decision making at various levels was noted as a problem. In two additional cases, women's representation in ministries and government departments was not mentioned, but the documents did mention their marginalization in local-level power structures. The remainder did not address the question. In the case of Botswana women actually experienced a decline in their access to decision making and positions of authority "due to [unexplained] external forces" that occurred long before the project was initiated. This situation led to the formation of a Women's Development Committee in 1976. The Wildlife Department is known to employ a handful of women professionals but none in senior management positions.

**11. Are there female-headed households ("de facto" and "de jure"), and how do they differ from male-headed households in terms of economic status and access to and control over resources in the community?**

A fair amount of attention was given to female-headed households, especially in countries with a notably high percentage, mostly in the Southern Africa region: Lesotho has had an economy dependent

on South African mines; Botswana has a rate of 47 percent female-headed households; and Namibia has 20 to 57 percent among nonwhite populations in urban areas of southern and central Namibia. The Uganda project document noted the high number of widows and orphans resulting from the civil war; the Rwanda project mentioned 21 percent female-headed households; and the Gambia project noted high rates of rural outmigration, causing peak labor shortages, particularly in the West and Banjul areas of the country. Seven cases took note of the problems associated with female-headed households-labor shortages, marginal or small plots for cultivation, and poverty.

The following section goes beyond the examination, in the first section, of whether the right questions were asked to how the problem(s) was articulated. However, since the problem *statements* and their elaboration were deliberately selected from the mainstream literature, some of them embody the tendencies to steer away from gender relations to a women-only focus. Users are encouraged to apply the principles in the first section to challenge some of the statements.

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## PROBLEMS — THE GENDER AND ENVIRONMENT RELATIONSHIP

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An articulation and description of each problem is followed by a brief verification based on the information available in project documents. In many cases, the information was not adequate to ascertain the problem.

### **1. Women's invisibility as farmers and resource managers persists in the design and implementation of agricultural programs and research.**

*Description:* Agricultural programs and research commonly refer to the farmer as "he" and fail to acknowledge that (a) women are also farmers and

(b) women and men have different responsibilities, tasks, and needs. Project and program planners often are ignorant of women's concerns, claims, motivations, priorities, and goals, which are likely to differ from those of men. While this does not mean that women are excluded from project activities, failure to gender-disaggregate participating farmers, adopters of technologies, and resource users renders empirical data superfluous and future comparisons impossible in terms of defining the importance of the gender variable in project planning and impacts.

*Assessment:* In two cases, there is a sustained concern to attend closely to women's needs and roles in agriculture and natural resources. In seven cases, the project documents fail to demonstrate consistency, restricting language on gender to the social analysis and conveying gender-blindness in other sections, such as the economic analysis. In one case, the invisibility of women was ascertained by the evaluation, which called for a management information system disaggregated by gender, although even the evaluation report left out the gender-disaggregation aspect from the summary of recommendations. One case could not be ascertained at all.

### **2. Women's triple roles as resource managers, food producers, and caretakers often present the conflict of trading stewardship of the resource base in favor of meeting household consumption needs.**

*Description:* Women tend to make a greater contribution to household food security than men. This contribution sometimes comes at the cost of maintaining the resource base. Overharvesting of wild foods, increased planting in marginal areas, cutting trees to make charcoal, and depletion of doum palm and adropogon leaves for craftwork are some of the ways the trade-off might occur. Frequently, the result is the increasing necessity to buy food, at the same time that they are forced to give up a source of income. Women also have certain domestic obligations, such as water retrieval or fuelwood collection, which is typically not shared by men. Degradation,

*deforestation or the extension of prohibitions on resource extraction further penalize women who have to travel longer distances away from the compound, sometimes 6 to 8 km one way for water or fuelwood. Collection activities compete for time spent in food preparation, child care, and providing for the household's nutrition. These competing obligations may affect the expendable time or energy women need for undertaking more environmentally sound practices, in concert with their long-term role as guardians of their resources and their specialized knowledge about their use and management.*

Assessment: A clear affirmation was given in the case of Senegal and Botswana. The situation could almost be inferred from the information on Namibia. Four additional instances conceded women's triple roles. Senegal described the problem whereby degradation translates into water shortage and reduced availability of fuelwood and wild plant products, which in turn lengthens the time it takes for women to perform these tasks. In Botswana, women for whom a significant source of income is basket making are depleting the veld lands and having to walk considerably longer distances to collect the palm. Namibia noted that women will cease to be managers of their resources if their constraints and needs are not properly addressed.

