

SOCIAL DEVELOPMENT DEPARTMENT

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Linking Gender, Environment, and Poverty for Sustainable Development: A Synthesis Report on Ethiopia and Ghana

Gender-Poverty-Environment Links:

Understanding the links between gender inequality, poverty and environmental degradation, and taking responsive actions, can accelerate positive dynamics and promote sustainable development outcomes¹. Acknowledging the ways in which nature-society relations are gendered opens space for new approaches to poverty reduction, environmental conservation, and gender-equitable participation and benefits in sustainable development programs.

Poverty, environment, social development, and gender are important cross-cutting themes of the World Bank and government investment programs. For developing sectoral strategies and programs, economic, environment and social assessments are undertaken, however, these are usually done separately, and most often gender issues are not included. This is a missed opportunity, because joint assessments can identify and map the links between gender, environment, and poverty; and help develop approaches that can accelerate the positive synergy and better social/gender, environment, and poverty outcomes. Otherwise, the existing negative relationships may slow the development process, and can even lead to unintended results. A joint analysis can also reduce

¹ AfDB. 2007. "The Poverty-Environment Nexus in Africa." In Gender, Poverty and Environmental Indicators on African Countries 2007, No. 92. Tunis. Agarwal, Bina. 1997. "Gender, Environment and Poverty Interlinks: Regional Variation and Temporal Shifts in Rural India 1971-1991." World Development 25 (1): 23-52. OECD-DAC. 2001. "Poverty, Environmental and Gender Linkages." DAC Journal 21 (4). Sarkar, S. 2010. "Gender, Environment, and Poverty Linkages." Journal of Development and Agricultural Economics 2(4): 145-56; The Chronicle, No. 023, February 4, 2010.

KEY DEFINITIONS

"Gender refers to the culturally based expectations of the roles and behaviors of males and females." (*Integrating Gender Into the World Bank's Work: A Strategy for Action, World Bank 2002*)

The three key dimensions of gender equality are: (i) accumulation of *endowments* (education, health, and assets); (ii) the use of those endowments to take up *economic opportunities* and generate income; and (iii) the application of those endowments and opportunities to take actions, or *agency*, affecting individual and household well-being. (*World Development Report 2012: Gender Equality and Development. World Bank 2011*)

"Poverty is the result of economic, political and social processes that interact with each other and exacerbate the deprivation in which poor people live." (*World Development Report 2000/2001: Attacking Poverty, World Bank 2001*)

Sustainable development "meets the needs of the present without compromising the ability of future generations to meet their own needs." (*World Commission on Environment and Development, 1987*)

Green growth is a part of sustainable development that includes environment and environmental policy as sources of economic growth and welfare gains through innovation, efficiency, resilience to shocks, job creation, and poverty alleviation. (*World Bank Concept Note on Green Growth, 2011*)

cost of project preparation. This study was undertaken to analyze the links between gender, environment, and poverty; identify approaches; and provide practical suggestions for fostering positive synergies for better outcomes. The study is

based on in-depth analysis of two sub-Saharan African countries – Ethiopia and Ghana.

The analytical framework for this study draws on the World Bank’s three pillars of sustainable development: social inclusion, economic growth and environmental sustainability; and from political ecology literature, which highlights how decision-making processes, power relationships, and social conditions influence environmental policies and development outcomes. The following four propositions derived from political ecology literature guide the analysis: i) socioeconomic marginalization and natural resource degradation are mutually reinforcing processes; ii) protected area conservation and external control of natural resources can disrupt household and community production and social organization; iii) competing environmental interests shape environmental change; and iv) collective action and resilience can help mitigate negative impacts.

