Gender and Forestry

Overview

FORESTRY AND LIVELIHOODS: CHANGES AND TRENDS

Forests cover just under 4 billion hectares—30 percent of the earth's land surface (FAO 2005a). They fulfill major economic functions, help maintain the fertility of agricultural land, protect water resources, and reduce the risk of natural disasters such as landslides and flooding. The world's forests are home to at least 80 percent of remaining terrestrial biodiversity and are a major carbon sink that mitigates climate change (World Bank 2002).

More than 1.6 billion people depend to varying degrees on forests for their livelihoods. About 60 million indigenous people are almost wholly dependent on forests. Some 350 million people who live within or adjacent to dense forests depend on them for subsistence and income. In developing countries, about 1.2 billion people rely on agroforestry farming systems that help to sustain agricultural productivity and generate income. Worldwide, forest industries provide employment for 60 million people. Some 1 billion people depend on pharmaceuticals derived from forest plants for their medicinal needs.

Mounting evidence suggests that poverty—and poverty in rural areas in particular—can be reduced only by sustainably managing the natural resources that both generate income and provide environmental services. The forests of the world, which are among the most important of these natural resources, provide support to nearly half of the 2.8 billion people who live on $2 or less a day (World Bank 2002). Thus, forests can and must assume a more prominent role in meeting the United Nations' 2000 Millennium Development Goal of halving extreme poverty by 2015.

"*What happens to forests*" will be largely determined by "*what happens outside forests*" (FAO 2007a: 79) One reason that deforestation and forest degradation will continue in most developing regions is the expansion in agricultural land use for both subsistence and commercial cultivation. Deforestation continues at an alarming rate—about 13 million hectares per year (FAO 2005a). A reversal of the situation would depend on structural shifts in economies to reduce direct and indirect dependence on land. The World Bank's forest strategy *Sustaining Forests* (World Bank 2002) recognizes that forests are always a part of larger economic, environmental, and governance systems that must work together if the goals of poverty reduction, sustainable economic development, and environmental protection are to be met. Total forest area continues to decrease, but the results of the Food and Agriculture Organization's (FAO's) Global Forest Resource Assessment (FAO 2005a) indicate the rate of net loss is slowing. Forest planting, landscape restoration, and natural expansion of forests have significantly reduced the net loss of forest area (FAO 2005a).

Concern about climate change has already focused increased attention on the role of forests in carbon sequestration, reducing carbon emissions and substituting for fossil fuels. Climate change may also affect forests themselves, altering forest ecosystems and increasing the incidence and

severity of forest fires as well as pest and disease infestation. At the same time forests will be increasingly valued for the environmental services they provide, which includes their role in conserving biodiversity and in arresting desertification and land degradation. In industrial and rapidly developing countries, recreational use of forests is receiving more attention, requiring changes in forest management.

Geographical shifts in the production and consumption of wood and nonwood forest products are likely to intensify, especially as a result of the rapid growth of the emerging economies in Asia, the Caribbean, Latin America, and the Pacific. This will be countered by slow growth of demand in many industrial countries, due to demographic changes and lower income growth rates. Technological changes, including biotechnology and material technology in wood-consuming industries, will improve productivity and reduce raw material requirements.

For many developing countries, wood will remain the most important source of energy. The rising price of oil and increasing concern for climate change will result in increased use of wood as fuel in both developed and developing countries.

An understanding of how society-forest relationships are likely to evolve is important in preparing the sector to address emerging challenges and opportunities (FAO 2007a). Practitioners and others must not consider natural forests solely in terms of the economic value of timber. Drawing on local knowledge can reveal the full range of social, economic, and ecological functions of these resources and how different groups use and benefit from them. Analyzing the complex interactions between local people and the forests can reveal the impact of forest interventions on livelihoods. By facilitating negotiation between stakeholders, practitioners may support the development of collaborative and adaptive strategies to manage forest resources (FAO 2006a). Successful improvements in forest management quite often resemble and build upon traditional activities already practiced in the area. If innovators do not understand local practices and know which local groups rely on which forest and agroforestry products, they risk introducing innovations that are technically feasible but that result in negative socioeconomic effects.

This Module revisits the gender and forestry analysis and experiences of rural and community forestry themes that were profiled in the 1990s (Rojas 1993)[1] and reexamines gender-related issues in the forest sector in light of recent developments and ongoing trends in the sector (FAO 2007a; World Bank 2002). Drawing on documented evidence, it aims to provide practitioners with a commentary on practical experiences of gender in forestry projects and programs.

The Module is presented under a series of pertinent themes, with lessons learned and best practices.

However thoroughly one recognizes the importance of forests to livelihoods, poverty, sustainability, and conservation, the full potential of forests may never be grasped without an understanding of how women and men use forest resources differently. If decision making in forestry programs and policies follows a "gender-neutral" pathway, the implementation of those programs will not garner the knowledge and skills, nor address the needs, of half of the rural population. Gender- and wealth-disaggregated data on the resource management practices of forest- and agroforestry-dependent communities needs to be consistently and regularly gathered. The Module uses the Sustainable Livelihoods (SL) framework to capture the full scope of gender-related issues as they relate to livelihoods.

The need for gender-disaggregated data on the forestry workforce was recently reinforced by a United Nations Economic Commission for Europe–FAO study on women in forestry in Europe:

> Ideas of specific masculine or feminine qualities are connected to certain roles, positions, tasks and professions in individuals. The perception of what is "appropriate" for men and women forms the basis for the distribution of work, the design and evaluation of different tasks, and the criteria for promotions. Forestry is not an exception to this since it has been generally regarded as an arena mainly for men's work, business and governance. Within organizations, from households to companies and authorities, a gendered organizational logic is at work, which not only reproduces a structure of gender division but also, paradoxically, at the same time, makes gender invisible. Gender invisibility takes many forms. … In many countries, reliable statistics on the demographics of the forestry workforce are difficult to obtain, and when it concerns women's participation, data are virtually non-existent. (FAO 2006b: 1)

International agencies and nongovernmental organizations (NGOs) such as the International Union for Conservation of Nature are influential in the forest sector and maintain a variety of gender strategies, guidelines, and resources. The World Bank forest strategy, for example, clearly states that "the sustainable use of forests requires the participation of all rural populations, including women" (World Bank 2002: 22). The strategy also states, however, that although women's needs often differ from those of men, many programs continue to overlook women's specific needs regarding forestry. This lack of

gender awareness constrains the sustainable use and management of forests and forest ecosystems throughout the world. The World Bank forest strategy also points to a lack of adequate data, information, and methodologies to address this concern. It acknowledges that "gender analysis will be an important tool to provide simple information on resource use, responsibility, perspectives and needs, and serves a critical role in the quality of forest investment design" (World Bank 2002: 22).

A number of concerns regarding forestry and the livelihoods of rural women and men warrant prominent treatment:

■ Depletion of forest resources often severely increases women's labor, especially with regard to the time required to gather fuelwood and the cost of purchasing it. Without adequate fuelwood for cooking, household nutrition may be negatively impacted. Conservation measures that bar entrance into forests also increase women's labor.
■ Access rights to trees and forests by men and women are often limited by confusion, or lack of clarity between formal and local customary rights. Access to particular nonwood forest products, such as honey and fodder, is often guided by traditional and cultural norms, regardless of whether they are collected for subsistence or for market.
■ Both women's and men's knowledge of trees and other forest products should be incorporated in forest management and conservation plans. Including and applying this often heavily gendered traditional and indigenous knowledge can be critical to the success of a project.

Protected areas are specific and unique natural habitats where human encroachment is restricted to preserve biodiversity. In many protected areas around the world, however, people with legitimate or historical land ownership rights live within the established boundaries. Women's and men's relationships with the environment in the protected areas and their buffer zones, in the context of their respective gender roles, are crucial for the very survival of these natural habitats (IUCN 2003). The Innovative Activity Profile on gender, protected areas, and tourism presents an FAO World Heritage national park small enterprise development project that developed and applied an innovative gender strategy.

Although many cases of women successfully managing community groups in participatory forestry and agroforestry field projects can be identified, women continue to be nominal stakeholders in the decision making and planning of decentralized and local forestry programs. The

successful project experiences cited in this Module demonstrate how to overcome this barrier.

Women are the principal practitioners of traditional agroforestry in production systems such as home gardens in Kerala State in India and Sri Lanka (Kumar and Nair 2004). They are also often innovators who develop or adapt new agroforestry technologies, such as dairy fodder and the domestication of indigenous fruits (World Agroforestry Centre 2008). Yet their presence in policy, decision making, and the science of agroforestry remains proportionally minimal.

Women are engaged in many roles in the forest industry in the developing world, often in the most menial jobs in sawmills or plantation nurseries. Women also gain employment in catering and prostitution in forest logging camps. However, an overall lack of data exists with regard to women's employment in large-scale forest enterprises. This lack of visibility of women's employment in forest industry data suggests the likelihood of poorer working conditions and lower remuneration. If women's working conditions and employment opportunities are to improve, gender disaggregated data are required in the forest industries sector. This Module focuses on women's role in small and medium forest enterprises, and more notably the nonwood forest product (NWFP) sector, for which a large body of literature and project experience can be consulted. The entrepreneurship of local people, especially women, in forestry activities and enterprises, may be constrained by centralized ownership, cultural norms, and poor access to extension, training, credit, and markets.

The 2005 Human Development Report identified HIV and AIDS as the factor inflicting the single greatest reversal in the history of human development (UNDP 2005). HIV and AIDS are undermining progress toward the Millennium Development Goals (MDGs), including the third MDG on gender equity. Women in sub-Saharan Africa are infected more often and earlier in their lives than men. By virtue of the gender inequality that is embedded in many cultural traditions, the domestic burden of HIV and AIDS care falls especially heavily on women (UNAIDS 2006). Additional domestic responsibilities to care for the sick translate into a differential use of time in the allocation of other domestic and productive duties, including a differential use of forest products. In high-prevalence areas, women who become caregivers of ill members of the household have less time for agricultural activities on their own plots. As a result, in, for example, *miombo* woodland areas, the household becomes more reliant on forest foods and income from fuelwood that is often gathered by children (FAO 2005b). Pandemics such as HIV and AIDS increase poverty and affect the use of forest resources (Shackleton and others 2006).

Emergencies, such as conflicts and natural disasters, in which populations are massively displaced often lead to additional reliance on forest products for subsistence products. The local forest cover often becomes depleted as people who live in camps, mainly women and children, gather fuelwood in the area. As wood resources are depleted, women and children are obliged to travel longer distances to collect wood, making them vulnerable to gender-based violence (SAFE[2]). Research recommends investing heavily in forested areas during postconflict periods to prevent renewed fighting and help protect the forest itself (Kaimowitz 2005).

Two recently published reports on gender and forestry in Europe (FAO 2006b) and Africa (FAO 2007b) consider the employment and positions of women in forestry services (officers and rangers), forestry education, and the technical and administrative staff of forest ministries. Even the European report recognizes that "quantitative data [are] known to be patchy and insufficient to determine, with confidence, the number of women working in the forest industry, or their roles and employment levels" (FAO 2006b: 11). However, the report also notes that "examples of good practice, have been emerging, which proves that concerted and sustained commitment and planning at senior organizational level can result in quantifiable improvements in the number of professional women foresters employed and the level of seniority they can attain" (FAO 2006b: 11). The Africa report is extremely critical of the status quo, which it characterizes as having a near total absence of data on gender in the forest sector, combined in some cases with a complete lack of motivation by policy and decision makers to address gender issues in the sector.[3] The report emphasizes the need for gender-disaggregated data to better appreciate the gender disparities in forest education, employment, and career opportunities in the formal sector, as well as to appreciate the different roles of rural women and men with livelihoods based on forest-related activities. Such information would also enable the development of more gender-conscious forest sector programs and policies.

Organizational and institutional support to women's groups is required if rural and disadvantaged women are to access resources, credit, technical and entrepreneurial training, and guidance. Having women employed as frontline extension staff, project managers, policy makers, and forest enterprise employees and managers would be advantageous in securing this support. An acknowledged requirement is for more and improved training for women in all cadres of the forest professions, as well as improved facilities to enable women and men to be trained and to accumulate work experience (FAO 2007b).

BENEFITS AND CONSTRAINTS OF GENDER-RESPONSIVE POLICY

Created by the Economic and Social Council of the United Nations in 2000, the United Nations Forum on Forests (UNFF) provides a platform for high-level policy discussions and global cooperation to promote improved management, conservation, and sustainable development of forests. Women are represented at UNFF, as one of the nine Agenda 21 major groups. The other major forest stakeholder groups include indigenous peoples, business and industry, small forest landowners, youth and children, NGOs, local authorities, unions, and representatives of the scientific and technological community (www.un.org/esa/forests).

In some forested countries, the directors of forest departments or ministries of environment and forests are women. This has been shown to enhance the profile of women's role in the forest sector, particularly with regard to smallholder forestry, forest associations, and livelihoods-related issues. In most countries, however, women's role and representation in decision making that pertains to the forest sector are very limited. Considerable efforts can be made through training and job placement in both public and private sectors to enable more women to gain employment in the public sector and be effective forest managers and entrepreneurs, as well as to enhance their advocacy and representational skills (FAO 2006b).

Although an outspoken political commitment exists on nearly all levels to integrate gender considerations into policy development, reality lags behind. Most policy decisions are still taking a gender-neutral approach, ignoring the complementary capacities of women and men in implementing these policies.

Many people working in the forestry sector are familiar with the operationally focused gender materials produced by the Forest Trees and People Program at FAO in the mid-1990s. In recent years, however, mainstream publications pertaining to forests, livelihoods, and poverty became gender neutral, referring, for example, to "rural people," "farmers," and "households." Women per se and recognition of women's specific challenges and acknowledgment of their specific achievements had largely disappeared (FAO 2006a, 2007a). The recent release of PROFOR's *Forests and Poverty Linkages Toolkit* explicitly includes gender in its tools for analysis of livelihoods. Interim results from midterm reports piloting the toolkit in Cameroon, Ghana, Madagascar, and Uganda demonstrate clearly the significance of collecting and analyzing gender- and wealth-disaggregated data.[4] In Madagascar results from one

community found that poor women rely significantly more on the forest resource for their livelihoods than do poor men—37 percent of women's income came from the forest compared to 22 percent of men's income. Wealthier men, on the other hand, gained more of their income from the forest than wealthier women.

These kinds of results clearly indicate the contrasting uses and perceptions of forest resources and its products by different members of society. The data also emphasize the vulnerability of poor women and their families, and the likely impacts on the most marginalized segments of a community if they are excluded from decision making about the forest resource base, the products of which often provide one-third of their income (see Technical Note 1 for more details). The data collected in piloting this toolkit could also be indicative of how differential forest product use and access develop between men and women as households move out of poverty.

It is obvious that sustainable development, particularly in forestry, can be achieved only if decision and policy makers continuously connect gender awareness from local to national and global levels. A prerequisite is the continued collection of gender-disaggregated data and the use and application of gender-conscious language and tools in policy texts and field manuals.

INNOVATIVE APPROACHES TO OVERCOME GENDER BARRIERS

The SL conceptual framework for analyzing the agricultural livelihoods of women and men, girls and boys, is an adaptation of the sustainable livelihoods concept and considers assets, risks and vulnerability, information and organization, markets, policies, and institutions. In the forestry context, many of these barriers are probably higher and more intractable than in other rural sectors. Much has to do with traditional management regimes and decision making, but much also relates to the potential wealth of the sector and the dominance of large-scale concessions.

At the local level, groups of women have improved their access to decision making in the management of forest resources through organization and advocacy. Time and again the material presented in this Module will demonstrate that through enhanced organization and representation, they have improved their incomes and the well-being of their households, as well as the educational opportunities of their children.

Women and children are often the most vulnerable in forest conflicts and the most reliant on forest resources during conflicts and periods of economic hardship. Strong examples of support in advocacy and home visits provide hope that innovative programming will overcome some of the difficulties and alleviate the horrors faced by these families. However, larger initiatives to support the most marginalized families directly have yet to be implemented.

Although training in organizational and representational skills is very important, training in business and negotiation skills for small-scale enterprises is fundamental to the success of identified women's enterprises. For an enterprise to be independently sustainable, training and credit support needs to be provided for at least five years. Projects should not consider engaging for periods less than this.

The gendered nature of resource use, access, control, and responsibility with respect to trees and forests is highly complex (Rocheleau and Edmunds 1997). Women's rights to particular areas of cropping land, trees, and tree products, as well as to "in between spaces" in agricultural landscapes, are often based in negotiable customary law and are often substantial. These rights, however, may be marginalized or not recognized, sometimes regarded as well-meaning efforts to create statutory laws and administrative procedures (Rocheleau and Edmunds 1997). Women's rights are often negotiated and may subsequently not be best served by formal titling of land, which often vests ownership in a single head of household. Agroforestry and forestry projects and programs can better protect women's access rights by allowing for multiple uses of specific spaces and resources by multiple users, and by prioritizing renewable uses, such as the gathering of fruits or harvesting of fallen wood, prunings, coppiced wood, and leaf fodder, which do not preclude most other uses (Rocheleau and Edmunds 1997).

Designers of agroforestry projects and programs are advised to disaggregate gendered knowledge, access, and control further, so as to also include tree products, such as timber, fuelwood, fruits, and fodder. In many cases, although women have substantial labor and management responsibilities for a particular resource, men control the disposal or marketing of the products of that resource, as well as the distribution of its benefits. Reporting gender-disaggregated data on agroforestry practices should also be encouraged. It has long been recognized that women are the principal holders of knowledge and managers of traditional home gardens (FAO 1999), and 60 percent of the practitioners of innovative agroforestry practices such as domestication of indigenous fruit trees and production of dairy fodder are women (see Thematic Note 2). These particular practices are easily adaptable to women's niches on farms. However, the gender aspects of innovative agroforestry

practices such as these are perhaps not afforded the profile that they warrant in program reports and scientific publications. Using and applying gender-disaggregated data will raise the profile of women agroforestry practitioners and thereby enable their greater access to technical information, credit, and related extension support.

Gender-related considerations have been integrated in almost all relevant forest policy commitments and related fields, such as climate change. However, a gap still exists in translating these policy commitments into implementation. True change and gender-responsive action can be achieved only if policy and decision makers face their responsibility to ensure an inclusive implementation of their gender-relevant commitments at project and program levels.

The Innovative Activity Profiles demonstrate that gender awareness in implementation needs a strong backup from the policy level to achieve the change of traditional and sometimes obsolete attitudes on the roles of men and women in forest management. Demographic developments and changing family patterns require that women be involved in decision making on all levels to sustain their livelihood and the security of their families. This requires in particular a rethinking of traditional gender-biased land tenure and property rights; greater gender equity in land tenure and rights to forest resources would be building blocks for the sustainable and long-term-oriented development of livelihoods based on forest resources. Policy and decision makers are encouraged to use the potential of gender equity in working toward the Millennium Development Goals on all levels by ensuring universal access to education and training and building entrepreneurial capacity in sustainably managing forest resources.

MEASURING CHANGE: GENDER-SENSITIVE MONITORING AND EVALUATION INDICATORS

Being able to measure the impact that forest policy, training, and management initiatives have on men and women beneficiaries, their families, and communities is important. Table 15.1 gives some ideas for indicators and sources of verification, though clearly modifications are required for each program.

Table 15.1 Monitoring and Evaluation Indicators for Gender and Forestry	
Indicator	**Sources of verification and tools**
Over a set period, an increase of *x* percent in household incomes from forest-based activities among women-headed households and poor households in program areas	• Household surveys • Project management information system • Socioeconomic data from statistics office
Changes over *x*-year period of project activities in household nutrition, health, education, vulnerability to violence, and happiness, disaggregated by gender	• Household surveys, before and after • Project management information system • School records
Proportion of annual household income (or consumption) derived from upland farming, agroforestry, or forest activities	• Household surveys
Percentage of women and men actively participating in natural resource management committees (including bank account signatory roles)	• Bank records • Committee meeting minutes • Interviews with stakeholders • Local traditional authorities (such as a chief or local council) • Program and project records
Number of women and men actively involved in management (that is, protection or conservation or production) of protected areas or reserves based on a management framework or plan	• Community monitoring committees • Forest management plans
Capacity-building support provided for community-based resource management, forest enterprises, and others	• Project records • Training records
Change in perceptions of men and women regarding importance of forest protection and management, measured before and after activity	• Focus groups • Stakeholder interviews
Percentage of women and men community extension workers and professional forestry extensionists	• Forest Department records • Project records

(Table continues on the following page)

Table 15.1   Monitoring and Evaluation Indicators for Gender and Forestry (*continued*)

Indicator	Sources of verification and tools
Level of satisfaction among women and men with access to and quality of extension and training services	• Sample surveys • Stakeholder interviews
Percentage of representations and mentions of women and men in training and awareness-raising materials	• Survey of training and information materials
Number of women and men actively involved in participatory research and innovations in agroforestry or forestry, before and after project activities	• Forestry extension records • Interviews with stakeholders • Observation • Participatory monitoring
Number of women and men involved in seed collection, propagation, and tree nursery techniques in district, before and after project activities	• Forestry department records • Participatory forest management group records • Project records • Stakeholder interviews
Changes to access rights by women- and men-headed households to common property resources (timber and nontimber) in forests	• Case studies • Interviews of local authorities and community leaders • Participatory rapid appraisal
Changes in time taken to collect firewood daily, before and after project activities	• Participatory monitoring • Project records
Number of conflicts over natural resources access or land ownership per year	• Interviews with stakeholders (from all relevant groups in conflicts) • Local traditional authorities (such as a chief or local council) • Program and project records
Number of women and men from district employed in forest enterprises, annually	• Administrative records
Incidence of occupational health and safety problems among workers in plantations and processing plants, disaggregated by gender	• Administrative records • Review of procedures against local and national regulations
Spread of HIV and AIDS, prostitution, alcoholism, and other problems from in-migrant workers, compared with baseline	• Community health surveillance • Health records • Local authority reports
Community satisfaction (disaggregated by gender) with changes in forest access and forest resources dispute treatment	• Group interviews or focus groups • Interviews, before and after

Source: Authors, with inputs from Pamela White, author of Module 16.

Forests as Safety Nets: Gender, Strengthening Rights, and Reducing Vulnerability

Forests have a significant role in reducing vulnerability and providing safety nets and subsistence (food, fuelwood, and incomes) for the rural poor who depend on forests for their livelihoods. Livelihoods vulnerability may arise from natural disasters, human conflict, human and animal disease epidemics, food insecurity, agroecological factors such as water variability, and market and price risks. Poor households are more exposed to these risks and less resilient in coping with them. They tend to have weaker political representation and to experience greater difficulty in securing their rights to land, other resources, and support in times of crisis (see also Module 11). Women are typically the principal agents of food security within a household and tend to suffer the most in terms of increased workload when livelihood shocks occur.

KEY GENDER ISSUES

Several key gender issues face women in regard to forestry issues.

Experiences in community and participatory forest management

One step forward in linking sustainable livelihoods and forests has been approached through community forestry. Too often, however, the community has been viewed as a homogeneous unit in terms of status, influence, wealth, gender, and access to resources (Muckarjee, Jayaswal, and Parihari 2006; Wollenberg and others 2001). Even when these differences have been recognized and participatory processes have been employed, issues of power and the capacity of groups to negotiate solutions have not always been adequately considered. As a result, many women's concerns regarding forest use and access have been neglected in the consultations undertaken in the participatory design and implementation of projects. Community forestry, however, remains a popular approach to forest management, and the demand for support in carrying out community forestry projects among communities remains high.

Nonwood forest products

Poor households in particular depend on NWFPs, which provide essential food and nutrition, medicine, fodder, fuel, thatch and construction materials, and nonfarm income.[1] NWFPs are particularly important in relieving "hunger periods" in the agricultural cycle; they provide seasonal employment and a buffer against risk and household emergencies. The poor, moreover, tend to have more access to the forest than other natural capital and few land rights elsewhere. Within poor households, gender asymmetry in ownership and access to productive resources such as land causes women to rely disproportionately on NWFPs for income and nutrition (FAO 1995). In many communities women are responsible for the household activities that involve forest-based foods and firewood.

Generally the poor and more marginal households engage in the local trade of nontimber forest products (NTFPs), and this is a particularly important activity for women (Kaimowitz 2003). In a series of studies in Brazil, Cameroon, and South Africa, 40 to 50 percent of those active in this trade were women who headed their own households (Shackelton, Shanley, and Ndoye 2007). In Cameroon the trade in four popular edible NTFPs was dominated by women, who were responsible for most of the harvest and who formed 94 percent of the traders (Ndoye, Ruiz-Perez, and Eyebe 1997). Wholesalers were often men. In eastern Amazonia both poor men and women collect and sell a number of forest fruit species, whereas in the city most fruit wholesalers were men, and most fruit processing was undertaken by poor urban women (Shanley, Luz, and

Swingland 2002). Local trade in many nontimber products is an area in which women are free to earn income with little interference or threat of expropriation by men (Schreckenberg, Marshall, and Te Velde 2006). Where the opportunity cost of women's labor is relatively low, the participation of women can make NTFPs commercially viable.

Global markets for NTFPs often overshadow local trade in traditionally important products. Yet neglect of local trade can lead to further marginalization of low-income groups whose livelihoods depend on that trade (Shackleton, Shanley, and Ndoye 2007). Many households require flexible local income-earning opportunities that allow space for responsibilities such as child care, nursing the ill, maintaining homes, and crop production. The production of NTFPs for local markets can provide part-time, seasonal, occasional, or full-time year-round employment, depending on the product, location, and individual household. This flexibility makes NTFP-related activities particularly appealing to women, enabling them to combine collection and trade of these products with their other domestic duties and responsibilities (Shackleton, Shanley, and Ndoye 2007).

HIV and AIDS and communicable diseases

The most important actions in dealing with the medical and health emergencies created by the HIV and AIDS pandemic are public awareness programs aimed at preventing further spread of the disease. Although this aspect of HIV and AIDS mitigation is generally outside the mandates of agriculture and forestry departments, all sectors of society have a role to play in alleviating the impacts of the disease, both in the immediate and in the long terms. The forest sector can help to mitigate the impacts of AIDS in a number of ways (FAO 2002):

- By enhancing short-term agricultural productivity
- By enhancing long-term agricultural productivity
- By developing education and human resource development strategies in extension and services (forestry training and education)
- By transferring skills from one generation to the next.

One example of the implementation of an HIV and AIDS response within this mandate came as a result of a request of the government of Malawi to support field studies that address the interactions between *miombo* woodlands and the morbidity and mortality caused by communicable diseases, especially HIV and AIDS.[2] The results demonstrated the crucial role of the woodlands in supporting the livelihoods of affected households and documented adjustments in use and access to woodland resources by women and children of households with sick adults, as well as households in which an adult had recently died (box 15.1).

