



## Forest Carbon Partnership Facility

# DRC ER-PIN - The Maï Ndombe ER Program

Ninth Meeting of the Carbon Fund (CF9)

Brussels

April 9-11, 2014



République Démocratique du Congo



# Outline

1. **Context of DRC, Program Location and Background**
2. **Goals, Activities and Governance**
3. **REL and Financing**
4. **Why Choose DRC?**



# Outline

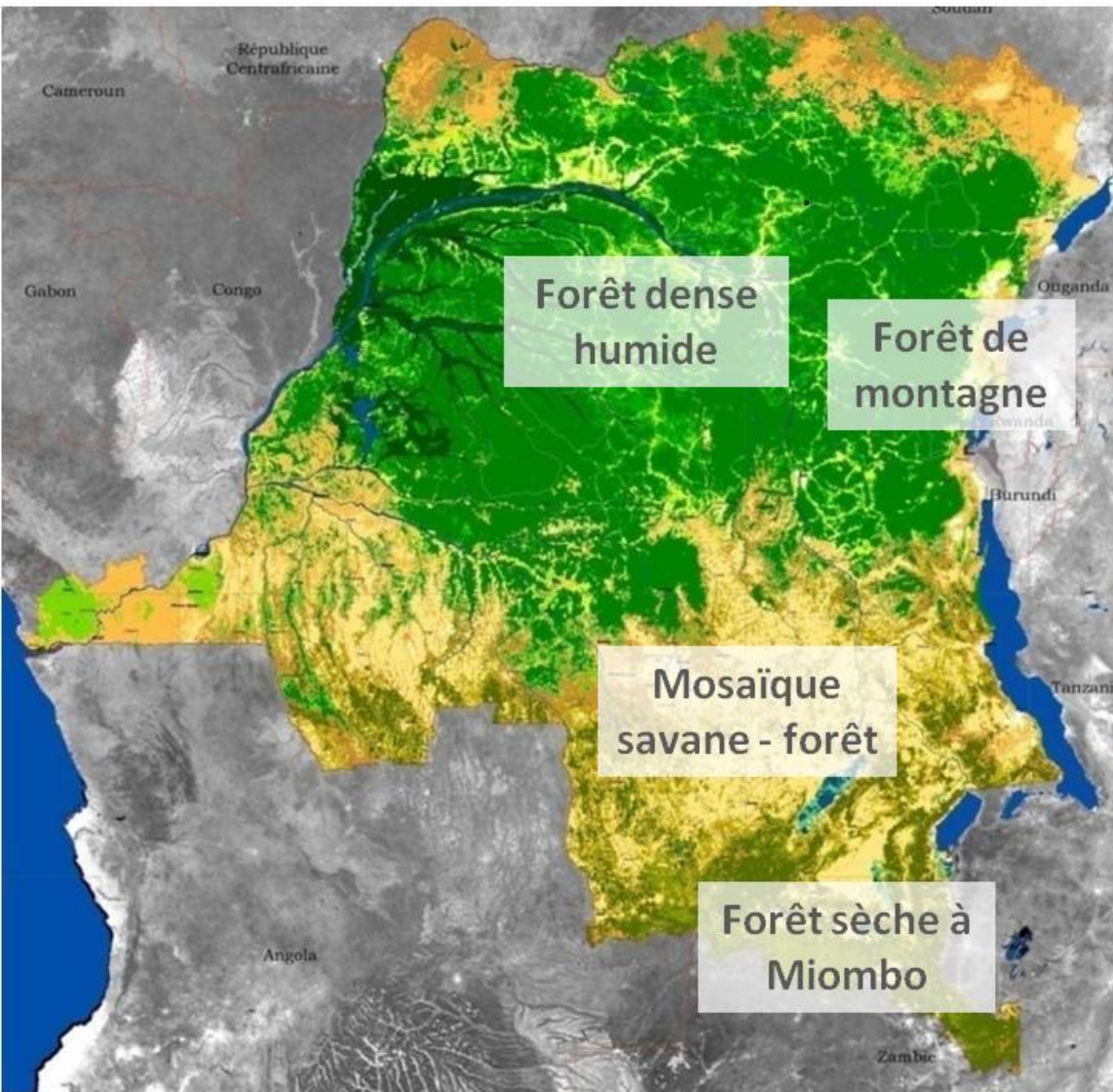
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# Democratic Republic of the Congo

## A global test case for HFLD

4



- **Vast country: 234 million ha (6 x Norway)**
- **70 million inhabitants (2010), unevenly distributed**
- **155 millions ha of forests\* (67% of national territory):  $\approx$  10% of world tropical forest (2<sup>nd</sup> largest tropical forest country)**
- **Congolese forest stocks  $\approx$  140Gt CO<sub>2e</sub> ( $\approx$  3 years of world emissions)**
- **Deforestation: 2000-2010 = 0,34%/year : low rate, but equivalent to 5.4M ha of forest (more than Denmark; 2X the US state of Maryland!)**