### **3. Women's control over land in Africa is constrained in many different ways.**

Description: *Constraints to female control over land result from: (a) legislation that bars women from ownership, (b) subordination of women's ownership rights through a male member of their immediate household, or (c) total dependency in land access and cultivation under a male member of the immediate household or community decision-making body. Women's land use rights are less secure than men's, as they apply only as long as they remain married, and, secondly, women's use rights do not allow them to acquire title to the land necessary under adjustment programs to introduce private ownership. Lack of secure access to land discourages*

*women from investing in the land. Without individual ownership of land as collateral, women cannot obtain credit. Without credit, women have much more limited means of implementing agricultural improvements or long-term resource conservation.*

Assessment: Seven of the eleven projects determined that women's control over land is constrained; one presented it as less of a problem than in most countries; and three cases could not be assessed. In four of the seven cases, women's constrained access to land had implications for project assumptions: (a) that people (i.e., women included) would invest in the land, and (b) that modern law (vs. customary law) would make it possible for women to secure land. The severity of the problem was elaborated for Uganda, where more and more women are choosing not to get married to avoid losing land upon death of the spouse or divorce. At the same time, interviews with women landowners in Uganda revealed the need to research the different ways women are able to own land.

### **4. Women generally experience greater ecological marginalization than men.**

Description: *This condition is partly a result of the historical emphasis on cash crops which shifted female farmers' household food production onto less fertile land. Programs geared at arresting desertification have also been responsible for pushing women onto marginal lands and prohibiting them from grazing their livestock, although women have for years organized themselves around survival strategies against drought. In the more acutely desertified areas, such as the Saharo-Sahelian zone, male migration is commensurately higher, while women remain to eke out an existence from the land or survive on food programs. As the availability of cultivable land becomes more limited, women are allocated increasingly more marginal plots or are refused access. Women are also generally more involved in the collection of common property resources which makes them more vulnerable to environmental degradation than men.*

Assessment: Two cases out of eleven explicitly alluded to the link between environmental degradation and women, while the others did not offer adequate information about the problem. Senegal reported that severe deforestation affects women more severely than men due to their poor access to land ownership and heavy involvement in collection of common property resources. In Uganda, the impact of environmental degradation is more severe for women who are the primary cultivators and depend on agriculture to support their families. In one project site where women had to seek their husband's permission to plant trees, they were given plots with a high water table, low soil fertility and lack of security. In one or two other cases, the increasing demand for fuelwood and forestry products and extension of agriculture onto more marginal lands was mentioned without differentiating the problem by gender.

**5. Development planners and politicians have often viewed women's participation in projects as a way to provide voluntary, self-help labor.**

Description: *Women's unremunerated labor is often assumed when projects allocate plots of land to male farmers "and their families." Traditionally, men frequently have rights to invoke their wives' labor. The reliance on unpaid female labor has the effect of reducing women's overall productivity and access to income-generating activities. Also, by being uncompensated, women's actual contribution to the national product is not counted in official estimates expressed in monetary terms. This also results in an underpricing of human and natural resources; exaggerated rates of return for projects which actually decrease female productivity will eventually lead to environmental degradation, since the underestimated value of those human resources yields little if any incentive for people (women) to develop technologies to economize their use.*<sup>2</sup>

*It is often the case that women volunteer their labor in development projects, despite the extra burden, because they wish to acquire the rights to land or water. Women are not consistently consulted in*

*the various stages of an activity and their motivations for participation are often unknown. A study of experiments in antidesertification projects revealed that management and supervision by women was the key to any approach to women's participation, as was the case in 90 percent of the ten most successful experiments.*<sup>3</sup>

Assessment: In three cases, it was ascertained that women's participation in the project did not connote women's free labor, either partially or exclusively. In the remaining cases, not enough information was given to verify the problem either because it was not clear how women would be involved, or because statements on giving women access to income-generating opportunities assumed availability of their labor, whether fairly or not.

