The forests of the Congo Basin: Deforestation and food security

Richard Eba’a Atyi
Workshop on Net Zero Émission Food Systems
Aspen, CO, 21-23 August 2022
Based on Dalimier et al. (2022). Distribution of forest types and changes in their classification In Eba’a Atyi et al. 2022. The Forest of the Congo Basin: State of the Forests 2021. Bogor, Indonesia, CIFOR.
The general context of forest management and conservation in central Africa
A young population and strong population growth

Current population estimates:
163 million inhabitants (20-30 millions) living in near proximity of the forests

Fertility rate still high:
6-7 children per woman (exception of Gabon and CAR)

Population growth:
2.5 – 3% per annum

Projection of total population in 2050:
384 millions inhabitants

45% of the population is under 15 years old
while about 3% is older that 60 years
Migration

Voluntary migration
Voluntary displacement of individuals or populations from one country to another or from one region to another, for economic, social, political or cultural reasons (Economic benefit).

Force migration
The IOM defines forced migration as "involuntary, forced and suffered migration caused by a variety of factors, but which involves the use of force, coercion or duress", The main consequences are refugee crisis, impact and pressure on natural resources, agriculture and food system and social, (RCA, RDC Cameroon are the most affected by this type of migration)
In 2020 281.6 million African were undernourished.

Central Africa needs to produce more foodstuff for its inhabitants.
An increasingly land-demanding agriculture

- Generalization of slash and burn
- The increase in production is coupled with the increase in cultivated areas
- Due to the increasing population density, the clearing-use-fallow cycle is considerably reduced. Fallow land, the duration of which is gradually reduced, no longer allows the soil to regenerate sufficiently. Yields on these plots are therefore reduced.
- Shrinking of available areas per capita: land has become a coveted resource. The increase in population density thus leads to major competition in space.
- Ongoing development of agribusiness
Conclusion on the general context of central Africa

A growing young population to feed today and tomorrow

Forced migration within the subregion has an impact on the use of natural resources and agricultural production

Subsistence agriculture with low productivity and high land demand

Undeniable infrastructure construction needs

A mining sector to be developed in coherence with other land use sectors
The biological diversity of central Africa

- Central Africa is a priority region for biodiversity conservation because of its exceptional heritage and high level of endemism.

- Its ecosystems have the value of a common good, both for current generations, particularly the 40 million people who benefit from the natural resources they provide, and for future generations.

- As in the rest of the planet, the biodiversity of the subregion is threatened, particularly through poaching (better organized and equipped), deforestation and the expansion of shifting agriculture or so-called "development" activities.
The forest cover and trends of its evolution
Overview of the forests of the Congo Basin

• The second largest block of dense moist forest after the Amazon
• Large areas of almost untouched dense forests, but an increasing trend towards deforestation and degradation
• The Democratic Republic of the Congo is the African country with the largest remaining expanse of undisturbed moist forest with 105.8 million ha, and it is the second largest in the tropical world behind Brazil and before Indonesia
• Gabon, Cameroon and the Republic of Congo have similar areas of remaining intact forests (between 19.8 and 23.4 million ha in 2019).
• A unique carbon sequestration capacity at global level
• Central African forests, represent a lifeline for the whole of humanity that is faced with the climate crisis and the extinction of biodiversity elements.

• The fate of the Congo Basin forests must therefore be seen as a joint responsibility of the countries of Central Africa and the international community,
Trends and evolution: food system as a driver of deforestation

- The surface area of evergreen and semi-deciduous forests of Central Africa is estimated at about 200 million ha in January 2020 including 184.7 million ha with no visible sign of disturbances (Vancutsem et al. 2020)
- Overall close to 9 percent of the tropical moist forest area of Central Africa have disappeared since 2000, i.e. 18 million ha.
- In all Central African countries, there has been an increase in annual rates of disturbances since 2009.
- Without a slowdown in the present (last 10 years) disturbance rates, the Democratic Republic of the Congo would lose 22 percent of its moist forests by year 2050.
- Deforestation in central Africa is more closely related to subsistence agriculture, small-scale charcoal production and gathering of wood for fuel.
- Shifting cultivation is a widespread driver of forest disturbance in sub Saharan Africa.
- About 60 percent of new farmlands came from intact forests in the 1980s and 1990s, and was mainly used for small-scale and subsistence farming and breeding.
- The expansion of farmland areas, a growing population and the expansion of urban infrastructure are key drivers of deforestation.
A few ideas

- In central Africa moving towards zero émission food systems is inherent with reducing de forestation.
Thank you

CIFOR-ICRAF envisions a world in which people enjoy livelihoods supported by healthy, productive landscapes made resilient through the transformative power of forests, trees and agroforestry.