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Gender and Forest Management

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Abstract:

Gender based inequalities in forest activities in Zambia and other African countries result in lower forest derived incomes for women. Social and political barriers prevent women from having equal access and land rights as men, confining them to less remunerative and subsistence level forest activities. In Africa, studies show no difference in success among forests managed by men's, women's, or mixed gender groups. However, in India and Nepal, mixed gender forest management groups with higher proportion of women showed forest resources in better condition.

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Labor and benefits in forestry by gender

The body of literature on forest related activities and income in Zambia with relation to gender is limited. Nevertheless, there are a few studies that give insight on the topic. Bwalya found in two joint forest management communities in Luapula and Central Provinces and one open forest community in Eastern Province that women (especially those with lower income) were reliant on non-wood products that required more labor and had lower market value.¹ He found that women's forest derived income came primarily from low value perishable products like wild fruits, tubers, mushrooms, and edible insects. In contrast, men's forest derived income was largely from the three highest value products: charcoal, timber, and honey. Participation in these activities is strongly linked to gender where charcoal, timber, and honey collection are largely male dominated and are traded in more lucrative markets while women collect non-wood products (except honey) for subsistence or for sale in less lucrative markets. Bwalya notes that "although women and poorer household are more reliant on forest products for subsistence, they get the lowest income from forest products" and that "most women are discouraged from engaging in high value male dominated forest income generating activities." Below is a table from Bwalya indicating income generated by forest related activities by men and women.

Figure 1: Distribution of income by gender (Bwalya 2004)

Gender	Forest income categories			Total
	<K100,000	K100,000 and K500,000	>K500,000	
male	38.9%	22.2%	38.9%	100.0%
female	68.8%	18.8%	12.5%	100.0%
total	49.1%	20.8%	30.2%	100.0%

Chabala studied women's access to forest resources and forest management communities in Masaiti District (Copperbelt Province). He found, similar to Bwalya, that women relied on forests for carrying out subsistence activities.² He also found that access to forests could be hampered by poor government

¹ Bwalya, Samuel M. 2004. Rural Livelihoods and Collective Action in Joint Forest Management in Zambia.

² Chabala, Charles. 2004. Forest management in Zambia: A focus on women's access to forest resources management in Chief Chiwala's area, Masaiti district. Southern African Regional Centre for Women's Law, University of Zimbabwe.

policies, lack of representation on local forest management committees, or through economic barriers. He states that women in the communities often could not afford fees required to engage in charcoal or timber activities. Another barrier to women's forest access involves property rights. The change from traditional community-based ownership and access to a system of land purchasing and titling excludes women who are unable to buy land tenure or legally secure forest resources based on historical access rights.

Studies from other African countries provides further examples of male-dominated forest extraction activities and women's exclusion from accessing remunerative forest related goods. A study of charcoal production in Kenya found that "male-headed households are significantly more likely to engage in charcoal burning than their female-headed counterparts" and that "very few women participate [in charcoal production] because the business is physically harsh and risky."³ In a study on the impact of HIV/AIDS on activities in the Miombo woodlands of Malawi, UN FAO found that "while men and women both engage in woodland activities for income, those activities demanding heavy labour usually related to wood are typically carried out by men" and that those "activities can also be the most remunerative."⁴

In Nigeria, women and female children generally spend more time engaged in fuelwood and charcoal activities than men and male children, though the time spent on these activities as a percentage of overall activities is very low (maximum of 5.3%).⁵ Climate change is also affecting gender roles in forest-related activities. From a study in Mali, "women's workload increased as livelihoods shifted from water to forest based systems."⁶ The study also found that in the last 10 years charcoal production was "strictly men's work" but that women were increasingly engaged in the sector as lakes transformed into forests and as climate change induced increased male migration for labor.

Gender and forest management

There is little information on the relationship between gender and forest management outcomes with regards to Zambia. Generally, community forest management produces positive outcomes. Examples from India and Bengal show that areas managed under "joint forest management" showed a 61%

³ Gender disaggregated analysis of charcoal production in Kenya. 2005. *African Crop Science Conference Proceedings*, Vol. 7. pp. 897-900.

⁴ UN FAO. 2005. *Miombo woodlands and HIV/AIDS interactions: Malawi Country Report*. Forestry Policy and Institutions Working Paper 6.

⁵ Chianu, Jonas and Tsujii, Hiroshi. 2007. Gender Differences in Labor Allocation in West Africa: A Case Study of the Savannas of Northern Nigeria. *Humanity & Social Sciences Journal* 2 (2): 93-103.

⁶ Djoudi, H.; Brockhaus, M. 2011. Is adaptation to climate change gender neutral? Lessons from communities dependent on livestock and forests in northern Mali. *International Forestry Review* Vol.13(2).

decrease in illegal timber extraction, yet this lost income was more than compensated for by the increase in income from the sale of legal forest products.⁷ Lower income households experienced the largest income increase, as they are usually the group most reliant on non-timber forest products for maintaining livelihoods. As a result, the joint forest management programs seem “to improve the income distributional pattern of participating households within below poverty line levels over time – an upward mobility from lower income range to immediate higher income range.”

A study comparing sustainable forest management systems in Mexico, Bolivia, Uganda and Kenya found that women-only forest management groups did not have significantly improved forest regrowth or maintenance outcomes compared to men-only or mixed groups.⁸ However, mixed groups are largely successful in producing beneficial outcomes in terms of forest health as well as resource access for both men and women. Based on other sources cited in the study’s literature review, they acknowledge potential reasons for the relative success of mixed groups: (1) higher proportions of women in forest committees increases knowledge of rules and result in stricter rules; (2) increased regulation of illegal activities; (3) increased capacity for conflict management; (4) improved security of women’s property and forest access rights; and (5) increased understanding of the forests as women’s activities commonly require specific knowledge for harvesting certain non-timber forest products while “men are largely involved in timber extraction”.

In India and Nepal, however, community forestry initiatives having governing committees with a greater proportion of women were in better condition and showed greater improvement in condition over the period of forest protection monitoring. Agarwal found that “the higher the percentage of women on the executive committee, the lower the percentage of degraded forest area.”⁹

Gender balance in forest management groups is further supported by outcomes cited by Gbetnokm. Because women generally have less access to land than men, trade in timber related forest products (lumber and charcoal) tend to be dominated by men as found in Sierra Leone, Botswana, and the Philippines.¹⁰ Gbetnokm also finds that deforestation had negative impacts on food security in rural parts of Africa. As fuelwood scarcity increases from poor forest management, the opportunities for income earning activities, such as fish-smoking and beer-making, decrease earning potential and that “fuelwood

⁷ Das, Nimai. 2010. Incidence of forest income on reduction of inequality: Evidence from forest dependent households in milieu of joint forest management. *Ecological Economics*, Volume 69, Issue 8, Pages 1617-1625.

⁸ Mwangi, E., R. Meinzen-Dick, and Y. Sun. 2011. Gender and sustainable forest management in East Africa and Latin America. *Ecology and Society*, Volume 16, Issue 1, Page 17.

⁹ Agarwal, Bina. 2009. Gender and forest conservation: The impact of women's participation in community forest governance. *Ecological Economics*, Volume 68, Issue 11, Pages 2785-2799.

¹⁰ Gbetnokm, Daniel. 2007. *Forest Management, Gender, and Food Security of the Rural Poor in Africa*. UNU-WIDER.

scarcity may have the most harmful impact on food security for the household...influencing the amount of food supplied or cooked.”¹¹

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¹¹ *Ibid.*

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