

# 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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**Session 2.** Governance and Sustainable Financing of Protected Areas

**Stream 2 :** Conservation and sustainable use of wildlife resources,  
including fight against Poaching and wildlife trafficking

**Congo Basin Forest Partnership (CBFP) meeting of Parties,  
Kigali (Rwanda), 21 to 26 November 2016**

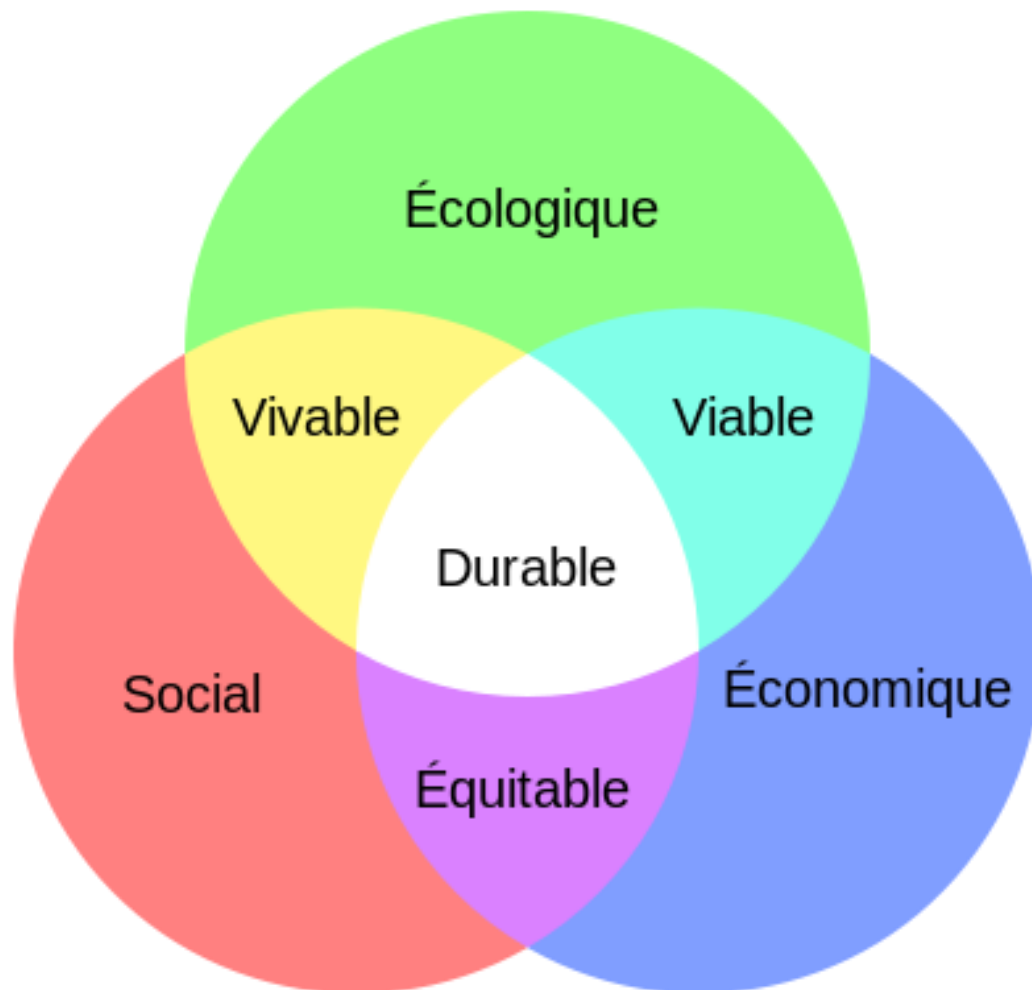
# Plan



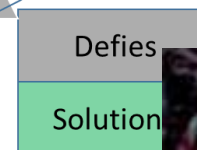
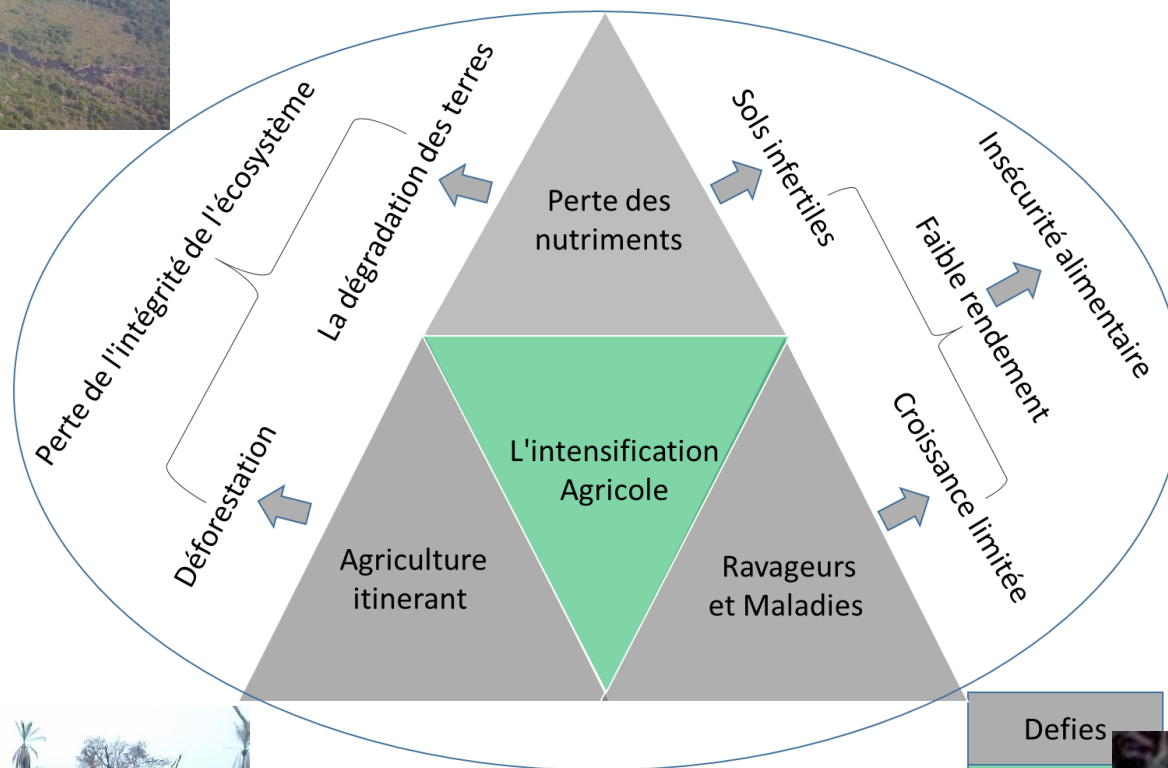
- ➔ Background
- ➔ Activities in DRC
- ➔ Activities in Cameroon
- ➔ Conclusion and way forward

