

Info note:

Gender Research Opportunities in the Western Amazon Sentinel Landscape

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Introduction

Attention to gender aspects promotes increased efficiency in forest management, equitable distribution of benefits, and improved policy implementation (Mai et al., 2011). For these reasons, analysis of gender roles and relations as they relate to forest use and benefits is important for the creation of interventions and policies that promote sustainable resource management, livelihood security and improved well-being. Data gathered from the Western Amazon Sentinel Landscape of the CGIAR research program in Forest, Trees and Agroforestry (FTA) on men's and women's land and natural resource uses provides significant opportunity to investigate key questions related to sustainable forest development and gender, that are at the same time prescient to the region.

The Western Amazon Sentinel Landscape comprises a combination of post-deforestation land-use trajectories including degraded pasturelands, expanses of fallow and secondary forest, oil palm plantations, and cocoa agroforestry. The area represents a humid lowland forest ecological zone and includes three primary sites: 1) Ucayali and 2) Madre de Dios in Peru, and 3) Pando, Bolivia. The present Info Note provides suggestions for potential gender research questions to be developed in WASL, related to three principal themes: migration; livestock, cocoa and oil palm commercial crops; and communal and individual property rights regimes.

Migration

Research on forest use and forest dependent communities demonstrates that mobility and migration are important aspects of the livelihood strategies employed by forest users (Hecht et al., 2015). In other words, contrary to popularly held assumptions, forest users commonly do not reside permanently in forested areas throughout the year, but rather move among rural, semi-urban and urban localities according to livelihood needs. This trend has been described as circular migration and multi-locality, and it is relevant among forest users in Latin America and the Western Amazon, as well.

Multi-local livelihoods have important gendered implications. For example, research on peri-urban dwellers in the Bolivian Amazon notes that the region has seen migration of forest residents to more urban areas over recent years (Stoian, 2005). These groups tend to depend on forest extractive activities as their primary income source. While women remain in the peri-urban area for children's schooling and work in Brazil nut processing factories there, men travel regularly to rural areas to labor in Brazil nut, palm

heart, and timber extraction. Another study in Brazil's Western Amazon similarly observes gendered migration trends motivated by prioritization of children's education (Campbell et al., 2005); it particularly highlights how women's agroforestry credit lines influence women's urban migration while men participate in rural fieldwork for agroforestry.

Initial data from the Attaining Sustainable Services from Ecosystems through Trade-off Scenarios (ASSETS) project in its site in Pucallpa, Peru, furthermore suggests the importance of migration to livelihood strategies in Western Amazon communities, with a focus on rural-based residence (Vanegas, 2016). In Participatory Rural Appraisal (PRA) activities carried out in 9 communities, migration trends emerged noticeably in 5 communities, two of which were indigenous. Traveling to other communities or more urban areas for work opportunities was common particularly during the rainy winter season when agricultural activity was less feasible. Both men and women migrate in these cases, although this is most significant for male household heads. A trend particular for youth is their urban migration for work or educational opportunities, common for both men and women; often this migration might be permanent. Among the native communities in particular, men and women migrate to other regions to engage in agricultural labor, according to harvest times for crops such as grapes, asparagus, and coffee. Sometimes they might take their entire families for these travels, though it is not a common occurrence.

Additional research is necessary on how circular livelihood strategies might contribute to sustainable forest development and, correspondingly, men's and women's possible roles in this. The discussion leads to the following research questions:

- How do extractive activities influence men's and women's migration trends in the Western Amazon?
- Correspondingly, how do migration trends affect men's and women's forest resource use and related decision-making at the household level?

Understanding gendered migration trends furthermore contributes to CGIAR gender foci related to the sub-IDOs:

- *Gender equitable control of productive assets and resources and Improved capacity of women and young people to participate in decision-making.* Analysis of men's and women's roles in multi-local livelihood strategies is necessary to identify and explain who controls forest and agricultural resources in the household, how this varies over the course of the year, and correspondingly, how this affects decision-making regarding forest resources.
- *Technologies that reduce women's labor and energy expenditure.* Information on gendered migration trends is important in order to better identify the needs and priorities of end-users and understand strategies to carry out agricultural and forestry related activities when differing household members are absent.

Livestock, cocoa and oil palm commercial crops

Forest conversion for cash crop expansion and livestock development is a critical trend across large forest landscapes, including the Western Amazon. Livestock production is a key driver of forest clearing in Amazonia. Palm oil production contributes particularly to GHG emissions and biodiversity loss, and expansion of commodity tree crops like cocoa can significantly advance deforestation. Although smallholders in the region practice cocoa agroforestry substantially, concerns arise regarding socially equitable benefit sharing from production.

Such changes in the investment of capital in a landscape can have important social and gendered implications for resource ownership patterns among locals and migrants (Hecht et al., 2015). For example, FTA value chain research has noted a trend of men's increased involvement in the chain and cash income control as a product becomes commercialized and increases in profitability (Haverhals et al., 2014). Knowledge of the contributions of Amazonia's diverse actors to commodity value chains is critical in order to formulate sustainable forest development strategies that are socially inclusive and that promote gender equitable benefits.