\* Source: OSFAC, 2011

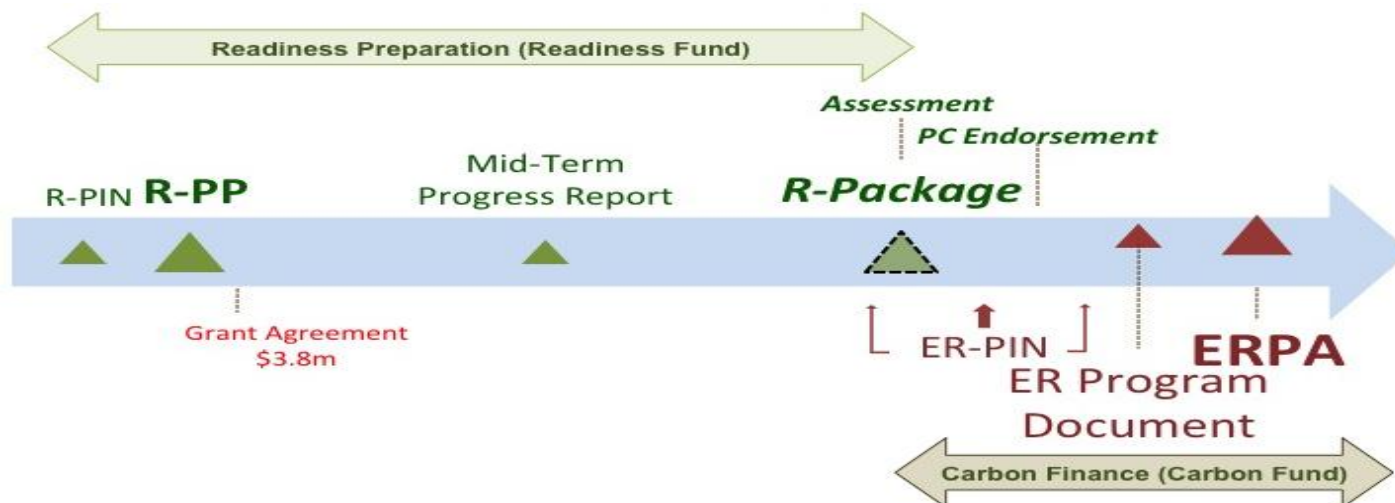
# DRC is leading Africa in REDD+ Readiness

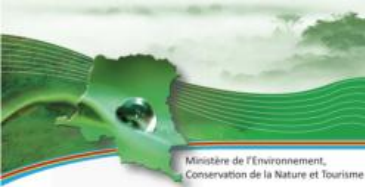
## First country in Africa with a ...

- Validated REDD+ Readiness Preparation Proposal (2010)
- Validated FIP Investment Plan (2011)
- Regulatory Framework for REDD+ project approval (2012)
- [National REDD+ Registry](#) (2012)
- [National Forest Monitoring System](#) (2012)

## Among the first countries in the world to have...

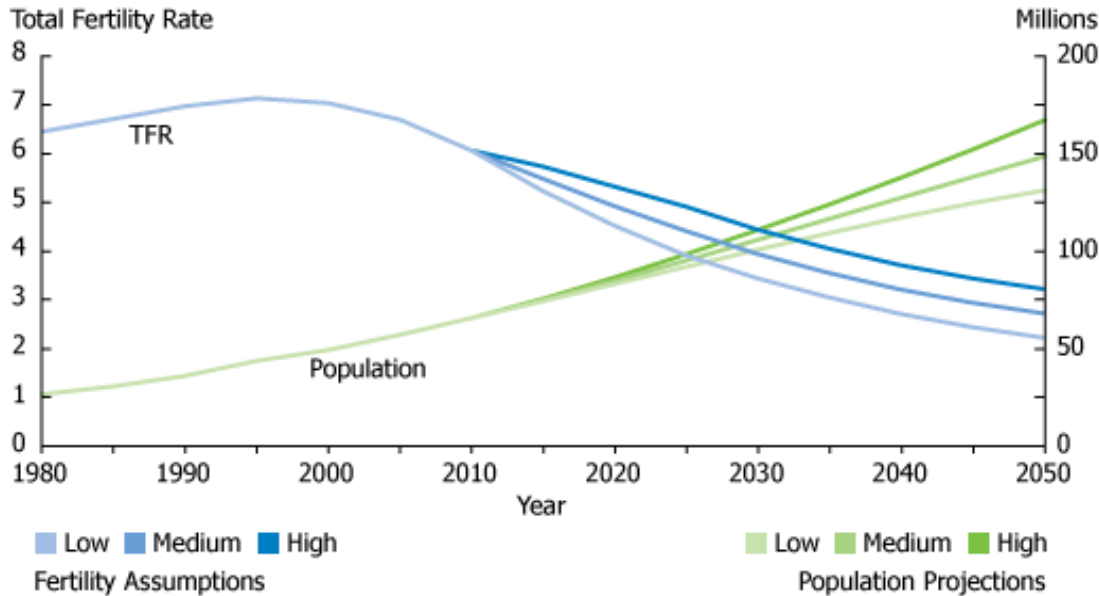
- National REDD+ Trust Fund (2012)
- National REDD+ Standards (2012)
- National Strategy Framework based on national consensus on drivers of D/D (2012)
- Additional FCPF Preparation funding to finalize R-Package (Jan 2014)
- SESA/ESMF (expected mid 2014)





# DRC's Predicted Population Growth

Multiple sources predict extraordinary growth by 2020



Source: Population Reference Bureau 2012

- >90% of households involved in agriculture
- Population growth 2-3% /yr
- Predicted to double from nearly 60 million in 2005 to approx 120 million by 2020