Environmental, Economic, and Social Contexts in Ethiopia and Ghana

Ecosystems. The study findings reveal that Ethiopia and Ghana both have major deforestation and soil degradation, as well as increasing climatic variability and weather extremes (drought, flooding) associated with climate change. Both economies have a strong agricultural base, but Ethiopia is even more agriculture dependent, deriving more than half its gross domestic product (GDP) from agriculture, compared to 31 percent in Ghana. Ethiopia has faced numerous long-term droughts and famines in recent decades, while Ghana has experienced fewer, briefer droughts and floods along with coastal erosion. Ghanaians have greater access to infrastructure.

Governance and natural resources. Both Ghana and Ethiopia have pursued decentralization, but the national leaderships have retained a strong hand in governance at all levels. Policies and land redistribution in Ethiopia have undermined local traditional management of common property resources. In Ghana, common property is the predominant form of land tenure; forests are

owned by local communities, but the government has the timber rights. Traditional chiefs and earth priests are formally recognized and serve in parallel to formal government. Civil society organizations (CSOs) are active in both countries.

Social norms and gender concerns. In both Ethiopia and Ghana, there is variation in gender roles and inequalities across different ecozones and ethnic groups. However, women’s status is generally low in both countries. Illiteracy is higher in Ethiopia, at 57 percent for males and 79 percent for females, compared to 37 percent for males and 54 percent for females in Ghana. The maternal mortality ratio (MMR) is high in both countries, but is decreasing more rapidly in Ethiopia. Both countries have young populations, around 40 percent, but the population is growing faster in Ethiopia. Despite legislation to protect their land rights, women in study areas have insecure access to land; their land rights are largely secondary, coming through their relationships to men. Traditionally in Ghana, customary inheritance practices left widows with limited land or resources. In Ethiopia, traditional practices also transfer land to males, but land certification in both women’s and men’s names has increased women’s food security and their negotiating status within households in some contexts. Labor is a productivity constraint for poor female-headed households without an adult male in rural Ethiopia, because women usually do not plow with oxen due to social norms. Labor is a constraint for women in Ghana as well, in part because they are obligated to work first on their husband’s crops. Women in both countries have heavy, time-consuming domestic task burdens.

Dynamics of Gender-Poverty-Environment Interaction

The study findings highlighted the following key areas of gender-poverty-environment interaction.

(i) Socioeconomic marginalization and natural resource degradation. The negative impacts are more extreme in Ethiopia, given the long-lasting droughts, frequent famine, fragmentation of landholdings, and decrease in common rangeland and other common property on which pastoralists and the poor depend for their livelihoods. In Ghana, the

labor and resource allocation processes are generally biased against women in the study areas. With the commercialization of land, there is also a risk that male landowners may sell land to developers, leaving other household members without adequate access to productive resources. Food security is highly gendered: the greatest burden of food shortages falls on women, who are responsible for feeding their households and reduce their own food consumption first during time of scarcity. In Ghana, the lack of food-processing and storage facilities increases food insecurity during the lean season in forest and transition zones. In Ethiopia, food insecurity is widespread due to chronic drought and flooding. The impacts of climate change will continue to increase the challenges faced by poor women and men in Ethiopia and Ghana whose livelihoods depend on the environment.

Women bear heavier domestic burden. In both Ethiopia and Ghana, women and girls bear much heavier domestic task burdens than men, leaving little time for education, income generation, or participation in community decision making on natural resources and other development issues. In Ethiopia, women work an average of 38 hours per week on unpaid domestic tasks while men spend only 6 hours; women and men spend 22 and 33 hours per week on economic activities, respectively. In Ghana, women spend an average of 43 hours per week on domestic tasks, while men spend just under 10 hours.

Poor infrastructure contributes to marginalization in both Ghana and Ethiopia. Although both countries have made progress on roads, the lack of transport and communications infrastructure isolates communities, cutting them off from markets, economic opportunities, and social networks and services, including health care. Lack of roads also makes it difficult to bring other types of infrastructure to remote communities. Lack of access to safe drinking

water, sanitation, and health services negatively affects people's productivity and health. Ethiopia's water and sanitation services are very limited and underfinanced. Areas without access to safe drinking water in both countries are vulnerable to diseases such as diarrhea and dysentery, and Ghanaians also face malaria and waterborne diseases associated with the hydropower and irrigation programs. Neither country will meet the Millennium Development Goal (MDG) for sanitation.

