



Forest land restoration enhances food security in Sahelian landscapes

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- This case study provides evidence that small-scale reforested lands offer an appropriate strategy and means of diversification of food sources to help curb food deficits in the months before the major harvest of food grains.
- This practice of reforesting lands goes beyond planting trees for ecological benefits; it integrates the value of trees for livelihoods and diversity providing food in times of scarcity.
- To enhance capacity to cope with food shortages, more effort is needed to scale up FLRs.
- Legislation should be developed to create enabling conditions to help households invest in land restoration (improve access to land and secure land tenure)
- Integration of FLR should be enhanced as a component of land-use plans to ensure food security of smallholders in the Sahel.
- Promotion of women-led FLRs is vital to achieving a positive outcome.
- Efforts need to be made to support and empower the role of women in FLRs by providing gender-relevant knowledge and creating gender-sensitive tenure regulations.

Background Information

Forest land restoration intervention (FLR) is defined as a planned process that aims to regain ecological integrity and enhance human well-being in deforested or degraded landscapes (ITTO and IUCN 2005, Mansourian et al. 2005). The concept has evolved to accommodate new perspectives, context specificity and ideas. It is more than putting trees back into the landscape: FLRs involve assisted natural regeneration of tree resources to increase availability of forest and agricultural products, as well as increasing biodiversity.

“FLRs are a stakeholder engagement process to restore the function and productivity of degraded forest land – through a variety of place-based interventions, including tree planting, managed natural regeneration or improved land management (ITTO and IUCN 2005).”

The study, analysis and findings

This study focused on smallholders who practice land restoration in three provinces in central Burkina Faso. Households were supported by the Fond Français pour l'environnement Mondial (FFEM) and Tiipaalga (a local non-governmental organization, NGO) to restore 3 hectares of degraded land (mostly land that used to be cultivated). The area was fenced to protect it against livestock pressure, and a 10-meter strip around the perimeter, equivalent to 0.8 hectares,

was cultivated to serve as a fire break. A specific assessment framework was used to analyze the production diversity, the use of products, their perceived importance and their role as a safety net during the lean season. This is done to be able to shed light on the role and importance of restored forest lands for food security. The analysis framework also includes an assessment of the potential of restored areas to provide regulation services, which help to improve the production system.

