Intensification of Agriculture as way for sustainable income and livelihood around protected area in Congo Basin: Examples from Cameroon and DRC

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Plan

- Background
- Activities in DRC
- Activities in Cameroon
- Conclusion and way forward
Lien entre les piliers du développement durable: Ecologie, Social, Economie

Contraintes et opportunités d’Agriculture Durable

Perte de l’intégrité de l’écosystème
Déforestation
Agriculture itinerant
L’intensification Agricole
Perte des nutriments
Sols infertiles
Insécurité alimentaire
Faible rendement
Croissance limitée
Ravageurs et Maladies
Defies
Solution
Sustainable intensification to improve livelihoods and conserve the forests of the Congo basin

Land sharing or sparing – actors, institutions and sustainable scaling

Conservation is only successful if two conditions are fulfilled simultaneously:

(i) agricultural livelihood options that are providing attractive alternatives for farmers, and

(ii) a conducive and 'home-owned' policy and institutional environment to protect the forest.

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Background: Finance need in protected area landscape

**General needs**

- Human resources for Biodiversity conservation
- Physical maintenance of the landscape
- Operating cost for several activities (meetings, etc...)
- Livelihood of rural communities (including agriculture)

**Agricultural needs**

- Extension services
- Physical maintenance of agric networks (road, keeping facilities, etc...)
- Operating cost for several meeting
- biological and technical materials acquisition
Sustainable agriculture intensification for forest conservation

- Reduce pressure on forest resources
- Introduction of improved germplasm (cassava, maize, rice, groundnuts, soybean and cowpea)
- On-farm demonstrations
- Small-scale processing to minimize post-harvest losses
- Capacity building
- Linking farmers to markets
Governing productive conservation Innovations

**Micro-zoning:** designated agro-ecological zones by AWF for agricultural intensification by IITA and enforcement capacity of wild life conservation by Juristriale.

**Quid-pro-quo:** agreement signed by farmers’ associations to intensify agriculture in designated agro-ecological zones without encroaching into primary forest.

**Market Access:** construction of storage centers by IITA & boat evacuation of produce to market.

**Value addition:** processing of groundnuts and soybeans into milk; processing of cassava tubers into cassava chips.

**GIS:** Satellite data of forest cover change provided by the University of Maryland.

Fig. 2: A game-changing governance model for productive conservation
The Central African Regional Program or the Environment in the Equateur Province, DRC – AWF/USAID
Fig. 1: Differences in groundnut fresh pod yield (kg/ha) as influenced by the number of weeding and inter-row spacing.
Mapping adoption of productive technological innovations

Table 1: Differences in on-farm yields of cassava, maize and groundnut varieties.

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<th>Rendement (t/ha)</th>
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Fig. 3: Proportion of crop varieties identified on-farm (N=221)
Sustainable agriculture intensification

Cassava and Plantains

- Reduce pressure on forest resources
- Introduction of improved germplasm (cassava, plantain).
- Integrated pest management (cassava and plantains)
- Soil fertility management
- Capacity building
- Market studies and linking farms to markets
- Prospects of linking it to new projects
Conclusion and way forward

Agricultural finance

- Mainly from donors to conservation agencies !!!
- Farmers association contribution (Co – Management)
- Main efforts to solve on-farm constraints
- Gradual efforts to address other components of the value chain
Conclusion and way forward

Agricultural finance

➔ How to support paradigm changes of the entire stakeholders working at the landscapes level?

➔ How to use intensified agricultural as important component of PES (Payment for Ecosystem Services) at the protected area landscape?

➔ How to finance the mainstreaming of Agriculture into forestry sector (and Vice Versa) at the national level?
Thanks for your kind attention