(ii) Protected area conservation and control of natural resources. The appropriation of land, forest, and mineral resources "for the public good"; mining and timber concessions; and resettlement for infrastructure projects can disrupt the livelihoods, food security, and social networks of the people affected. The study found that in Ethiopia, the main impacts have come from enclosure of land for regeneration of vegetation and land certification in individual names, which reduce the common property on which the poor depend. In Ghana, national parks, wildlife sanctuaries, mining and lumbering concessions, and displacement and resettlement for infrastructure have negatively affected the livelihood options of the poor.

(iii) Competing environmental interests. In both Ethiopia and Ghana, competing environmental interests have led to arguments and even armed conflict. In Ethiopia, the dispute is mainly between farmers and pastoralists over use of rangelands. In Ghana, control of fertile land is the most common source of conflict, although mining and lumbering have also triggered disputes. Ghana also faces potential conflict within the wider region over shared water resources such as the Volta River, which is used by both Ghana and Burkina Faso. The overlapping and ambiguous systems of rules and authority in Ghana, both formal and informal, provide an enabling

environment in which competing environmental interests often escalate to conflict.

(iv) Collective action and resilience. In Ghana and Ethiopia, spaces for collective action are most evident in the activities of CSOs and local institutions and in participatory community-driven development projects. Adaptive responses to the impacts of climate change and related food insecurity also foster collective action and resilience. In Ethiopia, savings and credit circles, local customary safety net institutions (*iddir, iqub*), and farmer cooperatives play important roles in collective action. Although state ownership, land reform, civil war, and drought have weakened the capacity of local institutions that manage natural resources, these institutions have persisted over time. The church groups and parent-teacher associations are considered important by both women and men in Ghana and have high participation rates. Participation in farmer-based organizations, on the other hand, is low, particularly for women.

Successful approaches for achieving improved gender-environment-poverty outcomes.

Case Studies: Eight projects from agriculture and rural development, natural resource management, livelihood, energy, disaster risk management, and transport were assessed from Ethiopia and Ghana for understanding approaches that promoted gender-environment-poverty outcomes. A brief description of the projects and their outcomes are given below

Ethiopia: Dalocha Integrated Rural Development Programme – DIRDP (Phases I–III, 1989–2003)

This phased program was implemented by ActionAid to reduce poverty, improve quality of life, and enable the poor to have control over their own lives. DIRDP treated more than 13,700 ha. of highly degraded land and reduced the soil erosion rate in treated and protected areas by more than 70 percent. As a result, 6,600 households raised their production by about 10

percent. The project helped poor households to access resources, such as livestock, houses, education, and leadership skills, and to engage in savings and credit schemes. The project also promoted livelihood and crop diversification, grain stores, and dairy goat activities by providing skills and knowledge about agriculture and good soil management practices.

Outcomes included increased resilience to climate shocks, improved nutritional status and health, improved educational status, and greater appreciation of schooling. Post-program evaluations indicate that DIRDP's interventions improved the status of women in Dalocha, as they now manage and exclusively control a number of projects and institutions.

Ethiopia: Managing Environmental Resources to Enable Transition to More Sustainable Livelihoods Project – MERET, 2002–11