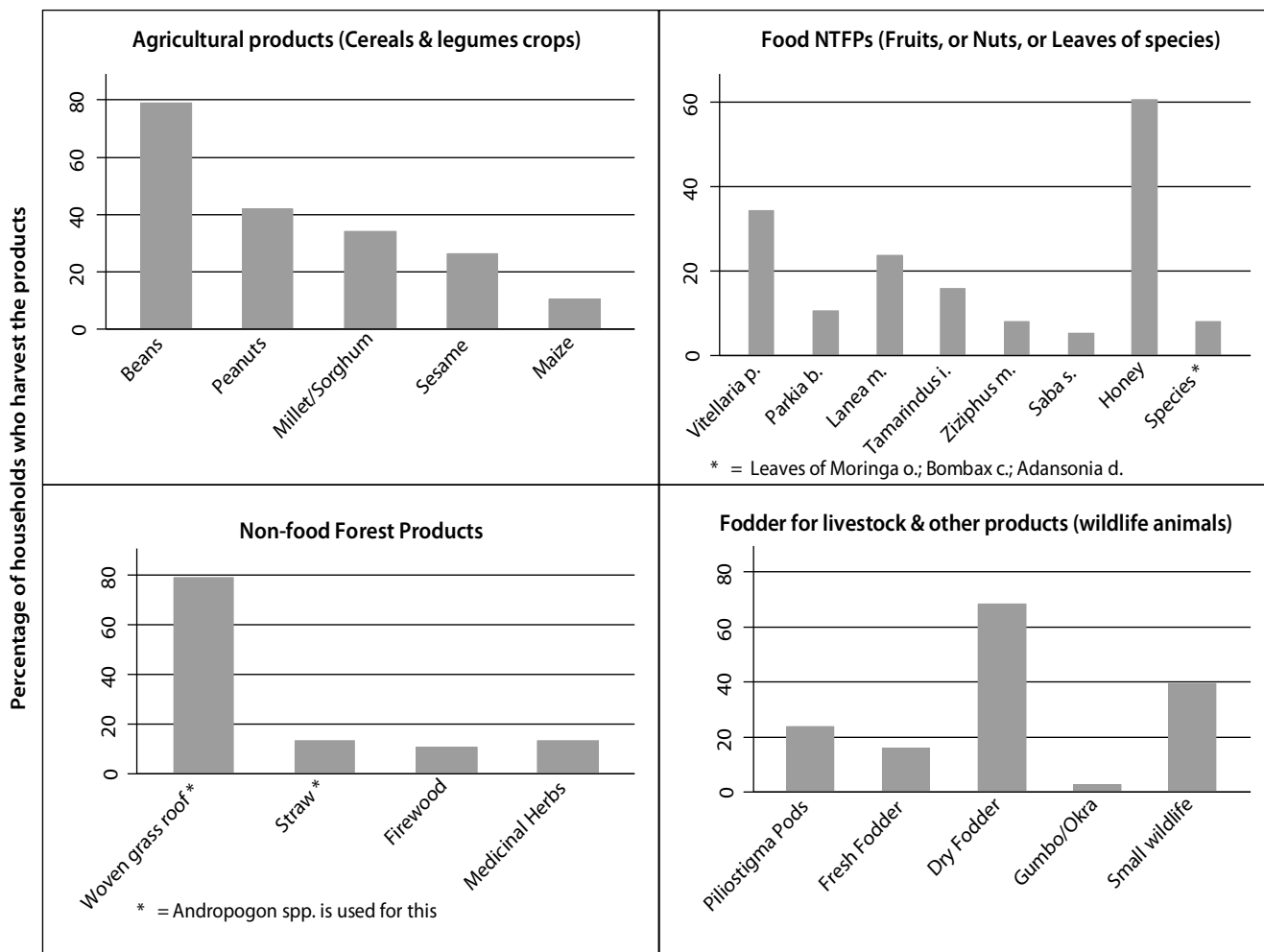


Figure 1. Diversity of products harvested in the restored area.

Product diversity and use

Smallholders engaged in FLR are able to harvest diverse products (Figure 1) ranging from non-timber forest products (NTFPs) used for food to non-edible forest products (non-food forest products), fodder for livestock, small wildlife, and crops including cereals and legumes, produced at the edges of the restoration area.

Our findings show that the harvested products from the FLRs are primarily used for household-level needs and to overcome food scarcity rather than for purposes of income generation. Harvested products are ranked with a high importance for meeting food security. Overall, most of the households (about 66%) perceived and ranked the products from the FLR as being of high importance to meeting food needs.

Restored lands as a safety net to cope with food shortages

The results also show the crucial importance of NTFPs as a safety net for the households in periods of low food availability, which correspond to the months of May, June, July and August. During this period, food security relies on the progressive availability of NTFPs for food (Figure 2). For instance, nuts of *Vitellaria paradoxa* and leaves of *Bombax costatum*, *Moringa oleifera* and *Adansonia digitata*, that are used for

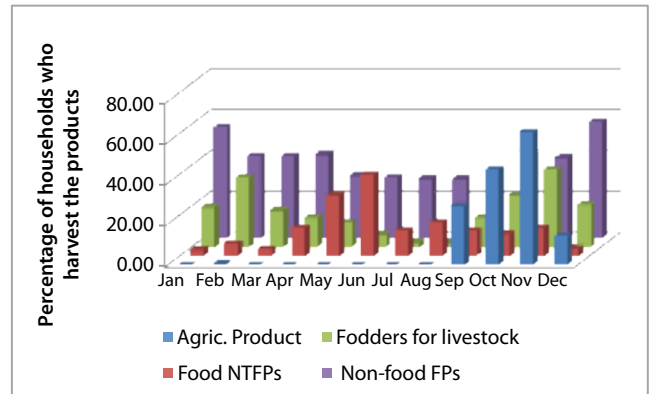


Figure 2. NTFPs are a safety net for households: They are harvested mostly during the lean season.

saucés, are harvested from May to September. Fruits of *Parkia biglobosa*, *Saba senegalensis* and *Lanea microcarpa* are harvested in May and June.

