Potential for biodiversity conservation of three legal land uses in Central Africa: industrial logging concessions, protected areas, and community forests

Jean-Louis Doucet
Central African moist forests host endemic and flagship species
**Afzelia bipindensis**
Doussié

**Guibourtia tessmannii**
Bubinga

**Afromosia elata**
Arformosia

High-value timber species widely imported in Belgium
Forested lands in Central Africa belongs to the States

Only the States can deliver titles and concessions: e.g. logging concessions, protected areas, community forests

Local user rights can be fully exercised in non officially titled lands

Potential for biodiversity conservation of these land uses?
Non officially titled lands
Consist of:
- remnant mature forest patches
- secondary forests
- fallows
- agriculture plots
Agricultural systems:

- shifting cultivation: dominant

- permanent agriculture: in the most densely populated areas
Shifting cultivation: 440,000 km²

**Crop**

**Old secondary or mature forest**

< 40 hab / km²

**Fallow**

De Wachter (2001)

Morin *et al.* (2014)

Biwole *et al.* (2015)

Officially titled lands
Industrial logging concessions

- ≈ 400 long-term concessions, 500,000 km², granted for 20-30 years, 38% with approved management plan, 17% certified (sustainable forest management - SFM - or legality).
Protected areas

- 314 protected areas, \( \approx 450,000 \text{ km}^2 \)
- 60\%: strict nature reserves or national parks (IUCN categories I-II)
- 3\% with an approved management plan

Nasi et al. (2012)
Community forests

- ≈ 270 community forests, 9,000 km²
- In national forestry laws but only implemented in Cameroon and recently in Gabon
- Granted to a community for 20-25 years

Doucet et al. (2012)
Non officially titled lands
- no management
- poaching and illegal logging for domestic markets

Protected areas:
- strict conservation, research, ecotourism
- preservation of services
- some area under high pressures (conflicts,...)

Community forest:
- limited areas
- management for timber, (NTFP)
- no game management
Logging and biodiversity
Common features of logging concessions in Central Africa:

- multi-resources inventories
- list of commercial species
- zoning of the concession: production, protection, traditional uses by local populations, infrastructures
- rotation: 20-30 years
- recovery rates and minimum cutting diameters
- 1-2 trees logged per ha
- reduced impact on forest cover
Impacts of logging on biodiversity in the three tropical basins:

Putz et al. (2012)
SFM certified concession

Clark et al. (2009)
## Forest Stewardship Standard for the Republic of Cameroon

**Norme FSC pour la certification des forêts – République du Cameroun.**

*Required for FSC certification of forests in Cameroon.*

### Key Elements

- **Community Involvement and Participation:**
  - Principle 3.2.1: Participation of stakeholders
  - Principle 3.2.2: Decision-making process

- **Stewardship:**
  - Principle 5.6.1: Good governance and accountability
  - Principle 5.6.2: Financial management

- **Sustainability Practices:**
  - Principle 4.1.1: Ecosystem health
  - Principle 4.1.2: Biodiversity

- **Reporting and Transparency:**
  - Principle 7.1.1: Access to information
  - Principle 7.1.2: Accountability and management of complaints

### Implementation Guidelines

1. **Stakeholder Engagement:**
   - Regular communication
   - Conflict resolution mechanisms

2. **Financial Management:**
   - Transparency in budget allocation
   - Proactive management of financial resources

3. **Ecosystem Health:**
   - Monitoring biodiversity
   - Conservation of natural habitats

4. **Biodiversity:**
   - Identification of threatened species
   - Protection of biodiversity hotspots

5. **Good Governance:**
   - Impact assessment
   - Anti-corruption strategies

For further details, please refer to the comprehensive guide available from the FSC International Center.

---

**Note:**
- This overview covers the essential aspects of the Forest Stewardship Council's standard for Cameroon. For a detailed evaluation, consult the official documents provided by FSC.
FSC-certified companies:

- improved zoning plan: 10% of protected areas

- HVC identification, monitoring and management
► reduced impact logging

► road network control
➢ pro-active control of hunting

➢ alternatives to bushmeat
Conclusion
Our results suggest that logged forest can extend the conservation estate for many of Central Africa’s most threatened species if managed appropriately. In addition to limiting hunting, logging concessions must be large, contain patches of unlogged forest, and include forest with different logging histories.
SFM-certified concessions and well managed CF = buffer zones
Ex: SE Cameroon
Merci pour votre attention
References:


Pictures and maps:

JL. Doucet, JY. De Vleeschouwer, B. Haurez, J. Laporte, JF. Gillet, S. Rougeron, S. Lhoest, M. Vandenhaute.