



**International Seminar for Climate Change and  
Forests**

**The Future of REDD+**

**Interpreting FREL/FRL for Post-2020 Framework-  
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# **DRC Forest Reference Emission Level Methodological Framework**

**KAYEMBE MUMONAYI François & TG FREL/FRL - DRC**

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# Summary

- Introduction
- Scale of the DRC FREL
- Scope of the FREL
- Emission Factors
- FREL Construction Approach
- FREL Improvement
- The future of REDD+ for DRC

# Major milestones of the REDD+ 6-years roll-out in DRC

## National Forest Monitoring System in place

First steps towards a National Forest Inventory achieved

National Inventory of Greenhouse Gas Emission

Satellite-based Forest Monitoring System – National Capacity Building

## National REDD+ Strategy Framework

Appropriation at the highest political level

Wide consultation at the national scale : Local people, Gender, Civil Society

Research Centers & Universities

## REDD+ Projects Implementation

Identification of REDD+ interest zones across the country

Involvement of the Private Sector

Lessons learned for the national REDD+ strategy

# DRC FREL Submission at the COP22

## DRC FREL will be submitted at the next COP under UNFCCC

Methodology under finalization (March, 2016)

FREL quantification

Adjustment under discussion

Possible inclusion of the forest degradation and carbon stock enhancement components

# Subnational FREL as an interim measure

## Set of objective criteria to select the appropriate Scale

- Zones of REDD+ interest at the national scale
- Appropriation by local Governments
- Hot spots of forest cover loss
- Existing capacity for the implementation of REDD+ activities
- Opportunities for co-benefices
- National priorities strategy

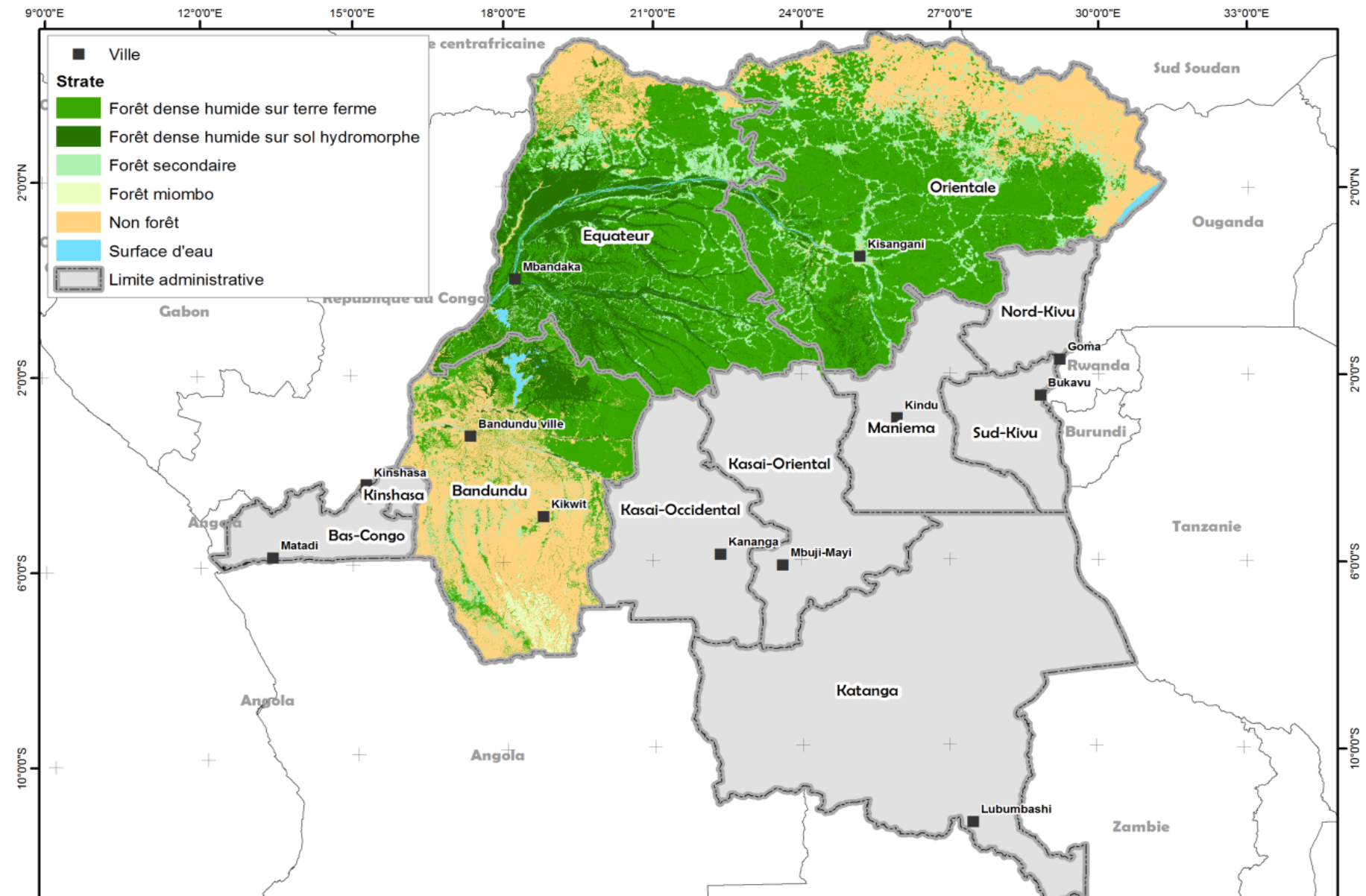
## Three Provinces of Bandundu, Equateur and Oriental