**6. Women have been disadvantaged in the provision of agricultural training, credit, and extension, and in land reform programs.**

Description: *In the past, cash crops and new technologies were introduced to men and rarely to women. Extension workers tend to be male in most countries, and credit that requires collateral excludes most women because they do not own land. Similarly, training opportunities in technical areas, particularly male-dominated fields like forestry, fail to include women for various reasons. Market information that could open up new trade and investment opportunities does not always reach women.*

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2. The source for this statement is in Linkages between Gender Issues and the Fragile Environments in Sub-Saharan Africa by Julia Clones, AFTWD, Poverty and Social Policy Division of the World Bank (1991). For an elaboration of this issue, see the 1990 Proceedings of the Annual Conference on Development Economics by the World Bank.

3. Monimart, M. 1989. Women in the fight against desertification. A background paper for the regional encounter in Segou (Mali) on local-level natural resource management, 22–27 May 1989. Issues Paper—Drylands Programme, International Institute for Environment and Development.

Assessment: Four clear cases documented the disadvantaged position of women in access to inputs and services. In the other seven cases, no investigation into the problem was done, with the exception of women's access to land.

**7. Indigenous technical knowledge of natural resources is rarely tapped in project design or research and is not regarded as gender-specific.**

Description: *Indigenous technical knowledge about the environment and resource base is often gender-specific, but women's special stock of knowledge and potential as transmitters to their children and grandchildren on values relating to the environment have not been adequately integrated into program design or environmental education programs.*

Assessment: Only two projects, Namibia and Uganda, mentioned indigenous knowledge as an exploitable resource. In one of the nine nonmentioning cases, the local population's special knowledge was noted but no attempt was made to integrate into environmental education.

**8. Decentralization is equated with local participation, but women are not necessarily participants and beneficiaries.**

Description: *A community-based approach usually denotes devolving authority to the local level for making decisions on the planning and management of the community's natural resources, whether it be wildlife, forests, livestock, or agricultural land. Sometimes a new formal structure is created, separately from the traditional power structure or the local government; other times, existing organizations are used or become part of a decisionmaking body, such as a local planning board, formed for the purpose at hand. While a decentralized approach may be "participatory," it is not necessarily democratic, i.e., inequities at the local level still prevail. Women rarely have the same access to decisionmaking bodies or public forums that men do; hence, the partici-*

*pation of women is only proportional to their status in the community.*

Assessment: In only one project was there an inherent assumption that women would be included. In four instances, projects specifically made provisions for how women would be involved, considering the difficulty of access to decisionmaking structures. In one case, for example, the criteria for awarding grants to NGOs included the requirement that the proposal specify how women will be involved in design and implementation. In another case, women were going to be specifically targeted. In the remaining cases, attention to the issue does not translate into a proposed means to address it.

**9. Environmental policy makers and planners tend to ignore the role of women or assume that policies will not affect men and women differently.**

Description: *False assumptions are made that all heads of households are men, that information men receive will be passed on to women in their households, that men and women play similar roles in environmental and natural resource management, and that only men have an impact on the environment.<sup>4</sup> The impact of policy changes on women, particularly in rural areas, is often not well understood by policy makers. Further, women's decisionmaking role has been negligible because of their underrepresentation in the upper ranks of government, planning bodies, ministries, and scientific/agricultural institutions.*

Assessment: In five projects, the impacts on men and women were not ignored; in five additional, the problem was not entirely applicable; and in one case, it could not be ascertained. At least some attention was being paid to policy impacts in the majority of cases.