# Background

Lien entre les piliers du développement durable: Ecologie, Social, Economie



## Contraintes et opportunités d'Agriculture Durable



## Land sharing or sparing – actors, institutions and sustainable scaling

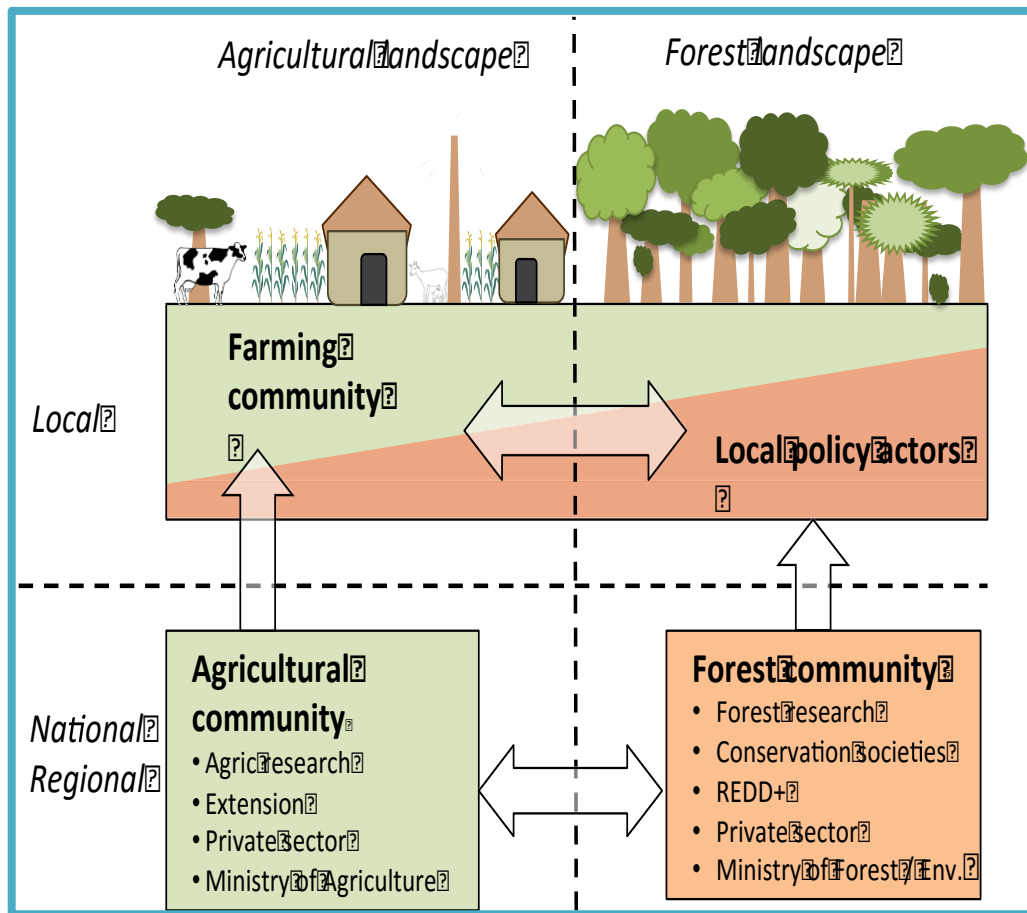


Fig: Vertical arrows are common, but neither horizontal arrows nor diagonal arrows (no depicted) are sufficiently developed for joint planning. Simultaneous and equal involvement of all actors is needed to achieve the dual objective of improving livelihoods and conserving forests

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)