Forests, natural disasters, and conflicts

Natural disasters and civil strife affect large numbers of displaced people who rely on forests for shelter, fuelwood, fodder, and nutrition. Large concentrations of displaced populations in camps place excessive pressure on already degraded natural resources. This can endanger food security and livelihoods in nearby communities and foster resentment within the host population (FAO Forest Department brief prepared for SAFE, 2007). Charcoal and wood are needed for fuel, and branches and timber for shelter constructions and women are typically responsible for collecting them. Many who leave camp to collect forest materials are subject to gender-based violence (Miguel Trossero, personal communication 2007; SAFE 2007).

Alternative fuel, energy saving, and reforestation initiatives undertaken in the vicinity of displaced persons camps may help to reduce women's vulnerability. These can include establishing fast-growing woodlots immediately adjacent to refugee camps, promoting the use of "fireless" cookers, energy-saving mud stoves, and cooking techniques such as soaking beans before cooking them and covering lids while cooking.

Forested areas have been the stage for wars in some two dozen countries that are home to over 40 percent of the world's tropical forests during the last 20 years (box 15.2). Various reasons have been given for this. Forested regions tend to be inaccessible and easy for armies to hide in. Armies have been able to fund their activities by extorting money from petroleum, mining, and logging companies; drug dealers; and farmers in these areas. Some militias carry out mining, logging, and drug trafficking operations themselves. Soldiers often survive by hunting and fishing and preying on isolated farmers in remote forested areas. Many people living in these areas deeply resent the fact that they have been neglected or mistreated by national governments, particularly if they perceive outsiders as benefiting from the local natural resources. The influx of migrants of other ethnic groups often stirs conflicts with local people (box 15.3). Armed groups of various types and inclinations frequently earn a certain degree of local support or acceptance by filling the vacuum left by a national government with weak presence locally (Kaimowitz 2005).

GENDER IN THE IMPLEMENTATION OF POVERTY-FOCUSED FORESTRY PROGRAMS

In 1995 the Forest, Trees and People program at FAO published a series of publications that set out practical methods for gender analysis in the planning and implementation of community-based forest projects and programs. Yet there is little or no indication that gender analysis is systematically applied in projects and programs at the local level.[3] The design and implementation of gender-equitable interventions that seek to strengthen rights and reduce vulnerability among forest-dependent communitie remain a challenge (box 15.4). (Programs involving wood energy, fuelwood saving, and alternative fuels provide an important exception and do focus on women, although it is evident that women's roles in forestry are far more expansive than these programs' coverage.)

Any rural livelihoods-focused forestry program must analyze the activities and resources available to both men and women as men and women have different experiences, resulting from intergenerational knowledge transfer and years of experimentation in forest product harvesting, processing. and domestication. A few of the questions to be considered are as follows: What forest-related tasks are undertaken by men, women, boys, and girls? Who has access and the power to decide whether and how resources are to be used, and how they are to be allocated? How is knowledge of the forest and its resources gendered? Who has control over the output or product? Market access for harvested and processed forest products is not gender neutral: Who has access to which markets and why? What are the gendered barriers to adding product value and market access? In addition to the gender analysis, an inclusion analysis would shed light on many of the above issues in the initial phases of a forest and livelihoods program: How are men and women included in each aspect of decision making with regard to forest resources, and products for use by the community and by individual households?

Source: Author's adaptation from Feldstein and Poats 1990.

A number of factors contribute to gender blindness, both at the national policy level and in field project design. Field projects and forest offices are predominantly staffed by men forestry officers, who are therefore the majority of those responsible for running participatory rural appraisals and other types of participatory consultation in the villages. In many rural societies, village women are culturally restrained from speaking in public. In many instances it is not considered appropriate for men from outside the community to encourage women to participate in meetings or to suggest separate meetings with women participants. Combined with the common lack of frontline women forestry officers, these cultural proscriptions mitigate against women's perspectives being aired during village discussions and data generation exercises. Although women are ordinarily responsible for the nutrition and food security of their families, the products that women harvest and market to feed their families are generally not included in conventional forest inventories or data collection exercises.

POLICY AND IMPLEMENTATION ISSUES

Three examples illustrate a selection of the key issues facing policy making and the design and management of interventions that effectively capture gender.

Gender and wood energy in Asia

During the Regional Expert Consultation on Gender and Wood Energy in Asia in 1995, discussions raised a number of observations that would be endorsed by the participants. The burden of providing traditional energy supplies for domestic use is commonly the responsibility of women. Rising woodfuel prices, lower woodfuel quality, and reduced access to woodfuels increase this burden. Interventions in the energy sector, such as land use and fuel price reform, often have disproportionately negative implications for women, especially those from lower-income groups. In many Asian countries, the concerns of women are underrepresented in shaping wood energy policies and strategies.

Wood energy plays an important part in women's reproductive tasks. Access to inexpensive, less time-consuming, and sustainable sources of wood energy and to efficient cooking and heating devices will directly benefit women. Women also have increasing energy needs in their productive roles as bread winners. Many self-employed women depend on wood or other biomass energy for commercial activities such as food preparation for sale or are employed in establishments that rely on woodfuel. Others are economically dependent on trading in fuelwood and charcoal, and some have escaped poverty through this trade. The need to understand and to relate to women's needs in regard to these matters is thus of central importance in wood energy planning at all levels.

Forest law, nonwood forest products, and income-earning opportunities for women in Lao PDR

In the Lao People's Democratic Republic, policy makers recognize the importance of NWFPs in alleviating poverty and supporting national economic development. The lack of clear legal guidelines, enforcement mechanisms, support services, and institutional capacity has been recognized as a major constraint to realizing the products' potential in these roles. The government has strengthened a number of institutions and was encouraged in introducing new policies and a legal framework to promote NWFPs. The FAO assisted the government and other involved stakeholders by creating a model for the development of marketing systems for NWFPs

using the Market Analysis and Development approach.[4] At the provincial level, stakeholder meetings were held involving local communities, the private sector, and local stakeholders. Between 30 and 50 percent of the membership of the local start-up NWFP enterprises and community groups are women. National-level task forces were established to develop a framework for market information systems. These are the first step in reducing bottlenecks in legislative procedures and access to market information that have thus far restrained the development and application of women's entrepreneurial skills and their access to credit.

HIV and AIDS and national-level policy in the forest sector

The Department of Forestry in Malawi is a pioneer in developing and implemented a Forestry Sector HIV and AIDS Strategy. The government recently launched this strategy covering 2007 to 2011. The major goals of the strategy are as follows:

- To prevent the further spread and transmission of HIV and AIDS among workers, communities, households, and individuals that are dependent on forestry
- To improve sustainably the livelihoods and quality of life of those who are living with and affected by HIV and AIDS.

In line with the National HIV and AIDS Policy and the National Action Framework, the strategy focuses on both the workplace and core mandate functions of the sector. The document presents the principles that guide the implementation of the strategy, including those that promote gender equality and greater involvement of men, women, and children living with HIV and AIDS, transparency, accountability, and evidence-based programming. The objective is to reduce the further spread of HIV and AIDS and mitigate its impact and to foster the sustainable management and development of forest resources (see also Government of Malawi 2007).

LESSONS LEARNED AND GUIDELINES FOR PRACTITIONERS

The key actions identified in a group of successful projects reviewed as part of the preparation of this thematic note were the empowerment and visibility of women in local-level decision making pertaining to forest resources. Women's self-help groups facilitated better access to and management of resources in all the successful projects. Self-help groups also enabled the women to better represent their views in community decision making and to receive technical and skills training. The North Eastern Region Community Resource Management Project for upland areas in India provides an example of the types of activities undertaken by self-help groups in forest programs (box 15.5). Along with income, the most highly valued components of

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Box 15.5   India: The North Eastern Region Community Resource Management Project for Upland Areas

Along with natural resource management groups, self-help groups (SHGs) make up the bulk of the activities within the International Fund for Agricultural Development's North Eastern Region Community Resource Management Project for Upland Areas. In Nonglang village in the West Khasi Hills district, poor women have seen the benefit of forming SHGs and working together. Microcredit has been the focus, but women's organization into SHGs has brought other social benefits too.

Women members meet once a week and pool group resources for saving and lending purposes. These savings have been used for income-earning purposes as well as for health and education needs. Over time groups have recognized value in loans for the benefit of the village apart from those for individual members.

SHG members see value in meeting every week to discuss common problems. While meeting to save and lend, women have the opportunity to discuss collectively other needs, such as health and education. Literacy has become one of the goals of the SHG. With the encouragement of the project, the group has organized a school for young children who previously either did not attend classes or did so only in the morning.

According to a survey conducted to assess the impact of SHGs, the most important aspects noted by the group members themselves were "empowerment," "increase in income," and "awareness," in that order. They also appreciated improved consumption patterns and skill development.

Source: Deseng and Yirmeila 2005.

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project support through the women's groups were empowerment and awareness.

A review of project experiences led to the following recommended sequencing of support to community-based organizations (CBOs):[5]

1. Identify existing women's groups (CBOs) in the proposed project area, their objectives, activities, successes, and constraints.
2. Provide demand-driven support and training to those groups that already exist following an analysis of problems and opportunities in forest access and resource use.
3. If there are no community-level organizations or associations in which women play an active role, assist local authorities in the creation of self-help groups and village-level development associations in which women can play a more active role.
4. Build capacity and provide management training based on the goals of the groups.

The Jharkhand-Chhattisgarh Tribal Development Program in India applied these steps to empower women and develop their technical skills (box 15.6).

When village-level groups have formed around a common purpose and are active, they are more effective in strengthening their rights and reducing the overall vulnerability of their members. They may come together in associations or more formally in federations (box 15.7).

SHGs do not function in isolation from other forest-related stakeholders, nor are all SHGs women's groups. Depending on the objectives of the group, CBOs and SHGs may have men, women, and youth members. Once a CBO is organized and embarks on an activity such as marketing NTFPs or lobbying for forest resource access, the group is likely to encounter constraints imposed by other forest stakeholders, as well as by forest policy and law beyond the immediate boundaries of the village. Conflicts may occur between the village associations and these stakeholders. Some CBOs have been set up in response to existing conflicts. CBOs often require the additional support of third parties to enhance their negotiation and marketing skills: for instance, when they set out to gain greater access to NTFP value chains. Many documented cases exist of this type of support.[6]

However, other types of conflicts that occur, for example, in the context of illegal logging, mining, or illicit crops, may be violent. CBOs benefit from advocacy by

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Box 15.6   India: The Jharkhand-Chhattisgarh Tribal Development Program

The program focuses on tribal people in Jharkhand and Chhattisgarh, two of the three Indian states with the highest proportion of tribal people. Tribal peoples are among the poorest in India. The program targets marginal households, women, landless people, hill cultivators, and tribal people. The goal is to empower tribal people to participate in their own development through local self-government. In the Chhattisgarh area, women's productive work consists of agriculture, gathering forest products, and wage labor. Women's workdays are typically 16–18 hours of often physically demanding labor. Women generally go to the forest as a group to collect forest products. Tribal people depend on the forest for their livelihoods, including for nontimber or "minor" forest products. From these they obtain foods such as fruit and oil, as well as needed items for the home, such as bidi, brooms, baskets, mats, rope, home-made toothbrushes, leaf plates, and

medicines. Some forest products are also sold for a small cash income.

The program has two principal subcomponents:

■ Grassroots empowerment and technical capacity building
■ Livelihood systems enhancement.

The former component provides training to the tribal population, especially women and other marginal groups, on broad-based awareness of tribal rights, gender, and equity issues, as well as legal and managerial strengthening training. The latter component focuses more on technical aspects, such as establishment of nurseries and support for processing and marketing of NTFPs. It works with the village groups in a livelihoods context. A legal defense fund is planned to assist the tribal population in defending its rights.

Sources: IFAD 2006; see also http://cjtdp.nic.in.

Historically, Huoshan County in China's eastern province of Anhui has been one of the country's poorest areas.

The county has abundant natural resources, such as bamboo, tea, mulberry, and medicinal plants. The area is best suited for forestry development because the mountainous topography is generally unsuitable for agriculture. It is not surprising that 75 percent of farmers' income is currently derived from forests.

The Sino-Dutch Forestry Program focuses on household forestry, farmers' self-help organizations, demonstration households, and training in participatory concepts and forestry techniques. It has three basic principles: participatory approaches, gender consciousness, and environmental protection awareness.

Groups created at the village level are subsequently federated into larger networks of groups according to their primary purpose: "farmers' professional associations," "community development fund management organizations," and "forest products processing associations." The primary aim of the farmers' self-help organizations is to improve the economic and social environment for farmers and their families. By empowering farmers to manage their farms according to their own livelihood preferences, their dependence on the government will hopefully be reduced. Women and men farmers are free to join or drop out of any organization they choose. Each self-help organization has its own rules and regulations, and the farmers themselves elect the management committee.

Xu Jiaqi, a community development specialist for the project, explained that "everyone is involved in project activities. Each person is allowed to share his or her ideas during meetings and discussions. A decision is made by the group by the end of the day. Women are given importance in all activities. In fact, in some groups such as the Bamboo Farmers' Association, most of the members are women (70 percent) are women."

More than 16,000 households have participated in the forestry activities. As a result, the forest cover of the county increased from 59 percent in 1989 to 70 percent in 2002.

Source: Chunguian 2005.

third parties such as NGOs, which may, for instance, publicize their situation and concerns to a wider audience. Successful community-based organizations have been shown to be those that have taken the lead themselves, as they best know the complexities and nuances of the conflict situation and the strengths and weaknesses and history of the various stakeholders involved. The El Balcón, Mexico, case presented in box 15.8 illustrates the significance of different players and the complexities of developing a governable situation around communal forests. Yet it demonstrates how negotiation over confrontation, knowledge and employment over exclusion, and quality leadership, and transparency have reduced conflict and secured livelihoods.

Support for and creation of women's CBOs or subgroups in community-based organizations are not panaceas to mainstreaming gender in livelihood-oriented forestry programs. Women's groups themselves often have many problems in management, corruption, and elite capture such that poor women are marginalized by wealthier, more articulate, and more educated women in the community. Poor women often have less time, further distances to travel, and fewer resources with which to engage in group activities (see also Thematic Note 4, Module 2). However, if women are not organized into entities that represent their needs and rights in forest resource access and use, their voices will not be heard. Local organization is the first step to strengthening rights and reducing vulnerabilities of marginalized women.

Box 15.8   El Balcón, Mexico: Building Peace and Governability around Communal Forests

The Ejido el Balcón is located in the highlands of the sierra, close to the Pacific Ocean in the region called Costa Grande in the Mexican state of Guerrero. The Ejido el Balcón was formed in 1966 when the Mexican government granted collective property rights to 136 family heads of over 2,400 hectares. In 1974 another 19,150 hectares of forestland were given to the ejido (Bray and Merino 2003). This was a time of permanent confrontations over the land. In the initial days of the ejido, nearly 20 percent of El Balcón's community members were widows under 30.

Within the context of Guerrero and rural Mexico, the case of El Balcón is remarkable for several reasons. The ejido has built a forest enterprise that uses modern technology to produce certified timber for export. The enterprise employs all ejido members who want to work for it. Profits have largely been invested in the social welfare of the nearly 600 people living in the ejido (health care, education, and public infrastructure).

From satellite images or by simply traveling through high parts of the sierra, one can readily observe the deterioration of the forests, which constantly suffer from fires and illegal logging. El Balcón is the exception. Its lands are covered with well-preserved forests, and its forest management was certified under the Forest Stewardship Council in 2003.

The most important achievement of El Balcón is the climate of agreement, governability, and peace that it has built amid a region that has fallen victim to illegal logging and drug trafficking. A number of factors may be attributable for the extraordinary institutional development of El Balcón: the quality of its leaders, their preference for negotiation over confrontation in dealing with internal problems as well as with neighboring ejidos, their insistence on the importance of issues such as regulated forest management, transparency of the ejido's business, and association with other forest ejidos of the region.

Source: Merino 2005.

Agroforestry Landscapes: Gendered Space, Knowledge, and Practice

Trees play a crucial role in almost all farming systems and terrestrial ecosystems; they provide a range of essential products and services and play a particularly pivotal role wherever people depend on fragile ecosystems for survival and sustenance. Integrating trees into agricultural landscapes provides a number of environmental services, some of which are essential. Trees maintain soil health and regenerate land that has been cleared of natural vegetation. They provide nutritious foods for human consumption and fodder for livestock, as well as timber, fuelwood, gums, resins, latex, and medicinal substances. Agroforestry is a system of natural resources management that integrates trees on farms and in the agricultural landscape to diversify and sustain production. Farmers throughout the world have practiced agroforestry for millennia. By World Bank estimates, over 1.2 billion people derive their livelihoods from agroforestry systems. Owing to its capacity to enhance multiple functions in agriculture, agroforestry will become increasingly important in land-use practices around the world (World Agroforestry Centre 2008).

Women's knowledge of trees and of tree genetic diversity is extensive, and their roles as both suppliers and users of tree germplasm and genetic resources make them critical agents in scaling up agroforestry practices to improve livelihoods. This is knowledge that is all too often neglected. Women are important to agroforestry, but agroforestry is also very important to them. Farm niches such as dairy fodder and domesticated indigenous fruit trees in home compounds are typically managed by women, and their engagement in these agroforestry activities provides them with access to the products of these activities.

GENDERED TREE TENURE AND ACCESS TO AND DISPOSAL OF AGROFORESTRY TREE PRODUCTS

In 1997 Rocheleau and Edmunds analyzed the gendered nature of resource use, access, control, and responsibility with respect to trees and forests. What emerged from their analysis was a picture of highly complex, often negotiable resource tenure regimes. Women's rights remained substantial, although frequently tenuous and under pressure from a variety of changes in land use, family composition, and household structure (box 15.9). In some cases, evolving customary practices served to maintain women's access to resources and warranted protecting, enhancing, or reconfiguring customary law into more robust, equitable statutory law and administrative procedures. Resource tenure was also clarified when researchers realized that even within seemingly unitary blocks of private household property, complex structures and processes governed how resources were divided and shared by gender. These complex, gendered systems of tree use, access, responsibility, and control require the attention of field workers, planners, and policy makers.

Interventions in community forestry management, farm forestry, and agroforestry frequently invest all access rights in a single "owner," in part for the sake of project implementation simplicity and efficiency, in part on the assumption that such "owners" need exclusive rights to manage their land effectively. This is an erroneous assumption. The nested rights to trees and tree products within tenure domains need to be considered (box 15.10). Agroforestry and forestry projects and programs can better protect women's access rights by allowing for multiple uses of specific spaces and resources by multiple users. These projects and programs can also prioritize renewable uses, such as the gathering of fruits and harvesting of fallen wood, prunings, coppiced wood, and leaf fodder, which do not preclude most other uses (Rocheleau and Edmunds 1997) Women's rights are often negotiated and may, therefore, not be best served by formal titling of land, which often vests ownership in a single head of household.

Designers of agroforestry interventions should be prepared to disaggregate agroforestry products that are controlled by

men and by women. Attention to customary practices can also inform analysis of how men and women benefit from the products of the resources they use. Men often control and benefit from the products that women are responsible for producing. This is sometimes the case when women are involved in community reforestation projects, caring for nurseries and transplanting seedlings of trees that men ultimately use for poles. Project and policy interventions can make explicit reference to who disposes of tree products and can help women avoid situations in which their labor is exploited largely for the benefit of others.

GENDERED KNOWLEDGE AND HOME GARDENS IN THE SUBHUMID TROPICS OF SOUTH AND SOUTHEAST ASIA

Home gardening is a time-tested example of sustainable, multispecies, agroforestry land use practiced as a subset of farming systems, predominantly in lowland humid tropics. Home gardens contain a vast number of plants, with which the members of the household constantly interact, conserving biodiversity, sequestering carbon, and providing valuable public and private goods. With their ecological similarities to natural forest ecosystems, they provide insurance against pest and diseases outbreaks. They also provide a variety of goods and services that people may otherwise rely on forests for and thus serve as a buffer against pressures on natural forests.

Home gardens are a prominent form of land use in traditionally matrilineal societies such as Kerala, central Java, and west Sumatra. They have remained engines of growth over long periods in these highly populated lowlands. Their productivity is modest compared to intensive monocultures, but they are a far more diversified source of production and income. Planting and maintaining home gardens also reflect the culture and status of the household, and especially women, in local society. In many places women play a vital role in the design and management of these land-use systems.

Growing and harvesting vegetables, fruits, nuts, medicinal plants, and fuel, and rearing animals are often the domain of women, especially in smaller gardens. The possibility of gender equality for participating in garden management and sharing of benefits is perhaps one of the major stimuli for

Trees located on women's fields generally belong to the men who lend them the piece of land but who may, however, concede women the right of access to them. In central Mali women have the right to trim branches and gather fruit and deadwood without permission from the landowner. Women are also usually responsible for the processing and commercialization of parkland products. Tree protection is as common in women's fields as it is in men's.

In Thiogou in southern Burkino Faso, the density of naturally regenerating trees was found to be significantly higher in women's fields, at 35 trees per hectare, than in the fields of men household heads, at 24 trees per hectare. Women in the area had long-term land loans. Various vegetables and spices as well as some cereals are grown in women's fields, whereas family fields are more exclusively oriented toward staple cereal production. With fields of similar species richness but about one-third the size of fields managed by family heads, the number of tree species per unit was twice as high in women's fields.

Source: FAO 1999.

continued household security enjoyed by home gardeners for generations. Nutritional security and income generation are other factors (Kumar and Nair 2004).

In Sri Lanka women played a key role in diversifying the food and nutritional base by using their knowledge of forest-based resources. Women's home gardens are best described as "genetic gardens." Women have made a significant contribution to the genetic improvement of crop plants and other economically important plants by a continuous selection process. They have also been responsible for domesticating food and medicinal plants that are now found in every home garden (FAO 1999).

However, with the transition of Sri Lankan agriculture from one based on home needs to one catering to markets, women have increasingly been relegated to unskilled work. This is particularly true in the plantation crop sector. Species losses from home gardens are said to be occurring at an unprecedented rate. In Kerala many local varieties of mango and jackfruit and other traditional horticultural crops that were once abundant in home gardens have now become extinct. In West Java 27 varieties of mango have

been reported lost during a 60-year period. Although precise data are not available, the forest diversity of home gardens in most parts of the world appears to have declined. The challenge is now to tie in conversion of the genetic wealth with the formation of economic wealth. The feminization of poverty will continue unabated if the role of women as managers of biological resources is ignored.

Women's knowledge in, and conservation of, genetic material could assist in identifying and promoting species adaptability and domestication to face the challenges posed by the adaptation to and mitigation of climate change. Trees act as reservoirs and potential sources of carbon. The role of tropical forest ecosystems in carbon storage and release is quantified in the global context and recognized in the regulation of atmospheric carbon. According to the Intergovernmental Panel on Climate Change, carbon fixation from forest regeneration, intensified planting and agroforestry, and reduced deforestation could equal 12–15 percent of CO_2 emissions from fossil fuels from 1995 to 2050. Unruh, Houghton, and Lefebvre (1993) estimated the amount of stored carbon in aboveground and underground biomass in 21 different agroforestry systems in sub-Sahelian regions. They concluded that the environmental role of agroforestry in terms of retaining organic matter in the soil and reducing deforestation (and thereby reducing CO_2 emissions) is more important than its straightforward effect of carbon sequestration (FAO 2002).

GENDER, AGROFORESTRY TECHNOLOGY ADAPTATION, AND ADOPTION

Studies are regularly made on the adoption, adaptation, and impact of introduced agroforestry practices. This section gives results of studies that have considered gender aspects to the adoption of agroforestry practices that have been designed and tested to address soil fertility (box 15.11).

Improved fallows and biomass transfer in Kenya and Zambia

In 1999 Franzel and others (2001) surveyed 108 farmers in Kenya and Zambia who had first planted improved fallows in 1994 and 1995 to assess their experiences in managing the technology. Over time, the farmers had managed to increase the land area devoted to fallows from an average of 0.04 to 0.07 hectare between first and third plantings. Neither tree planting nor cutting seemed to be a problem, and the improved fallow system as a whole required 11 percent less labor than a continuous unfertilized maize alternative.

Box 15.11 Agroforestry Technologies Developed to Enhance Soil Fertility

Throughout eastern and southern Africa, farmers cite soil fertility as an important constraint. The World Agroforestry Centre (ICRAF) and its partners responded by undertaking research into agroforestry-related options for soil fertility. Many agroforestry systems were tested, and the more promising systems have been tested in farmer-managed conditions.

Improved fallows are the enrichment of natural fallows with trees. In Kenya most farmers plant improved fallow trees into an existing crop, whereas in Zambia most farmers establish them in an uncultivated field. The dominant crop for which fallows are used is maize in Zambia and maize and beans in Kenya. In western Kenya farmers direct-seed or broadcast at high density one or more of several species; *Crotalaria grahamiana* and *Tephrosia vogelii* are the most

popular. In eastern Zambia, S*esbania,* the preferred species, is established in a raised bed nursery and then transplanted to the target field. In both countries the tree fallows are cut and the leaves incorporated into the soil during land preparation.

Biomass transfer systems in Kenya involve the growing of trees or shrubs alongside boundaries or contours on farms—or the collection of the same from off-farm niches, such as roadsides—and applying the leaves on the field at planting time and sometimes later in the season. In western Kenya, *Tithonia diversifolia* became the farmers' preferred species. This has been tested on maize, kale, French beans, and tomatoes. Given the small size of farms in Kenya, farmers generally utilize the green manure on smaller plots, often preferring those plots producing higher-value vegetables.

Source: Place and others 2002.

Cutting the fallows generally took less time than planting, could be done by women, and took place during a slack labor period. Analysis of the effects of the gender of household heads on household wealth in four pilot villages found little difference in the use of fallows between men and women; the percentages were 32 and 24 percent, respectively. The use of fallows was higher among wealthier households, who appeared to lead the process of trial and adaptation. Fifty-three percent of the wealthier farmers examined used improved fallows, compared to just 16 percent of the very poor households (Place and others 2002).

Two studies investigated the household characteristics associated with the use of biomass transfer among 747 farmers in the villages of Siaya and Vihiga in western Kenya. In Vihiga, 43 percent of the men-headed households examined continued to use the technology following extension services compared to just 14 percent of households in which the principal decision maker was a woman. Farming households that used biomass transfer were more likely to have a larger number of family members. The frequency of farmers' contact with extension agents was also revealed to be a significant relationship, whereas age, education, and reliance on nonfarm activities were not related (Place and others 2002).

Improved fallows and biomass transfer have been available to farmers for only a few years. Place and his colleagues (2002) found improved fallow and biomass transfer systems

to be feasible and acceptable to farmers, at least at the modest levels at which they are initially used. Economic analysis also found the systems to be profitable to farmers in terms of return to land and labor. Unlike other soil fertility options, improved fallows and biomass transfer appear to be used by large numbers of women farmers. They are also used by poor households more than other agroforestry and soil fertility practices.

Agroforestry practices particularly adapted to farm niches managed by women

Some innovative agroforestry practices are adapted by women and customized to fit the farm niches and products over which they tend to have greater control. In the two examples in box 15.12, an estimated 60 percent of farmers using the technologies are women.