Average Annual Population Growth			
Years	2010-2015	2015-2020	2020-2025
DRC	2.62%	2.47%	2.29%
DRC – rural zones	1.77%	1.55%	1.30%
DRC – urban zones	4.19%	3.97%	3.72%

Source: UN Department of Economic and Social Affairs, 2011



# DRC Political Commitment

## Supported by DRC Leaders at all Levels

### The ERPIN has been presented by DRC senior leaders at key national and international events

- Concept of “Green Development” initiated in DRC by His Excellency, **Head of State**, President Kabila at a High-Level Forum on Forests and Climate Change in Oct 2011.
- ER Program first proposed to the Carbon Fund in Santa Marta, Colombia in June 2012.
- Presentation of the ER Program and National Forest Monitoring System at COP17 in Durban by DRC **Minister of Environment**; and the National REDD Strategy, and National REDD Fund at COP18 in Doha by the DRC **Vice Prime Minister**.
- DRC **Cabinet** approved first submission of ERPIN in May 2013 (v1) and current version in March 2014 (v2).
- **Provincial Governor** and **Environment Minister from Bandundu** Province have been deeply engaged in Program Design, including workshops, national and local presentations
- Program is aligned with the **FLEGT** process - Reduced-impact logging , Improving forest governance, with focus on illegal logging

# DRC Political Commitment

## Alignment with National Strategy

DRC sees the ER Program as a key vehicle to achieve National Development Goals and to implement the National REDD+ Framework Strategy

### National Development Goals (DSCR2)

#### Goals:

- Double digit average annual growth in GDP
- Eradication of poverty in 2025
- Intermediate HDI by 2025
- MDGs reached by 2020

### National REDD Framework Strategy

#### 2035 Goals:

- Forest cover stabilised at 63.5% national territory
- Zero net deforestation from 2030
- 56% reduction in emissions compared to RL ...

### Mai Ndombe ER Program

**Goal** - A *model provincial green development program* that provides alternatives and rewards performance to address the challenges of climate change, poverty reduction, natural resource conservation and protection of biodiversity

#### Objectives and Indicators

1. **Climate** ( $\Delta$  CO2 emissions )
2. **Biodiversity** ( $\Delta$  forest connectivity, target species)
3. **Rights** ( $\Delta$  tenure security – community, concession)
4. **Livelihoods** ( $\Delta$  MDG indicators)
5. **Governance** ( $\Delta$  institutional capability)





# Why Mai Ndombe Region?

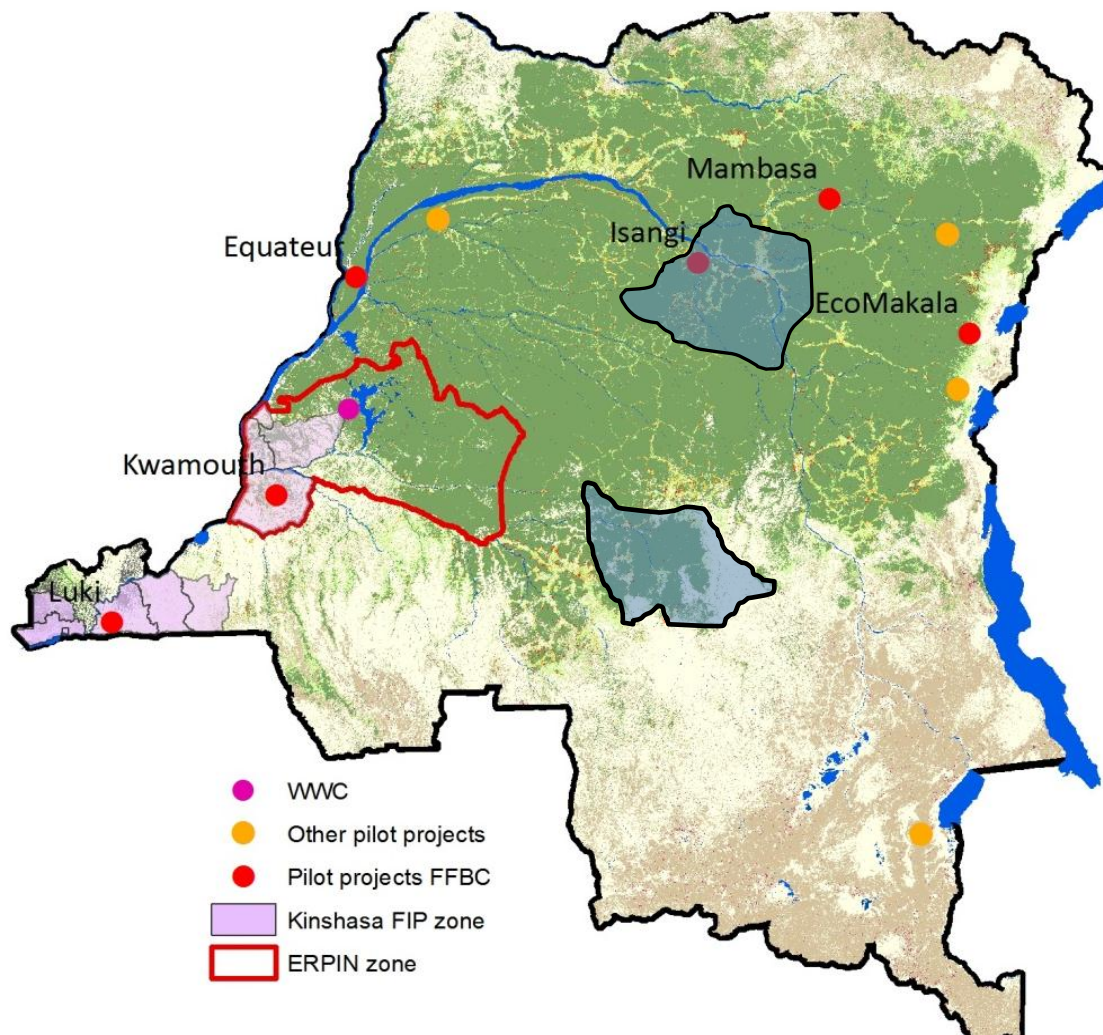
## A global biodiversity hotspot under extreme threat