- Three first forested provinces of the Country
- 1,205,200 sq.km – 51% of the national territory – 58% of the country forest are
- 50% of the country total forest cover loss between 2000 and 2014
- Charcoal supply basins for major DRC cities: Kinshasa, Kisangani, Goma, Mbandaka

## Existing REDD+ Projects under implementation

- Opportunities to engage discussions with REDD+ Project Leaders
- Involvement of the Private Sector and lessons learned for the national strategy

# Subnational FREL as an interim measure



# Choice of the Scope is mainly data-driven

## Deforestation data are obtained through the NFMS

Analysis period 1990 - 2014

Two points of change are already available 1990 – 2010 ; 2010 – 2014;

and

1990-2000; is in process.

FREL reference period 2000 - 2014

Additional points of change will be integrated

Transparent and consistent methodology for forest cover mapping and  
forest cover change detection

## Forest degradation is an important activity for the FREL

Confirmed by grey literature

Important gap in historical forest degradation data at the reference scale

Current studies for retrieving forest degradation data (forest logging  
data, household wood energy consumption, etc.)

# Choice of the Scope is mainly data-driven

## Above and Below Ground Biomass in the sub-national FREL

Existing data for all the other carbon pools

Need for consolidation of these data at the reference scale

## CO<sub>2</sub> is the only gas taken into account

In accordance with the national greenhouse gas inventory



# AD are obtained from remote sensing

## Existing capacity at the country level for RS-based forest monitoring

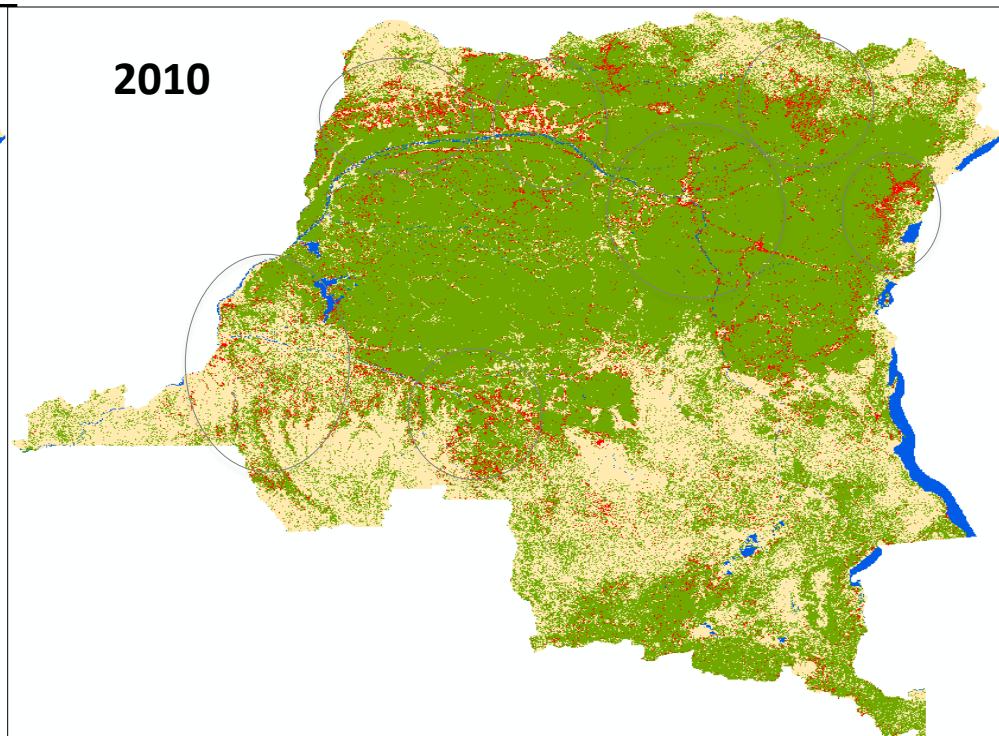
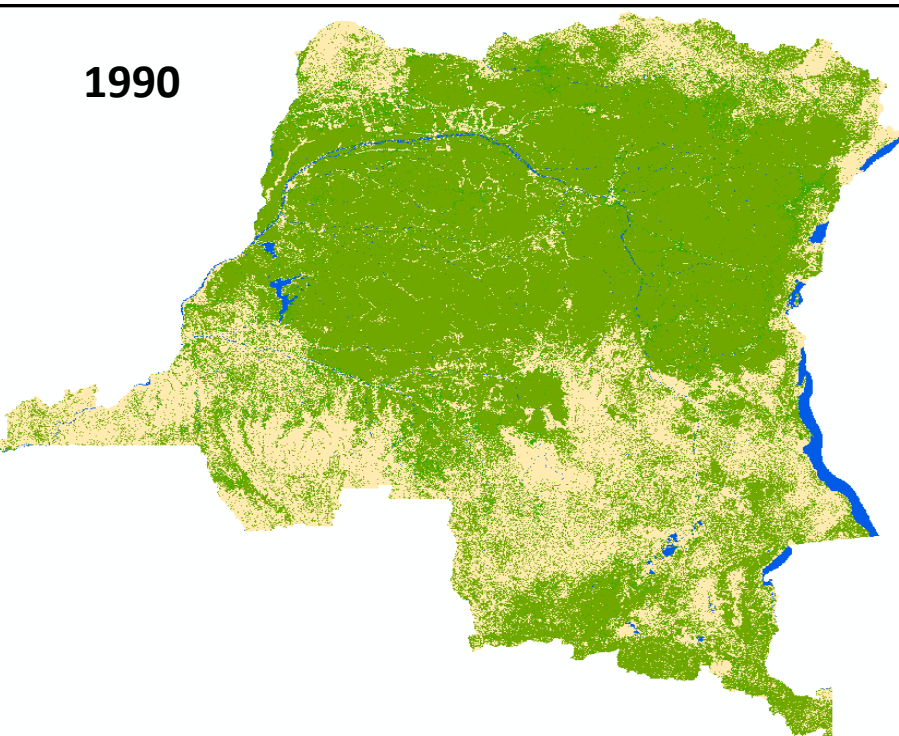
Architecture for satellite imagery gathering