Gender and agroforestry germplasm supply

Improvement of livelihoods for smallholder farmers involves bringing more trees onto farms and into the agricultural landscape. This will require that efficient seed and seedling production and distribution systems reach larger numbers of scattered and relatively isolated small-scale farmers. A well-functioning seed system is one that combines

Box 15.12   Women Are 60 Percent of Farmers Piloting Innovative Agroforestry Technologies

Gender and tree fodder production for small-scale zero grazing. The low quality and quantity of feed resources are major constraints to dairy farming in central Kenya, parts of Tanzania, and Uganda. In highland areas of Kenya, farm sizes average one or two hectares, and about 80 percent of households own one or two dairy cows. Most farmers grow Napier grass (*Pennisetum purpureum*) as fodder (cut and fed to the cows). Milk yields are low because Napier grass is low in protein. Commercial dairy meal is available, but farmers consider it expensive and most do not use it. In the early 1990s the World Agroforestry Centre (ICRAF) collaborated with the Kenya Forestry Research Institute and the Kenya Agricultural Research Institute to test a number of fodder shrubs near the town of Embu. Most of the trials were farmer designed and managed. *Calliandra calothyrsus* emerged as the best-performing fodder shrub and the one most preferred by farmers. Farmers tested the feasibility of growing *Calliandra* in a range of "neglected niches" on their farms. They found the shrub could be successfully planted in hedges along internal and external boundaries, around the homestead, along contours for controlling soil erosion, or intercropped with Napier grass (Franzel and others 2004). Subsequent to additional project support, it was estimated that 86,450 farmers were planting fodder shrubs in Kenya, Rwanda, Uganda, and Tanzania (Franzel, 2005). About 60 percent of these farmers are women. In Kenya most dairy-related activities are undertaken by women, and studies suggest that they have some control over income derived from these activities. Cash income from a zero grazing enterprise was found to contribute to improved household economies, including payment of school fees and purchase of food and clothing. However, the control of increased income associated with this technology might change hands from women to men. Women will benefit more from commercial dairying under zero grazing if they are better educated and if they have more access to land for planting forages and fodder. Access to credit will enable women to purchase improved dairy breeds and the feed supplements needed for a profitable dairy enterprise (Lauwo and others 2001). Other benefits of fodder trees and shrubs are the provision of bee forage, fuelwood, stakes and poles, fencing, and shade.

Gender and the domestication of indigenous fruits. Many rural households rely on indigenous fruit trees as sources of cash and subsistence in the Southern African Development Community.

Using participatory research to examine domestication, product development, and commercialization, the ICRAF identified a number of priority tree species in each country, including *Uapaca kirkiana, Strychnos cocculoides, Parinari curatellifolia,* and *Sclerocarya birrea.* The goal of domesticating these trees is to increase their quantity, availability, and productivity and to create opportunities for marketing their products. An impact analysis indicated that a robust domestication program will create incentives for farmer-led investment in the cultivation of indigenous fruit trees as an alternative to collecting wild fruit. In Zimbabwe the returns to labor by women and children in collecting wild fruits are two to three times greater than other farming activities. In a survey of roadside market vendors of the indigenous fruit *Uapaca kirkiana* in Dedze, Malawi, the majority of respondents were women or children under 19 years old, and all of them had harvested the fruits from forests and communal lands in areas outside their homesteads and fields (Kadzere and others 2006). Fruits enable women and children to contribute to household income and to assist the household during seasonal periods of food insecurity. In the scaling-up component of this program, 60 percent of the 13,000 farmers reached were women. They were trained in domesticating and propagating trees, establishing nurseries, and managing farms. Indigenous fruit tree seedlings have been tested by farmers in four countries. Akinnifesi and colleagues (2006) found that 86 percent of the planting sites in Malawi and 98 percent in Zambia were located on homesteads. Women were the principal managers of these sites and were likely to benefit the most from production. Women were the principal recipients of training in the local production of fruit concentrates, jam, juice, and other products in Malawi, Tanzania, Zambia, and Zimbabwe (Ham and others 2008).

formal and informal, market and nonmarket channels to stimulate and efficiently meet farmers' evolving demand for quality seeds. The Improved Seed Systems for Agroforestry in African Countries project in Burkina Faso, Malawi, and Uganda was introduced to facilitate access to tree germplasm by men and women farmers.[1] The project entailed considerable analysis of the constraints and opportunities people experience in getting access to germplasm supply for agroforestry. A number of practical lessons from the project experience are discussed by Brandi-Hansen and others (2007):

- Centralized seed supply systems have not provided rural communities with agroforestry tree seed or with messages regarding the importance of seed quality or procedures for collecting quality seed.
- NGOs may be providing agroforestry tree seed, but tree growing is often one among many activities undertaken by an NGO, and their provision of seeds tends to lack the rigor required to ensure quality and adequate returns to the farmers they supply. The majority of large NGOs do not provide accurate and precise information with regard to seed collection and handling. The focus tends to be on volume of seed handled, rather than on quality and site matching. NGOs would appear to have limited connections to most grassroots CBOs. NGOs tend to serve their own clientele, especially "their own" CBOs, and seldom engage with or build on the capacities and networks of existing CBOs.
- A few specialized and highly focused NGOs are providing lessons in quality seed procurement.
- The great majority of persons surveyed who deal in tree seed are women, and members of CBOs that collect tree seed locally, growing trees for their own use.[2] These women and their CBOs are not reached by any of the NGOs.
- Large multipurpose projects or NGOs are therefore not the most appropriate targets of information disseminated about quality seeds. Improved germplasm and information on how to use it should be disseminated directly to women's CBOs, which lie at the heart of the sustainable tree seed supply network. Rural women should be placed at the center of *any* agroforestry tree seed supply system.

Establishing associations and networks of small-scale entrepreneurs is also recommended (Graudal and Lillesø 2007). Yet most such entrepreneurs are men, and focusing on them would likely lead to women being excluded from training opportunities. Youth, who often lack other employment opportunities, also have a role to play in the seed supply system. However, the greatest leverage in terms of quality seed supply and the quality of trees planted on farmland will be in finding mechanisms to train and mobilize the efforts of CBOs, particularly women's groups. These local grassroots institutions already exist.

LESSONS LEARNED AND GUIDELINES FOR PRACTITIONERS

The division of landscapes, farm niches, and products between men and women makes the issue of germplasm access and preference a deeply gendered one. Under the misconception that men are the principal, or only, decision makers with regard to tree planting, management, and use, the basis of women's differentiated decision making is often not recognized in farmers' trials and scaling-up activities. Women require specific targeted information and training as well as access to credit and other services, adjusted to their particular landscape niches and agroforestry product needs. Gender analysis should therefore be considered as nothing less than an essential element of designing and planning agroforestry interventions and should be required periodically throughout the life of an intervention. Women's roles in traditional complex agroforestry systems are acknowledged. Yet their knowledge and experience are not being adequately garnered by policies that will guide the future of traditional agroforestry systems. With the growing influence of the market economy, and the consequent focus on a narrow range of home garden species, a real risk exists that this gendered knowledge, and even certain plant species, will not be passed onto future generations. With regard to the development of innovative agroforestry practices, far greater efforts in considering the gender implications of these developments are required. Recruiting women farmers to participatory agroforestry practice groups, farmer-managed trials, and farmer field schools warrants strong priority. Numbers and categories of individual women and women's CBOs who practice innovative agroforestry should be carefully documented, along with the adaptations they develop.

Agroforestry parklands are widespread throughout much of semiarid Africa. The variety of different types of agroforestry parklands reflects the dynamic nature of these systems and the ability of farmers to adapt them to changes in the natural and socioeconomic environment (FAO 1999). The importance of these parklands as a livelihood buffer and as a pool of forest genetic diversity has brought them to the attention of the policy makers and

researchers in recent years. Research into biophysical interactions upon which parkland productivity is based can build on indigenous knowledge to provide management prescriptions more precisely attuned to the needs of different environments. Parkland agroforestry projects could focus on promoting practices and technologies that require minimal labor and capital investments to produce rapid returns, and on increasing opportunities involving parkland tree products (FAO 1999). The promotion of markets and improved processing for parkland products will encourage farmers to invest in the further development of their parkland systems. However, it has been reported that when products such as *Vitellaria* nuts have increased value as a cash crop, men have reduced women's access to the resource. A similar trend resulting from the introduction of domesticated materials or improved processing technologies might develop to the detriment of women. Changes in tree tenure, therefore, need to be monitored and consequences anticipated (FAO 1999).

Finally, although formal credit may be a necessary step for women to adopt efficient forest-related technologies, insecurity of access to land resources currently limits availability to credit collateral. Building the capacity of existing social organizations such as women's groups may be a way of increasing women's access to land resources (including agroforestry tree germplasm and products), making credit more affordable, improving access to markets, and making labor more efficient by task sharing within the groups.

This Note focuses on women practitioners of agroforestry, although the importance of women's representation among professionals who engage in decision and policy making that relates to agroforestry at local, regional, and national levels should not be underestimated. Currently few women agroforestry field workers, scientists, and policy makers are available. Strategies to enhance gender-conscious implementation of agroforestry may be achieved through the following steps:

- Support to existing women's groups active in agroforestry, including tree nursery groups, zero grazing and dairy fodder groups, indigenous fruits marketing groups, and horticulture associations
- Posting of more women frontline staff by the relevant ministries and partner NGOs
- More consciously gender-oriented research, outreach, and scaling-up strategies
- Greater educational opportunities for women in land law and agricultural and forest sciences (box 15.13).

Box 15.13 Examples of Gender Initiatives from Research and Education Institutions

In science and research: Consultative Group on International Agricultural Research (CGIAR) Gender and Diversity Program exists to help the CGIAR Centers leverage their rich staff diversity to increase research and management excellence. The program also has a mentoring and sponsorship program (including a Women's Post Doctoral Fellowship program at the World Agroforestry Centre) and is promoting the education and career of women agricultural scientists.

In education and institutional capacity building: Crucial among the strategies of the Centro Agronomico Tropical de Investigacion y Enseñanza's (CATIE's) gender policy are the following:

- Integrating gender aspects in the design and implementation of research proposals
- Including women farmers in all phases of the outreach strategy
- Steadily increasing the number of women professionals
- Promoting and facilitating the participation of women in graduate education
- Advancing the understanding of gender among students (graduates and courses)
- Developing understanding and implementation of gender focus by CATIE's staff
- Improving CATIE's role in the exchange of knowledge, experience, and expertise.

Sources: Centro Agronomico Tropical de Investigacion y Enseñanza, "Gender Policy," www.catie.ac.cr; World Agroforestry Centre 2008: 45.

Bwindi Impenetrable National Park Enterprise Development Project: Protected Areas and Ecotourism

"**P**rotected areas (PAs) are specific and unique natural habitats, where human encroachment is restricted in order to preserve biodiversity for present and future generations. In many protected areas around the world, however, people with legitimate or historical land ownership rights live within the established boundaries. Women's and men's relationships with the environment in the protected areas and their buffer zones, in the context of their respective gender roles, are crucial for the very survival of these natural habitats.... Women and men have very different approaches to managing the environment: addressing these concrete differences will make people's relationship with the environment more sustainable" (IUCN 2003b: 1).

The Bwindi Impenetrable National Park (BINP) covers 32,092 hectares in southwest Uganda. Its rare afromontane vegetation provides one of the richest habitats for birds, butterflies, trees, and mammals in East Africa. Its mammal populations include chimpanzees and more than half of the world's remaining mountain gorillas—more than 300 individuals. Sections of BNIP have been protected since 1932, and the national park itself was established in 1991. Because of BINP's rare and wide biodiversity, United Nations Educational, Scientific and Cultural Organization accorded it the status of World Heritage Site in 1994.

> **What's innovative?** The project collected gender-disaggregated baseline data, which were incorporated in its design, monitoring, and evaluation. Gender analysis and gender-sensitive framework and criteria were adopted in its microenterprise development component to ensure that priorities of women and other disadvantaged groups were properly taken into account. Women field staff and women entrepreneurs were hired as mentors to encourage more effective women's participation in the project.

Next to the protected area of the BINP are multiple-use zones in 13 of the 21 parishes (some 18 percent of the park area). However, less than 10 percent of the population of these parishes holds licenses to harvest honey, weaving materials, and medical products from the multiple-use zones. Based on the existing harvesting quotas of natural resources, multiple-use zones have limited scope for enterprise development, even among current license holders.

Community-Based Enterprises for the Conservation of Biodiversity at Bwindi World Heritage Site in Uganda was a project carried out by the Mgahinga and Bwindi Impenetrable Forest Conservation Trust Fund from 2001 to 2004. The project was funded by the United Nations Foundation and FAO. It was intended to demonstrate that community-based tree and forest product enterprises can contribute to both poverty alleviation and the conservation of biodiversity.

The project included gender disaggregation of baseline data. During the participatory appraisal, particular attention was devoted to identifying women-headed households and to reviewing educational levels and household livelihood strategies. This included sampling women's and men's daily time profiles. Focus group discussion examined differentials in education, access to training and employment, and access to information and communication. The project also examined management of savings and credit funds by women's groups and identified women entrepreneurs, who were purposefully included in project activities.

FAO'S MARKETING ANALYSIS AND DEVELOPMENT METHODOLOGY

The project employed the Market Analysis and Development approach developed by FAO.[1] This is a step-by-step iterative process that provides forest community members with the capacity to identify and develop viable and successful tree and forest product enterprises and to manage them independently.

The initial idea of the project was to use Market Analysis and Development to improve local livelihoods through the development of income-generating tree and forest enterprises, while protecting those resources. This idea proved to have limitations from the outset of the project because participating communities enjoyed only very restricted access to the park. The project, therefore, had to shift its focus away from "giving value to the forest—and thus protecting it—by using its resources" and toward finding options for reducing pressure on the park (FAO 2006a: 29). These included using products that depend on the biodiversity in the park but that do not come out of the park itself.

During the first two years of the project various products and services were identified, including community-based tourism, support to a local campground, handicrafts, beekeeping, and enterprises dealing with passion fruit, avocados, and mushrooms. Through these enterprises a significant proportion of the local community was able to participate in enterprises that were linked to the conservation of natural resources within the park.

GENDER STRATEGY

During the participatory appraisal undertaken in preparation for the project, particular attention was devoted to identifying women-headed households and the livelihood strategies they employed. Planners reviewed education levels and used focus group discussions to examine differentials in education, and access to training, employment, and information and communication. They also examined the management of savings and credit funds by women's groups. Women entrepreneurs were identified and included in project activities.

A gender strategy was developed to ensure that benefits are equitably shared and that those people with the least access to education, training, and information were provided with opportunities to participate in the project. Hiring women as field staff was deemed crucial to maintaining balanced gender participation. Planners developed a framework and criteria for microenterprise development to ensure that the priorities of women and other disadvantaged groups were properly taken into account, and they applied during the life of the project.

Planners promoted the sustainability of the income from enterprises by building individuals' entrepreneurial capacity through a process that involved the local population in action research and participatory data gathering and analysis. Business literacy and enterprise development stressed negotiating skills. Results of the initial phase of the project indicated that the success of business endeavors undertaken

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Box 15.14   Other Features of the Project's Gender Strategy

- Gender disaggregation of project background and baseline data.
- Special attention in the participatory appraisal to identify women-headed households and to review educational levels and household livelihood strategies, including sampling of women's and men's daily time profiles.
- Focus group discussion examining education differentials, access to training and employment, access to information and communication, and the structure of women's groups' management of savings and credit funds.
- Recording of numbers of women's enterprises, women-headed households, women's saving and credit groups, and women's forest user societies, and development of indicators for monitoring and evaluating the participation of women and disadvantaged groups.
- Identification and inclusion of women entrepreneurs in project activities (for example, as mentors to women's enterprises and making presentations to encourage role modeling).

Source: FAO 2006a.

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by women entrepreneurs depended on the support of the entire household. The project strived for gender balance rather than focusing exclusively on women or men and took steps to ensure that women and disadvantaged groups were not excluded from extension, marketing, credit, and other activities (box 15.14).

Gender analysis was used as a tool during the initial survey of potential economic opportunities. Both men and women developed criteria; they then decided which enterprise to adopt. When community members were assessing enterprises, the gender strategy ensured that the poorest groups and women participated in the final selection. It was also necessary, however, to involve more educated and experienced community members to promote trade linkages and ensure the proper accounting of finances.

THE BUHOMA VILLAGE WALK: COMMUNITY-BASED ECOTOURISM

The Buhoma village walk was one of the initial community enterprises identified as a result of applying FAO's Market

Analysis and Development approach and the project's gender strategy. In total the enterprise development project worked with 304 entrepreneurs in a range of start-up businesses; 179 of these entrepreneurs were women, and 125 were men.

The Buhoma village walk starts and ends at the Buhoma Community Rest Camp located at the entrance of BNIP. It passes through a typical African village with traditional rural homesteads. The sites along the walk include a local women's handicraft center for a 15-minute craft-making demonstration, a waterfall, tea plantations, a local traditional medicine healer, a school, bird watching in a community woodlot, Batwa (pygmy) music and performance, and brewing facilities for banana beer and a local gin called *waragi. The* walk lasts approximately three hours. The enterprise is made up of eight guides from the local community and a representative for each of the households that manage sites along the route. It is registered under the Buhoma Community Rest Camp Association (BCRCA) of Mukono parish, Kanungu district. The Culture and Tourism Development Committee of the BCRCA supervises its activities. The income earned is shared according to a breakdown that was agreed among all the stakeholders (FAO 2006b).

The aim was to attract an average of five tourist a day (half the people who visit the park), who would pay $7.50 each. The monthly sales target was $750. Promotional strategies included developing a brochure about the walk, listing the walk as one of Bwindi's tourist activities in the Uganda Wildlife Authority (UWA) brochure, and marketing the walk by guides at local tourist lodges. The enterprise received 2,295 visitors between January 2003 and August 2005. In 2004 the village walk generated an extra $27 per month for each guide, $17 per month for each site owner, and $74 per month for the 11 Batwa households (45 households) that managed the sites. This represents significant earnings for people who did not have any access to cash income before, such as the Batwa. Each site owner contributed $1.70 for trail maintenance every month, which was carried out by Batwa community members. All the site owners inspected the trail every fifth day of the month, when there is a general meeting. Site owners have formed a small committee to oversee maintenance of the walk. The village walk guides attend regular training and briefings with UWA rangers. A good working relationship exists among UWA, the community, and the guides.

LESSONS LEARNED AND ISSUES FOR WIDER APPLICABILITY

The project resulted in the establishment of 13 enterprise groups. For each enterprise group, a business plan was developed, technical and entrepreneur capacities were improved, and pilot enterprise activities are up and running. The Mgahinga and Bwindi Impenetrable Forest Conservation Trust Fund is committed to continue giving support to these enterprises, together with a number of local service providers linked with the specific enterprise groups. Some of the enterprises and value-adding technologies that emerged during product selection were of particular interest to women. Yet the support and involvement of the men in their households were found to be critical by the project staff. The design and timing of the training workshops took into account the availability of both men and women. Gender balance was actively sought in market study tours and other enterprise-related activities. All monitoring information was disaggregated by gender so that the impacts of the project for both men and women could be evaluated. The project gave clear indications of the types of strategies necessary to ensure the full participation of women and men (FAO 2006a). There was a common consensus among the stakeholders in the project area that focusing on women yielded better results. The overall attendance and participation of women in workshops was at least 40 percent.

A gender-equitable perspective in the sustained management of protected areas enables practitioners to recognize the following (see also box 15.15):

- Communities are not homogeneous—consultation with a variety of stakeholders is necessary.

Box 15.15   Maximizing Conservation in Protected Areas: Guidelines for Gender Conservation

Conflicts between community interests and conservation interventions in protected areas are common but not inevitable. Research shows that access to education and training can reduce such conflicts. A gender-equitable perspective additionally asks if both women and men are in a position to participate actively. The poor, who are often women, need education to develop their capacity to manage the environmental resources of protected areas in ways that are sustainable for them and the environment. To invest in the environment is to invest in people.

Source: IUCN 2003b.

- Men and women use and manage different natural resources in protected areas differently.
- The different interests, knowledge, and behavior of women, men, and children have important ramifications for conservation initiatives.
- Strategies to include and facilitate women in extension, entrepreneurial, managerial, and decision-making roles will enhance the sustainability of protected area management initiatives.

NOTES

Overview

This Overview was written by Christine Holding Anyonge and Natalie Hufnagl (Consultants), with inputs from Sophie Grouwels, Simmone Rose, and Dieter Schoene (FAO) and Katuscia Fara (IFAD); and reviewed by Chitra Deshpande and Catherine Ragasa (Consultants); Deborah Rubin (Cultural Practice); Dan Rugabira (FAO); Ilaria Firmian, Maria Hartl, and Sheila Mwanundu (IFAD); and Diji Chandrasekharan Behr and Eija Pehu (World Bank).

1. See also Food and Agriculture Organization, "Gender Analysis and Forestry Training Package," www.fao.org/forestry/foris/pdf/gender/tr-e01/tr-e01.0.pdf.

2. SAFE: The Interagency Standing Committee Task Force on Safe Access to Firewood and Alternative Energy in Humanitarian Settings, Coordinated by the UN Women's Commission for Refugee Women and Children.

3. This contrasts with the European report, which states that "the relatively low level of female representation—both in terms of critical mass and levels of seniority/professional roles—is in stark contrast to the feedback from responding countries that gender/equality is perceived as an important issue in society, [and furthermore] an 'issue' within the forest industries of the respective reporting countries" (FAO 2006b: 11–12).

4. Program on Forests, "Poverty and Forestry Linkages: A Synthesis of Six Case Studies," www.profor.info.

Thematic Note 1

This Thematic Note was written by Christine Holding Anyonge (Consultant), with inputs from Chitra Deshpande and Alessandro Spairani (Consultants), Maria Hartl (IFAD), and Sophie Grouwels and Miguel Trossero (FAO); and reviewed by Catherine Ragasa and Deborah Rubin (Consultants); Simmone Rose and Dan Rugabira (FAO); Katuscia Fara, Ilaria Firmian, and Sheila Mwanundu (IFAD); and Diji Chandrasekharan Behr and Eija Pehu (World Bank).

1. NWFPs consist of goods of biological origin other than wood, as well as services derived from forests and allied land uses (FAO 1995). NTFPs are nontimber forest products (including wood not sold as timber, such as fuel wood/wood energy and wood-carving materials).

2. The *miombo* woodlands, recognized for their floristic richness and widespread occurrence of the genera *Brachystegia, Julbernadia, Isoberlinia,* and their associates (Malaisse 1978), form the dominant natural woodland type in southern Africa. They extend across about 2.7 million square kilometers of the African subhumid tropical zone from Tanzania and Democratic Republic of Congo in the north, through Zambia, Malawi, and eastern Angola, to Mozambique and Zimbabwe. It is estimated that over 75 million people live within the miombo biome and that the woodlands directly support the livelihood of over 40 million people in this African region (Bradley and McNamara 1993; Dewees 1994).

3. FAO, "Regional Wood Energy Development Programme in Asia," Expert consultation in Gender and Wood Energy, http://wgbis.ces.iisc.ernet.in/energy/HC270799/RWEDP/rm22.html.

4. FAO (2006).

5. Thematic Note 4 on Gender, Self-Help Groups, and Farmers' Organisations (Module 2) refers to six types and functions of women's groups in the agricultural sector: producers' associations and cooperatives, self-help groups, rotating savings and credit associations, women's subgroups in village development associations, women's groups in watershed management associations, agricultural extension field schools, or farmer research groups. Terms used in other texts are "farmer's professional associations," "community development fund management organizations," "forest products processing associations," and "agroforestry nursery entrepreneurs." In the context of this Note, the natures of the women's groups to which we are referring are those focused on collective action in relation to their livelihoods and forest resources and may therefore be a range of these alternatives, including self-help groups and village development associations. For the purposes of this Note, we will use the collective term *community-based organizations.*

6. FAO marketing analysis and development methodology, IFAD program support to Phytotrade, and INBAR bamboo and rattan field projects. See Elsie Yang and Yangjing Sucuiwei, "A Gender Assessment Study on Bamboo-Based Rural Development and Utilization Activities—A Case Study in Yunnan, China," Working Paper 53, International Network for Bamboo and Rattan, www.inbar.int/publication/txt/INBAR_Working_Paper_No53.htm.

Thematic Note 2

This Thematic Note was written by Christine Holding Anyonge (Consultant), with inputs from Festus Akinnifesi,

Aichi Kitalyi, and Jens-Peter Barkenow Lilleso (ICRAF); and reviewed by Chitra Deshpande, Catherine Ragasa, and Deborah Rubin (Consultants); Michelle Gauthier, Sophie Grouwels, and Simmone Rose (FAO); Katuscia Fara, Ilaria Firmian, Maria Hartl, and Sheila Mwanundu (IFAD); and Diji Chandrasekharan Behr and Eija Pehu (World Bank).

1. This is a collaboration between DANIDA Forest Seed Centre (now part of Forest and Landscape Denmark) and ICRAF, World Agroforestry Centre, and National Tree Seed Organisations in Burkino Faso, Malawi, and Uganda.

2. In the Uganda study, 602 CBOs were identified, of which most were women's groups, with an average number of 30 members. Some had a small number of men as members. In other words, this survey recorded in two districts of Uganda about 18,000 women as being active in tree seed systems. Most CBOs (82 percent) had no direct affiliation with any organizations, such as NGOs, but nevertheless demonstrated a remarkable level of activity (Brandi-Hansen and others 2007).

Innovative Activity Profile 1

This Innovative Activity Profile was written by Christine Holding Anyonge, with inputs from Sophie Grouwels (FAO); and reviewed by Chitra Deshpande, Catherine Ragasa, and Deborah Rubin (Consultants); Simmone Rose and Dan Rugabira (FAO); Katuscia Fara, Ilaria Firmian, Maria Hartl, and Sheila Mwanundu (IFAD); and Eija Pehu (World Bank).

1. FAO's Market Analysis and Development approach: www.fao.org/forestry/site/enterprises/en.

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Gender Issues in Monitoring and Evaluation

Overview

Common sense tells us that if we do not consciously attempt to measure our progress in life, we will not know whether we have achieved our planned impact—in other words, "what gets measured, gets managed." Given the enormous amounts of money invested in agricultural and rural development by national governments and international donors, monitoring and evaluation (M&E) are accepted as important steps for assessing progress toward specific outcomes and for measuring impact. Although gender and social equity are commonly discussed priorities in agricultural and rural development, little progress has been made in measuring outcomes in these areas. This Module aims to address gender concerns in designing agricultural and rural development projects and to provide ideas for improving the M&E of outcomes and impacts. It addresses the question, "How will my agriculture projects improve if I *track and measure* gender?"

REASONS WE SHOULD MONITOR GENDER

Gender must be addressed in ongoing monitoring and in evaluations for the same reasons we address other issues: in assessing whether an activity is achieving its objectives, we can consider what has been accomplished and what can be learned and fed back into further efforts. Gender is a cross-cutting issue within the development policies of most international donors and national governments. If gender impacts are not evaluated, they are unlikely to be given any attention.