**10. Female-headed households ("de facto" and "de jure") in Africa are increasing in numbers and are more acutely affected by environmental distress.**

*Description: This trend is attributable to continuing male outmigration in search of wage employment, severe economic conditions, female participation in the workforce, and family breakdown. Female-headed households tend to be among the poorest of the poor. The effects of environmental distress on female-headed households are even greater, requiring them to work ever longer hours to produce enough food and income for their families and to collect fuel and water. Male migration for work is amplified by desertification and men tend to stay away longer, not return for the cropping season every year, and sometimes emigrate for good. Studies in male migration generally have shown that migrant remittances tend to be erratic in value and timing, low in volume, and are often not applied to welfare needs. Those households who do not receive migrant remittances experience labor constraints, food deficits, and a lack of agricultural services and generally have simpler farming systems; households in which absent husbands send remittances or return at intervals, or both, perform comparably to male-headed households.*

**Assessment:** The relatively more dire situation for female-headed households was noted in four cases; the remainder did not offer adequate information for verification.

The following section precedes to the solution or strategy proposed in project documents to address gender issues. It was not possible to establish an exact correspondence between problem statements and solutions, as some projects included appropriate language on gender, albeit without describing the problem; others described the problem but did not offer a strategy to address the problem. The findings are aggregated according to types of strategies.

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4. Russo, S. 1993. Gender and Environment. Uganda National Environmental Action Plan Secretariat. Ministry of Water, Energy, Mines, and Environmental Protection. Prepared under USAID contract no. 623-0124-C-00-2049-00. Tropical Research & Development. Kampala, Uganda.

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## IMPLICIT AND EXPLICIT STRATEGIES TO ADDRESS GENDER ISSUES

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Strategies for addressing gender issues were categorized into five different components which may exist in any combination: (1) decision making, (2) female contributions or participation, (3) access to resources, (4) control over resources, and (5) benefits. These categories characterize the concerns typically articulated with regard to the inclusion of women in the development process, although their decisionmaking roles and resource access/control have figured less consistently in the rhetoric. The magnitude and definition of each of these strategies are significant; they indicate, in a sense, the goal level for achieving either greater equity or project efficiency through applying gender as a crosscutting variable.

Project attention to each category could almost be depicted on a continuum from no attention (low) to a high level of attention (high). Under each category below, project responses are organized hierarchically from high to low, except for the section on “benefits” which illustrates, in a nonhierarchical manner, the universe of benefits, as derived from the literature review. The level of specificity expressed by the actions under each category, e.g., no mention of decision making as an issue for women, is a function partly of the language and discussion found in the project documents themselves and partly of the method for aggregating findings.

### *Decision Making*

No. of Projects	Decision-Making Strategies
1	Involve women in decision making in environmental planning
5	Seek vehicle for women to have a role in decision making at local level over resources
1	Assist women in the bargaining and negotiation process

- 1 Express concern about women's access to decision making but no proposed strategy
- 3 No mention of decision making as an issue for women

### ***Female Contributions or Participation***

No. of Projects	Participation Strategies
2	Involve women in the managerial aspects of community efforts or in design
2	Involve women in technical training, as well as in the project's resource management activities
2	Involve women for their labor and capital investment in land and other resources
1	Involve women in separate income-generating activities
3	Women's participation subsumed under community participation
1	No concrete notions of how women will be involved

### ***Access to Resources***

No. of Projects	Resource Access Strategies
3	Increase women's access to resources, a direct aim
3	Impact of policy changes or other project interventions on access to be monitored
2	Women's access regarded as or assumed to be an indirect benefit of the project
3	Gender-based access not treated as an issue

### ***Control over Resources***

No. of Projects	Resource Control Strategies
2	Increase women's tenurial rights to resources, a direct aim
1	Impact of policy changes or other project interventions on control to be monitored
2	Concern for women's control but no proposed strategy
1	Women's control over resources regarded as or assumed to be an indirect benefit of the project
5	Gender-based control over resources not treated as an issue

### ***Benefits***

Since projects often have more than one intended benefit, the total sum exceeds the number of projects reviewed. As will be observed, some benefits are concrete, measurable targets while others pertain to people-level *impacts*.