Emerging strands of strategic gender research include the gendered implications of commodity expansion in forest landscapes in the region. For example, livelihood optimization modeling based on information from communities in the Madre de Dios region of Peru suggests that the most efficient use of capital at current conditions was through expansion of timber extraction or livestock production (Campbell et al., 2005). While producing the most detrimental forest impacts, such economic activities involve women minimally, as well. Brazil nut production, an activity that involves women more significantly, became more feasible with increased access to credit, although it would still remain inferior economically to timber extraction.

Preliminary data from the ASSETS project further attests to the significance of palm oil and cocoa production and to a lesser extent, livestock, in the Pucallpa region of Peru and provide suggestions for their gendered implications, as well (Vanegas, 2016). In Participatory Rural Appraisal Activities (PRA) palm oil and cocoa emerged as primary economic activities in five out of nine communities. Results suggest that both men and women participate in cocoa harvesting, although men may be considered more responsible for cocoa production activities in general. In some communities, work as day laborers in palm oil plantations can be an important income source for both men and women, often involving whole families; however, in some cases households may have their own terrains for oil palm cultivation. Some activities in oil palm cultivation may be gender-specific due to physical labor demands, and men are often looked upon as more responsible for palm harvesting than women. Livestock production in some communities suggests the importance of class and gender aspects: in the higher socioeconomic group, men were more responsible for milk sales than women, while in the lower group women were responsible for sales of milk products.

It is important to identify men's and women's roles in the value chain and develop mechanisms that promote equal benefit sharing that complement sustainable forest development. Studies of cocoa and

fruit agroforestry systems in Ecuador and El Salvador suggest that women producers might value non-monetary benefits of agroforestry more than men (Blare and Useche, 2015; Kelly, 2009). Furthermore, payment schemes that allow women to be paid separately from their husbands for their work on family oil palm plots have been seen to increase the economic incentives for women to commit labor to agroforestry oil palm production in Papua New Guinea (Koczberski, 2007). Critically, the above discussion of research in the region demonstrates that women are significantly involved in cocoa, oil palm, and livestock production value chains, although their roles might not be as prominent as those of men. Also, they might have less access to cash profits in comparison to men, as they are less prone to be involved in sales activities. The following research questions emerge from the discussion:

- How do men and women participate in cocoa, oil palm, and livestock value chains and associated tree crops? What is their return on labor from these activities and how does it contribute to household livelihood strategies?
- What factors influence men's and women's adoption of agro-ecological practices as they relate to cocoa, palm oil and livestock production?

Gendered research on forest conversion to cocoa, oil palm, and livestock expansion contributes critically to gender sub-IDs:

- *Gender equitable control of productive assets and resources.* Understanding men's and women's roles in major regional value chains and their corresponding subsistence and market values is important in order to ensure the formulation of development strategies that recognize men's and women's work and that promote equal sharing of returns among men and women producers.
- *Improved capacity of women and young people to participate in decision-making.* Socially inclusive value chain research will help determine challenges and opportunities for increasing the participation of women and youth in decision-making at the various stages of the key value chains identified.

Communal and individual property rights regimes

It has been noted in the Amazon that land tenure regimes tend to be "mosaics" of individual and collective property rights, formally and informally enforced by various settlements of indigenous and mestizo peoples, as well as other social groups (Cronkleton and Larson, 2015). Correspondingly, an important consideration for research in the Western Amazon is how these dynamic forms of tenure affect women's access to and control over land. Although communal property rights might be more prevalent in Latin America than in other parts of the world, such regimes do not guarantee women's and men's equal control of land in practice (Vázquez García, 2013; Schmink and García, 2015). For example, often communally titled land is controlled by the state and women's access is limited (Vázquez García, 2013). Furthermore, individual property rights regimes can demonstrate a negative bias towards women. Men are more commonly property holders than women, and at the time of couples' separation, women are often left landless (Schmink and García, 2015). In general, there exists a persistent gender inequality in land

ownership, due to male preference for inheritance and marriage privileges and also as a result of gender biases in land markets and in state land distribution programs.

The following research questions emerge from the previous discussion. The questions are also based on the literature review by Schmink and García (2015).

- How is gender addressed under different kinds of property regimes, in policy and in practice? What are the implications for men's and women's rights to forested territories?
- Under what conditions do women and men have autonomous access to community and household land and resources in different complex community and co-management regimes?

This research contributes critically to gender sub-DOs as they relate to asset control:

- *Gender equitable control of productive assets and resources.* Comparative research among the three WASL sites on the impacts of diverse property regimes on men's and women's land control will contribute to policy proposals that promote increased tenure security for women.

Looking Ahead

The gender research areas and questions proposed on migration, cash crop expansion, and tenure regimes align with CGIAR gender sub-DOs, and they furthermore resonate with interests in other CGIAR Research Programs, for example, Policies, Institutions and Markets (PIM), Water, Land and Ecosystems (WLE), and Climate Change, Agriculture and Food Security (CCAFS). Data analysis and research activities that apply to these areas will contribute to critical knowledge generation on sustainable forest development that equitably includes smallholder producers.

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