This phased program was supported by the World Food Program (WFP) to improve livelihood and food security opportunities for the most vulnerable, particularly female-headed households, through the sustained use of the natural resource base. The social and gender-inclusive actions included a livelihoods approach, local-level participatory planning, results-based management, and an emphasis on women's participation in decision making. The project included the formation of community watershed planning teams, elected by the community, that develop and implement watershed development plans using a participatory process. Other activities include water conservation measures, investment in capacity building for community management of natural resources, interventions for sustainable disaster risk management, and activities to build social capital and the ability to act collectively to solve community problems. The project implemented a graduated strategy that moved from food for work to technical and financial support for small revolving loans for income-generating activities. Some degraded areas were

closed for regeneration using locally developed physical technologies, such as sediment storage dams, eyebrow basins, and percolation pits. These are all variations on basic conservation structures that have been adapted to the highlands' steep terrain and intense rain bursts. **Outcomes** included regeneration of vegetation and water tables, increased water availability, and increased crop yields. The time spent by women and girls collecting firewood and water has been reduced. There has been a positive impact on livelihoods, poverty reduction, and food security. Community and Women's empowerment has been fostered through their participation in decision making, conservation work, and income generation.

Ethiopia: Pastoral Community Development Program—PCDP (Phases I and II, 2003–13)

Funded by the World Bank, this phased program is being implemented by Ethiopia's Ministry of Federal Affairs in 57 woredas of the Afar, Somali, Southern, and Oromiya regions to increase the resilience of pastoralists to external shocks and to improve the livelihoods of beneficiary communities. PCDP works to establish inclusive institutions and empower women through three basic approaches: (i) involving women in the planning and development of projects so that their needs are addressed; (ii) supporting the income-generation activities that have proven most beneficial to women; and (iii) training the project team and partners in gender awareness. A number of the specific activities supported under PCDP for improving community resilience to climate shock include: (i) microscale irrigation and rangeland management activities; (ii) investments in rural livelihood activities less susceptible to environmental shocks; (iii) strategic natural resource investments for disaster preparedness such as improved water supply, catchment management, and range improvement; and (iv) development of regional preparedness strategies for natural disasters.

Outcomes included 1,804 community-driven micro-projects. Women accounted for 47 percent of the beneficiaries of the sustainable livelihood component. Schools, health centers, water facilities, and grain mills were built near pastoralist

settlements, benefiting 200,000 people. Women are carrying out income-generating activities such as petty trading and microenterprises.

Ghana: Second Land Conservation and Smallholder Rehabilitation Project—(LACOSREP2), 2000–2006

This phased program has been supported by the International Fund for Agricultural Development (IFAD) and being implemented by the Ministry of Food and Agriculture. Project objectives include increasing farm productivity through training and demonstrations on new technologies; constructing rural infrastructure to reduce women's labor burden; and mitigating possible risks of health and negative environmental impacts. The target beneficiaries were at-risk, poor, rural smallholders, landless farmers and women, particularly female household heads.

The project designed and implemented gender equitable actions including access to resources such as 40 percent quotas for women to irrigated land. The project negotiated with chiefs, *tindanas* (earth or land priests), husbands, and male community leaders to allocate irrigated land to women because customary inheritance practices excluded them. The project also provided training on improved farming and livestock management, economic incentives to women and men for participation in environmental conservation works in their communities, and provided access to credit for income-generation initiatives. The project also supported participatory environmental conservation, and both women and men were involved in catchment protection activities such as reforestation and maintenance of dams to make water available throughout the year and provide wind breaks to shelter reservoirs from windstorms. Other important actions were gender-inclusive environmental resources governance that mandated at least 40 percent membership of women in WUAs. At the end of project, women comprised an average of 38

percent of WUA members; however, in some dam sites, women's participation is nearly 80 percent. Women's access to irrigated land and their decision making in WUAs improved their productivity. Sale of crops from their irrigated land enabled women to invest in farming and trading, as well as education and improved household nutrition. Women planted *vetiver* grass to stabilize dam walls and reduce the risk of flash floods. Vetiver grass was also used by women as an alternative material for basket weaving. Dams and wells increased the availability of water, reducing the water collection time burden for women and girls, enabling them to participate in irrigated agriculture and income-generation activities. Improved dams and wells also reduced the risk of waterborne diseases. **Outcomes** included improvement in income sources - from assets (storage and processing facilities, labor-saving devices), and food security; diversified agriculture with livestock rearing; reduced land erosion and flood damage through catchment protection; increased soil productivity; and community awareness of social conservation. Women's productivity and income increased as they were able to access irrigated land and water, workload was reduced, allowing time for additional productive activities; and women's participation in community and household decision making increased.