What role do different genders play in agriculture, rural development, and water management? Women are the key agricultural workers in some countries but are not involved at all in others. In many southern African countries, women provide most of the labor for agriculture and small livestock production, yet in many cases they receive little benefit. In Asia different tasks in the agricultural cycle are carried out by men or women. In most countries, large livestock such as cattle are managed by men, although milking may be done by women. Roles (and relative power) in production, processing, and marketing differ by gender—for example, men commonly catch fish and women process or sell them locally. Gender power relations, therefore, lie at the heart of two critical development concerns: who gains access to resources, and who benefits from projects?

When carrying out M&E, the overarching notion of "gender" must be unpacked to reveal the differences within categories of "men" and "women," as neither men nor women form a homogeneous group. Participatory rural appraisal and gender analysis during planning should provide information on different subgroups of men and women and help design appropriate activities and indicators. For instance, in an environmental administration project in Nepal, an assessment of gender and poverty issues related to industry was done to provide a baseline and better understand the impacts of planned activities on different groups (disaggregated by ethnicity, caste, education, employment, rural or urban location, and other characteristics). M&E should provide feedback on how a program's various activities affect different subgroups

of men and women. Any disparities in the distribution of benefits must be known for corrective action to be taken.

Women are active in community decision making in some countries, through councils and church groups (for instance, in the Pacific), whereas elsewhere they are almost invisible to outsiders (such as in remote areas of Afghanistan or Nepal). On the other hand, women may have little time for such activities because of their concurrent involvement in household activities and their heavy agricultural work. Such commitments only add to the time constraint when planning for M&E and the inclusion of women in a given program, project, or activity. Box 16.1 lists tools for gender-sensitive monitoring, which is discussed at greater length in all of the Thematic Notes.

Box 16.1   A Selection of Methods and Tools Available for Gender-Sensitive Monitoring

- Monitoring can be based on *quantitative* measures, such as data issued by statistics offices or specifically collected by project staff.
- *Qualitative* monitoring can be done through tools such as interviews, observation, and focus groups.
- *Participation of intended beneficiaries in monitoring* is a means to ensure ownership and to ensure that an activity is truly benefiting the participants.
- *Participatory monitoring,* on the other hand, is a means of involving stakeholders from the start in such activities as identifying activities and indicators that should be monitored, carrying out the monitoring itself, and analyzing the results for improving future processes.
- *External monitoring or evaluation* provides independent, external feedback on progress and outcomes.
- *Impact evaluations* determine whether a program had the desired effects and whether there were any unanticipated effects.
- *Gender audits* are distinct from regular evaluations in that they are based on self-assessments by a project, organization, or ministry of how gender issues are addressed in program portfolios and internal organizational processes. A gender audit is not an external evaluation, but it should be used to facilitate change and develop action plans and monitoring systems.

Source: Author.

"Monitoring" has been defined as the "continuous assessment of project implementation in relation to agreed schedules and use of inputs, infrastructure, and services by project beneficiaries," and "evaluation" has been defined as the "periodic assessment of the relevance, performance, efficiency, and impact (expected and unexpected) of the project in relation to stated objectives" (World Bank n.d.). M&E are broadly viewed as a function of project management that is useful for validating ex ante analysis or for influencing adjustments to project implementation.

Traditionally many donors used the logical framework ("logframe") as the basis for designing M&E. In 2003 the World Bank began using a "results framework" (a simplified logframe) in an effort to focus more on the immediate results of programs and projects. Practitioners now need to link performance with outcomes, with rigorous and credible assessments of progress toward (and achievement of) outcomes. At the "Activity" level in the results framework, "Output Indicators" are used to monitor progress. At the level of "Project Development Objective" and "Components/Results," "Outcome Indicators" are developed. "Outcomes" reflect the quality of outputs produced and behavioral changes in target groups, as well as changes in institutional performance following "adoption" of project outputs. However, to look at the long-term sustainability of a program, the overall development goal should also be considered, and for this purpose the logical framework remains important. Progress toward higher-level goals can be considered in evaluations by developing higher-level "Impact Indicators" (FAO 2001). This topic is discussed in more detail in Thematic Note 1.

INTEGRATING GENDER IN M&E: LESSONS FROM EXPERIENCE

Many donors have observed that project monitoring, evaluation, and reporting commonly focus on processes and inputs rather than outcomes and impacts, with the result that only limited learning is gained about any long-term changes a project may have occasioned in people's lives, including any impacts on gender equity. In fact, M&E *of any kind* are given insufficient attention. For example, a Sustainable Agriculture Systems, Knowledge, and Institutions (SASKI) Thematic Group review of agricultural research and extension projects found that only about 25 percent had adequate M&E plans (cited in World Bank 2006b).

Gender-sensitive monitoring garners even less attention, despite efforts by many donors to promote it and train people to do it (box 16.2). In cases where gender-sensitive indicators

do exist, they are more commonly found at the output and outcome level and only rarely at the impact level. Consequently, any assessments tend to be subjective.

Why gender disaggregation is often missing from M&E systems

The Nordic Development Fund's *Gender Equality Study* (NDF 2004) found, "The most commonly cited… major obstacles to women participating and benefiting from development activities include (i) the lack of participation by women in design; (ii) poorly conducted needs analyses; (iii) the lack of baseline data on key gender differences relevant to the specific project; (iv) the failure to address gender issues in project objectives; and, (v) poor monitoring efforts" (NDF 2004: 27).

Even when gender is emphasized at the project design stage, it is sometimes lost in the daily grind of project implementation. The continued collection of gender-specific data (or all monitoring data) can suffer as a result of various difficulties, mainly arising from the lack of time and funds, insufficient follow-up, and poor understanding by local staff of the importance of monitoring. Day-to-day monitoring usually concentrates on project result areas rather than cross-cutting issues such as gender, and staff may give gender-specific monitoring insufficient attention.

In summary, gender is insufficiently considered in M&E for several reasons, including the following:

- M&E itself is given insufficient attention, and its usefulness is little understood. Often it is regarded as a task required by the donor, so the step of gender disaggregation is considered an addition to an already burdensome task.
- The leadership of agricultural and water projects and programs may be gender blind. Program managers and staff may not see gender as having any importance in achieving the program's results or its ultimate purpose.
- Field staff may view the work of M&E as gender neutral. Women's opinions may not be recorded, because women are often not present in meetings or are not confident to speak up (particularly if their native language is an indigenous one).

- Gender-disaggregated quantitative data are not easily available from local government sources but must often be collected separately for a program or project, which can be costly and time consuming. By the time a project is under way and attention is turned to M&E, it may be too late to conduct a project-specific baseline study, which ideally is done before the work begins.
- If gender has not been considered at the program design stage, it may be forgotten during implementation. Inclusion of gender-sensitive indicators in the logical framework or results framework is vital.
- Program implementers may consider that national women's unions or other groups that advocate on behalf of women are "taking care of the women's issues," even at the local level, so there is no need to monitor gender.
- External project supervisors and evaluators do not emphasize gender, so it is "forgotten."

Despite this tendency for gender to remain invisible, unacknowledged, or marginalized, much evidence suggests that gender is important to outcomes, and M&E plays a vital role in demonstrating these benefits. For instance, Bamberger (2002) used gender-disaggregated data from borrowers and nonborrowers to demonstrate that the impacts of microcredit in Bangladesh differ substantially based on whether the borrower is a woman or a man and that the marginal impacts of borrowing are often greater for women than men. Such information is vital to building the case for considering gender in rural development programs.

Recent attempts to change gender M&E

A number of recent efforts increase the prospects that gender will be incorporated more explicitly in M&E. The FAO and other United Nations agencies have undertaken to improve the availability of gender-disaggregated data (FAO 2003). Through these data, a much clearer picture should emerge of the relationships between gender inequality and agriculture, rural development, and food security.

At the project and program levels, numerous training materials, toolkits, and guidelines can help in implementing gender-sensitive M&E. Most key donors have prepared guidelines for gender mainstreaming. The OECD's guidelines "support partner efforts to formulate clear, measurable goals and expected results relating to gender equity and women's empowerment (focusing on development impacts,

not just the completion of activities)" (OECD 1999: 24). The guidelines indicate that it is vital to "support partner capacity to monitor and evaluate results achievement in projects, programs, and institutions and to understand the reasons for success or failure." SIDA's evaluation guidelines (SIDA 2004) contain a good section on gender in evaluations, covering preparation, fieldwork, reporting, and dissemination and use. The World Bank's short toolkit, *Gender Issues in Monitoring and Evaluation of Rural Development Projects* (World Bank 2005), presents excellent, simple—and unfortunately underused—guidelines. The most recent report on annual progress toward implementing the World Bank's gender-mainstreaming strategy (World Bank 2006a) urges the Bank to "improve the monitoring and impact evaluation of gender integration into Bank policy and project lending," by investing in gathering statistics disaggregated by gender, developing indicators to measure results and impacts with respect to gender, and ensuring that gender is included "as an independent variable in scientific evaluations of the development impact of Bank operations."

Incentives: ensuring that it happens in practice

Ideally, sufficient training in the purpose and objectives of gender-sensitive monitoring would ensure that the time, funds, and human resources are committed to performing this task and that the results are used. Usually all stakeholders agree in planning meetings and program documents that gender is important and that the gender impacts of a given project should be monitored carefully. Experience has revealed, however, that both a carrot and stick may be needed for gender-sensitive M&E to occur in practice.

External evaluators or donor agency staff can follow up on the issue during monitoring visits: for example, perhaps even requiring compliance with a plan for monitoring gender (box 16.3). The performance evaluations of technical advisers, project staff, or departmental staff might usefully include an assessment of compliance with the gender-monitoring plan. Providing publicity or presenting an award might also offer some incentive to individuals, projects, programs, or government ministries that take very positive action to promote successful gender monitoring. Gender could also be included in the milestones or triggers for annual budget or loan tranche releases (for instance, "Government has recruited new extension staff to reach a minimum of 30 percent women agricultural extension workers in at least 80 percent of districts by March 2008").

Box 16.3   Compliance with a Gender Action Plan Can Improve Gender-Sensitive Monitoring and Evaluation

One means of ensuring that more attention is given to monitoring and evaluating a project's gender-equity outcomes is to require compliance with a Gender Action Plan. A good example comes from a project implemented by the Asian Development Bank (ADB) in Cambodia: the Northwestern Rural Development Project (Hunt and Kheng 2006). When the loan was designed, a high-quality Gender Action Plan was prepared, stipulating that three requirements had to be met for tranche releases to occur: (1) equal opportunity for employing women in road construction; (2) the involvement of women in prioritizing, planning, implementing, and monitoring village-based infrastructure; and (3) women's participation in training and community-based organizations to reach at least 30 percent.

The plan was based on systematic gender analysis, with targets and strategies for women's participation in each component. An assessment of the results showed

that Gender Action Plans "provided a road map for project teams to ensure that women participated and benefited from project activities." Compared with another ADB project in Cambodia, the Northwestern Rural Development Project (with its high-quality Gender Action Plan) was shown to have positive results with respect to gender equity. However, the monitoring of participation and benefits still needed to improve, especially with regard to the collection, reporting, and analysis of gender-disaggregated data. The number of gender-sensitive indicators and strategies was not sufficient, and insufficient information was collected to analyze women's participation, benefits, and progress toward gender equity. Although the loan covenants used in this project were useful for improving compliance with gender-sensitive monitoring requirements, greater leadership, commitment, and ownership of the Gender Action Plan were needed.

Source: Hunt and Kheng 2006.

QUESTIONS TO CONSIDER IN DESIGNING A GENDER-SENSITIVE M&E COMPONENT

Several questions emerge in designing a gender-sensitive M&E component for a project or program. Which levels of participants—spanning the range from donors and recipient governments to management and field implementation—are involved? Which instruments are therefore involved? Should gender be mainstreamed across the institution and all parts of the program, or should there be a specific gender component? How much participatory involvement is appropriate, and what must be remembered when scaling up programs to the national level or moving to newer aid modalities? Is the focus on short-term outcomes or longer-term impacts? How will findings and experiences be shared?

Levels of participants that need to consider gender in project design and M&E

To make it more likely that gender is considered in project design, monitoring, and evaluation, which participants need to consider which issues or actions?

- *At the management level of the donor agency, implementing ministry, program, or project,* participants should be

involved in setting the indicators at the objective level, providing access to statistical data, and dedicating the staff, budget, and tools to ensure that gender-sensitive monitoring can be done.
- *At various levels within the implementing organization*—specifically, among the staff responsible for the horizontal and vertical coordination of operations and gender-specific and M&E components—participants should be involved in coordinating the work and setting indicators for different components, ensuring that gender is considered. The terms of reference for all staff working on different activities need to assign responsibility for achieving gender objectives, strategies, and outcomes.
- *At the field level,* participants need to ensure that access to budget, materials, and equipment is considered, as well as timing. For example, the opinions of women and men may not be considered fully during monitoring if meetings to collect their opinions are scheduled when most women are working in the fields, when women are preparing the evening meal for their families, or when most men are out at sea fishing. Extra funds may be required to ensure that monitoring activities can take place at appropriate locations and times.

Mainstreaming versus establishing separate gender components

Gender can be considered as a specific result area or component and monitored as such. This traditional method of treating gender has been used in many projects and is still used in some poverty reduction strategy programs (PRSPs) and other programmatic instruments. Often, however, this approach meant that gender was ignored by many project or program staff and stakeholders, as it was considered "taken care of." As an assessment of development cooperation funded by Finland reports, "Women are sometimes still seen as a separate sector so systematic work to eliminate gender inequalities is not undertaken within other sectors … In projects 'gender mainstreaming' still usually means small and isolated components dealing with women" (MFA Finland 2003: 11).

Gender mainstreaming across all result areas and activities is now the preferred means of ensuring that gender is considered. "Gender mainstreaming" can be defined as "a commitment to ensure that women's as well as men's concerns and experiences are integral to the design, implementation, monitoring, and evaluation of all legislation, policies, and programs so that women and men benefit equally and inequality is not

perpetuated" (Derbyshire 2002: 9). The drawbacks of this approach are that the impact may be lost, outcomes are much harder to measure, and financial resource allocation by gender becomes increasingly difficult to track (box 16.4). Superficial mainstreaming—in which women are simply mentioned in every project component, or in which gender-differentiated data are collected but not analyzed for program improvements—is also unfortunately too common.

It is important to gain baseline information to ensure that project or program activities do not increase problems in target communities, such as gender-based violence. Gender-mainstreaming activities tend to change gender roles and relations. Unless change proceeds carefully and with adequate awareness raising, domestic violence may arise or worsen as men come to perceive that women's increased empowerment threatens their position as men and heads of the household and community.

How successful has mainstreaming been, and how can we do things differently? Assessments that look at women's participation or benefits derived by women in isolation from the overall project context may be inadequate and misleading. Comparisons between women and men in the target group should be made across every project activity and component,

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Box 16.4   Mainstreaming Gender and the Implications for Monitoring and Evaluation

The Development Assistance Committee of the Organisation for Economic Co-operation and Development considers that gender should be integral to all development assistance analyses that are undertaken. Steps to carry out gender mainstreaming include the following:

- Ensure that guides and procedural manuals incorporate gender-equity considerations into the methods to be followed by staff, with priority given to promoting gender analysis at the initial stages of the planning process.
- Ensure that the gender-equity objective is reflected in the development of procedures for results-based management, including the specification of results sought, indicators for monitoring achievements, and evaluation criteria.
- Ensure that gender equity and women's empowerment measures and indicators are part of the main-

stream reporting structure and evaluation processes rather than a separate system.
- Develop and maintain statistical systems and project monitoring systems that provide gender-disaggregated data.
- Ensure that gender equity is addressed in all training and staff development initiatives.

Gender mainstreaming should be considered at all levels:
- At the project level, by designing appropriate gender-sensitive indicators for monitoring and by considering gender at all stages of the project cycle, including reporting
- At the program and policy levels, by carrying out gender evaluations and using the results to guide further activities, through checklists and scorecards
- In multilateral and bilateral development organizations, nongovernmental organizations, and government organizations, by carrying out gender audits and self-assessments of their own organizations.

Source: Mason 2007.

and the conclusions about benefits or outcomes should be supported by data and analysis. A risk exists in external evaluations that gender is considered only as a separate chapter, unless the terms of reference explicitly state otherwise.

It is also important that mainstreaming be understood to have the goal of *increasing gender equity,* not simply increasing women's involvement. Increasing women's participation in committees or in monitoring teams is *not* mainstreaming if women are not actively involved in improved gender outcomes and impacts (the extra burden on rural women's limited free time should always be considered). At every step, questions must be asked as to who will benefit from proposed activities. If "policy evaporation" occurs—that is, good policy is not followed through in practice—then gender mainstreaming may not have a real impact on gender equity. Moreover, the real impact may not seen because M&E procedures fail to document what is occurring on the ground.

Box 16.5 presents two ways of treating gender at the national level in PRSPs. One is from Mozambique (where it is compartmentalized) and the other from Vietnam (where it is mainstreamed).

The U.K. Department for International Development (DFID) has chosen to pursue a twin track in which it mainstreams gender by integrating women's and men's concerns in all policies and projects and supports specific activities aimed at empowering women. It may be useful to monitor a targeted output specifically concerned with activities for women, alongside overall mainstreaming (considering outputs for men and women in every activity and result area), in the hope that gender outcomes will improve. It is imperative, however, not to isolate women's activities within one output with a very small claim on resources and no influence on the rest of the policy or project.

Using gender analysis for monitoring

Gender analysis considers women's roles in production, reproduction, and the management of community and other activities. Changes in one aspect of women's lives may produce beneficial or detrimental effects in others. Gender analysis helps to (1) identify gender-based differences in access to resources to predict how different members of households, groups, and societies will participate in and be affected by planned development interventions; (2) permit planners to achieve the goals of effectiveness, efficiency, equity, and empowerment through designing

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Box 16.5   Compartmentalization versus Mainstreaming of Gender in Poverty Reduction Strategy Programs

Mozambique's second Action Plan for the Reduction of Absolute Poverty—known by its Portuguese acronym, PARPA—treats gender as a separate component. Unfortunately this compartmentalization seems to have led those working on the strategy to believe that they did not need to consider gender outside the gender chapter. Gender is not considered in analyzing the causes of poverty in Mozambique, nor is women's role in economic growth mentioned. The indicators for measuring progress toward development objectives make almost no mention of gender. The causes of gender inequality are not discussed, and few policy interventions are discussed for addressing inequality. National data on school attendance and early childhood growth always include gender, but any differences between boys and girls have vanished in the hands of the government authorities and committees producing the strategy. Gender is considered in the chapter on HIV and AIDS with regard to incidence and causes of infection, but when it comes to the targets and actions to be taken, no further mention is made of women as a key target group.

By contrast, Vietnam's *Comprehensive Poverty Reduction and Growth Strategy 2002* includes many aspects of gender in its analysis of the causes of poverty and mainstreams gender considerations throughout the document. A general instruction is given that monitoring should employ indicators "developed in detail by regions, provinces, rural/urban areas, and genders." Even so, crucial omissions are present. The chapter on targets makes almost no mention of gender—only in the paragraphs specifically on gender equity—and the general economic and social targets are not disaggregated by gender. The indicators provided for monitoring the development objectives do include some gender disaggregation, however, and efforts are being made to improve them.

Source: Author's assessment.

policy reform and supportive program strategies; and (3) develop training packages to sensitize development staff on gender issues and training strategies for beneficiaries, such as the World Bank's *Participation Sourcebook* (World Bank 1996).

Comprehensive gender studies are applied mostly in developing policy or planning programs and projects. Aspects of gender analysis may be applied, however, for intermittent monitoring of gender implications of project activities or outcomes. Simple techniques are useful for this purpose, such as direct observation, focus groups, and time-use studies (for example, women's typical daily routine in terms of housework, income generation, and personal time). Performed consistently as part of project M&E, gender analysis helps build a picture of women's growth as individuals and social beings (for instance, it can assess changes in their standing in the household and in the community). Five major categories of information are required for a comprehensive gender analysis: (1) needs assessment; (2) activity profile; (3) resources, access, and control profile; (4) benefits and incentives analysis; and (5) institutional constraints and opportunities (World Bank 1996).

In monitoring and evaluating any benefits arising from a project or program, the gender considerations include developing indicators that define and measure progress in achieving benefits for men and women, ensuring that gender-disaggregated data are collected to monitor impact with respect to gender, and considering ways of involving women in M&E (ADB n.d.).

Gender-disaggregated data and parameters should be included in M&E systems for all projects and presented in all reports. Gender analysis is vital throughout all stages of the program cycle, from identification and design to implementation, monitoring, and evaluation.

Impact assessments

Most monitoring focuses on short-term occurrences, whereas the great challenge is to measure long-term change—the impacts that extend beyond increases in women's participation or incomes during the life of a project or program and that indicate real changes in the lives of poor men and women over the following five or more years. Apart from the design and attribution difficulties, the fact remains that if a project or program has already finished, no one may remain to perform the evaluation, and financing for this activity may not be found. This difficulty is discussed

further in Innovative Activity Profile 2 (available in the online version of this *Sourcebook*).

Improved information sharing

Most projects and programs collect much information regularly from staff and beneficiaries, but it is not always shared effectively. Much of it is fed into the management information system, which produces consolidated data and is used to report to government and donors. However, no point exists in collecting such information unless it is used to improve the program to benefit the people from whom it was collected. Different ways may be employed to interpret and use results to make decisions, modify or improve programming, and advocate to different audiences. Examples of changes in gender equity in a practical sense should be collected regularly through monitoring and shared with a wide range of stakeholders. Improved advocacy can have a very positive feedback effect on the project. For example, an agricultural project in South Africa focused on developing producer groups (particularly women-led groups). As part of its qualitative evaluation, the project collected stories and lessons emerging from this process. These were eventually published by a local agricultural magazine that was distributed beyond the original beneficiary groups and reached other departments of agriculture and farmers.

PARTICIPATORY TOOLS AND APPROACHES

The World Bank places considerable emphasis on participatory M&E, which is an important factor in promoting social sustainability. The Bank's *Social Analysis Sourcebook* (World Bank 2003a: 49) cites participatory M&E as a "means to systematically evaluate progress and impact early in the project cycle by bringing the perspectives and insights of all stakeholders, beneficiaries as well as project implementers. All stakeholders identify issues, conduct research, analyze findings, make recommendations, and take responsibility for necessary action." The focus is on the active engagement of primary stakeholders and their shared control of the content, process, and results of M&E. This kind of participation is particularly effective because stakeholders, if they are involved in identifying problems and solutions, develop ownership of the project and tend to be amenable if corrective actions eventually prove necessary. In other words, participation can be both a means and an end. Because they live with the results of a project, participants also have a greater

incentive to make changes in project activities and base future interventions on the lessons they have learned. Transparency is enhanced because the intended beneficiaries are involved in making decisions from the start and understand the funding issues. Participatory M&E may also highlight unexpected or unplanned changes, which may not be noticed with traditional indicators and M&E systems. In a project in Vietnam, the gender-disaggregated results of interviews with village women through Most Significant Change monitoring allowed problems with the location of a new road to be raised and dealt with by management (World Bank 2007).

The cost implications (time, money, and other resources; box 16.6) and other considerations of participatory monitoring must be taken into account. For example, it must not be assumed that all women will automatically benefit from efforts to involve some women in project design, implementation, and M&E. Men's and women's groups do not always have the same priorities and understanding of impacts, nor are the opinions of all women the same. In addition, if women are expected to give up their time to participate in monitoring an intervention, a clear means should be present by which their opinions can be fed back into improving future activities. Consultation and true participation in decision making are different and should not be confused.

Participatory M&E can also be a useful tool to improve gender equity, if women are able to take an active role, meet in groups, and build solidarity and confidence (a good example is quoted from Pakistan's Community Infrastructure Project, World Bank 2003b). In many communities, only women can visit other families. Men may not be permitted to speak directly with women who are not family members, so men may not be able to gather essential information for M&E. What may be more difficult is for communities to meet in mixed-sex groups to monitor outcomes and openly discuss how to improve activities. Simple tools may be used to facilitate discussion—for instance, using different-colored voting cards for men and women or for different age or ethnic groups, and then comparing different opinions on topics—or holding separate meetings for different sexes, to prevent men from dominating.

SCALING UP INVESTMENTS

Scaling up of investments usually implies reaching a larger number of beneficiaries via increases in size, scope, and geographic spread of an activity. This has implications for the methods of financing, administering, and monitoring.

Box 16.6 The Cost Implications of Participatory Monitoring and Evaluation: Three Examples

How much participation is enough, and what are the costs of participation? Three projects funded by the World Bank offer insight into these questions. In the Andhra Pradesh Rural Poverty Reduction Project, the participation of more than 600,000 women's self-help groups, as well as a local nongovernmental organization, improved qualitative process monitoring and revealed unexpected outcomes, which made it possible to develop new indicators. Participatory monitoring also significantly reduced project costs: When women's groups identified poor credit recovery rates, they halted disbursement until the rates improved. In the North West Frontier Province of Pakistan Community Infrastructure Project, participatory monitoring of subprojects reduced the number of dropouts among community organizations, produced a cost savings of 40 percent, and increased the quality of work (compared to work done by government-hired contractors). In Mongolia, on the other hand, the full benefits of participatory monitoring in the Sustainable Livelihoods Project were inhibited by the sheer distances involved and the difficulty of holding community meetings. The cost of ensuring full participation—in transport and time—would have been enormous, so the level of participation was modified.

Sources: World Bank 2007 (for Andhra Pradesh), World Bank 2003c for Pakistan, and author for Mongolia (White 2007).

Local to national, project to program

When programs are scaled up in size, either sectorally or geographically, a need exists to scale up the monitoring. The focus on quantitative indicators tends to increase with scaling up, because qualitative measurements such as interviews and focus groups are more difficult to carry out, record, and analyze on a large scale (box 16.7). One example of this problem is the selection of indicators for monitoring global progress in achieving the United Nations Millennium Development Goals. Data on each indicator needed to be available from all countries and may not be too onerous to collect and compare.

> **Box 16.7   Some Difficulties with Scaling Up Monitoring**
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> In its first phase, the Sustainable Livelihoods Project in Mongolia developed a participatory monitoring and evaluation system. The key issue was to find a balance between information required by the World Bank and the project's national office, and information that would be useful to the community and local project representatives. Planners also had to strike a balance between information that would be good to have and information that was essential. Clearly a risk was present of collecting too much information that would not improve participation. An additional consideration was that communication is very difficult in Mongolia because of the large distances and limited infrastructure and equipment. Although experiences with the initial monitoring and evaluation system were positive, scaling up to much greater national coverage in a later stage of the project has proven less successful and led to more direct monitoring by project staff.
>
> *Source:* Author.

For large-scale programs, the gender disaggregation of quantitative data should be a basic requirement, even if the softer M&E tools need to be used less often. For instance, interviews and group work could take place in a few sample areas to supplement quantitative data from national monitoring. It is increasingly important for large-scale projects or programs to tie in with national census and living standards surveys rather than duplicate them.