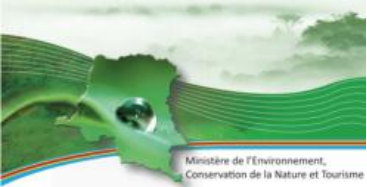
- **Location:** Districts of Plateau and Mai Ndombe
- Program Area of 12 million ha, containing **9.2 million ha of forest** which cover 75% of the jurisdiction.
- **Closest forest estate to Kinshasa and Deforestation Frontier of the Congo Basin** - under threat from growing charcoal, timber, food needs of nearly 10 million people. River and Road transportation improving, making previously inaccessible forest easily accessible
- **Pilot activities already existing** – WWF, WWC, Novacel, SODEFOR, SOGENAC, FIP investment, CARPE (USAID), CBFF
- Includes southern part of the **largest Ramsar site in the world “Tumba-Ngiri Mai Ndombe”**
- Includes part of **Salonga National Park** –threatened species such as the bonobo and chimpanzee; also home to elephant, buffalo, hippopotamus, leopard
- **1.8 million people**, many are agricultural households living in extreme poverty

# REDD+ Investments in DRC

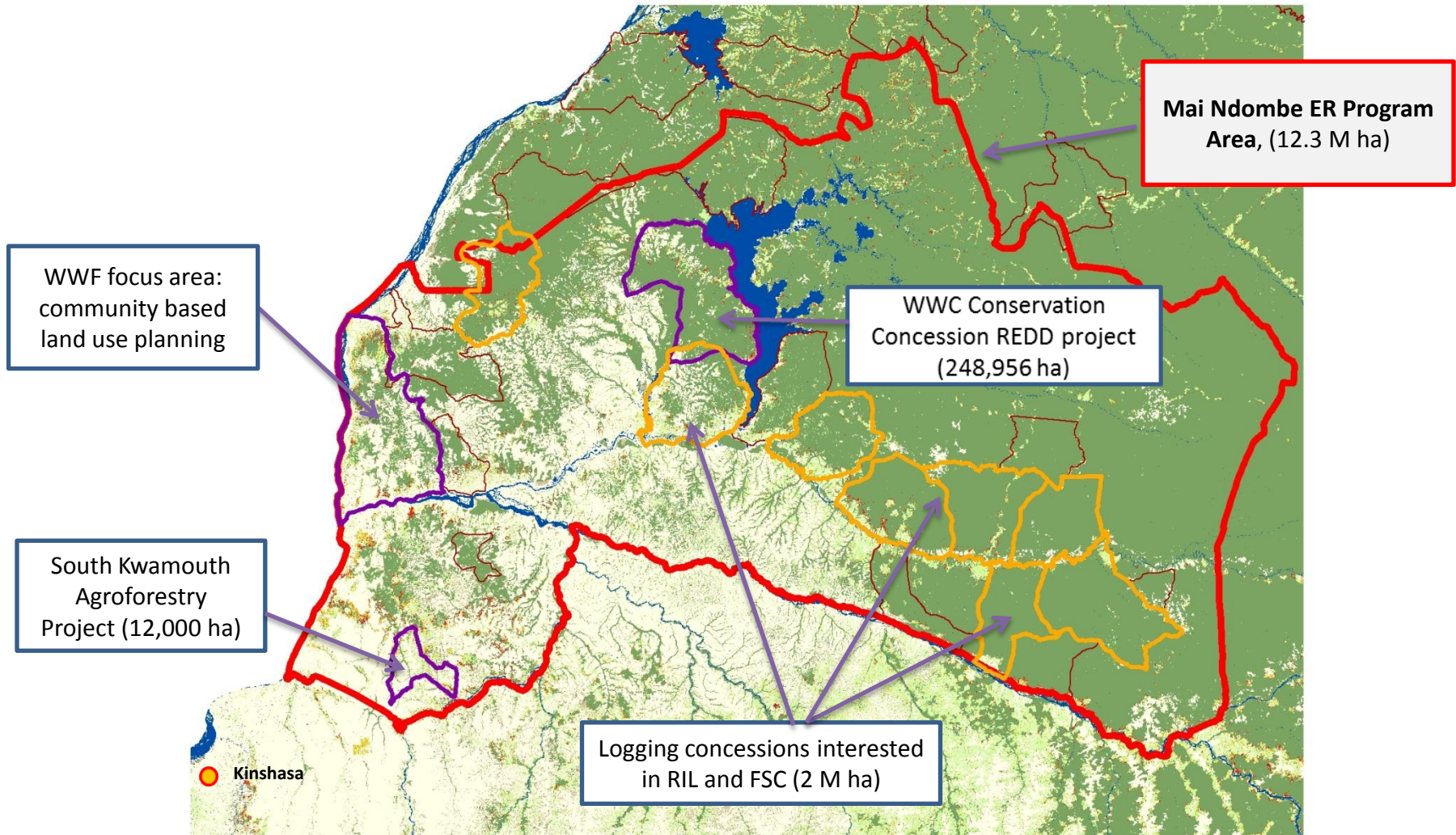
The ER Program will build on and integrate with **Existing Activities** within the jurisdiction