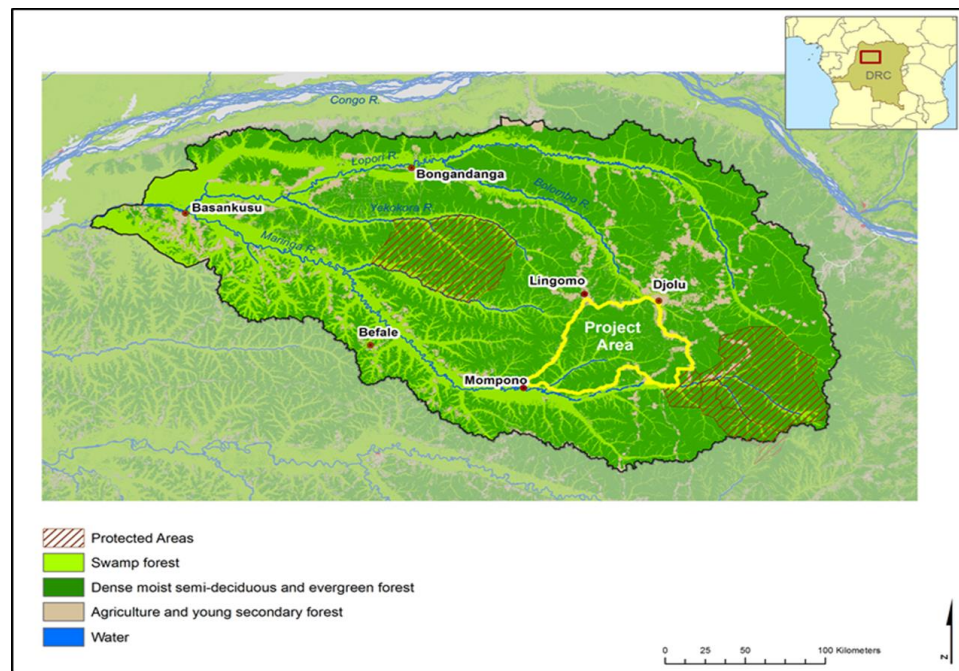
## Agricultural needs

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

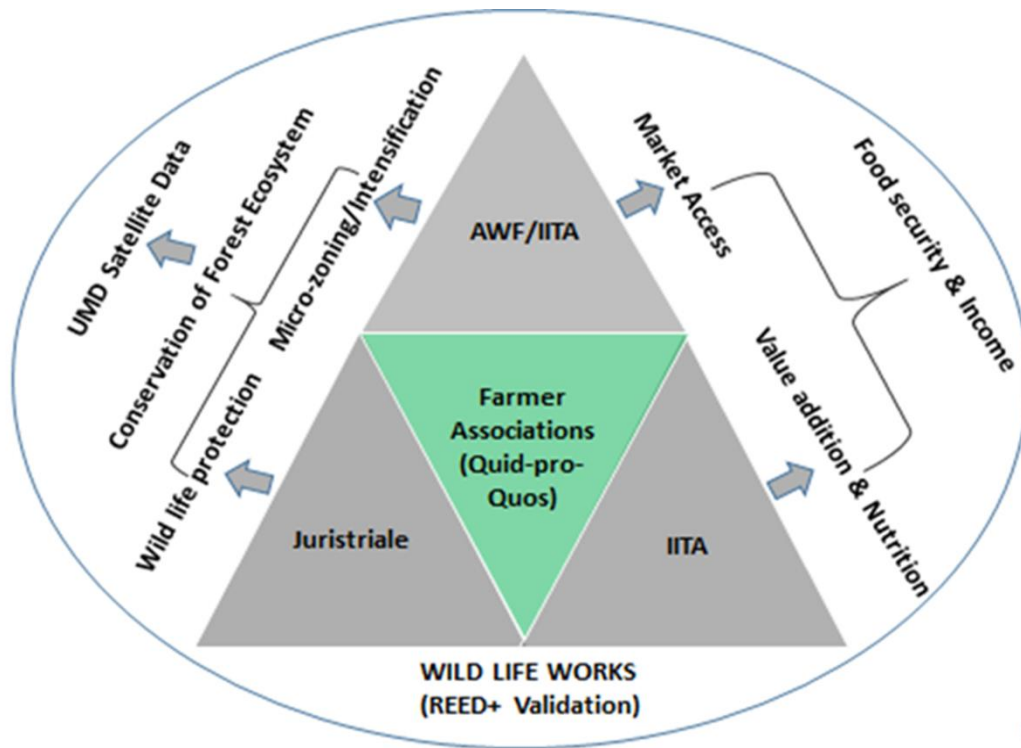


## **Sustainable agriculture intensification for forest conservation**

- 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-quos:** 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