Adapting to reduced international technical assistance inputs

As donors move toward funding larger-scale programs that rely more heavily on national systems and staff and less on specifically recruited international and national staff, local staff will need to build the capacity to incorporate gender considerations into their work. Possibilities for increasing this capacity include the following (OECD 1999):

- Use donor-level gender advisers to regularly support and mentor local gender focal points.
- Give priority to initiatives that focus on partners' capacity to analyze policies, programs, and institutional

cultures and develop change strategies that contribute to gender equity.
- Help partners examine the gender balance within their organizations and identify strategies to increase women's representation at policy- and decision-making levels.
- Increase the availability of gender-disaggregated data by supporting modifications in national and sectoral data collection systems.
- Support research on gender equity by sectoral institutions, research organizations, and advocacy groups to increase the national resources of partners in this area.

Monitoring gender in the new aid modalities

To date, little consideration has been given to gender in monitoring PRSPs, sectorwide approaches (SWAPs), and budget support. This issue is discussed further in Thematic Note 2. Although development cooperation is moving away from projects and toward new aid modalities, the following actions are still vital (OECD 1999):

- Strengthen links between the project and policy levels. Improved communication of lessons from the field can act as a reality check at the national level and ensure greater coherence among gender-equity policy objectives, project-supported activities, and the resulting impacts.
- Support partners' efforts to improve project-level monitoring and impact assessment and gain a greater understanding of how projects can contribute to gender-equity objectives, how obstacles can be overcome, and how project design can be improved.
- Analyze the comparative strengths and weaknesses of different interventions used in specific sectors to increase knowledge about strategies that have positive results and are cost effective.

Sample indicators for a range of agriculture and rural development investments

Although it is not possible to devise sample indicators to match every situation and intervention, sample indicators for output, outcome, and impact, as well as tools and proposed sources of verification, are provided for a range of topics in "Social and Environmental Sustainability of Agriculture and Rural Development Investments: A Monitoring and Evaluation Toolkit" (Punkari and others 2007).

CONCLUSION

Several issues emerge from this overview. Despite the fact that development interventions will be improved if we track and measure their implications with respect to gender, it is clear that M&E of gender issues has been done poorly recently, in projects as well as in the newer aid modalities. The following Thematic Notes focus on how to develop a sound M&E system and discuss other tools for supporting project or program staff, such as gender policies, terms of reference, and training (Thematic Note 1); the experience and tools related to monitoring gender in the newer aid modalities, such as PRSPs, SWAPs, and budget support (Thematic Note 2); and issues related to setting high-quality indicators and the collection and use of data (Thematic Note 3). Two Innovative Activity Profiles are also included, describing methods and practical examples of involving community members in monitoring (Innovative Activity Profile 1) and conducting impact assessments (Innovative Activity Profile 2), the latter in the online version of this *Sourcebook* (www.worldbank.org).

Design of Sound Gendered Monitoring and Evaluation Systems

Gender-sensitive M&E helps project staff, other stakeholders, and beneficiaries themselves to understand how project activities are really changing the lives of men and women. This kind of M&E enables continuous feedback on the status of project implementation, identifying specific problems as they arise. If additional disaggregation is done, monitoring can also follow the impact on young and old, ethnic minorities, people with disabilities, remote residents, and other disadvantaged groups. If the full range of stakeholders has this important information, they can use it to alter the project as needed to ensure maximum benefits and improve performance. The lessons learned by the end of the project can be used to improve project design, change legislation as needed, or change local systems.

Obviously, a well-designed M&E system is needed to carry out gender-sensitive monitoring, along with other supportive tools for staff of the project or program, such as gender policies, term of reference, and training. This Thematic Note discusses specific measures that should be used and offers practical examples of good and bad design.

BASIC STRUCTURES FOR MONITORING GENDER

Women are major players in agriculture and rural development. They are agricultural wage laborers as well as unpaid workers on family farms. Yet women, who form the majority of rural poor, are usually not given equal consideration when agricultural programs are planned, implemented, or monitored. If steps are taken to involve all groups, including women, in such programs, improvement will be seen both in project and program outcomes and in society as a whole. The consideration of gender and involvement of women in M&E can empower women. Every project should meet the following basic requirements:

■ Ensure that guidelines and structures are present to support good gendered monitoring at national, local, and project levels.
■ Ensure that the goals, purposes, or objectives of the program or project explicitly refer to gender or reflect women's needs and priorities as well as men's. Managers need to formulate clear, measurable objectives and indicators and link them with available annual information sources. M&E must be an integral part of project design, not added as an afterthought.
■ Establish M&E mechanisms that will record and track gender differences, and collect baseline data.
■ Measure benefits and adverse effects on men and women separately whenever possible, and check whether the needs and interests of women and men are still considered during implementation.
■ Insist that project staff make specific and adequately detailed references to gender in supervision forms and project completion reports. Report any gender differences even when no mention was made of gender in project objectives.
■ Ensure that staff members obtain the training and tools to understand gender and the reasons for monitoring.

This list applies both to the logical framework and the results framework. The results framework has the following structure: (1) a project development objective and project component statements, (2) indicators for the outcome of the project development objective and for intermediate component outcomes, and (3) an explicit statement on how to use the outcome information. The results framework focuses chiefly on managing the outcomes of project interventions and does not necessarily link into higher-level sectoral goals. However, the project document should describe how the project contributes to these higher-level objectives, including gender objectives, as well as outline project inputs, activities, outputs, and critical assumptions.

The application of a results-based framework may unduly emphasize quantitative indicators for project outcomes and outputs, thus limiting the representation of sustainability concerns in the project M&E framework. This limited representation argues for parallel use of the logical framework in project design to complement the results-based framework, so that the intended links between project outputs and outcomes (the project development objective) and project impacts (the development goal) can be well articulated (Punkari and others 2007).

In the logical framework, the overall objective should link gender outcomes at the project level to provincial or national priorities for a given sector to ensure that the project is not an isolated activity but part of the overall development process for the sector (box 16.8). Indicators at this level will measure change in the broad development goal to which the project contributes.

Qualitative as well as quantitative indicators and data are needed (these are discussed in more detail in Thematic Note 3). The inclusion of gender-sensitive indicators is not enough, however. It is important that there is a means to use the information gathered and to make changes if necessary to ensure that the outcomes will be equitable. Information

from lower-level indicators on inputs and outputs (such as the number of women trained) is useful but insufficient. It must be possible to analyze at the outcome level, for example, whether the training has led women to be empowered and use the training for greater agricultural production. Critical reviews of progress and readjustment should be undertaken, based on information on local constraints— usually the annual work planning stage or midterm review are good moments.

PRINCIPLES AND GUIDELINES FOR INVESTING IN GENDER-SENSITIVE M&E

Different activities are required at national (or international), local government, and project levels to implement gender-sensitive M&E.

National guidelines

Embassies, donor organization representatives, and national representatives should ensure that gender is considered at *all* stages of the planning, implementation, and M&E. National goals regarding the status and participation of women (for example, national gender strategies or specific

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Box 16.8 Linking Gender Outcomes with the Overall Objective

The specific objective or purpose for a project could be:

To increase the efficiency and impact of existing livelihood, infrastructure, and administrative systems on poverty reduction, economic growth, and equity in project districts.

The corresponding indicators could be the following:

- Percentage of the population below the poverty line for income
- Number of district-commune roads (percentage of communes covered)
- Number of commune-village roads (percentage of villages covered)
- Percentage of households with secure land-use certificates in both husband's and wife's names
- Number of villages having access to reliable market information on relevant agricultural products
- Percentage of women, men, disabled, and minority groups represented in decision-making bodies

Source: Author.

- Percentage of women, men, disabled, and minority groups represented in management bodies
- Seventy-five percent of surveyed community members rating their access to livelihood development services as having improved during the life of the project.

But the overall objective could be:

Enhanced, equitable, pro-poor growth in X *Province*

The corresponding indicators could be the following:

- Implementation of the project resulting in an improvement in living conditions for at least 75 percent of rural households
- The number of acutely poor households in project areas reduced by at least 25 percent by project end
- Percentage of women staff in management roles in provincial agricultural department increased
- Participatory approaches used in socioeconomic development planning by all departments.

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goals such as the percentage of women in management committees) must be integrated into project and program planning. Unfortunately, the experience to date is not good. For instance, evaluations of DFID's Country Strategy Papers note that they tend to see the whole community as poor and are less likely to differentiate specific subgroups that should be included in program activities. General statements that gender will be mainstreamed throughout the country program are insufficient unless specific guidance is given. In addition, international conventions and agreements must be observed, such as the United Nations Convention on the Elimination of All Forms of Discrimination against Women. These national representatives should ensure that quantitative and qualitative indicators to promote gender equity are included in project and program documents (logical or results framework), and gender training is included in project or program work plans. Appointing high-level professional women to gender positions in the ministry of agriculture and ensuring that they have the

training and resources to support gender promotion nationally are vital actions. Also, including ministry-level gender focal points in field visits to give them a good understanding of grassroots issues should be done. Examples of program- and policy-related questions that could be asked are given in box 16.9.

Local guidelines

Local authorities may need training; representatives of local government and civil society should be included in capacity-building efforts on gender and M&E. Their inclusion serves several purposes: it ensures that the work of the project or program is well understood, it provides a broader base of understanding about gender issues and monitoring, and it leads to a level of sustainability, by leaving behind a trained cohort to continue the work.

In addition, ways of accessing information, the aims of gender mainstreaming, and the benefits for agricultural

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Box 16.9   Examples of Program- and Policy-Related Questions

- Do national legislation and policies support gender equity? For instance, in 2003 Vietnam passed a new Land Law, which requires the names of husband and wife to be included on all Land Tenure Certificates. This legislation was a big advance, but strong follow-up is needed to ensure that it is implemented at the local level.
- Are women's voices heard in planning and monitoring? Do representatives from women's unions, nongovernmental organizations, or other groups advocating on behalf of women participate in national committees? What is the gender of the decision makers as well as staff of the finance and agriculture ministries at the national level?
- Are there specific efforts to design and monitor gender-sensitive indicators in national agriculture, transport, and water programs?
- Has gender-disaggregated baseline information been collected prior to commencing program activities, in monitoring national progress toward the Millennium Development Goals, or for undertaking other tasks? Are gender-disaggregated data collected during monitoring. If so, how is this information analyzed, reported, and used to adjust plans?

- Do agricultural extension services reach women and men farmers equally, with information and services given at appropriate times and in culturally appropriate forms? For instance, theoretical training provided in the dominant national language at central locations is more likely to reach men than to reach women who are members of ethnic minorities, who might be the persons responsible for putting the training into practice.
- Are the different roles of women and men farmers considered when new seed, crops, or technologies are researched and developed? In central Vietnam, for example, a seemingly promising larger and stronger rice variety was developed with higher seedling survival and production rates, but it was not successful in farmers' fields. Women are mainly responsible for transplanting rice seedlings, and their larger size meant a heavier load for them. Purely quantitative monitoring would not have discovered why the new variety did not produce the expected higher yields. Qualitative techniques were vital in this case.
- Is agricultural credit equally available to women and men farmers? Usually the answer to this question is tied to the question of collateral: Do both women and men farmers have access to land?

Source: Author.

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livelihoods all should be promoted in local media. The appointment of women to provincial and district departments should be encouraged.

Project guidelines

Ensure that gender perspectives are incorporated into the following documents and actions:

- *Terms of reference for all staff,* particularly M&E officers
- *Progress reports:* For all components of the project or program, report on progress by gender
- *Staff recruitment:* Encourage the recruitment of a gender-balanced staff, and if one group is particularly disadvantaged, consider recruiting a less-qualified person, but provide intensive training and support
- The subcontracting of local organizations
- Activity monitoring
- Briefings of team members
- Training
- Annual plans
- Project redesign or review
- Project steering and coordinating committee meetings
- Project completion report and ex post evaluation report
- Lessons-learned database, disaggregated by gender
- Project and program steering committees or other coordinating bodies that are monitoring the project, including representatives of women's organizations and gender-equity authorities (ideally as full members).

At the project level, the questions are more relevant to household equality issues:

- Who participates in meetings, planning, and implementation of activities at the community level? A simple gender disaggregation of the data on meeting participants will provide some information but will not give the full picture. Qualitative monitoring is needed to establish how actively different groups are participating.
- What is the division of labor in the household and community?
- Are there differences between men and women in the amounts of time spent on agricultural tasks, and who makes decisions about the time spent?
- Who makes decisions on planting, marketing, and consuming crops and using water for agricultural or domestic purposes?
- What are the patterns of food allocation (sharing, quantity, quality, and so forth) among family members?

Box 16.10   Kyrgyz Republic: Gender Perspectives Reflected in an Agricultural Development Project

At the design stage of an agricultural area development project in the Kyrgyz Republic, rural women were identified as a highly disadvantaged group. Particular attention was given to mainstreaming gender issues, and efforts were made to increase the project's inclusiveness. The monitoring and evaluation of benefits examined the project's effects with respect to gender, including women's ownership of land, their access to and membership in producer organizations, their participation in training and the types of training they were given, changes in women's incomes compared with men's, and the relative social position of women-headed households.

Source: Adapted by author from ADB Web site, www.adb.org, loan/TA case studies on gender.

Box 16.10 gives an example of how some of these perspectives might be incorporated into the design and monitoring of an agricultural development project.

Monitoring formats

When monitoring results, it can be useful to set out the expected results in a *who, what, when, where,* and *how* sense, as in table 16.1 (modified from UNDP 2002). A monitoring planning worksheet can add another level of detail and enable the entire system to be visualized easily (table 16.2).

GOOD PRACTICE: HOW TO INTEGRATE GENDER INTO MONITORING AND EVALUATION

Working through the following checklist is valuable when integrating gendered M&E, both in project planning stages and during implementation.

Stage 1— Identification and preparation:

- Ensure that the benchmark survey or baseline study is gender sensitive.
- Conduct an initial stocktaking: Who are the stakeholders? What are their activities? What is their capacity? What are their roles and needs?
- Undertake an initial gender study or analysis to identify the potential negative impacts of project intervention on women as well as men.

Table 16.1 Monitoring Formats

Type of result	What is measured	Indicators	Who is measuring	How is the information used
Impact	Effectiveness or results in terms of the effect of a combination of outcome activities that improve development. Conditions at a national level, disaggregated by gender.	Use of outcomes and sustained positive development change, such as the change in economic status of women in a district over a five-year period.	Senior donor agency management or government authorities. Usually information comes from an internal impact evaluation, midterm review, final or ex post evaluation, as well as joint reviews of donor and government staff.	Blocks to positive change can be identified—for instance, gender-sensitive legislation may be needed.
Outcome	Effectiveness, or results in terms of access, usage, and stakeholder satisfaction from goods and services generated by projects, programs, partners, and soft assistance, disaggregated by gender.	Use of outputs and sustained production of benefits—for example, the change in attitudes or understanding in a local area regarding women's access to land over a period, or the change in number of women beneficiaries accessing agricultural extension services.	Project and program management and staff and local authorities; information from quarterly and annual reports, discussions at the steering committee level, and visits by donors.	Outcomes are fed back into project or program design. Unexpected negative outcomes—such as an increase in domestic violence arising from changes in gender relationships in the household once the woman has more income—may indicate a need for training, awareness raising, or other adjustments.
Output	Effort or goods and services generated by projects and programs, disaggregated by gender.	Implementation of activities—for example, how many (what percentage) of beneficiaries, participants, or extension staff are women and their satisfaction levels with the project.	Project management and staff, by means of day-to-day monitoring and use of management information system to verify progress, as well as field visits and reports and information received from project management.	If there is an imbalance in the way that the means are being used, then the project or program activities can be redesigned to achieve more gender balance.

Source: Author, adapted from UNDP 2002.

- Identify gender-related goals and priorities based on available information and consultation with stakeholders. Conduct a gender-sensitive social analysis or assessment.
- Assess the institutional capacity for integrating gender into development activities.

Stage 2—Design and appraisal:

- Ensure that gender is integrated into goals and objectives, and set clear targets.

- Plan for developing capacity to address gender issues and to monitor and evaluate progress and outcomes.
- Set up an M&E system. Adopt and "engender" the logical framework or the results framework as included in the project appraisal document, design gender-sensitive indicators, and develop or select the "best" data collection methods. Decide how to organize reporting and feedback processes. Clearly identify who will collect and analyze information, who will receive it, and how it will be used to guide implementation.

Table 16.2   Sample Monitoring Planning Worksheet

		Planning worksheet								
		Data collection				Data analysis and use				
Project objective	**Indicators**	**Information sources**	**Baseline data needed**	**Who is involved**	**Tools and methods**	**How often needed**	**How often used**	**Who is involved**	**How information is to be used**	**Who gets information**
Cost-effective, gravity-fed upland irrigation projects functioning	Women make up at least one-third of membership of irrigation user management committees. Women and ethnic minorities participate actively in decision making on water use and production planning	Minutes; accounts of management committees	None if the committees are new	Project engineers, M&E officer	Observation of user group meetings; minutes of meetings	Four times each year	Four times each year, and especially annual report	M&E officer and project management unit	Fed into annual planning; disseminated in bulletins to beneficiaries	Project management; shared with all user groups

Source: Author.

Stage 3— Implementation:

- Develop capacity to integrate, monitor, and evaluate gender-related issues.
- Collect gender-sensitive data based on the selected indicators.
- Monitor progress against outcome targets set for the period under evaluation, and feed results back into the system to allow for midterm corrections.
- Assess progress and make corrections if needed to obtain expected gender-related outcomes.

Stage 4—Completion:

- Assess the outcomes and impact of gender integration in the overall context of the project.
- Assess outcomes and impact of project interventions on men and women.
- Include gender-differentiated results in reporting lessons learned from implementation.

INSTITUTIONAL STRUCTURES TO SUPPORT MAINSTREAMING GENDER VIA THE MONITORING SYSTEM

Ideally a gender specialist in the donor agency, Ministry, or project team can provide a range of supportive actions, but in lieu of this the following range of steps can be taken to support gender mainstreaming and improved M&E in projects and programs.

Situations when no gender specialist is on the team

Many programs, projects, or government departments have no gender expert. Although this situation might not be ideal, it does not mean that gender mainstreaming and gender-sensitive monitoring cannot happen. Ensuring that guidelines and toolkits are available (those from donors and national departments, and those specially designed for the program or project) and that skills development is a continuing effort is more important. Newly hired and existing staff need training in gender concepts and their application, and gender analysis training must be a regular feature of the staff development program. In addition, the steering committee and management team must take gender issues seriously and ensure both vertical and horizontal integration of a gender approach, including the setting of indicators and regular analysis of monitoring data and the project's

impacts on men and women participants. Ideally short-term inputs from a gender expert could be used to support a team in this situation.

Appointment of a *gender focal point* among staff can ensure that a trained person is available to answer questions, advise other staff, and prevent attention to gender from being lost in everyday work. This person does not need to be a gender expert but should have a good understanding of gender issues and monitoring. A 2007 survey found that 58 percent of projects supported by IFAD had a gender focal point. Of these, 40 percent worked exclusively on gender issues and 60 percent worked on gender in addition to other duties (IFAD 2007).

Job descriptions, responsibilities, and terms of reference

Gender mainstreaming should be an explicit requirement in all job descriptions, job responsibilities, and terms of reference for studies, consulting work, and training. Ideally, projects should aim for a gender balance among technical advisers and field staff, particularly those involved in M&E. A reasonable representation of women among project or program staff gives credibility when the project asks others to take gender into consideration. When employing staff, preference should be given to candidates who not only possess the necessary skills and experience but also have a good working knowledge of gender issues and an appropriate attitude.

Job descriptions of all project staff should include gender-related tasks such as the following:

- Participate in training to gain knowledge and skills, where necessary, to be able to mainstream gender.
- Actively support the inclusion of gender mainstreaming through adherence to the gender-mainstreaming guidelines in all project or program activities.

Specific job descriptions may also need modification to ensure that staff members consider gender in specific topics. For instance, the terms of reference of an agriculture program officer might include such tasks as the following

- Develop and introduce a sustainable extension service in crop husbandry (including plant protection) and forestry that is farmer-centered, market-oriented, and financially feasible; works in close cooperation with other extension agencies; *and meets the needs of both women and men.*

The job description of the M&E officer should also include gender-specific descriptions such as working in close cooperation with *x* staff to:

- Specify quantitative and qualitative indicators at the objective, purpose, result, and subresult levels *that are gender inclusive.*
- Carry out participatory M&E at the activity level and through qualitative evaluations on a regular basis, *ensuring the active participation of women and men, boys and girls, and disadvantaged groups.*
- Assist the project management team in carrying out a participatory rural appraisal, baseline surveys, and other fact-finding activities, *including appropriate gender analyses.*

Management contracts

If the project or program has management contracts with local partners, the requirement of gender mainstreaming should be made explicit. The project or program should support partners to access adequate technical assistance to help mainstream gender in programs and activities, as well as offer training for staff in partner organizations. The contracts should also require that gender considerations are included in monitoring and reporting.

Gender policies, guidelines, and action plans

To put gender-sensitive monitoring into practice in projects, gender policies and guidelines or action plans should be developed, including at least the following instructions to local and international staff:

- Mainstream the promotion of gender equity in all planning and budgeting of project activities and in progress reports. In the project planning exercises, ensure that the anticipated impacts on all groups are considered.
- Provide gender-specific objectives and indicators for the logical framework of the project or program document and annual work plans.
- Develop qualitative and quantitative indicators as measurements of gender-equity promotion at the activity level.
- Disaggregate data by gender in reports and in the information provided to all stakeholders.
- Ensure that project personnel receive gender training.
- Ensure that the project personnel are informed of, and understand, the partner country's national plan for promoting gender equity.

- Ensure that study visits and training opportunities made using project funds include equal numbers of women and men as much as possible.
- Bring up issues connected with promoting the status of women in visits to the field and hold discussions with both women and men workers and intended project beneficiaries.
- Always act in accordance with local laws as well as the gender policies of the donor. In their personal behavior, staff should try to promote the rights of women and men and more equal relations between them.

GENDER CHECKLIST

A gender checklist supports the planning, implementing, and M&E of projects and activities undertaken within a project or program to ensure that gender is mainstreamed and that the outcome is equality of participation and benefits for men and women. Box 16.11 provides key questions that may be asked during the design, implementation, monitoring, or evaluation stage.

Setting times for analysis and encouraging feedback

Clearly a midterm review is a crucial externally imposed time to assess progress and alter program or project activities as necessary. Annual planning should also be used as an opportunity to review what occurred over the last year and consider any differential gender impacts. Many societies have no tradition of giving realistic feedback, either positive or negative. It is likely that many in the community, particularly women and other disadvantaged groups (the very poor or those of low caste), feel constrained and reluctant to complain about problems with project activities. Even if community members report dissatisfaction with an activity, no follow-up discussion of the problem or action may be taken. Both the community and the project or local government authorities need to understand that criticism can be positive, in the sense that it can lead to improvements in the future. Follow-up training and case studies (small-scale gender analyses) of gender impacts may be useful to refresh the minds of staff and potential beneficiaries about the importance of the issue.

Management information system design and use and reporting

The management information system (MIS) devised for the program or project should integrate information flows

project activities and outputs. An MIS can provide gender-
disaggregated data on stakeholders involved in various
aspects of a project and on the indicators selected to mon-
itor change and impact. Both men and women stakehold-
ers should be involved in identifying indicators to monitor
change and impact, and both should be involved in pro-
viding feedback.

The following information sets should be managed by
the MIS:

- *Monitoring of management and administration:* Includes
data on staff and personnel (performance, time use,
capability), vehicles (mileage, repairs), physical plant
(buildings, land, utilities), supplies (stocks, costs, qual-
ity), and others.
- *Financial monitoring:* Includes all information about
financial resources, such as budget, income, expenditures,
and cash flow. In reports, this information may be used to
compare income and expenditure over time, changes in
sources of revenue, or changes within the organization's
expenditures (particularly with regard to gender).
- *Program and process monitoring:* Looks at the manage-
ment approach, background information, inputs,
activities, outputs, and progress toward objectives and
impact.

SEAGA (FAO 2001) lists the key components of a moni-
toring, evaluation, and reporting system:

- A clearly defined purpose and focus
- Indicators for each activity, input, output, outcome, and
impact
- Data concerning the indicators
- Analysis of data and presentation of the analysis in use-
able ways for different people
- Easy access to the information for use in individuals'
work.

A deficiency in many MIS designs is that they rely too much
on quantitative data and find it difficult to incorporate
information derived through qualitative and more partici-
patory approaches (box 16.12). A key decision at the start is
to determine what information is needed (compared to
what might be interesting). Collecting and recording irrele-
vant data will complicate the system and waste time. Infor-
mation should be recorded and entered into the system only
if it is going to be used.

Developing and testing computer programs are always
more difficult and time consuming than initially expected;

on inputs, outputs, impacts, and outcomes using quantita-
tive and qualitative data. The MIS should produce a range
of reports according to need—financial reports, time-based
reports, monitoring of results or components, reports by
socioeconomic groups of beneficiaries, and others. In a
rural development setting, the MIS ideally should incor-
porate a geographic information system that maps data on

Box 16.12   How Can Participation Be Measured and Reported Meaningfully?

Participation is one of the most important factors to ensure gender equity and thus one of the most important to monitor, yet participation can be difficult and time consuming to measure. Participation can range from attending meetings to initiating empowered activity. Different kinds of participation are desirable in different project activities. For each activity, a decision must be made as to the kind of participation that is desired—for instance, assessing not just the number of women attending meetings but whether they express opinions and ask for more information.

It is particularly difficult to assess program participation and benefits at the community level and to assess any effects on power relationships. Gender-disaggregated data are not the only requirement. Indicators must be identified so that meaningful participation by men and women and real benefits accruing to them can be determined and any resulting power imbalances in the community can be identified clearly. Accurate socioeconomic profiles, including gender analysis, of the target community should inform project activities and assess change. These analyses are not a one-off event but part of the monitoring process.

Each of the following questions can be posed to gain a clearer or richer understanding of true participation in meetings and training sessions:

To what extent did women actively participate in the meeting?

To what extent did women contribute to the meeting outcomes?

To lessen the subjective nature of the answers, development of criteria to form the basis of the answer is important. For example, criteria to judge "active participation" may include the number of questions asked, the number of comments given, the perseverance of opinion giving in the face of opposition, and attempts to sway others with argument. The answer choice for the questions listed above can be quantified, and change can be noted over time. Initially, for example, 15 percent of women attending meetings may have participated "somewhat" and the remainder "not at all," whereas after a year of involvement in the program, 35 percent of women attending meetings may have participated "a lot," 20 percent "somewhat," and the remainder "not at all."

Note that for the answers to these questions to have any meaning, clarifying how many women the answers refer to is important. Therefore, the questions above need to be followed by another:

To what percentage or fraction of women present at the meeting does this apply?