- **FIP** : Energy supply, Cookstoves program, Plantations for wood energy
- **CBFF** : FPIC design and REDD+ engagement/education
- **Novacel**: Agroforestry and plantations, avoided D/D
- **WWC**: Avoided D/D, ag intensification and diversification
- **WWF**: FPIC design and REDD+ engagement, micro-zoning





# ER Program Area



# Outline

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# Mai Ndombe ER Program

## Approach

- **Goal: a model provincial green development program that provides alternatives and rewards performance to address the challenges of climate change, poverty reduction, natural resource conservation and protection of biodiversity**
- Jurisdictional/Subnational REDD+ Program, integrated in National REDD+ Framework
- Aligns with the activities financed in the FIP, CBFF and CARPE, and includes both enabling and emission-reducing activities
- Pilots the **VCS Jurisdictional Nested REDD+** standard, and the **REDD+ SES** standard

# Mai Ndombe ER Program

## Key drivers and causes

### Direct causes:

- Slash-and-burn agriculture (subsistence and commercial)
- Wood energy production
- Uncontrolled Bush Fires
- Industrial forestry
- Illegal artisanal logging
- Other – cattle ranching, mining, etc.

### Underlying Causes:

- Population growth – increased demand for food and fuel
- Lack of alternatives
- Poverty
- Weak governance
- Low land productivity
- Improved accessibility to forest through roads and infrastructure



# DRC ER-PIN – Activities – Prioritization will take place in Design Phase, based on threat, potential impact, and budget

**Enabling and Non Carbon Activities** *establish the basis for being able to achieve emission reduction but do not achieve reductions themselves, and/or achieve non-carbon benefits as defined by the UNFCC*

ACTIVITY > DRIVERS	Education / Outreach	Support local governance	Compliance / enforcement	Land use planning / map validation / Tenure strengthening
Slash and burn	✓	✓		✓
Wood energy prodn	✓	✓		✓
Bushfire	✓	✓	✓	✓
Industrial forestry	✓		✓	
Illegal logging	✓	✓	✓	✓
Ranching / mining	✓		✓	

**Emission Reduction Activities** *directly reduce CO2 emissions*

ACTIVITY > DRIVERS	RIL	ReAfforestation	Agro-forestry / Ag intensification	Bushfire control	Conservation concessions	Community forest mgt	Energy alternatives / efficiency
Slash and burn			✓	✓	✓	✓	
Wood energy prodn		✓	✓		✓	✓	✓
Bushfire			✓	✓			
Industrial forestry	✓				✓	✓	
Illegal logging					✓	✓	
Ranching / mining				✓			

# DRC ER-PIN

## Non-carbon benefits

The ER Program is expected to deliver significant results in a range of non-carbon co-benefits

CO-BENEFIT	Local Community	Private Enterprise	Government	Indigenous Peoples
<b>1. Biodiversity</b>	Controlled hunting, ↑ Security of water, ↑ NTFP ↑ Medicine from forest	Extended rotations, Green Image, Market access	↑ Forest cover, ↑ Carbon stock, ↑ Water flow, ↑ Key species protected, Protects 50% of CARPE landscape	As for local community NWFP, materials for shelter
<b>2. Livelihood</b>	↑ Jobs, ↑ income, ↑ Health quality, ↑ education, ↑ skills ↑ Markets	↑ Business opportunity, ↑ jobs, ↑ workers benefits	CO <sub>2</sub> \$, ↑ obs, ↑ Training, Poverty alleviation, MDG results, ↑ GNP	As for Local Community, Protection of traditional lands, primary resources for subsistence
<b>3. Right</b>	↑ forest tenure ↑ community land tenure, Legal recognition of community institution	↑ security of investment	Carbon right clarified, Forest co-ownership recognized	As for local community & FPIC
<b>4. Governance</b>	Local institutions, Representation in province LUP, Women & Youth in Less conflict	↑ security of investment ↑ relation & communication, ↓ conflict and clearer roles	International recognition, Partnerships, ↑ law enforcement, ↓ conflict with stakeholders and government	As for local community



# Mai Ndombe ER Program

## Building on Existing Activities at Scale



**WWF - REDD+ for People and Nature (Norad),  
CO2 Mapping and Monitoring (Germany)**



**WWC - Mai Ndombe REDD+ Project**



**FIP – Plateau Integrated REDD+ starting 2014**



**EU APEVE Project for Ag intensification**

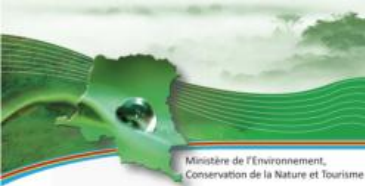


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# FIP and ER-Program: Partners in Implementation

