Food and Agriculture Organization of the United Nations

FAO AGRICULTURAL DEVELOPMENT ECONOMICS POLICY BRIEF 40

CLIMATE-SMART AGRICULTURE

Evidence and policy options on migration, cash crop production and deforestation in Uganda

The alarming global rates of deforestation observed in the last decades raise serious concerns about the future of the planet. The increasing number of global and national commitments to halt or reverse forest loss highlights the importance of forests for the overall well-being of people and the planet. However, policy commitments to reduce forest loss are often at odds with national economic growth and development objectives, even if countries claim to be pursuing the Sustainable Development Goals.

The trade-off between sustainable development and preservation of the forest is particularly challenging in countries where agriculture is the dominant source of livelihoods and economic activity. Indeed, large-scale commercial agriculture and subsistence agriculture account for over 70 percent of deforestation in tropical and sub-tropical countries. An emblematic case is Uganda, where an average of 122 000 ha of forest area has been lost every year from 1990 to 2015, amounting to a loss of around 63 percent of the country forest cover in this period. At the same time, agriculture in Uganda remains a critical component of the overall economy, contributing approximately 23 percent to the country's GDP in 2014, while around two thirds of the population are still directly engaged in agricultural production.

Migration for agricultural purposes further complicates the difficult trade-off between agricultural development and deforestation. In Uganda, internal migrants are strongly involved in crop production activities, and play important role in major crop value chains. Migration towards fertile and productive lands has been facilitated by the availability of easily accessible lands, initially forested and vacant, but gradually converted into agriculture.

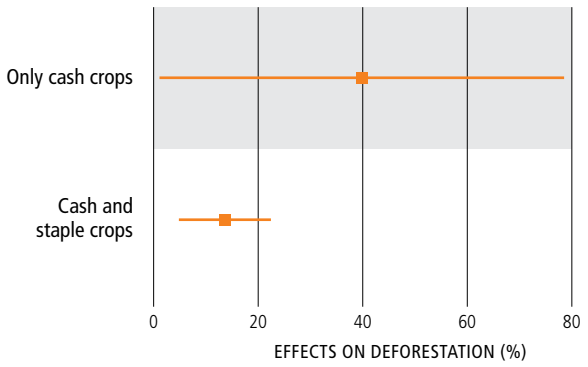
Cash crop agriculture drives deforestation

Of the total households engaged in agriculture, more than 95 percent produce cash crops (including tobacco, sugarcane, coffee, sunflower, tea and cotton) and/or staple crops (including banana, cassava, finger millet, maize, sorghum, wheat, and sweet potatoes). Producers of only cash crops or cash and staple crops increase deforestation of respectively 40 and 14 percent as compared to only staple crop producers (Figure 1).

KEY MESSAGES

- The expansion of cash crop activities significantly drives deforestation in Uganda.
- Migrants who produce cash crops contribute to deforestation significantly more than locals.
- Improving coordination between interventions on forests, agriculture and land use, securing land rights and migration is crucial in order to minimize the negative impact of agriculture on deforestation.
- Supporting migrant integration in hosting areas is recommended to reduce forest losses and enhance agricultural development.

FIGURE 1. Cash crop production increases deforestation



Note: Baseline category is "Only staple crop producers".
Source: Authors' own elaboration.

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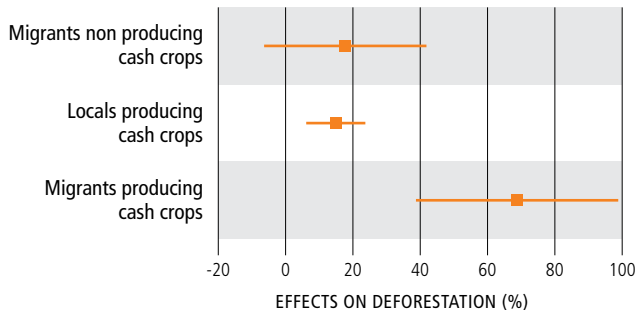
Internal migrants engaged in cash crop production have detrimental effect on forests

Internal migrants engaged in cash crop activities contribute significantly to deforestation. The inter-district migrants producing cash crops are almost 70 percent more likely to clear the forest as compared with locals not engaged in cash crop production. Also local producers contribute to deforestation, although only for about 15 percent (Figure 2).

FIGURE 2. Migrants producing cash crops affect deforestation



Note: Baseline category is "Locals non producing cash crops".
Source: Authors' own elaboration.

The relatively higher rates of forest clearing among internal migrants producing cash crops as compared to locals are most likely because migrants are less engaged with the surrounding environment and therefore more prone to cut down trees to accommodate their needs for land. In addition, they frequently clear trees in order to strengthen their claims to the land under customary land tenure systems. Moreover, a lack of contextual knowledge of local ecological and climate conditions increases the risk that agricultural migrants will adopt unsustainable land management practices which tend to degrade farmland over time.

National policies to support commercial agriculture could have negative effects on the forests

In the last two decades, the Ugandan government has implemented a number of policies to incentivize commercial agriculture value chains. In particular, the National Agricultural Policy was formulated with the aim to guide the agricultural sector towards the development and the modernization of agriculture. Main objective of the policy is to transform subsistence farming to sustainable commercial agriculture. Under this policy framework, incentives to increase the production of traditional cash crops, the promotion of smallholder integration within commercial agricultural circuits and investments in value chain development, have resulted in a large increase in both quantity produced and area under most cash crops.

Potential downside risks on deforestation associated with such policies may be producing unintended consequences that are contrary to national policy objectives related to the conservation of the African unique tropical forests.

Policy options to support sustainable agriculture and reverse forest losses

The trade-off between agricultural development and natural resource protection requires policies and programmes aimed at stimulating sustainable agriculture while ensuring a high level of forest management and protection. Policy options to consider are:

- **Improving coordination between policies on forests, agriculture, land use and migration:** Promoting positive interactions between agriculture and forest conservation is crucial to reduce downside effects of agricultural commercialization on the forests. As commercial agriculture is a principal driver of deforestation, land-use social and environmental safeguard is needed. Integrated land-use planning should also be promoted, as it provides a strategic framework for balancing land uses at the national, subnational and landscape scales. This should include meaningful stakeholder participation to ensure the legitimacy of land-use plans and stakeholder buy-in for their implementation and monitoring.
- **Establishing clear legal frameworks governing land-use change:** Secure land-tenure systems that recognize rights to use land are fundamental to incentivize longer-term investments in sustainable technologies. Also, to improve production and achieve food security, agricultural intensification and other measures such as social protection should be preferred to the expansion of agricultural areas at the expense of forests. Forest reserve boundaries should be clearly demarcated to avoid deliberate or accidental encroachment. Furthermore, promoting the development of forest product value chains would be fundamental to strengthen the role of the forest itself as a vehicle of economic development.
- **Promoting migrant integration in hosting areas:** As far as migration is concerned, training activities enhancing the knowledge of soil, suitable crops and agricultural practices are necessary to ensure a sustainable exploitation of resources and an efficient land-use allocation. Finally, national strategies should be designed to promote the development of urban or rural off-farm sectors, so to expand and diversify employment opportunities in sectors other than agriculture and support economic growth.

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