Food security, gender and forest land restoration

Our results show that most products used for direct consumption are harvested by women (Figure 3). This is an important finding showing the link between gender, food security and restoration. Women are largely responsible for securing food for the whole household, particularly for children and the elderly. The restoration areas provide a safety net for the most vulnerable.

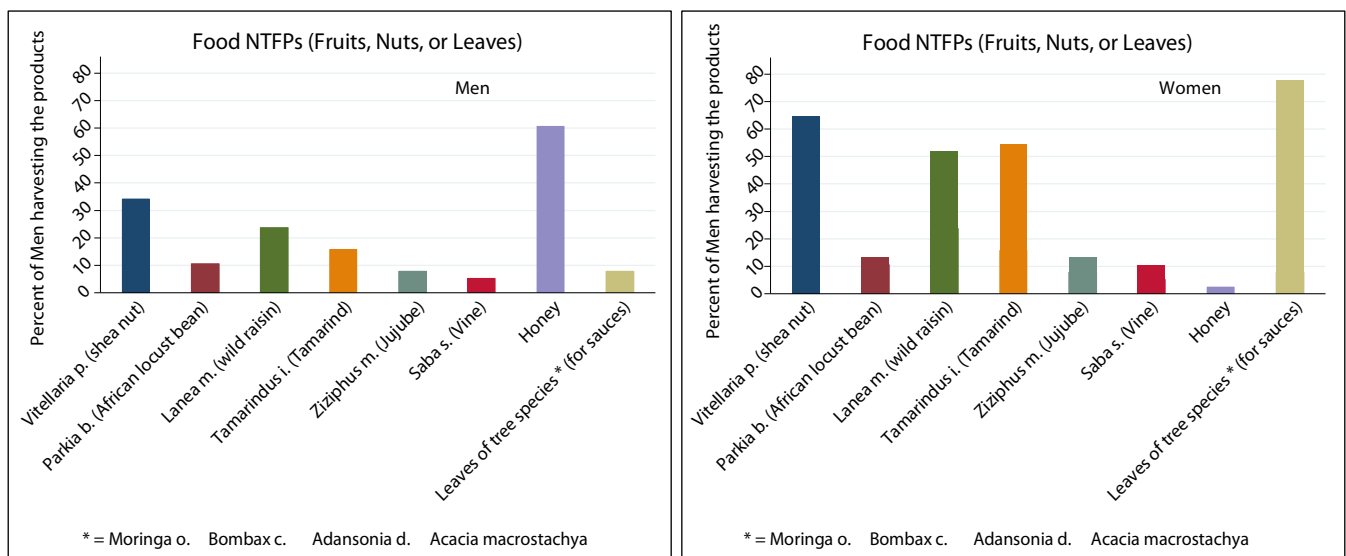


Figure 3. Produce harvested by women and by men in the restored areas.

Conclusions and recommendations

To enhance the capacity of people to adapt to climate and other extreme events in the Sahel, promising practices are emerging from communities, with the support of NGOs. Forest land restoration is one such opportunity. Findings highlight that small-scale FLR provide a means of diversification of food sources to reduce food deficits, especially in the months before the harvest. Such findings are invaluable for policy dialogues to support evidence-based policy-making on integrating FLR into land-use plans to ensure food security for smallholders in the Sahel. Assuring and increasing land tenure security as an enabling condition is required. Gender inclusion is also strongly recommended.

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