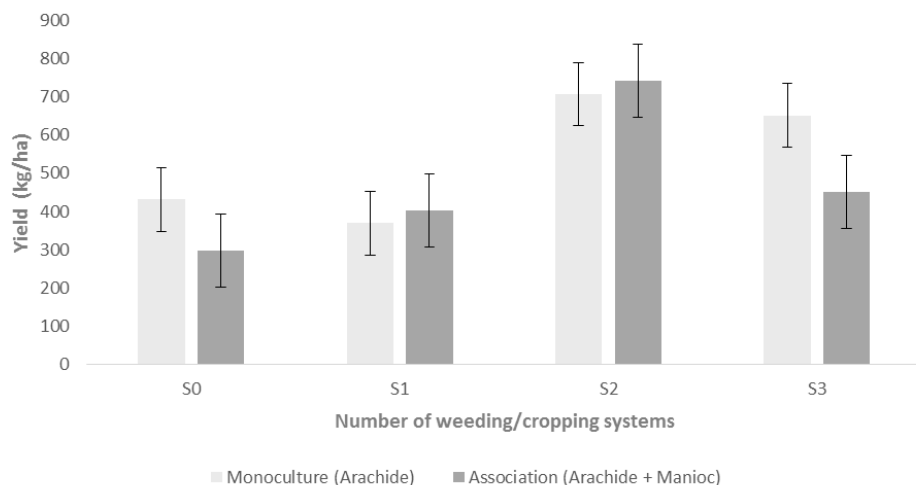
**GIS:** Satellite data of forest cover change provided by the University of Maryland.

Fig. 2: A game-changing governance model for productive conservation

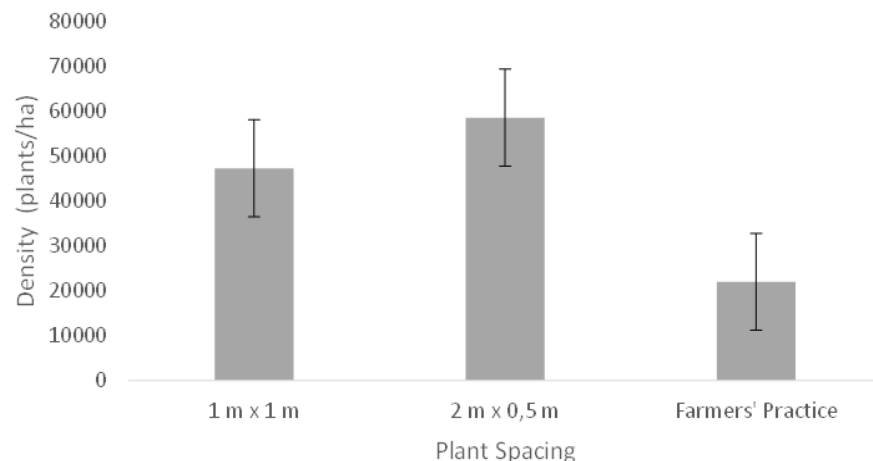




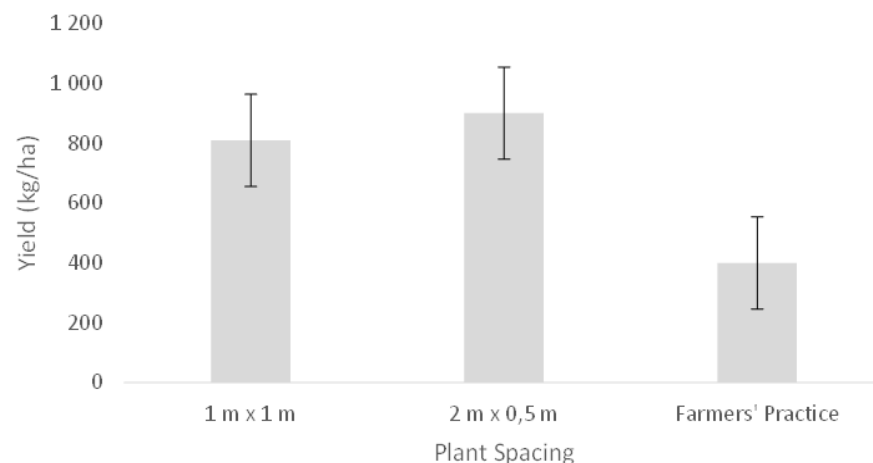
**Yield (kg/ha) as influenced by the number of weeding and type of cropping systems**