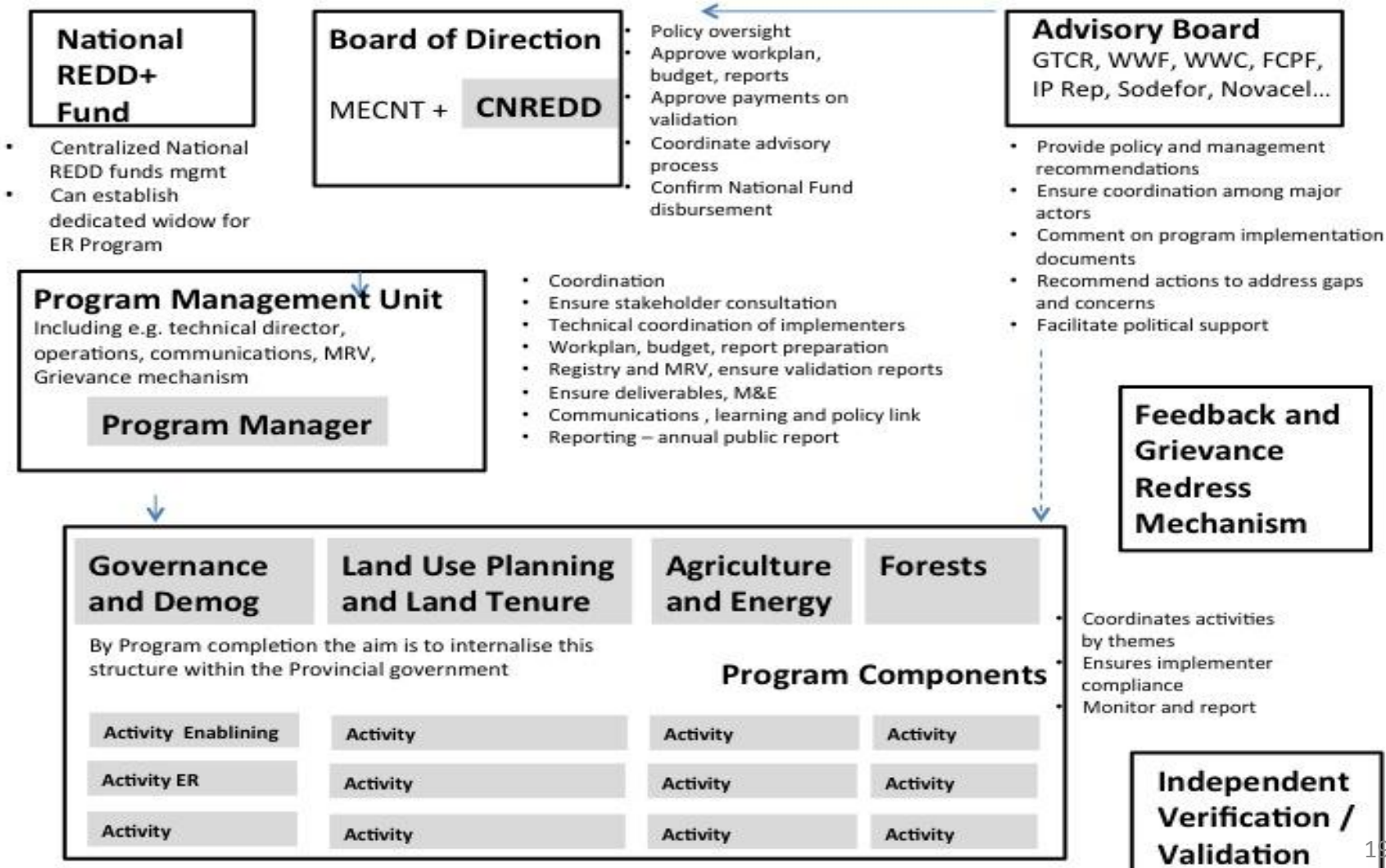
- Geographic area overlap: approximately half of the ER-Program area is also a FIP focus area
- Addressing activity/funding overlap:
  - FIP is not an ER-purchasing program – different approach
  - A principle of the ER-Program is that FIP and ER-Program are complementary but not duplicative – process for insuring non-duplication will be established during the Design Phase
  - ER-Program will insure no double payment for ER's – during Design Phase a process for insuring compliance with FIP and CF on this issue will be established

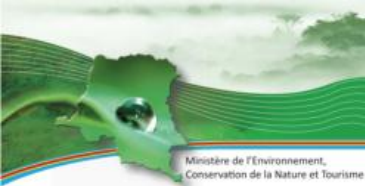


# DRC ER Program

## Institutional Arrangements

A detailed institutional structure is proposed, that establishes a clear, simple and efficient mechanism for managing the ER Program.





# Benefit Sharing

- Upfront program investments in community projects
- Performance-based payments based on ER's or proxies
- Initial set of Guiding Principles included in ER-PIN

## The smallest Activities are favoured



To avoid domination by larger Activities, each Activity and Agent will be able to sell equal amounts of credits. This allows smaller Activities to sell out fastest.