No. of Projects	Benefits
6	Increase and/or diversify incomes
3	Improve access to and/or control over resources
5	Provide resource-conserving technologies
2	Improve production techniques for women and men farmers
1	Improve nutrition through greater access to food
2	Encourage women (and men) to produce raw materials for conservation and/or their economic benefits

- 0 Lighten women's domestic labor
- 1 Improve living conditions (e.g., health clinics)
- 1 Increase women's access to technical training
- 1 Affect sociocultural conditions
  - keep women as informed and aware as men
  - strengthen women's organizations
  - create greater cohesion among women's groups and enhance their sense or responsibility
  - create a change in the gender division of labor
  - improve women's status (e.g., enable women to work alongside men, if unprecedented)
- 3 Mitigate impacts that would in any way:
  - increase women's workload
  - increase women's marginalization
  - decrease women's agricultural productivity
  - cause a loss in access to or control over resources
- 3 Nature of gender-based benefits not specified

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## GENERAL OBSERVATIONS

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As mentioned at the outset of this report, this review exercise was not intended to be conclusive or prescriptive, given the limited sources of information and the distance from field reality. To the extent that the information available was suggestive evidence, however, certain tentative observations on how USAID projects are treating gender issues can be made:

1. A project paper (PP) is typically an effort by an

interdisciplinary team, but the degree to which team members listen to each other and accept the other's viewpoint certainly have an impact on how the separate annexes are mirrored in the body of the PP, as well as in each other. Nonetheless, there does appear to be a "lip service" approach to WID or gender in some.

2. Land tenure issues are discussed in most NRM projects, particularly as community-based approaches are becoming more widespread. There are clear signs that the gender dimension of land tenure is being increasingly addressed.
3. The trend to devolve authority in NRM to the local level is apparent and, concomitantly, issues of equity and participation are gaining importance. Women's representation in local level power structures as an equity issue appears to be a growing concern that is, nonetheless, difficult to resolve.
4. The utilization of indigenous knowledge for environmental education programs and other project components is not yet in the mainstream, let alone the gender-disaggregation of that knowledge.
5. Even in well-written social analyses, the discussion of gender issues tends to fall short of a breakdown by age and ethnicity. Moreover, the persistence of a focus on women rather than on a comparison of men and women still prevails. This in itself may be indicative of a WID/equity approach which looks at women as one vulnerable group among others.

Separate from the above review of USAID projects are some additional postulates for further research and monitoring purposes listed and elaborated below.

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## POSTULATES

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1. **Power and bargaining relations as well as the broader social relations governing decisions about land, trees and other resources are not static but change over time and between the sexes and ages.**<sup>5</sup>

A common misconception is that sociocultural constraints to women's participation are insurmountable or inapproachable issues. In fact, gender relations, as part of the broader complex of social relations, continually change and adapt to external conditions. One of the positive effects of desertification is the awareness of women to confront the challenge collectively. They are learning to form new organizations and are anxious to become better informed and start up new economic activities. There is a plethora of subtle and not-so-subtle indigenous initiatives to overcome constraints, particularly as families and traditions start to break down and survival strategies are taxed.

2. **Given opportunities for generating revenues, "... women consistently spend more money and invest it more wisely in their children's welfare than do their male counterparts."**<sup>6</sup>

Women provide food, child care, and health care in addition to other domestic activities. Much of the work they do does not benefit from investment. Despite the fact that women spend less time in activities officially counted as economically productive and make much less money, women spend far more in home production than men. A mother's income, rather

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5. Leach, M. 1991. "Engendered Environments: Understanding Natural Resource Management in the West African Forest Zone." *Institute of Development Studies Bulletin* 22(4): 17-24.

6. Charlton, S. 1984. *Women in Third World Development*. Boulder, CO: Westview Press.

than the overall household income, is said to be the significant factor in the status of child nutrition.