**Density**



**Yield (kg/ha)**



**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

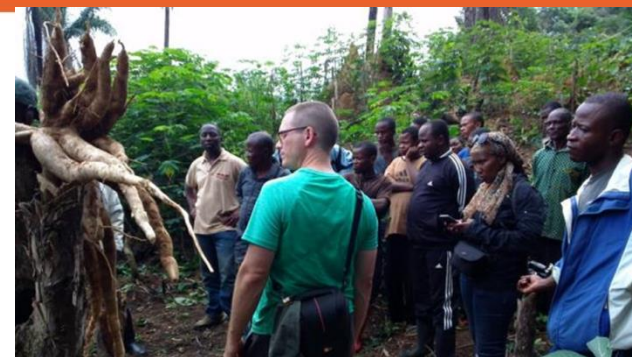


Table 1: Differences in on-farm yields of cassava, maize and groundnut varieties.

| Culture  | Varietes | Rendement (t/ha) |
|----------|----------|------------------|
| Manioc   | Obama    | 41.9             |
|          | Nsansi   | 38.9             |
|          | Autres   | 38.0             |
|          | Local    | 18.5             |
| Mais     | Local    | 2.7              |
| Arachide | JL24     | 0.120            |
|          | Local    | 0.074            |

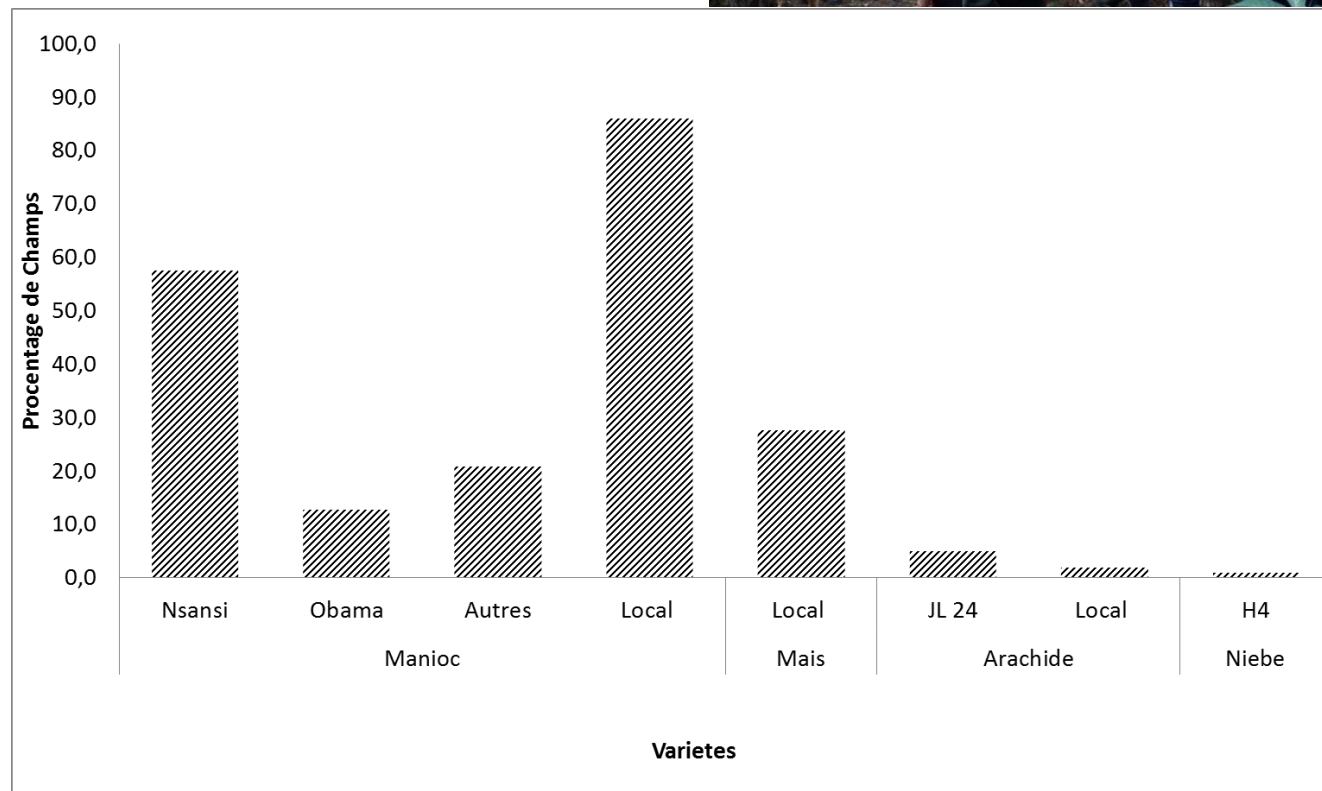
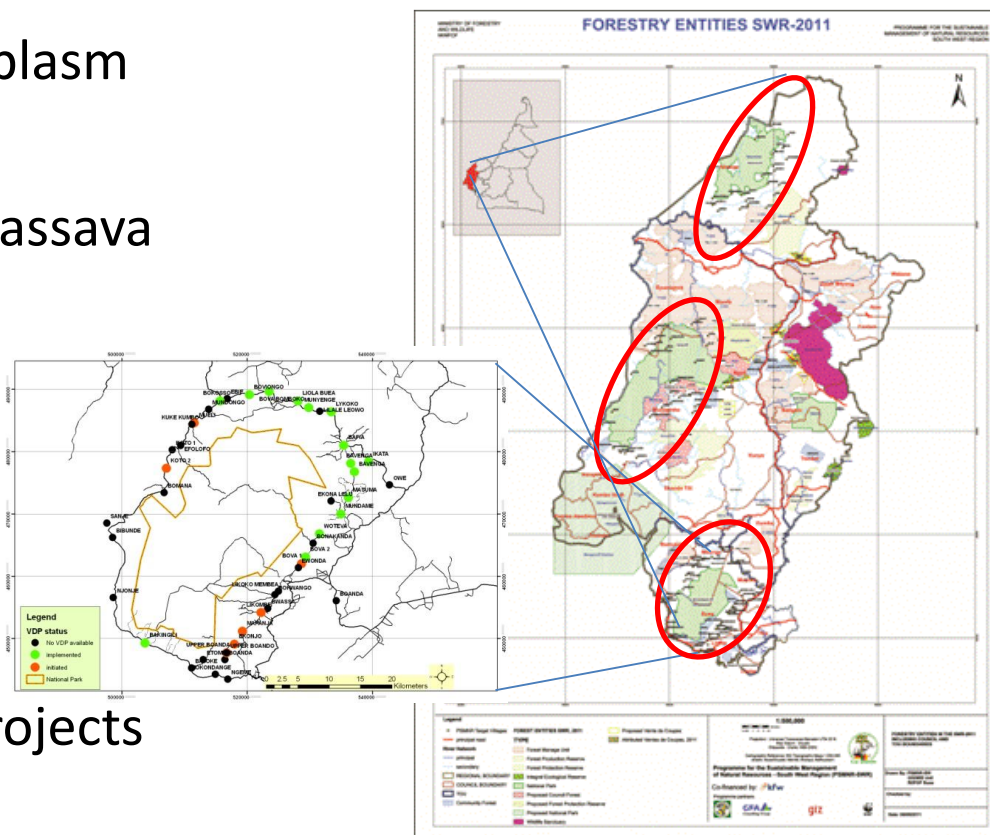


Fig. 3: Proportion of crop varieties identified on-farm (N=221)

# 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 farm 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**