# DRC ER Program

## Participation

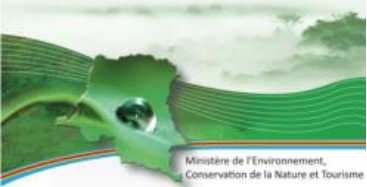
- **More than 100 organizations contributed to ER-PIN** through multiple stakeholder consultations, meetings, formal workshops and working groups, and comments on ER-PIN drafts
- Consultation process in place since 2011 at local, provincial and national levels
- ER-Program Design Secretariat established through joint MOU of MECNT, GTCR, WWC, and WWF
- Broad MOU establishing deep stakeholder engagement in Design Phase is being finalized



# Outline

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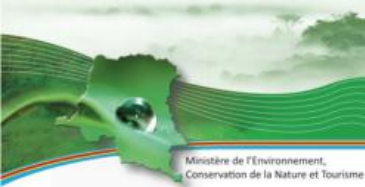




# REL Approach

## Following the Carbon Funds Methodological Framework(MF) Guidance

- Spatial Stratification of Jurisdiction by Land Use: Unplanned Deforestation (outside logging concessions), Planned Degradation(logging concessions) and Forest Cover(Primary Forest, Secondary Forest, Non-Forest)
- Calculation of distinct Reference Emissions Level (REL) for each Land Use based on Historical 10 year average
- Aggregation of land use to Total REL for ER Program
- Application of adjustment to appropriate Land Use (Total adjustment = 0.069% of total carbon stock)
- Addition of Adjustment to REL to give Adjusted REL or AREL for the Program

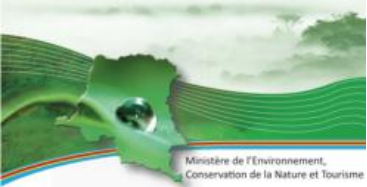


# Why REL Stratification

- Improves the program's ability to manage the pay-per-performance system.
- Presents a fair and equitable system for each land use type to demonstrate that it has reduced emissions against a REL specific for that land-use
- Allows for investments in emission-reducing activities to be focused where they are most needed to achieve successful ERs.
- Agents shall only be rewarded or penalized for the reductions or emissions for which they are responsible.







# Historical REL Stratification

## Based on a Stratified Land-use Approach

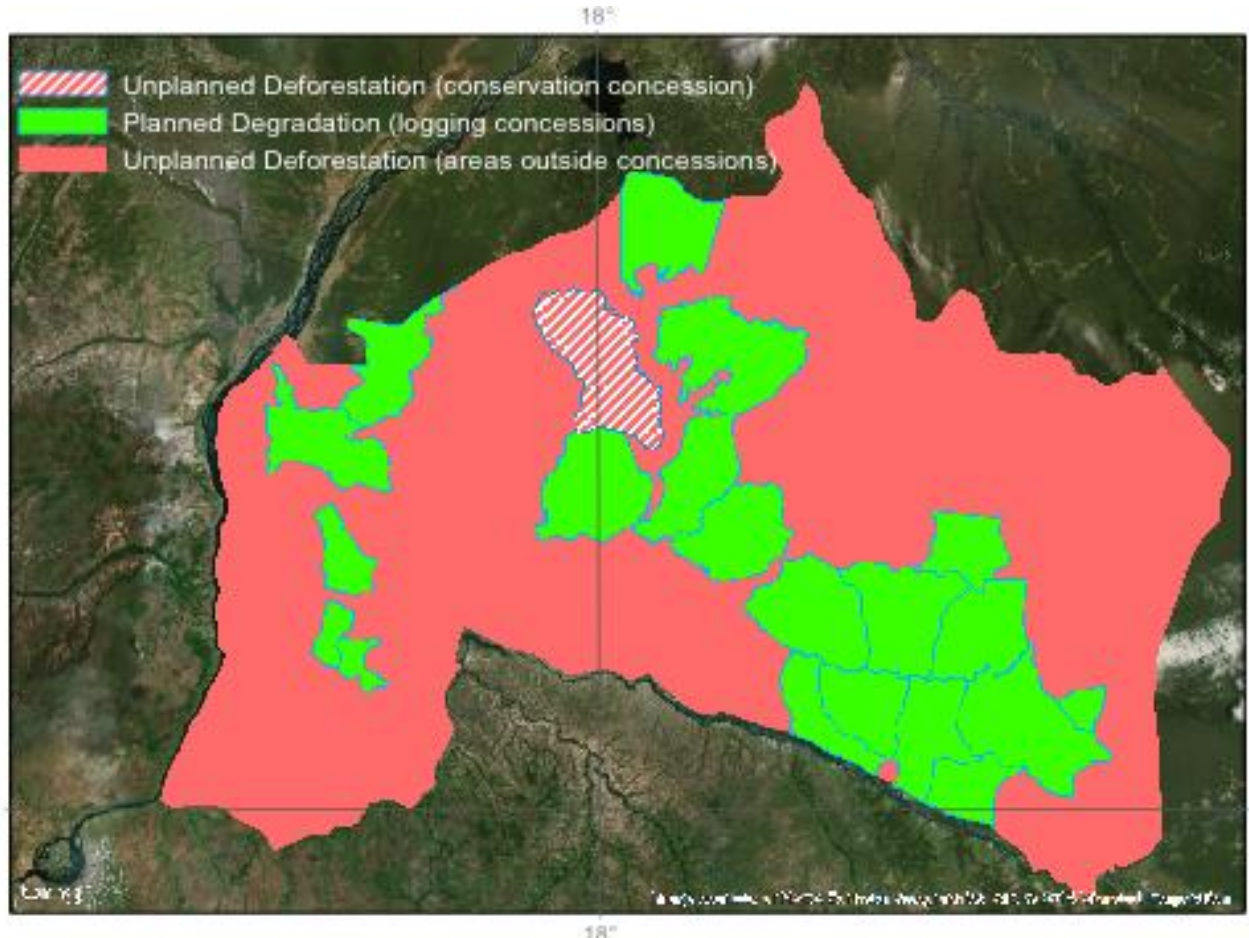
Historical REL calculated for the following land-use types;