Ethiopia Road Sector Development Program – RSDP (Phases I-III, 1997-2010)

Funded by the World Bank, this is a 15-year program to restore and expand Ethiopia's road network to increase employment and reduce poverty by promoting growth and mobility in a socially and environmentally sustainable manner. A number of specific studies undertaken during the project have improved understanding of community transportation needs, especially the Transport and Poverty Observatories (TPOs), which are used to track key socioeconomic progress indicators. Collaboration with communities

improved through the development of woreda-level integrated development plans that integrate transport into broader development goals, including both transport and employment opportunities. The RSDP prepares a thorough resettlement action plan for affected populations in a participatory manner and provides specific support to excluded groups. **Outcomes** included construction and rehabilitated more than 75,000 km of roads that doubled the access of rural communities to all-weather roads, with lower transportation costs and shorter travel times. It increased income opportunities for men and women through alternative livelihood options, agricultural diversification, and access to markets. It also improved local environmental conditions by planting trees on the side of road and ensuring proper drainage and waste management.

Ghana Konongo-Kumasi Trunk Road Rehabilitation Project, 2004-8

Supported by the Danish International Development Agency (DANIDA), the objective of this project was to encourage economic and social development through reducing transport costs, increasing road accessibility, and improving road safety. The components included rehabilitation of 46 km of road, along with socioeconomic activities such as market stalls, fencing of schools along the road, boreholes for potable water, public toilets, drains, and walkways; HIV/AIDS education; road safety awareness campaigns in schools; vehicular emissions standards; and capacity-building programs for communities. The approach included a participatory process to ensure representation of women and men on the fund board; construction of market stalls along road to provide year-round trade; formation of women's groups to facilitate access to credit and quotas for women's participation as road construction laborers and supervisors; and women's representation on tender boards in road prioritization and decision-making forums and in planning, implementing, monitoring, and evaluating sub-district projects. Furthermore,

environmental restoration of 800 ha of arable land, 67 ha of forest, and 164 ha grass land was supported. **Outcomes** indicate increased income of women and communities, decline in accidents, and increased HIV/AIDS awareness.

Ghana Multifunctional Platform (MFP) Pilot Project, 2005–8

This pilot was supported by UNDP and implemented by the Kumasi Institute of Technology, Energy, and Environment to reduce poverty and environmental degradation in Ghana by providing modern energy services to communities living in remote areas and supporting productive and income-generating applications. Women became members of management committees, which increased their self-esteem. Technical training was provided to increase the women's capacity to manage the platforms for profitability and sustainability. **Outcomes** included gradual transformation of socioeconomic activities in the communities by increasing household incomes; ensuring food security during the dry season; empowering women to make decisions regarding management of the MFPs; improving intra-household relationships; and keeping girls in school. It also improved ICT connectivity and reduced deforestation. On average, women saved about four hours a day, which they invested in business activities. Energy generated by the platform was also used to pump water from boreholes. This has reduced women's use of unclean water sources and the time spent waiting in line for water at the community water site.

Strategies that achieved gender environment-poverty outcomes

The study findings identified several strategies that fostered positive gender-environment-poverty outcomes. In eastern Ethiopia, as a part of a broader national program supporting collective action to enable the poor to achieve common goals that could not be achieved individually, the regional government introduced cooperatively managed