A range of program impacts are often difficult either to measure or attribute, such as changes in self-confidence, skills, knowledge, and attitudes. Personal attribution is a valid means to gauge program impacts—in other words, a person or group believes that involvement in program activities has occasioned a change in their self-confidence, skills, knowledge, or attitude. Another method is to collect purely qualitative data using a consistent format and record it on an activity fact sheet. This allows effective monitoring and evaluation of project and program activities and their impacts. The use of participatory rural appraisal or gender analysis techniques to monitor indicators is a helpful tool.

Source: Author, adapted from unpublished project documents.

final expenditures of three times the estimated cost are not uncommon. Standard codes can be used in different packages or modules to link related physical activities in the various databases or records to financial budgets. A better approach at the project level may be to rely on a standard, off-the-shelf accounting system, which can be customized with project codes to identify cost centers, components, and activities and to use the same codes in any other packages (such as data-bases) used to record monitoring data. Keep the quarterly reporting as simple as possible and try to avoid reporting too much numerical data at the activity level. The numerical detail may not add much information that is meaningful to other users of the report and complicates reporting (many numbers need to be reconciled and actual data reported against targets). More detail on results versus expected outputs and outcomes can be included in the annual report.

Operating budgets

Sufficient funds need to be made available for gender-related activities. For instance, funds are needed to purchase gender training materials and to conduct specific studies on the socioeconomic situation of men and women in the project area (gender analysis). Collecting quantitative data disaggregated by gender need not be more costly, but qualitative monitoring of projects, which will pick up on changes in attitudes and changes in gender roles, will require more time and money. The triangulation is important, however, to ensure reliability.

PRACTICALITIES OF M&E

How much M&E is enough? The key is to remember that the purpose of M&E is to guide implementation of a program or project, so a limit exists to the resources that should be used for M&E. The cost of collecting information will usually determine the methods selected and the scope of information collected. A balance must be found between using as few indicators as possible, for reasons of simplicity and cost, and using sufficient indicators to measure the breadth of change and to cross-check results.

Gender in High-Level Programs, Policies, and Newer Aid Modalities: How Should We Monitor It?

The discourse on aid effectiveness has focused on which modality of aid—project or program modalities, in their various forms—has the greatest impact on poverty reduction and economic growth. Arguments in favor of the project approach include the ability to make and monitor change at the local level, to control the work and use of funds closely, and to provide good opportunities for capacity building. The opposing arguments are that delivering aid through projects leads to a proliferation of parallel management systems within or outside the public administration, which hamper coordination, planning, and budgeting and result in heavy transaction costs and insufficient impact. The current paradigm in development thinking, agreed to by many donors in the Paris Declaration on Harmonization of Aid, is to move toward programmatic aid, supporting local governments to run activities directly. The increasing emphasis on harmonization and alignment means that all donors are faced with the dilemma of finding an appropriate balance between their own policy objectives and country-led approaches to development.

Some of the "new" modalities include the following:

- Program support
- Poverty reduction strategy programs/national development plans
- Budget support (general or targeted/sectoral)
- Public financial management
- Sectorwide approaches
- Joint assistance strategies
- Basket funds (usually a precursor to SWAPs).

These newer modalities require the implementation of monitoring measures on a scale that differs to a great extent from those applied in projects, because in most cases an entire country is covered.

KEY ISSUES RELATED TO MONITORING GENDER IN THE NEWER AID MODALITIES

The attention given to gender within these larger initiatives, unfortunately, is not good. Although SWAPs and budget support have many advantages with regard to impact, they can cause gender equity to receive even less priority, unless deliberate steps are taken to monitor gender impacts.

Gender-sensitive M&E in more traditional projects, although perhaps not done well in practice, is usually better understood in theory. The monitoring of gender issues within PRSPs, budget support, and SWAPs, on the other hand, is more problematic, to both plan and implement. It is difficult to link and track the diagnosis of priorities to plans, budgets, expenditures, and outcomes, and they are very often gender blind. Developing countries usually lack the organizations and technical capacity for accurately monitoring how the funds are spent and what gender outcomes are achieved. Although the newer aid modalities have the potential to mainstream gender equity at a national level, experience to date has shown that gender has not been given much consideration. It is rarely considered to be an independent sector, nor is it effectively mainstreamed, and if equity has improved, this happens usually by accident rather than design.

Gender equity is not explicitly addressed in the Paris Declaration. There is a risk that as the influence of donors on resources diminishes under new aid modalities, their ability to encourage partners to pursue gender-sensitive strategies and carry out M&E will diminish. In addition, SWAPs and budget support tend to be implemented from capital cities, in meetings, rather than at the grassroots level. This context may be far away—in distance and perceptions—from what is actually happening on the ground. Competing priorities, discussed by societal leaders (generally men), usually are found, as well as a diminished scope for gender equity. The demands from donors and local government for time and

human resources to hold regular working group meetings and joint reviews are enormous. If field visits take place during joint reviews, they often consist of convoys of cars and many visitors sweeping into small villages, with the participation of local leaders and the presence of police for security. Under these circumstances, it is unlikely that the reviewers can collect good qualitative information, and certainly cross-cutting issues or negative results are unlikely to be mentioned.

The Development Assistance Committee review of development cooperation agencies (OECD 2007: 15) found that "a number of respondents believe that the new aid modalities have hampered gender-equity actions. Over half of the mature agencies say the new aid modalities have made gender mainstreaming more difficult—and none say that they have made it less difficult." In addition, problems of attribution often arise when monitoring results at the budget support or SWAP level: did the support of one particular agency make the difference for women in the partner country, or was it a combination of many actions?

REASONS TO MONITOR GENDER SPECIFICALLY IN THE NEW MODALITIES

The Gender Action Partnership (GAP) Web site in Vietnam states, "Experience shows that if Poverty Reduction Strategies do not comprehensively address the gender dimension of poverty throughout the strategy, then it is most likely that the impact of the strategy on poverty reduction and economic growth will be insufficient, inequitable, and less successful (than it could have been had gender been mainstreamed). The responsiveness of income poverty to growth reduction increases significantly as inequality is lowered—that is, '*more equal societies will be more efficient transformers of growth into poverty reduction.*'"[1]

Effective gender mainstreaming and gender-sensitive monitoring in the context of budget support can take place only if the national poverty reduction strategy has captured poverty, vulnerability, and the causes of poverty as gender-specific phenomena and outlined effective measures and interventions to overcome them. Establishing a framework to manage for results that incorporates gender equity requires agreement that gender-equity targets are appropriate and that their monitoring is worth the investment. However, this commitment is not always carried through into action.

The connection between policies, spending commitments, and actual implementation will be strengthened if well-functioning monitoring systems track the introduction of gender-sensitive performance measures and incentives in the public sector and if community organizations lobby for them.

EXPERIENCE AND ACHIEVEMENTS

As noted, the experience of gender-sensitive monitoring of the newer aid modalities has been somewhat weak. The following sections look at monitoring of MDGs, PRSPs, SWAPs, and joint reviews—both experiences to date and possible improvements.

Experience with PRSPs and SWAPs

In these early stages of working with new aid modalities, an emphasis is given to measuring management processes, measuring the consistency of aid flow, and tracking finances and economic performance, rather than measuring progress on achieving development priorities, including gender priorities.

The World Bank's *PRSP Sourcebook* (World Bank 2002) notes that men and women experience poverty differently and that poverty reduction strategies (PRSs) often do not take these differences into account:

> A full understanding of the gender dimensions of poverty can significantly change the definition of priority policy and program interventions supported by the PRS. Evidence is growing that gender-sensitive development strategies contribute significantly to economic growth as well as to equity objectives by ensuring that all groups of the poor share in program benefits. Yet differences between men's and women's needs are often not fully recognized in poverty analysis and participatory planning and are frequently not taken into consideration in the selection and design of PRSs.
>
> World Bank (2002: 335)

National statistical data are often insufficient. Normally data on early childhood growth or schooling will record the gender of survey participants, yet this level of detail often disappears by the time the information is summarized in background documents for PRSPs or SWAPs. In addition, household-level income or consumption surveys will not usually indicate gender, unless women-headed households are recorded. Intermediaries processing raw data may make a decision regarding the importance of gender and delete important data for monitoring. Qualitative monitoring and attempts to improve participation have been made using participatory poverty assessments and civil society consultations, and the resulting information used to develop PRSPs, but experience has shown that consultations were usually limited and rushed, at least in the first round of PRSPs. It is also difficult to integrate statistical data with the participatory poverty assessment unless specific examples are presented to support particular topics. Consequently, the recommendations did not appear in the final documents.

Another difficulty faced when working with sectoral basket funding or budget support involving multiple donors is that checklists and monitoring requirements may overlap or even be contradictory, despite the harmonization principle endorsed in the Paris Agreement. As a consequence, some recipient governments have tried to develop their own harmonized guidelines and request that donors use them. The *Harmonized Gender and Development Guidelines* of the Philippines (NEDA 2004) are a good example, but not all recipient governments are strong enough to take a similar action.

Typically PRSPs have had a poor record of including women's organizations in their planning and have lacked a sound gender analysis. Moser and others (2004) identified three types of difficulties in following gender issues in PRSPs: evaporation, "invisibilization," and resistance. "Evaporation" means that although commitments and general statements are made regarding the importance of women in, for example, subsistence agriculture or nutrition, these words do not progress to action. Even if factors exacerbating women's poverty and vulnerability are recognized, plans and objectives may not be developed to counteract them. "Invisibilization" occurs when gender is not monitored or reported, because baseline and monitoring data have not been recorded or passed up to decision makers, because women were not consulted and their perspectives are missing, or because gender information was filtered out as "unimportant." Issues with clear gender dimensions may also become invisible when they are discussed in gender-neutral terms. "Resistance" is the refusal to take problems on board and is perhaps the more traditional obstacle in projects.

One difficulty in a PRSP is the sheer amount of information to be gathered. Too many indicators can overwhelm the abilities of national governments to collect and analyze the information. For instance, although the initial PRSP in Bolivia contained 157 national-level indicators, a subsequent, pared-down draft had 17 (Kusek and Rist 2004). Experience indicates, however, that any data pruning is liable to drop indicators linked to gender.

In the new aid modalities (for instance, in PRSPs or the frameworks for targeted budget support), conscious efforts are needed to mainstream gender and to include gendered indicators. National stakeholders should then collect gender-disaggregated data through national statistics offices and surveys as well as qualitative surveys, to monitor implementation and outcomes. Performance assessment frameworks should consist of a set of indicators that monitor progress against national development strategies and sector programs. However, most assessment tools identified within the Paris Declaration do not monitor gender and social equity. Box 16.13 (below) describes some difficulties encountered in monitoring the PRSP of Mozambique.

Fong, reviewing SWAPs for agriculture implemented between 1989 and 1998, identified SWAPs that successfully integrated a number of gender characteristics, specifically "capacity building on gender in the ministry; using gender objectives to reinforce overall SWAP objectives; a participatory approach with special attention to women stakeholders; mainstreaming gender throughout the program; and strong support of donors." The review also found increasing recognition of the need to address gender issues in agricultural programs: "Fifteen of the 24 SWAPs made efforts to address gender or women in development issues. Analysis of gender issues was undertaken in twice as many SWAPs in the second five-year period as in the first, so there was progress."[2] Although gender needs were recognized in many SWAPs, real action, such as developing activities or earmarking budgets, was limited. The contradiction between the lack of gender considerations in the main document of the Mozambican agricultural SWAP and the practical instructions given for gender-sensitive monitoring is provided in box 16.14.

Experience with monitoring gender progress in the Millennium Development Goals

The Millennium Development Goals (MDGs) developed at the Millennium Summit in 2000 consist of a set of eight goals, 18 targets, and 48 indicators for monitoring socioeconomic and environmental change by 2015 (box 16.15).

Although improvements in gender equity and the status of women are vital for achieving all of the MDGs, gender mainstreaming of the MDGs has not been particularly strong. It has been assumed that if the goals are achieved, progress would occur in social areas at the same time. An analysis of the indicators for monitoring progress shows very little emphasis on gender, other than goal 3. Rather than mainstreaming gender, the goals have seemingly circumscribed it within goals 3 and 5.

The indicators for goal 3 are the ratio of girls' to boys' enrollment in primary, secondary, and tertiary education; the ratio of literate women to men among 15–24-year-olds; the share of women in wage employment in the nonagricultural sector; and the proportion of seats held by women in national parliaments. Clearly, these indicators reflect only a limited subset of activity in education, nonagricultural employment, and political representation. They do not reflect agricultural and rural livelihoods adequately, especially disparities in

Mozambique's second Action Plan for the Reduction of Absolute Poverty (known by its acronym in Portuguese, which is PARPA) shows some improvement in gender monitoring over the first, although many issues remain to be resolved.

Improvements:

■ The second version of PARPA has more consideration of gender than the first.
■ Specific progress has been made in some areas: a bill on domestic violence is in the pipeline, a Family Law has been passed, and a National Gender Policy is under development.
■ A Gender Coordination Group—with representatives from government, donor agencies, United Nations agencies, and civil society—chaired by the United Nations Population Fund, has considered gender issues in the agriculture meetings, although the group has not functioned very well in the joint reviews.

Unresolved issues:

■ Key documents focus very little attention on women's economic empowerment. No systematic attention is given to women's rights or to the application of a rights-based approach in general.

Source: Ministry for Foreign Affairs, Finland, internal memo, May 29, 2007.

■ The capacity for stakeholders to conduct gender analyses is low. No strategic approach or results orientation is present. Agriculture has a separate strategy on gender equity, but the substance is weak.
■ Progress has been made in institutionalizing gender-mainstreaming mechanisms, such as gender units and the appointment of gender focal points, but their true capacity, resources, and motivation remain unclear.
■ Women's advocacy within government is weak in human resources and authority.
■ In general, the motivation among government officials to discuss gender issues seems low. Many consider gender-equity strategies to be imposed by donors and feel resistant.
■ Much gender training has occurred, yet staff cannot apply the theory in practice.
■ Some sectors collect gender-disaggregated data; some do not. Room for improvement exists in all sectors.
■ Gender issues are treated in an ad hoc way, not based on analysis. A systematic approach for gender mainstreaming is missing.

Clearly, much work remains to be done, and incentives must be found to mainstream gender in PARPA.

access to productive resources such as land, credit, and technology. These indicators are also only quantitative in nature and measure equality of access to those areas. They do not measure whether women receive good education or are empowered (World Bank 2007).

Many of the MDGs have a gender dimension. For instance, gender-sensitive activities in agriculture can contribute to goal 3 directly by empowering women farmers and indirectly by reducing women's time burden for domestic tasks. Experience at the project level, however, teaches that if we do not measure the impacts on gender, we cannot assume that benefits will flow equally to women and men. Consequently, various agencies have attempted to strengthen the monitoring. Ideally, at least one gender-sensitive indicator should be used within each MDG. For instance, the United Nations Development Fund for Women (UNIFEM)

has improved the list of indicators, and various groups have reviewed country reports to assess the quality of gender mainstreaming.

In 2006 in a paper for the Development Assistance Committee Network on Gender Equality, Gaynor (2006) noted that gender was not reflected as a cross-cutting issue in any of the 13 MDG country reports reviewed in 2003, and goal 3 (on gender equality) was the only one consistently addressing gender issues across countries. The World Bank reported that "data on all six official indicators of MDG3 are available for only 59 out of 154 developing countries (for 2000–05), and even fewer countries have time-series data that would allow tracking over time for both the official and expanded list of indicators. . . . [O]nly 41 countries have current (2000–05) information. This lack of data limits considerably the ability to monitor progress, learn from success, and,

ProAgri, a sectoral program implemented by Mozambique's Ministry of Agriculture and Rural Development (MADER), receives financial support from some 20 donors. Its objective is to protect, conserve, and use agriculture, forestry, and wildlife resources in a sustainable way. The second-phase strategy document for ProAgri emphasized that continued blindness to gender differences in agricultural planning could undermine the program, resulting in poor production, food insecurity, and increased rural poverty. Proposals were made for improved gender-sensitive monitoring and technical support to MADER to develop and apply gender-sensitive socioeconomic participatory methodologies. Interestingly, the targets and milestones listed in this same document make no reference to gender, although the chapter on M&E presents a useful recommendation on including gender concerns in M&E mechanisms, especially the necessity of the following:

- Including explicit and feasible instructions for analyzing equity issues to generate useful data for planning
- Specifying results and relevant indicators, and ensuring that equity goals are reflected in the definition and selection of impact and process indicators and evaluation criteria
- Documenting best practices to build up models.

Source: Strategy Document, ProAgri II, Ministry of Agriculture and Rural Development, Mozambique, www.pwg.gov.mz.

1. Eradicate extreme poverty and hunger.
2. Achieve universal primary education.
3. Promote gender equality and empower women.
4. Reduce child mortality.
5. Improve maternal health.
6. Combat HIV/AIDS, malaria, and other diseases.
7. Ensure environmental sustainability.
8. Develop a global partnership for development.

Source: United Nations, www.un.org/millenniumgoals.

and AIDS and malaria specifically on agriculture and rural development are manifested primarily as the loss of labor and on- and off-farm income. Gender inequality, which is at the core of the epidemic's spread, is one of the main determining factors associated with vulnerability to HIV and AIDS. In the case of goal 7, gender differences in the way natural resources are used are important to outcomes. If women in the boundary zone of a protected area collect nontimber forest products for household use, no point can be seen in monitoring only the forest products sold by men at the local market.

The indicators for many of the MDGs should be expanded, but this task is not simple because data are not available in all countries. Many countries lack basic, gender-disaggregated data on productive assets, including land, livestock, house ownership, ownership of other property, credit, and business ownership. Information on land tenure by gender is included in agricultural censuses or surveys, but it is not usually possible to get national data disaggregated by gender on access to credit (formal and informal) and business ownership; it is necessary to rely on smaller, targeted surveys. Without these data, progress cannot be monitored.

The Ministry of Women's Affairs of Cambodia provides a good example of how the monitoring of goal 3 can be improved. The Ministry improved the collection and handling of statistics and expanded the official indicators for goal 3 to strengthen the focus on gender. It added indicators of gender equity in (1) literacy rates for 25–44-year-olds, to cover women in their prime child-bearing and working years; (2) wage employment in agriculture, industry, and services, to monitor sex segregation within sectors (women are underrepresented in the service sector); and (3) all elected bodies (National Assembly, Senate, and commune councils)

ultimately, to make informed decisions regarding scaling up investments (World Bank 2007: 106). The report strongly recommended that the collection and analysis of gender-disaggregated data be significantly scaled up to permit more accurate and full measurement of progress toward goal 3.

Access to land has considerable influence on progress toward goals 1, 3, and 7 (and others as well, given the links between access to land and access to credit). Gender-sensitive data referring to land rights and security of tenure would provide good information for monitoring progress toward these goals. Links are also present in goals 1, 3, and 6 with respect to the impact of HIV and AIDS on rural households and gender issues in agriculture. The adverse effects of HIV

and government positions. In addition, it added a new target focused on reducing all forms of violence against women and children (World Bank 2007).

PRINCIPLES AND GUIDELINES FOR ACTION

With development cooperation increasingly dependent on PRSs, sectorwide strategies, and other country-generated development plans, drawing up gender-equity objectives for these plans and strategies is vital. To minimize policy evaporation, linking policy and strategies with clearly identifiable inputs, outputs, resource allocations, expected outcomes, and their relationship to policy goals is important. A number of indicators, tools, and methods that can support this process are summarized in box 16.16 and discussed in the sections that follow.

MONITORING PRSPS

The *PRSP Sourcebook* (World Bank 2002) recommends three steps for gender-sensitive monitoring of PRSPs:

1. Integrate a gender dimension into the outcome monitoring system.
2. Integrate a gender dimension into the PRS evaluation strategy, and use gender monitoring and impact evaluation results.
3. Build institutional capacity for gender-responsive M&E.

When selecting indicators, tools, and methods to reflect gender outcomes and impacts in PRSPs, PRS managers should consider the following:

- Select *only a few critical goals, outcomes, and indicators* from the PRS for monitoring and evaluating gender outcomes and impacts. In the selection process, consider *how the information is to be used, and by whom,* and assess these needs in light of *budgetary and time constraints.* Ensure that the data are collected.
- Data collection methods are determined by the kinds of information and data needed to monitor change and progress. Optimum results are obtained when traditional and participatory approaches to M&E are used to complement one another.
- Collecting new data on gender is not always necessary. Assess the availability of gender-responsive data before considering the need to collect new data. Gender M&E is frequently done by disaggregating data already being collected and using other available sources of information.

Box 16.16   Summary: Gender Indicators, Tools, and Methods for the New Aid Modalities

In dealing with the new aid modalities, a number of indicators, tools, and methods may be useful for reflecting gender outcomes and impacts.

- Conduct gender analysis, including gender-oriented analyses of PRSPs and other development plans, to track the extent to which partner-country development plans incorporate a gender dimension.
- Conduct participatory assessments, including poverty and social impact analyses and needs assessments.
- Use gender-responsive public financial management tools, such as gender budgeting or gender-disaggregated benefit incidence.
- Include gender indicators as milestones or even triggers for disbursement.
- Ensure that gender is considered when preparing terms of reference for joint reviews or monitoring visits.
- Use gender audits, peer review, and gender-equity markers and indices to study progress.
- Include activities to mainstream gender throughout all levels. Embed gender equity in national monitoring and accountability frameworks and mechanisms.
- Formulate clear, measurable objectives and indicators, and link them with annual information sources.
- Promote capacity building (also for civil society) to contribute to the monitoring process.
- Conduct ex ante assessments of the gender impact of proposed development actions, which in principle identify gender-biased outcomes and permit mitigating actions to be built into a program or project.
- Disseminate good practice and experience locally and internationally.

Source: Author.

Three countries—Mozambique, Uganda, and Vietnam—offer examples of practical steps for monitoring gender in poverty reduction strategy programs, and these are described in box 16.17.

Poverty and social impact analysis reveals the distributional impact of policy reforms on the well-being or welfare of different stakeholder groups, with a particular focus on

Mozambique

Monitoring for Mozambique's Action Plan for the Reduction of Absolute Poverty (PARPA) is being integrated into the regular system of quarterly and annual government reports to parliament. A special annual poverty report will also be prepared, based on quantitative and qualitative data. The PARPA does not specify the form of the poverty report, but ideally it should include monitoring at three levels: sectoral performance, execution of program expenditures and revenues, and changes in welfare as measured by poverty and social indicators. The main quantitative data sources will be administrative data produced by the line ministries and annual household surveys of key welfare indicators (through the Core Welfare Indicators Questionnaires).

The indicator table in PARPA's monitoring section represents an initial attempt to focus on a smaller number of key targets and indicators for each priority area, with a clearer distinction between intermediate and outcome indicators. However, some of these measures are provisional, because in some cases the precise quantities still need to be established and the relevant data sources defined. Targets and indicators are best specified in those sectors that have sectorwide approaches in place. As reporting on the PARPA becomes more institutionalized, further refinement of its indicators may be expected, and the link to poverty outcomes should be strengthened (ideally with more gender consideration).

Uganda

Uganda developed a detailed sectoral information and monitoring system (SIMS) for a water and sanitation program, which includes the monitoring of gender. The system features the following:

- *Sector Management Arrangements*—the institutional framework or system that guides the development, oversight, and coordination of SIMS (Water and Sanitation Sector Working Group, sector performance thematic team).
- *Sector Strategic Monitoring* monitors results for the sector using 10 key "golden indicators," including gender. These indicators are identified by all stakeholders at the start. Various studies also support monitoring, such as national surveys, tracking studies, expenditure analysis, and equity studies.
- *Sector Implementation Monitoring* monitors project/program inputs and outputs through quarterly progress reports, performance assessment framework, monitoring reports, and others.

Some of the lessons learned from this process include the importance of agreeing on definitions, data sources, and data collection methods from the outset and agreeing on annual indicator targets for assessing performance changes over time. Linking SIMS to budgeting and resource allocation within the sector is still a significant challenge, and putting monitoring findings and recommendations into action is still difficult.

Vietnam

Vietnam has included two gender targets in its Comprehensive Poverty Reduction and Growth Strategy. First, 40 percent of newly created jobs should go to women; second, land tenure certificates should be issued in the names of both women and men. To meet the first target, targets are being created for different organizations, gender indicators will be included into the national targeted program on job creation, coordination will take place with concerned agencies, and monitoring and evaluation indicators and processes will be identified. For the second target, the Land Administration will set targets for every year, and the number of certificates to be issued or reissued will be specified. Instructions will be given to district cadastral officers, budget and staff will be allocated, and reporting and evaluation formats established. The concerned ministries and the Women's Union will monitor progress.

Sources: IMF/IDA 2001; Disan Ssozi, "Sector Information and Monitoring System (Uganda Case Study)," www.worldwaterweek.org; Thi Minh Chanh, "Hanoi Action Plan Review," www.unifem-ecogov-apas.org.

the poor and vulnerable (see box 16.18 for an example from Vietnam). Poverty and social impact analysis also addresses sustainability and the risks to policy reform and helps to monitor poverty and social outcomes and impacts of policy changes. It can inform national poverty reduction strategies, specific reform programs, and development bank lending, as well as strengthen evidence-based decision making (World Bank 2004).

Needs assessments can be used to collect information, raise awareness, and understand the priority needs of women based on their different tasks, concerns, and responsibilities. They can divide practical gender needs and strategic needs (which contribute to transforming subordinate relationships between women and men). A needs assessment might be done at the community level but can

also be used right up to the level of national bodies or internationally. The Economic Commission for Latin America and the Caribbean undertook a needs assessment of economic planning units in four Caribbean countries to evaluate their capacity to integrate gender into macroeconomic planning processes (for instance, to carry out gender-sensitive budget analysis of both revenues and expenditures).[3] The study assessed the extent to which the countries sought to integrate gender into macroeconomic planning, as well as the institutional, human resource capacity, and attitudinal factors that facilitated or hindered such integration. It included interviews with Finance and Planning Department staff, NGOs, women's organizations, and training bodies. Current policies and practices were examined as well. The needs assessment formed the basis for designing and implementing subregional training workshops aimed at increasing the capacity of regional economic planners in gender analysis and gender planning. It was a very useful baseline to support gender-sensitive budget analysis in those countries and analyze the constraints to monitoring government commitments to gender equity.

Gender integration in SWAPs should have a number of characteristics to be successful:[4]

- *Capacity building on gender in the ministry:* For example, Kenya's Ministry of Agriculture has given extensive emphasis to building capacity for integrating gender at the ministry, regional, and community levels during SWAp preparation and implementation.
- *Using gender objectives to reinforce overall SWAP objectives:* Enhancing attention to gender will increase the likelihood of reaching overall objectives, such as poverty alleviation and enhanced food security (see box 16.18 for an example from Kenya).
- *A participatory approach, with special attention to gender stakeholders:* To ensure good coverage of ideas and attention to gender issues and increased ownership of the process, groups that do not otherwise participate in the planning or monitoring will need to be tapped at national, regional, and community levels, including a range of government ministries, NGOs, universities, women entrepreneurs, and women farmers, among others. Practical steps may need to be taken to ensure that women have good access to planning meetings (such as ensuring proper timing, providing child care, and identifying a suitable location).
- *Mainstreaming gender throughout the program:* Gender should not be isolated within a separate task force. All

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Box 16.18   Examples of How Gender Analysis Is Used

Gender Analysis in a Sectorwide Program: Kenya

Between 1996 and 1998, Kenya's Ministry of Agriculture led a study of gender relations in agriculture in three regions, which brought to light constraints and challenges regarding equitable agricultural development, along with institutional inhibitions to change. As a result, a separate objective for gender equity was added to Kenya's Agricultural Sector Investment Program. The objective received a separate budget line, ensuring funding of activities to improve women's economic security. Responsibilities were clearly set for monitoring at each level, and capacities were built.