3. **Projects which are based on needs and priorities identified by community members (men and women) will have a greater chance of success than if based on project planners' perceptions and assumptions about their needs.**
4. **Projects which integrate gender analysis in design (as guided by the questions above) are better able to formulate appropriate strategies for intervention than projects which depart merely from an advocacy standpoint.**
5. **"[W]omen's participation in project planning, design and implementation can not only reduce the damage to [the] interests [of women and women's groups], but also enhance overall project success."** (original emphasis).<sup>7</sup>

It is also worth mentioning what the literature reports on women's roles in biological diversity as well as in wildlife management. The common assumptions are:

- **African women are, traditionally, active managers of forest and other natural resources and have passed their indigenous knowledge on to their children and grandchildren. They are also active in the promotion of biological diversity.**<sup>8</sup>

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7. Clones, J. 1991. *Women's Crucial Role in Managing the Environment in Sub-Saharan Africa. Technical Note*. Washington, D.C.: The World Bank.

8. (a) Abramovitz, J. and Nichols, R. 1992. "Women and Biodiversity: Ancient Reality, Modern Imperative." *Development* 2: 85-90. (b) Mbaratha, Jane. 1992. *Women's Role in the Conservation and Utilization of Indigenous Germplasm*. Paper presented at the "Women and Environment" Conference, December 1-2, 1992. Alexandria, Egypt: High Institute of Public Health, Alexandria University.

Women have unique knowledge about forest products, wild plants and indigenous varieties. Women have developed coping strategies in subsistence economies or during periods of drought that depend materials from their immediate environment, such as herbs for medicinal purposes, wild fruits and plants which they collect and/or process for consumption or sale, and a wide range of forest products used in income-generating activities or for basic household needs. Women commonly have home gardens that produce early-maturing varieties to carry the family over the hungry season until main crops mature. The same gardens are used for germplasm conservation and seed selection. As the resources begin to disappear and modern knowledge overwrites traditional knowledge, the practice of orally transmitting indigenous values and knowledge about the environment will dwindle.

- **Women's involvement in wildlife as a resource includes several activities from sighting and tracking game to butchering the animal after the kill, to processing the meat and other products. While women do not play a role in the capture of large mammals, they frequently collect reptiles, birds, bats, rodents, wild birds' eggs, and caterpillars.**<sup>9</sup>

Although the focus of many wildlife management projects revolves almost solely around game animals, other forms of wildlife exist either as sources

of protein or as pests. Women are particularly active in the capture of small animals and insects which they may trade on the local market or collect for home consumption. However, often the more critical "problem animals" in villages adjacent to reserves or national parks are the spring hares or the quelea birds that can destroy an entire field, as has been the experience of women farmers in Southern Africa. The postcapture activities relating to large mammals frequently fall to women, some of which can become income-generating activities, such as tanning.

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## CONCLUSIONS

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This paper represents a dual process of reviewing USAID projects in natural resources management for incorporation of gender issues and providing the reader with an overview of the full spectrum of the WID literature. The latter was accomplished through the formulation of gender analysis questions, the articulation of problem statements relating to the relationship between gender and the environment, and a categoration of strategies to address gender issues. Some tentative observations appear at the end of the review section. Additional postulates and assumptions that did not necessarily emerge in the preceding sections are presented to give added impetus to the investigation and monitoring of gender considerations in project planning.

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9. Hunter, M. et al. 1990. "Women and Wildlife in Southern Africa." *Conservation Biology* 4(4): 448-451.

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Botswana. Natural Resources Management PP and Midterm Evaluation. Project no. 690-0251.

The Gambia. Agriculture and Natural Resources PAIP. Project no. 635-0235/36.

Lesotho. Community Natural Resources Management Project PP. Project no. 632-0228.

Madagascar. Sustainable Approaches to Viable Environmental Management (SAVEM) PP. Project no. 687-0110.

Mali. Forestry Reform Program/Project PAIP. Project no. 688-0267/68.

Namibia. Living in a Finite Environment (LIFE) PP Amendment. Project no. 690-0251.73.

Rwanda. Natural Resources Management Project PP and Midterm Evaluation. Project no. 696-0129.

Senegal. Community-Based Natural Resources Management Project PP. Project no. 685-0305.

Senegal. Reforestation Project PP and Midterm Evaluation. Project no. 685-0283.

Uganda. Action Plan for the Environment (APE), NEAP. Project no. 617-0124.

Zambia. Natural Resources Management PP, Midterm Evaluation and Project Amendment. Project no. 690-0251.11.



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