Transparent methodology for change detection

Based on the Brazilian forest cover change monitoring (INPE) and Google Earth

Engine;

Ground truthing validation



# EF are obtained through forest inventory

## Pre-Inventory data for Equateur and Oriental Provinces

### National Forest Inventory in the Bandundu Province

Data for all carbon pools are available but need for consolidation at the three province level

ABG and BGB will be included

Chave (2014) will be used as an interim measure

DRC conservative estimates of forest carbon emissions (Chave 2005 vs. 2014)

Example for the Bandundu Province : 124 sq. parcels of 60mx60m and 610 circular parcels of 30m diameter)

RESERVOIR	TYPE SPECIFIQUE	BIOMASSE PAR HA	C PAR HA	CO2E PAR HA
Biomasse des arbres vivants	Aerienne	332,00 / 275,91	156,04 / 129.68	572,14 / 475.49
	Souterraine	58,36 / 49.53	27,43 / 23.28	100,57 / 85.36
	Total	390,36 / 325.44	183,47 / 152.96	672,71 / 560.85
	Arbres morts	15,98	7,51	27.55
	Litiere	10,81	5,08	18,63
	Total	26,79	12,59	46.18
Matiere organique du sol			136,59	500,83
Total			332,65 / 302.14	1.219,72 / 1,107.86

# EF are obtained through forest inventory

## 4 forest strata derived from the national scheme of forest stratification

- Dense moist forest (Foret dense humide sur terre ferme)
- Edaphic forest (Foret dense humide sur sol hydromorphe)
- Secondary forest (Foret secondaire)
- Open forest and dense woodland (Foret seche ou foret claire - Miombo)

## An emission factor will be derived for each stratum

## Ongoing analysis of the forest stratification compatibility with the forest stratification of the:

- Mai-Ndombe REDD+ Project (Southwestern DRC)
- Mambasa and Isangi REDD+ Project (Eastern DRC)
- REDD+ Pilot Projects in Mbuji-Mayi and Kananga (Middle-South of the country)

# Average of historical emissions

## Reference period is 2000-2014

Validity period  $\geq 5$  years

Emission changes computed each 2-3 years

## High Forested and Low Deforested Country - Adjustment needed

National Consensus on drivers of forest cover change

Existing studies on projected forest cover change

Assessment of existing development plans and their potential impacts

# DRC FREL improvement

- (1) Computation of emission changes
- (2) Consolidation of emission factors
- (3) Finalizing the adjustment approach
- (4) Finalizing the current study on allometric equations
- (5) Inclusion of forest degradation and carbon stock enhancement

# The future of REDD+ for DRC

- DRC ask a general mobilization of the World states to fight against climate change;
- Great importance to adaptation actions and mitigation that takes into account the principle of differentiation in relation to the historical responsibility of developed countries;
- Submitted its Intended National Determined Contributions (INDCs) in August 18, 2015;
- Despite its status as a weak transmitter, it has thus committed itself to reducing its emissions of greenhouse gases by 17% between 2020 and 2030 ;
- The priorities for the DRC are, on adaptation, on technology transfer, on capacity building, funding and resilience to climate change as well on reducing greenhouse gas emissions by developing renewable energy sources;

**Thanks for your attention!**  
**“Merci beaucoup”**