Gender Analysis of Structural Reforms: Vietnam

An analysis of the gender dimensions of Vietnam's structural reforms focused on links between reform, gender equity, economic growth, and women's welfare in Vietnam during the 1990s. The gender dimensions of key reform policies received special attention. The analysis found that women on the whole are better off as a result of the reforms, but the gains are not evenly distributed across income groups, regions, and ethnic groups. Household and enterprise survey data presented mixed results regarding gendered outcomes and formed the basis for recommendations to enable women to improve their economic and social welfare.

Sources: OECD 2002; Packard 2006.

groups involved in program preparation and monitoring must consider gender as a cross-cutting issue.

- *Strong donor support.* Strong donor support may be important to the success, for example, of gender focal points in ministries or of including specific, gender-sensitive M&E in the program.

Gender budget analysis tools are used to review general or mainstream budget expenditures (for instance, within the annual budget of a nation or of a specific sectoral program) or to review expenditures specifically targeted to groups of women or men to meet prioritized needs or promote equal opportunities. *Gender budget initiatives* (GBIs) can be defined as "diverse efforts aimed at breaking down the government's budget in order to analyze its impact on women, men, girls, and boys, as well as on other axes of social differentiation (such as race, ethnicity, class, and caste). Their main purpose is to examine whether public expenditures are allocated in an equitable way, and hence promote gender equality" (Balmori 2003: 15). They can also help to reshape government policy goals and resource allocation.

Local organizations have used GBIs to analyze expenditures and link policies to actual spending commitments to women and the poor (for example, in India and Tanzania). This information has been channeled back to governments to promote gender-responsive budgeting. The rationale is to establish a process in partner countries whereby the differential effects on men and women of particular budget decisions are understood and biases are corrected. The most commonly used method takes the government's policy framework and examines it sector by sector, exploring how budget expenditures are used and identifying the longer-term impacts on men and women.

In Morocco a gender-sensitive Economic and Financial Report accompanied the 2006 finance bill and provided a baseline for measuring progress on gender issues in budgets and outcomes in several ministries, including agriculture (for details, see the Web site of the Ministry of Finance and Privatization, www.finances.gov.ma, or the UNIFEM Web site, www.gender-budgets.org). Many examples of gender budget initiatives in other countries are given in World Bank (2007), which identifies the key steps in implementing budget initiatives as upgrading the technical skills of budget officials and gender experts and strengthening government agencies, raising public awareness of gender issues to ensure the sustainability of the initiatives, and supporting well-informed coalitions of NGOs for advocacy. The key challenge for gender-informed budget analysis and policy making is to move beyond gender-targeted interventions to

full and sustained gender mainstreaming in the budget process. A range of tools are available (table 16.3).

One difficulty with GBIs is that results for a given year are usually available only after the following year's budget has been planned, so a lag of one year tends to occur before findings can lead to change.

Linkages with advocacy, research, and training are vital for moving the results of GBIs forward into the development of improved programs. These roles may be carried out by government, but this is unusual. More commonly, governmental "women's machinery" (women's unions, NGOs, and other groups that advocate on behalf of women) may work together with NGOs and university institutions to lobby politicians and raise awareness among the general public. The Tanzania Gender Networking Program, a non-governmental agency, pioneered the use of gender budgeting (Muro 2007). The gender budgeting process (1997–2000) focused primarily on collecting information, conducting research, disseminating results, lobbying and advocacy, establishing links and recognition, and building capacity of partners and resource persons. Major achievements have been the following:

- Gender budgeting has been institutionalized. It is now a requirement in the government budget process.
- There has been a trend of increased budget to social sectors such as health and water.
- Gender is now a Public Expenditure Review Working Sector Committee.
- The Tanzania Gender Networking Program is a resource organization for gender budgeting and is called to support other countries that wish to implement it.
- Public and media engagement in policy debates has increased, along with involvement in GBI campaigns on HIV and AIDS, water, and gender-based violence.

In Kenya, experience has shown that at least three years of capacity building and financial and technical support are needed to ensure that gender-mainstreaming concepts are embedded in national organizations and in strategic and budget frameworks (GTZ 2005).

The *performance assessment framework* (PAF) is a commonly agreed-to matrix or consolidated list of priority policy reforms, measures, and indicators against which progress is monitored and reported on by the government. The PAF is used as the main point of reference for making disbursement decisions. If donors wish to use the PAF as a tool, indicators that measure progress in gender equity and are gender disaggregated could be inserted (although usually a

Table 16.3 Seven Tools for Gender Budget Initiatives and Examples of Their Use	
Tool	**Application**
Gender-aware policy appraisal	Designed to analyze policies and programs from a gender perspective and identify how these policies and the resources allocated to them are likely to reduce or increase gender inequalities.
Gender-disaggregated beneficiary assessment	Implemented to evaluate the extent to which programs or services meet the needs of actual or potential beneficiaries, as identified and expressed by the beneficiaries.
Gender-disaggregated public expenditure benefit incidence analysis	Used to evaluate the distribution of budget resources among women and men, girls and boys, by estimating the unit costs of a certain service and calculating the extent to which this service is being used by each group.
Gender-disaggregated analysis of the impact of the budget on time use	Designed to establish a link between budget allocations, the services provided through them, and the way in which different members within a household spend their time.
Gender-aware medium-term economic policy framework	Designed to incorporate a gender perspective into the medium-term frameworks of policy development, planning, and budgetary allocations, such as by disaggregating variables by gender, combining national income accounts and household income accounts, and highlighting and challenging gender-blind, underlying assumptions about how the economy works.
Gender-aware budget statement	Generated by government agencies for use in reports on the implications of their expenditures on gender-equity objectives.
Disaggregated tax-incidence analysis	Used to assess the differential impacts of taxation on women and men, as well as to evaluate the level of revenue raised in relation to the needs and demands for public expenditure.

Source: Balmori 2003.

reluctance to make the indicators too complicated is encountered). Progress on gender indicators could then be used as a means of conditionality, with disbursement taking place only if agreed-to steps have taken place or if agreed-to results have been achieved. Unfortunately, to date gender has usually not been considered, and much more emphasis has been placed on issues of financial management.

JOINT MONITORING MISSIONS

Programmatic, sectoral, and budget support is usually monitored via regular missions (for instance, six-monthly or annual missions), often consisting of one or many donors and government representatives (joint review missions). To ensure that gender-sensitive monitoring takes place, attention must be given to inserting it in the terms of reference for joint reviews (box 16.19). Guidelines should be established for the review process and missions to ensure that gender-equity issues are included. Meetings with local women's advocacy groups and other relevant persons or agencies should be required as part of data collection. Gender focal points should participate in and support the joint review in their sectors (for example, the focal points in agriculture

ministries). If reliable data can be collected on the outcomes of the support, this information will prove very useful for addressing positive or negative trends in indicators and discussing the reasons at the highest level with all major stakeholders. The development of alliances of donors and local organizations can also be supported and used to promote gender equity by lobbying government decision makers.

EXAMINING GENDER ACTIVITIES OF DONORS

Peer review is a tool developed by the Development Assistance Committee of the OECD (OECD/DAC) in which a panel of peers assesses a multilateral agency's evaluation systems and processes. This tool can be applied equally well to evaluate whether gender is being considered in evaluations.

OECD/DAC has also developed a *gender-equity marker* to allow donors to record whether activities have the explicit goal of achieving gender equity. The marker has been used mainly in social policy areas but not yet in productive areas, which, of course, are highly relevant in agricultural livelihoods. Its use has been limited largely to measuring the policy objectives of a program. The next step is to start using this tool in evaluations, in which it might give some idea of

Box 16.19 Examples of Gender-Specific Topics to Include in Terms of Reference for Joint Review Missions

Poverty and institutional analysis:

■ Are gender and other equity, disparity, or human rights issues included in the performance assessment framework reporting instructions and have guidelines been made for the sectors?

■ Did government approve any significant new gender legislation or policies during the period in question? Were legal instruments that discriminate against women revised? Has the institutionalization of gender policy and strategy improved in line ministries?

■ Have any studies been carried out providing new information on the income, consumption, or other dimensions of poverty from a gender perspective? With what results?

■ What progress has been made, and what measures have been taken to improve the production and use of gender analysis and disaggregated data, compared with the previous year?

■ Does the analysis consider linkages between sectors, such as links between nutrition and water and sanitation?

Agriculture and nutrition:

■ How many women in comparison to men were reached with extension or new technology services, seed, tools, and fertilizer support?

■ What is the percentage increase of women having official title to land in comparison with men and the

previous year? What actions were taken to increase women's land ownership?

■ What is the percentage increase in women having access to credit? What is their average interest rate and loan amount compared to those for men? How do women's and men's loans and repayment rates compare?

■ What is the number and position of women in agricultural production and marketing associations?

■ What developments have occurred in household food security and nutrition indicators (under-five malnutrition, wasting, and stunting)?

■ In related sectors, such as water or transport, in which prices and affordability of services produced by gender have been analyzed, can women afford to pay for transport, energy, and water? What are the utilization rates by gender?

Entrepreneurship and economic development:

■ What is women's share of the benefits provided? Examples include the number of women in training courses, as beneficiaries of credit and other funds, as project beneficiaries, and as participants in national and international marketing events.

■ What is women's access to capital, credit, and formal banking services?

■ How has the number of micro-, small, or medium enterprises owned by women developed? How many are registered under women's names, compared with the previous year?

Source: Adapted from the Gender Checklist for the Joint Budget Review, Mozambique, unpublished.

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how gender equity has been affected. The *gender-equity index* represents another effort to measure progress or regression in gender equity internationally as a result of new aid modalities.[5] The index uses a set of indicators for which data are available in most countries.

Gender audits have been used increasingly as a self-assessment tool for measuring gender equity among institutions, including development agencies and NGOs. Moser (2007: 17) lists the issues that might be considered:

■ Analysis of gender issues within organizations in relation to, for example, flexible working hours for both women and men, child care provision, and policies that encourage more flexible gender roles

■ Mainstreaming of gender equity in all mainstream policies and creating requirements for gender-sensitive M&E systems

■ Human resources, including issues such as gender equity in recruitment

■ Technical capacity of staff in gender issues and internal capacity building

■ Allocation of financial resources to gender-mainstreaming efforts or women-focused initiatives

■ Organizational culture, including a culture of participation and consultation.

The DFID's internal gender audit of its staff in Malawi found that most of them had limited knowledge of gender

mainstreaming and very few realized that DFID even had a gender strategy.[6] If staff members are unaware of the importance of gender in projects and programs, they are not likely to ensure gender-sensitive monitoring. It can be extrapolated that local project and government staff will be even less likely to focus on gender in monitoring, if the donor does not actively encourage it. Other NGOs and bilateral and multilateral funding institutions have audited the extent to which gender has been incorporated into their field activities.

CONCLUSION

Evaluation is a much more complex task under the newer aid modalities than in projects because of the greater number of stakeholders, broader geographic coverage, and lack of clear logical frameworks. Tools are gradually being developed for M&E in this new context, however, and their use will be vital for ensuring that gender-equity priorities do not become lost in a myriad of other considerations.

Setting Gender-Sensitive Indicators and Collecting Gender-Disaggregated Data

I f we are to measure progress in gender-related targets, we need gender-sensitive indicators. Indicators are the building blocks of an effective M&E system, but they are highly context specific and uniquely representative of a particular program or project. This Thematic Note examines how to set high-quality indicators and collect the data. Practical examples for projects and programs are provided.

GENDER-SENSITIVE INDICATORS

A gender-sensitive indicator can be defined as "an indicator that captures gender-related changes in society over time" (Beck 2000: 7). The DFID *Gender Manual* (Derbyshire 2002) defines gender-sensitive indicators as follows:

Gender-sensitive indicators allow measurement of benefits to women and men and include the impact/effectiveness of activities targeted to do the following (Derbyshire 2002: 28):

■ Address *women's or men's practical needs,* such as new skills, resources, opportunities, or services in the context of their existing gender roles
■ Increase gender equality of opportunity, influence, or benefit, such as targeted actions to increase women's role in decision making, opening up new opportunities for women and men in nontraditional skill areas
■ Develop gender awareness and skills among policy making, management, and implementation staff
■ Promote greater gender equity within the staffing and organizational culture of development organizations, such as, the impact of affirmative action policy.

During the 1970s and 1980s, more emphasis was given to quantitative general (and particularly economic) indicators. Since the 1990s, however, realization has grown of the importance of designing gender-sensitive indicators to monitor the gender impacts of programs and projects. Initially the impact on women was emphasized, but now the emphasis is on gender as it is broadly defined.

REASONS FOR USING GENDER-SENSITIVE INDICATORS

Despite making up half of the population, women are often invisible in society because of their low sociocultural and economic status. Women's invisibility is particularly acute in agriculture, despite the fact that they often do much of the work related to farming. Counting the participation of women and other disadvantaged groups in every activity is a simple way to make them visible to all stakeholders. Even if women are absent, their absence should be mentioned and recorded, and the reasons explained in reports. Because indicators show changes, they can demonstrate that women are participating more or less in project activities over time, and they can prompt discussion among stakeholders as to the reasons.

Gender indicators should show how and if gender equity is being reached, and if the approaches used are effective. They should answer the following questions:

■ Is the gap between women and men decreasing in terms of access, income, and power?
■ Are project activities the most appropriate and effective activities for achieving an improvement in gender equity?
■ Could the project or program do more to benefit different disadvantaged groups?
■ How have women and men benefited directly from the activities?
■ Are the direct or indirect impacts of the project or program having an adverse effect on the gender situation

(including the socioeconomic position of women and the power relationships between women and men)?

■ How do the women and men themselves assess the impact on their lives, and would their situation have been different without the project?

EXPERIENCE AND ACHIEVEMENTS

Most projects tend to collect only basic disaggregated data. Gender-specific monitoring, like monitoring in general, tends to be lost in the day-to-day pressures of implementation.

A survey by the IFAD revealed that the weakest areas for gender-disaggregated data collection are the composition of project-related committees and decision-making bodies, beneficiaries of extension and technical assistance, and beneficiaries of microcredit (IFAD 2007). Given the critical nature of these issues for gender, project monitoring systems are probably missing gender differences.

The FAO is collaborating with other United Nations agencies to collect and provide gender-specific data that will help mainstream gender across the organization. It is hoped that such data will more clearly illustrate gender inequalities in agriculture, rural development, and food security. This effort includes the incorporation of gender-specific demographic data into FAOSTAT (FAO's statistical databases; FAO 2003). Through technical assistance to many national institutions in charge of data collection, FAO has also raised awareness of the importance of gathering gender-disaggregated data through the national agricultural census. The FAO has supported pilot studies to develop a methodology for collecting gender-disaggregated data for countries in transition in Central and Eastern Europe, and it has developed and field-tested sets of gender-sensitive indicators on natural resources management and socioeconomics. Other projects have supported training of FAO field staff in conducting gender-sensitive household surveys and using community appraisal methods. Even so, the FAO progress report noted that "more work is needed in technical units compiling and analyzing statistics, such as from national agricultural censuses and surveys, to assist FAO Members to generate gender-disaggregated data, produce surveys on the gendered nature of work, and provide detailed gender analysis of statistical material and information on data and on data collection methodologies" (FAO 2003: para. 49).

The *Harmonized Gender and Development Guidelines* of the government of the Philippines (NEDA 2004) is an attempt to ensure that gender is mainstreamed across all activities and levels of management. The guidelines include

a good set for project management as well as sector-specific monitoring indicators for gender and development.

GUIDELINES IN DESIGNING GENDER-SPECIFIC INDICATORS AND FINDING SOURCES OF VERIFICATION

Many guides for designing appropriate indicators are available. This section provides only a brief overview and some specific examples.

Types of indicators

Indicators can be distinguished in a number of ways.

Input indicators specify the means and resources required for an action. Input indicators are normally part of the project or program document and reporting system, and they describe what is being physically done—for example, how many hours of training are provided to men and women, how much money is spent, or the quantity of fruit trees planted.

Process indicators ensure the effective and efficient use of means and resources for implementing an action. Process indicators are of particular importance for participatory monitoring to ensure that all (primary) stakeholders, disaggregated by gender, have knowledge of and, if appropriate, participate in, progress being made, obstacles encountered, solutions presented, and decisions made, from start to finish.

Output indicators measure the achievement of intended outputs and determine whether project goals are being achieved. *Outcome indicators* measure the immediate impacts produced by the outputs. Typically, output and outcome indicators are used as internal monitoring or evaluation tools. Generally, these are defined prior to the project, but ideally they should be modified in the early stages of implementation to reflect changes that may have taken place and to be certain that data will be available to verify them from baseline and other sources. When output indicators are analyzed, it is essential to consider the influence of gender roles and relations on the distribution of benefits. What measures can verify whether project benefits accrue to women as well as men and identify the different types of women engaged in or affected by the project? Output indicators might include the number of people trained or the number of rural women and men accessing a Web site with agricultural information. An example of an outcome indicator might be the percentage increase in average crop yield among men and women farmers included in the project over the project period.

Impact indicators measure a project's medium- or long-term impacts on poverty and livelihoods among the primary stakeholders. Impact indicators describe the actual change in conditions as a result of a program or project activity, such as changed attitudes of men and women as a result of training, changed practices, or a decrease in the number of households living in poverty over five years. Ideally, indicators for expected local impacts should be established in a participatory manner for any subprojects.

Qualitative versus quantitative indicators

Quantitative indicators are measures of quantity (total numbers, percentages, and others) that show the degree to which a goal or an objective has been attained. Sources of quantitative indicators are data systems and records in which information is presented in a gender-disaggregated manner. They could be project-specific collection systems (specific surveys targeting data related to project outcomes) or existing records, such as the census, agricultural production records, or transport ministry statistics. Traditionally quantitative indicators have been favored because they are more objective and can be verified using data from government records or project-established monitoring systems. In addition, they are easier to incorporate into a management information system and track in reporting. By nature, quantitative indicators may be the simplest means of demonstrating gender differences (and tracking changes) for all audiences. Examples include the number of women participants in technology testing and on-farm trials, gender-disaggregated adoption of new technologies, yields of women's crops, increased incomes for women from cropping, labor time changes by gender, the percentage or number of men and women (or young and old, or ethnic minority women, or members of other groups) receiving training, or the proportion of women farmers adopting new technologies or crops.

Qualitative indicators can be defined as recording people's judgments and perceptions about a given subject. They are useful for understanding processes: Who is participating in decision making? Who benefits? What are the local perceptions of successes and failures? Qualitative indicators are harder to measure because they involve processes and use categories of classification, such as those based on perceptions. Qualitative indicators might relate to levels of participation of women, men, and other groups in meetings, the satisfaction levels of different users of a service, or attitudinal changes. Examples of data sources include interviews, focus groups, user surveys, participant observation, and participatory appraisals.

Quantitative indicators sometimes do not capture the true impacts of a project or program. For this reason, qualitative indicators should be used to complement quantitative ones. In a rural development project in Mongolia, for example, data showed that increased problems were reported in infrastructure construction. Further questioning revealed that the problems had not increased but that community members' involvement in a participatory monitoring process caused more problems to be reported and acted on. If quantitative data alone were considered, they would give an erroneous impression of the project's success. This experience is common, and project and program staff should always question whether increased reporting of a finding really means increased incidence or if it is actually the result of increased awareness or improved consultation. If monitoring by local women in a protected area produces new reports of illegal hunting, it may be that such hunting has always taken place but that only women who collect firewood in the forest see it happening.

Likewise, when recording women's participation in training events or resource management committees, gender-disaggregated quantitative data are insufficient. Finding ways to record whether women participate actively in discussions and are heard (and which group of women), or whether women simply participate to make up the numbers and comply with donor demands.

The power of triangulation

If qualitative data are used to triangulate quantitative results, a powerful and multifaceted case can be built. For instance, direct quotes from participants can be used in reports and explanations provided for quantitative changes. Triangulation is also important to ensure that cultural biases do not affect the results. For instance, in some cultures a woman may not give a truthful answer to a question if it might imply criticism of her husband. In this case, consultation with independent sources is important to confirm the data. Triangulation makes it possible to reduce the sample size and at the same time increase the reliability and validity of the data.

Capacity building is an area that in particular requires qualitative indicators. The interest here lies not only in the number of women trained but also in the extent to which capacity building has increased the social capital of women farmers, extension workers, and the poor, such as access to market information, increased confidence of the poor in their skills, and access to local agricultural extension staff.

Designing indicators

Two acronyms have been used to describe sound performance indicators:

- *TQQ: Time* (time-bound accomplishment), *quantity* (numerically measurable), and *quality* (what level of quality or degree of achievement is desired).
- *SMARTS: Simple* and easily defined, *measurable, attributable, realistic, targeted,* and *specific.* Consideration should be given to whether the indicators selected are relevant (do they provide the necessary information for making decisions?), understandable and meaningful for relevant stakeholders, and feasible (do project staff or stakeholders have the time, skills, and means to monitor it?).

In designing indicators, many issues must be considered.

Comparison to a norm: The use of gender-sensitive indicators should involve comparison to a norm (for example, "the situation of women in a program compared to the situation of men in the program" or "compared to women in the country as a whole"). In this way, the indicator can focus on questions of gender equity rather than only on the status of women. Examples would include "the percentage of women actively participating as members of natural resource management committees" or "numbers of women and men with land certificates in the project province compared with a neighboring province."

Disaggregation: Data should be disaggregated by gender. In an ideal situation (and especially on a larger scale), indicators should also be disaggregated by age, caste, socioeconomic grouping, and by national or regional origin (for instance, "graduates from training course, disaggregated by sex and caste"). This level of detail will allow a broader analysis of which social forces within a society have shaped the particular status of women and men in that society. For instance, in Nepal, high-caste city women are likely to be in a considerably better socioeconomic situation than low-caste rural men.

Ease of access and clarity: Indicators should be phrased in easily understandable language and developed at a level relevant to the institutional capabilities of the country concerned. They must not be ambiguous. An indicator should be understood in the same way by all the project staff carrying out M&E. A potentially ambiguous term can be defined according to an existing definition, or a more precise definition can be formulated until there is no ambiguity whatsoever. For instance, rather than "the *adoption* of a new technique by the target group of men and women farmers," a more precise indicator might be "the *use* of a new technique

over two successive planting seasons by the target group of men and women farmers."

Validity: The information that indicators provide must be close to the reality they are measuring. Ways to ensure this include (1) common sense, (2) whether the indicator reflects similar findings in different situations, and (3) whether different survey instruments yield or uncover the same indicators. In general, the validity of an indicator can be enhanced by triangulation or by using multiple sources of information and data.

Reliability: Reliability means that indicators must be accurate and consistent. For example, an indicator is reliable if multiple uses of the same instrument (such as an interview or a survey) yield the same or similar results. No data are absolutely reliable, but reliability checks should be made: for example, census findings should be compared to findings from microlevel studies for accuracy.

Measurability: Indicators must be about items that are measurable. Concepts such as "women's empowerment" or "gender equity" may be difficult to define and measure. Proxy indicators may have to stand in for less precise concepts: for instance, "the percentage of women enrolling in agricultural training in *x* province before and after the project intervention" is easier to measure than "the number of women motivated to pursue agricultural training as a result of project empowerment."

What is being measured? Indicators should be relevant to the level: Is a *project's* impact being measured, or the *output* of a particular activity? At the output level, "the number of women and men that participated in *x* training course" is relevant, but at a higher level, it would be better to measure the result of that training, such as "the number of women and men confidently providing extension advice to farmers" or "the percentage of surveyed women in the target group who rate their access to land titling processes as having improved during the period of the program or project."

Sensitivity and time span: The time covered by the indicator should be specified—for example, "over the implementation period of the program," or "three years after the project has ended." It is also worth considering the sensitivity of indicators; in other words, will the indicator demonstrate a short-, medium-, or long-term change? Although demonstrating a long-term change may be useful for stakeholders, a project time scale of only a few years needs shorter-term indicators if changes are to be recorded and activities fine-tuned as necessary: for example, measurable positive changes are unlikely to be seen in national forest cover during a three-year project (no matter how laudable the goal).

Feasibility of indicators: An indicator makes it possible to focus and structure data collection but serves no purpose as long as the data do not exist. To ensure the feasibility of an indicator, it is necessary to indicate the source of the information to use, for example, land administration office records of land title issuance or questionnaire surveys to be carried out by the project, using specially employed enumerators.

If no source is available or feasible, the indicator should be changed. If no feasible indicator can be found, then the question may need to be excluded.

Simplicity: There should not be too many indicators. Relying upon several indicators allows for cross-checking and strengthens the evidence base for answering a question, but an excessive number of indicators will increase the data collection workload and cost and may not necessarily improve the soundness of the answer. As a rough guide, only six indicators per component/output or project objective should be used.

Be realistic: Make sure that the indicators at the goal and purpose level are realistic and measure achievable benefits. For example, do not anticipate an unrealistic (over 25 percent) increase in household incomes during a short period or do not expect training of women legal advisers to change women's access to land dramatically (use measures of staff capability to measure the benefit of the training instead).

Setting up the system in projects and programs

Baseline and targets: An outcome indicator has two components—a baseline and a target. The baseline is the situation before a program or activity begins. It is the starting point for monitoring results. The target is the expected situation at the end of a program or activity. (Output indicators rarely require a baseline, because outputs are being newly produced and the baseline is that they do not exist [UNDP 2002]).

Project versus program indicators: Indicators at *the project level* are usually limited to the time frame in which a project is implemented (or a set period after completion, for measuring impact). They encompass only the limited geographical and target group focus of a project (for an example, see table 16.4). They usually measure the following:

- Expected or unexpected project outcomes for women and men (compared with project objectives)
- Participation (quantity or quality) of women and men in project activities
- Access to decision making, project resources, and project services by women and men

- Changes in equality of opportunity or decision-making opportunities
- The impact or effectiveness of activities targeted to address women's or men's practical needs, such as new skills, knowledge, resources, opportunities, or services
- Changes in human resources devoted to the project (for example, the number of women or men among project staff or the number of women extension staff)
- The impact and effectiveness of activities targeting improved gender awareness among staff and beneficiaries
- Met or unmet practical and strategic needs of women and men (compared with expressed needs)
- Changes in project budget allocation toward gender at this level
- Emergence of new gender issues in a project or as a result of a project.

The Canadian International Development Agency, in its *Guide to Gender Sensitive Indicators* (CIDA 1997), gives useful examples of how to design gender-sensitive indicators for agriculture.