rainwater harvesting projects to agropastoralists to minimize the effects of drought and reduce food insecurity. Ghana LACOSREP fostered social solidarity among women and men, encouraged them to act together for community development, and ensured women's participation in water users associations, enabling them to access irrigation water for improved productivity and income. LACOSREP also introduced actions for women to organize joint income-generation activities. Ethiopia's DIRDP promoted collective actions that improved the status of women in a conservative society; women now manage a number of projects and institutions, most importantly the Dalocha Women Water Development Association (DWWDA), which supplies safe drinking water to an estimated 100,000 people. Ethiopia's MERET implemented social and gender inclusive actions, especially women's participation in decision making, and achieved important poverty, environmental, and social outcomes such as enhanced poverty reduction and household food security; regeneration of vegetation and water tables; increased water availability; and increased crop yields. The time spent by women and girls collecting firewood and water has been reduced. There has also been expansion of social networks, increased knowledge and technology for natural resources management, increased community awareness of the benefits of managing natural resources, and deeper commitment to sustain project outcomes.

Successful approaches linking gender, environment, and poverty for climate change adaptation. Study findings further indicated that networks of reciprocity, mutual assistance, and inclusive participation are important in helping people adapt to and manage the risks of climate change in their livelihood strategies, for example, agriculture, livestock rearing, forestry, and fishing. Local safety nets built on the collective action of women and men, such as credit and exchange networks, food reserves, or seed banks, are helping poor people cope with climate-related shocks. Collective action institutions play an important role in spreading information,

technologies, and practices that support various climate change response strategies, and provide people with opportunities to share experiences with the use of such strategies. In Ethiopia, foreign food aid and government safety net programs became prominent mechanisms for coping with climate change and other shocks. Strategies introduced under Ethiopia's National Adaptation Program of Action include drought/crop insurance, drought and flood early warning systems, rangeland and wetland management, malaria control, and agroforestry. In Ghana, some of the adaptation strategies involve collective action such as communal pooling of resources and reliance on kin and social networks, while others are technical, such as planting crop varieties better suited to variable rainfall and temperature. In Ghana women participate in informal saving schemes and finance fishing gear and provide loans for men to go to sea; and receive the first catch.

Fostering Positive Gender-Poverty-Environment Dynamics

The following common effective approaches achieved successful results that can be adapted to other countries and sectors, after analyzing the country and sectoral context to foster positive gender-poverty-environment dynamics. These approaches include:

- (i) reducing marginalization of poor women, men, and other excluded groups by increasing their endowment, especially access to and control over natural and productive resources and improving their access to protected conservation area and benefit sharing. There are successful programs in both Ethiopia and Ghana that provide land titles to women that improved their income and agency.
- (ii) enhancing social, legal, and economic opportunities for poor women, men, and other excluded groups for transforming their endowments to income and family welfare;

- (iii) promoting collective actions in policy and program formulation, especially establishing mechanisms for improved agency/empowerment of women at the household, community and project levels, and environmental protection, and

- (iv) promoting accountable and gender-responsive institutions that will support an inclusive and participatory sustainable development process.

Fostering positive dynamics in policy formulation and the project cycle. For fostering positive dynamics in either policy, strategy or program formulation, a consultative and inclusive process has to be one of the first steps, and planning needs to span all relevant sectors. Gender-poverty-environment analysis needs to be incorporated into the terms of reference for environmental and social impact assessments. The assessments will identify gender-based constraints and opportunities and help design gender-responsive actions, along with gender indicators to monitor progress. During project implementation and supervision, key activities include supporting gender training of project staff and forming partnerships with women's organizations and CSOs to provide beneficiaries, especially women, with increased participation opportunities and voice in the process. Project completion and impact evaluation questionnaires need to include sex-disaggregated and gender indicators to show progress toward women's benefits and opportunities and value added by women's participation, particularly in environmental and poverty reduction components. Finally, these gender outcomes need to be documented in the implementation completion report.

This note was prepared by Nilufar Ahmad (SDV). This is a summary version of the report *Linking Gender, Environment and Poverty for Sustainable Development: A Synthesis Report on Ethiopia and Ghana*. The findings, interpretations, and conclusions are entirely those of the authors and should not be attributed in any manner to the World Bank, its affiliated organizations, or members of its Board of Executive Directors or the country they represent. For additional copies please contact: asksocial@worldbank.org