Indicators at the *program or sectoral level* will usually have a longer time frame and cover a larger geographical area and target group (table 16.5). They might be designed to measure the following:

- Changes in the capacity of staff in government partner organizations, NGOs, and international donor agencies to deal with gender issues
- Development and use of tools and procedures to mainstream gender equity:

  – Changes in recruitment practices relating to equal opportunities
  – Changes in budget allocation toward gender and related outcomes

- Whether subprojects carry out gender-sensitive monitoring
- Whether gender-disaggregated data are collected from the field and used at the national level
- How resources are being transferred to the field level and then spent
- How effective the expenditure on gender-related outputs has been in meeting agricultural program goals.

Gender-sensitive outcomes may include a range of agriculture-related as well as other sectoral indicators, depending on the particular constraints identified in the institutional analysis and the baseline gender analysis.

Table 16.4	Indicators from a Rural Development Project in Central Vietnam, at the Result Area Level	
Expected result	**Indicators**	**Data sources**
Result 1: Improved agricultural extension service system	• By project end, all participating communes have at least one trained commune-level extensionist, and a minimum of 20 percent are women • Extension staff carry out their jobs in a confident and competent manner • Provincial and district extension officers in project areas actively support fieldwork at the community level • Willingness to pay is demonstrated: farmers pay 10 percent of the costs of commune extensionists • Women and men farmers are satisfied with their access to quality extension services	• Commune records • Community interviews • Observation • Training records
Result 2: Diversified and strengthened farming systems leading to improved income generation for men and women farmers	• Both women farmers and poor farmers are included as beneficiaries • By the end of the project, income per hectare has increased by 15 percent from productivity gains • More productive and diverse production models are applied and replicated by men and women farmers in project areas • New species or technology does not cause adverse environmental impacts (environmental impact assessed before use) • x number of new models for crop and animal diversification are in use, based on the preferences of men and women farmers	• Extension service records • Project records
Result 3: Cost-effective, gravity-fed upland irrigation schemes completed	• By project end, at least 50 upland irrigation schemes are completed • Irrigation users have an improved understanding of the importance of watershed protection and the potential impact on water quantity and quality • Schemes are self-managed, with revenue collection systems covering the operational and maintenance costs • Women and ethnic minorities participate actively in making decisions regarding water use and in production planning • Women make up at least one-third of the membership of irrigation user management committees	• Commissioning records • Infrastructure bidding and contracting records • Irrigation user agreements • Minutes and accounts of management committees

Source: Adapted from an unpublished program document for the Thua Thien Hue Rural Development Program, Vietnam, 2004.

Designing milestones and triggers for loan disbursement

When development banks are preparing country loans, a set of conditions, triggers, and milestones are developed that are used in clarifying, implementing, and monitoring the overall reform program supported by the development policy operation. Gender has not figured highly in this process thus far, but it would be one means to encourage the consideration of gender in monitoring (box 16.20).

As in designing indicators, specificity—meaning clarity, not excessive detail—is a key attribute of good conditions, triggers, and milestones. Poorly specified conditions or triggers may give rise to disputes about whether the key elements of the reform program are on track.

Table 16.5 Gender-Sensitive Indicators in an Agricultural Sector Program

Development objective	Impact indicators	Targets
Higher and increasingly equal standard of living in program target areas	Level of income generated from agricultural activities for both men- and women-controlled crops	Men: Increase by 15 percent; Women: Increase by 20 percent In Project Year (PY) 15
	Difference in income level between woman- and man-headed households	Decrease by 20 percent in PY 15
	Nutritional status for women and men (targets will be broken down into further detail after preliminary surveys)	n.a.
	Distribution of workload: working hours of rural women	Reduced by 5 percent in PY 15

Immediate objectives	Outcome indicators	Targets
Rights:		
Increased women's control over income and agricultural products	Percentage of women who have control or joint control over family income and farm products	Increased by 15 percent in PY 10
	Number of lawsuits concerning women's access to land under new Land Act	Increased by 20 percent by PY 8
Resources:		
Increased productivity of women-controlled cash and noncash crops	Productivity of agricultural products	Increased by 10 percent by PY 15
	Poultry and vegetable production	Poultry increased by 40 tons, vegetables by 100 tons in PY 8
Marginalized men livestock producers having found new viable sources of income	Percentage of marginalized livestock producers who have created a viable source of income as crop producers, agricultural and industrial workers, and so on	Increased by 30 percent by PY 15

Outputs	Output indicators	Targets
Rights:		
Increased awareness among men and women farmers of gender equity in regard to control over income and products	Percentage of target population who are aware of women's rights to control income and agricultural products	Increased by 30 percent by PY 5
Increased awareness of women's and men's rights to land	Percentage of target population who know basic facts about their rights	Increased by 60 percent by PY 5
Resources:		
Government officials practicing gender-sensitive extension methodologies and promoting gender-sensitive technologies	Percentage of spot checks in which extension is found to be gender sensitive	Increased by 80 percent by PY 8
Increased homestead gardening	Number of households producing vegetables for own consumption	Increased by 20 percent by PY 10
Improved loan access for marginalized livestock producers	Number of loans given to former livestock producers	Increased by 20 percent by PY 10
Cross-cutting issues:		
Improved monitoring of gender issues in the agricultural sector	Gender-sensitive evaluations and annual and semiannual progress reports, including gender-sensitive indicators and monitoring tools, produced	Three reports per year from PY 3
	Lessons learned from monitoring fed back into the planning system	Minimum of two lessons learned from PY 3
	Gender-sensitive databases established	One database by PY 3

(Table continues on the following page)

Outputs	Output indicators	Targets
Improved gender-sensitive planning in the agricultural sector	Number of measurable gender-sensitive targets formulated in annual work plans at all levels by PY 2	At least two targets per plan by PY 2
Strategies concerning woman-headed households implemented	Percentage of all extension officers aware of and practicing the strategy's central elements	80 percent by PY 5

Activities	Process indicators	Targets
Rights:		
Pilot projects to increase women's control over agricultural products identified	Number of pilot projects approved	Four projects approved
Formulation of gender strategy for the agricultural sector at national, regional, and local levels	Strategy has been approved	One approval
Formulation of women's rights in new Land Act	Act has been approved and includes women's inheritance and ownership of land	One approval
Implement information campaigns on women's improved rights concerning access to and control over land	Number of men and women farmers reached by the campaign	Men: 100,000; Women: 100,000

Source: Adapted from DANIDA 2006.

Box 16.20   Designing Conditions, Triggers, and Milestones

Conditions are the actions deemed critical to achieving the outcomes of the program supported by the development policy operation *and* included in the operation documents as legal conditions for disbursements under a World Bank loan, credit, or grant.

Triggers, as used in the context of programmatic development policy operations, are the planned actions in the second or later year of a program that are deemed critical to achieving the outcomes of the program and that will be the basis for establishing the prior actions for later operations. In other words, triggers are the expected prior actions for a subsequent loan, credit, or grant.

Milestones mark the progress in implementing the program. A milestone can be an action or an outcome that is expected to be realized during the implementation period rather than at the end of the operation. Milestones are *not* legal conditions for disbursement or triggers.

Source: World Bank and OPCS 2004.

- *Don't* set too many triggers or conditions, only those of highest priority, as there is a risk for disbursement and progress if they are not met.
- *Don't* use outcomes (that is, monitorable effects of actions) as conditions or triggers unless their realization is largely under the control of the government.
- *Do* indicate what actions are to be done, by which agency of the government, and approximately when.
- *Do* include intermediate outcomes and monitor them carefully.
- *Do* use quantitative indicators, including baselines and targets, whenever possible.

Good examples:

- Condition for first loan: "Parliament has adopted legislation to ensure land certificates are issued to both husband and wife."
- Trigger for second disbursement: "Increase allocation in the 2008 Budget for recruitment of women staff in the agriculture ministry nationwide by at least 10 percent over the allocation in the 2007 budget."

A bad example:

- As a milestone, "improved social indicators" is too vague to be useful.

Practicalities of monitoring and evaluation

How much monitoring is enough? The key issue to consider is that the purpose of M&E is *to guide implementation* of a project or program, so there is a limit to the resources that should be used for M&E. The collection of information has a cost, and that cost will usually determine the methods used and the scope of information collection. Collecting primary data in the field is more expensive than using census data.

Modification of indicators

As a program or project is implemented, it sometimes becomes necessary to modify the logical framework or results framework in light of experience or changed circumstances, then it also becomes important to modify the indicators. Modifying the indicators does not mean lowering the targets to meet the expected outcomes (although this sometimes occurs in national planning systems during the annual cycle). Instead, the types of indicators need to be modified.

For example, if a project was implementing activities to encourage local communities to support the concept of women obtaining legal tenure together with their husbands or as single landowners, the indicators might be "the percentage of certificates including a woman's name, out of the total number of land certificates issued in the district during 2007." However, if the national government changes the law to require that women's names are included, then the awareness-raising activities *may* no longer be required and therefore would probably not be monitored.

GENDER-DISAGGREGATED DATA AVAILABILITY AND COLLECTION

In order to carry out gender-sensitive monitoring, disaggregated data are required. Ideally, for reasons of cost and scale, existing data sources should be used. The following sections look at what is available, how useful it is, selecting data sources, and improving their accuracy.

What data are available now, and how useful are they?

A prerequisite for establishing gender-sensitive indicators is the availability of statistical data disaggregated by gender (and ideally age and ethnicity), as well as qualitative information reflecting differences between women and men. Three main data systems produce useful information for monitoring, some of them gender sensitive: census surveys,

the System of National Accounts of the country in question (comprising data from different administrative units), and sample surveys of the population, such as official living standards surveys. Programs and projects usually rely on these systems for baseline and monitoring information, particularly for quantitative data, in addition to developing their own program- or project-specific indicators. In addition, country-level social assessments, such as the Country Social Analysis and Country Gender Assessments, are important references for developing relevant indicators.

Limitations face planners in using statistical information. The accuracy of the data generated from censuses may be subject to various problems, including infrequent collection, gender bias, poor enumeration, and imprecise definition of key terms. For instance, women's economic activity is underrepresented in most censuses and national surveys, because women often work outside of the formal job market, and the contribution of women to economic development is difficult to measure. In many developing countries, statistical data are outdated or inaccurate, and the capacity to collect, analyze, disseminate, and store data is often inadequate.

Gender-sensitive quantitative indicators cannot be used alone. They must be complemented by gender analysis and qualitative monitoring to understand any changes they may demonstrate. As well as designing specific indicators and collecting information, projects and programs may also find it useful to access data from other organizations, such as information gathered by the World Bank in participatory poverty analyses or international crop or forestry data from FAO. For high-level data, the UN Human Development Report may contain useful national information.

As noted earlier, a general lack of gender-specific data exists relevant to agriculture. Most government agencies collect data based on households, products, or regions, which usually means that gender is ignored. Even when disaggregated information is collected, it is often ignored or filtered out of project or program planning. The FAO concluded that a number of fundamental issues were not addressed adequately in agricultural censuses and surveys, such as gender differentiation in land ownership and use, access to credit, training and extension services, technology, and income (FAO 1999). A study of agricultural census data from Africa found that data collection methods were usually inadequate.[1] The authors identified a clear need for capacity building—first, among statisticians to perform gender-explicit analyses of agricultural data, and second, among development planners, so that they can better use census data in general development planning and use gender-disaggregated data in gender-specific planning.

Manasan and Villanueva (2005) tried to analyze how economic contraction in the Philippines affected women's benefits from government programs and noted the difficulty of obtaining gender-disaggregated agricultural data. Even when figures are provided for women and men, they can be quite misleading because they tend to assume that only the "household head"—usually recorded as being a man—is the farmer. Tempelman and Keita observe that, particularly in Africa, the oldest household member who is a man (whether usually present or not) is recorded automatically as the "household head."[2] This tendency potentially contributes to the underestimation of the number of (sub)holdings run by women who manage their own sub-production units within man-headed agricultural holdings. Tempelman and Keita also report that since the 2000 round of the World Census of Agriculture, several African countries have tried to rectify this problem by adopting the concept of "subholder." Defining the concept of "household" carefully is particularly important, as is, with societal norms in mind, to recognize the role played by many women as the main household provider. Economic activity may be defined or understood in varied ways (paid or unpaid work is an obvious difference). But is work on a family farm by a woman considered economic activity? What about household chores? If a nonfamily member is paid to thresh rice, cook, or clean, then this work is counted as economic activity, but if a family member does the work, it usually is not. Women themselves will often discount their own work (both paid and unpaid) as a contribution to the family income. Data from censuses and surveys generally underreport women's paid employment.

Household surveys commonly consider the amount of income spent on food per household per year but do not differentiate between food consumed by men and women household members. If data are to be collected from household surveys, and gender-specific information is required, phrasing the questions so that this information is actually obtained is important.

Women's land ownership rights differ from country to country, but land is often under ownership and control of men (box 16.21). Gender-sensitive indicators may be available from agricultural censuses or land registration records to track land-tenure issues. Because access to credit often depends on access to land, the monitoring of credit activities should take land tenure into consideration.

The FAO's Gender and Population Division is working with its Statistics Division as well as member countries to build capacity through training and technical support in gender and statistics for Ministries of Agriculture and central

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Box 16.21   Culturally Related Questions for Monitoring

Is land mainly under the control of men or women? What are the consequences for gender relations, decisions about land sales, and cropping patterns?

What are the inheritance practices in the country concerning land? If women can legally inherit land, do they do this in practice?

If women own land, does this also mean that they make key decisions concerning crop selection and marketing?

Has land reform benefited men and women equally?

Do women have equal access to credit facilities? Does such access translate into control over credit in terms of decision making?

Source: Author.

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statistics offices. The FAO has developed gender-sensitive indicators for the agricultural sector (Curry 2002) and proposed that a gender focus incorporating both age and sex is important for analysis of the agricultural sector, because women and children make important contributions to agricultural production and food security. Gender-sensitive data and indicators on the structure of land ownership, access to and use of productive resources, and cropping and livestock production patterns are required to supplement available data on the age-sex composition of the labor force economically active in agriculture. In anticipation of stakeholders' increased need for information, steps have been taken to improve the indicators and gender sensitivity of data collected through national censuses or to supplement census data with data from other socioeconomic surveys. Examples include the concept of "plot manager," introduced in the national censuses of Guinea, Senegal, and Togo; the collection of gender-disaggregated labor data, including data on unpaid family labor, in Burkina Faso; and the addition of questions on specific topics, such as agroprocessing, in Cape Verde.

In its work with national governments, the DFID supports a stronger focus on generating evidence, statistics, and indicators.[3] For example, the DFID supported Cambodian efforts to integrate gender indicators into the monitoring framework for the national poverty plan, and in Nepal it will support the development of a national poverty monitoring

and analysis system using inclusive and disaggregated indicators. These efforts should increase the availability, routine collection, and reporting of gender-disaggregated data from national statistical systems (including more specific data on, for example, income, employment, and access to services) and foster greater use of such data in national monitoring systems. They will also increase the use of gender-disaggregated data in the monitoring sections of national development strategies.

Selecting data sources for gender-sensitive monitoring

Secondary data are not produced specifically for monitoring and evaluation but can have direct and indirect links with a project or program. Secondary data provide baseline information and help monitor a project or program's overall goal and objectives, the form its inputs (investments) have taken, how it is carried out (activities), and its results (outcomes). The main sources of secondary data include official documents such as country development sector plans, sociological and demographic research, reference documents for the project, activity reports, and situation analyses.

FAO maintains databases with information from the censuses of individual countries. These data are derived from periodic agricultural censuses and yearly surveys of agricultural production, including forestry and fisheries. These data collection instruments are designed to monitor the inputs, outputs, and management of agricultural holdings to formulate policy recommendations for sustainable development and reliable food production systems.

The national statistics system in a country can normally provide the following:

- National statistics (census, household, and business surveys), usually gathered by the central statistics agency with support from provincial statistics agencies
- Administrative data (from line ministries and local governments and services)
- Other surveys and datasets (usually from academic and research institutes)
- Qualitative data (these constitute a small but growing data component and include, for example, participatory poverty assessments).

Primary data are collected specifically for monitoring and evaluating a project or program. Data are collected from all project stakeholders (involved directly and indirectly, positively and negatively), using such tools as direct observation, focus group discussions, interviews, and meetings.

In policy and national program monitoring, secondary data sources will be most important, supplemented by field visits to cross-check their validity against local circumstances. In project monitoring, primary data sources are important, because they respond to the specific project indicators. An inventory of available data should be made during planning. What and where are the data, and how can project/program leaders use them for M&E? What additional data need to be collected to cover gaps?

In making decisions about data sources for indicators, consider these questions for each indicator:

- Is the information available from existing sources?
- Is a new data collection effort required?
- How much data do we really need?
- How much data can we really use?
- What data sources are practical?
- Who will pay for data collection?
- Who will do data collection?
- How can staff and other stakeholders be involved in data collection?
- How will the data be analyzed?

For instance, in a rural development program in Vietnam, the plan outlined in the program document was to conduct a thorough baseline survey. However, analysis of existing data available from the government demonstrated that it would be adequate, supplemented by some qualitative and more localized information gathered from participatory rural appraisals and disaggregated by gender, ethnicity, and poverty. This approach saved time and money during the program's busy start-up period. On the other hand, data collection can go too far. A review of the monitoring system of a large, donor-funded rural development project in the Philippines recommended that a reality check should be conducted about the amount of data collected, because the system was overloaded. Projects should make sure that collecting additional data is really worthwhile and should consider the implications of each marginal addition to the data collection. For agricultural projects, recommendations suggest considering the benefits of collecting detailed data on farm household incomes and expenditures from a small sample (such as 10–20 farmers per zone or farming system) to back up broader secondary data. Collected properly, such primary data can provide useful insights into why farm families make the decisions they do, especially when trying to examine the gender impacts. Monitoring data should include a record of how men and women

use time and money over the time frame of the program (to determine whether and why they change with the implementation of program interventions).

Steps to improve the accuracy and gender sensitivity of survey data

A numbers of steps can be taken to improve the accuracy and gender sensitivity of data collected through surveys.

- Enumerators should be given gender training. For instance, they could be trained to recognize that many activities done by women are part of general economic activities.
- In the instructions to enumerators, special emphasis should be given to gender issues.
- Local political and cultural sensitivities may mean that enumerators are reluctant to ask questions about "difficult" or "conflictive" issues. The importance of these questions should be explained, and enumerators encouraged to ask them—otherwise the results may not be accurate.
- Instructions to enumerators should emphasize the need to ask probing questions and not simply accept "yes" or "no" answers.

- In recruiting enumerators, efforts should be made to achieve a gender balance. Issues of age, ethnicity, or caste may also be vital to consider in seeking to reduce bias.
- Interviews should be timed to maximize opportunities for meeting with women and men, the young and old—in other words, with a cross-section of the community in question.
- Gathering data on the ages and genders of the head of the agricultural holding and members of the holding's labor force will make it possible to construct extremely useful, gender-sensitive indicators.

Recommendations for improving data collection

Development cooperation organizations should continue to support capacity building in statistics offices, including training in gender sensitization, the development of gender-sensitive indicators, and interview training (for census workers). Support should also be provided to purchase equipment that facilitates data handling.

The information collected by statistics offices and other data collection agencies should be made available as needed, to provide field workers and government staff with data in various formats for monitoring programs and projects.

Training Community Members to Carry Out Project Planning, Monitoring, and Evaluation

Many projects have trained members of participating communities to carry out M&E. The World Bank *Social Analysis Sourcebook* (World Bank 2003: 49) cites participatory M&E as a "means to systematically evaluate progress and impact early in the project cycle by bringing the perspectives and insights of all stakeholders, beneficiaries as well as project implementers. All stakeholders identify issues, conduct research, analyze findings, make recommendations, and take responsibility for necessary action."

Levels of participation and the means of ensuring gender equity vary from project to project. This Innovative Activity Profile discusses lessons from Sri Lanka's Community Development and Livelihood Improvement Project—also known as the Gemi Diriya ("village strength") Project—with some additional insights from Indonesia's Community Empowerment for Rural Development Project.

One difficulty with participatory M&E is that community-driven development programs typically serve a large number of small, widely dispersed communities, and managing such programs requires intense support, especially at start-up and in the early stages of implementation. Using local NGOs, local government staff, and other local resources is not always successful because of high costs, large distances, and insufficient local capacity.

> **What's innovative?** Training women as community professionals or facilitators is a successful step in building confidence and providing a good gender role model. Community facilitators can identify constraints and opportunities in their villages and are effective at instilling confidence and mobilizing their communities. Women facilitators have much better access to women and youth—key decision makers and beneficiaries.

Experience with the Gemi Diriya Project demonstrates that building a network of trained community professionals or facilitators and involving them in all aspects of project implementation is an effective strategy to scale up in a sustainable, cost-effective manner (www.gemidiriya.org; Munshi, Hayward, and Verardo 2006).

PROJECT DESCRIPTION

A Village Self-Help Learning Initiative was piloted in 1999 in three villages in Sri Lanka's poor North Central Province. Its main objective was to introduce and test a model of participatory rural development that focused on empowering local communities to find their own solutions to local development problems. Key actions included mobilizing communities; building inclusive, accountable village organizations; and supporting their self-management.

To scale up the self-help initiative, the World Bank financed the Gemi Diriya Project, starting in October 2004.[1] The Bank has committed $181 million for 12 years to implement the project, which, like the village self-help initiative on which it is modeled, focuses on self-management and learning. To avoid the risk of exclusion of women, the project rules specified at least 30 percent women's representation in decision-making roles and that at least 50 percent of the benefits must be received by women, including capacity building and training. The project contracts external support organizations, such as local NGOs, to carry out an initial information campaign in villages, facilitate participatory planning and appraisals, support formation of village organizations, and offer preliminary training to its office holders. Once established, village organizations have access to a village development fund that finances activities in three main areas: capacity building, community infrastructure services subprojects, and livelihood support. Continued support and guidance are needed to strengthen the village organizations,

but continued reliance on project staff would increase dependence and cost, so the idea of training and using community facilitators emerged. The community professionals and facilitators are trained in numerous ways, all supported by the project: through community peer trainers, Community Professionals Learning and Training Centres, and a mobile capacity-building team, which trains, mentors, and monitors community facilitators in the field, building their capacity and confidence in a cost-effective way.

Community professionals and facilitators have a number of advantages. They have a stake in their community's development, are better suited to identifying the constraints and opportunities in their villages, and are much more effective than outsiders in instilling confidence and mobilizing their communities. They also tend to be more accountable to their communities, because they live there and enjoy local legitimacy and trust. They provide a strong local input to Bank supervision missions and are a go-between for the overall implementation team of the project.

The formation of small groups is the foundation of the village organizations; it is the small groups that achieve the objectives of the development programs identified by the community. Training for small group members is thus one of the most important aspects of the project, and this training is provided by community professionals.

LINKING LEARNING, GENDER, AND M&E

The Community Professionals Learning and Training Centres are designed to provide comprehensive training for community professionals in social mobilization skills, M&E, and the Community Operational Manual used by the project, as well as overall social development processes. Based on the knowledge, skills, and field experience gained through this training, facilitators can provide better services to the project (and to other programs assisting with community development) and gain economic benefits for their work. They are paid via the Village Development Funds, but as their skills develop, they also can sell their services on a commercial basis (for instance, to NGOs, donors, or the government). A selection process and a system of grading and promotion are in use. More than 60 percent of community professionals or facilitators are women, who focus on improving gender equity in their communities. Women and poor youth in particular, and poor families more generally, have found the Community Professional Learning and Training Centres to be a very good source of income. The project has conducted a strong information campaign about its objectives and its emphasis on women and youth as project decision makers and intended beneficiaries.

In addition to providing specialized training to community facilitators, the project has had other impacts on improving gender equity, for example, the microfinance program, which provides loans exclusively for livelihood improvement and income-generating projects. Within only two years of its implementation, the program has acquired 71,000 members, who have formed 11,762 small groups. Of these, *80 percent* of the beneficiaries are women.

Six key methods are used to monitor and evaluate the project: a self-monitoring system, a monitoring system based on the project's management information system, internal management reviews, an external process monitoring system, impact evaluations, and social accountability monitoring. The village organization and its various committees continually assess their own performance against the locally developed indicators for capacity building, infrastructure development, livelihood support fund activities, and other activities. This self-monitoring is the main tool for the community to learn from project implementation and build capacity to manage village development.

Process monitoring evaluates how project activities lead to the required outputs, which ultimately produce the desired outcomes and benefits. More specifically, external process monitoring generates the information necessary for project management at all levels and for village organizations to perform their expected roles and responsibilities in the most effective and efficient manner.

One monitoring tool that has proven effective is the Community Report Card, which gathers feedback from the communities about the performance (quality, efficiency, and adequacy) of village organization office holders, community professionals, and project staff, among others. The Report Card is a powerful tool for the community to exert social control on the performance of these teams and alert them as to desired changes.

Another community training scheme with a gender focus was recently implemented in Indonesia and provides good comparisons to the one in Sri Lanka (box 16.22).

LESSONS LEARNED

Community facilitators are a powerful tool for social change and supporting development program activities. In particular, gender, age, and ethnicity should be considered in the selection of community trainers or facilitators (and, indeed,

in all selection processes) to ensure access to the poorest sections of the community. In Gemi Diriya, an ethical framework is applied—the "golden rules" of good governance, equity, transparency, and cost efficiency—when dealing with the use of public finances. Information sharing and awareness raising have also proven to be vital in highlighting the role of all groups in the community, but particularly the key roles played by women and youth.

NOTES

Overview

The Overview was written by Pamela White (Consultant) and reviewed by Chitra Deshpande and Catherine Ragasa (Consultants); John Curry (FAO); Maria Hartl (IFAD);

and Indira Ekanayake, Eija Pehu, and Riikka Rajalahti (World Bank).

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The Thematic Note was written by Pamela White (Consultant) and reviewed by Chitra Deshpande and Catherine Ragasa (Consultants); John Curry (FAO); Maria Hartl

(IFAD); and Indira Ekanayake, Eija Pehu, and Riikka Rajalahti (World Bank).

1. United Nations (Vietnam), "Gender Action Partnership (GAP)," www.un.org.vn.

2. Monica Fong, "Gender in Sector-Wide Development Policies and Programs," paper presented at the 3rd World Congress of Rural Women, Madrid, October 1-4, www.oecd.org.

3. See "Needs Assessment of Economic Planning Units in Gender Analysis in Selected Caribbean Countries," www.cepa.org.

4. See note 5 above.

5. See "Gender Equity Index 2007," www.socialwatch.org.

6. Caroline Moser, "An Introduction to Gender Audit Methodology: Its Design and Implementation in DFID Malawi," www.enterprise-impact.org.uk.

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The Thematic Note was written by Pamela White (Consultant) and reviewed by Chitra Deshpande and Catherine Ragasa (Consultants); John Curry (FAO); Maria Hartl (IFAD); and Indira Ekanayake, Eija Pehu, and Riikka Rajalahti (World Bank).

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