 Outside Legal Logging Concessions ( $REL_{UNDEF}$ )

Unplanned Deforestation – Measured Historical 10 year average 2000-2010 (from Hansen et al, 2013 - Global Forest Watch)

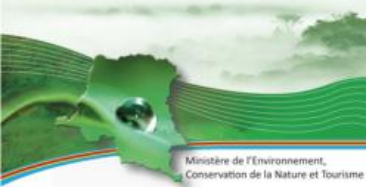
 Inside Legal Logging Concessions ( $REL_{PLDEG}$ )

Planned Degradation -Estimated Historical 10 year average (“bottom up” approach based on actual inventories and estimated emissions from baseline logging operations and infrastructure)



**Contributions are then added together to form Historical REL:**  
 $REL = REL_{UNDEF} + REL_{PLDEG}$

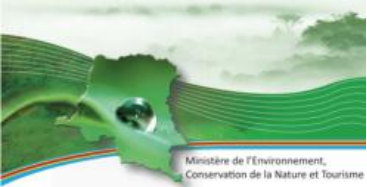




# REL Correction

## Mistakenly included Planned Deforestation in Historical REL instead of Adjustment

- Historic planned deforestation was not distinguished from historic unplanned deforestation spatially
- Future planned deforestation is not subject to the same causes as unplanned deforestation (Planned deforestation related to repair and improvement of infrastructure now possible due to improving economic conditions in the DRC)
- Therefore the correct approach is to include planned deforestation in the adjustment rather than the historical REL, and exclude area of planned deforestation adjustment from calculation of adjustment for unplanned REL.
- This will result in a net increase to the overall Adjustment of 1.09M tons and equal net reduction in the REL of 1.09m tons – net zero impact on the AREL, but total adjustment now represents 0.069% of total stocks
- The area for the planned deforestation adjustment was then removed from the area subject to unplanned deforestation adjustment which resulted in a tiny net change to the unplanned deforestation adjustment (0.069% of 26,500tCO<sub>2</sub>e = 17.25 tCO<sub>2</sub>e)



# Corrected REL and ERs Generated

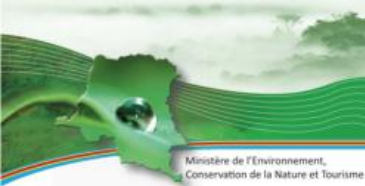
## REL Aggregation and Adjustment Estimated Emission Reductions (ERs) Generated

Estimated Net Emission Reductions for the ER Program									
REL Module	Historical REL per module (MtCO2e)	Adjustment (MtCO2e)	AREL per Module (MtCO2e)	Low ER Scenario (MtCO2e)	High ER Scenario (MtCO2)	Average ERs (MtCO2/yr)	ERs (MCO2 over 10 years)	ERs up to 2020 (MtCO2e)	ERs up to 2050 (MtCO2e)
Unplanned Deforestation REL <sub>UNDEF</sub>	19.27	4.92	24.19	4.61	9.22	6.92	69.17	31.13	238.65
Planned Deforestation REL <sub>PLDEF</sub>		1.09	1.09	-	0.05	0.03	0.26	0.12	0.90
Planned Degradation REL <sub>PLDEG</sub>	4.47	-	4.47	0.21	0.93	0.57	5.71	2.57	19.70
Afforestation	0.19	-	0.19	0.04	0.13	0.09	0.89	0.40	3.08
<b>Totals</b>	<b>23.93</b>	<b>6.01</b>	<b>29.94</b>	<b>4.87</b>	<b>10.34</b>	<b>7.60</b>	<b>76.04</b>	<b>34.22</b>	<b>262.33</b>

Corrected Total Adjustment: 6.01 million tons CO2  
Equal to: 0.069% of Total Carbon Stocks for Jurisdiction

# Consistency with the Methodological Framework

- Level of Ambition: 9.2 million ha of forest, 1.8 million people in Program Area
- Carbon Accounting
  - Emissions from deforestation and forest degradation included
  - 4 main carbon pools included, others excluded for conservativeness
  - Majority of Tier 3 Methods used
- REL
  - Historical reference period 10 years used
  - Forest definition 50% crown cover, more conservative than national definition
  - Adjustment within range of MF requirements
- Safeguards
  - SESA/ESMF process nearing completion
  - Partner with CCB to pilot REDD+ SES Standard
  - National safeguards requirements will be applied
- Sustainable Program Design and Implementation
  - Activities selected to deal with specific drivers
  - Land tenure assessment key priority of Design Phase
- Benefit Sharing
  - Principles outlined to insure transparency, equity, pay-for-performance, and to incentivize new activities and support small-scale projects
- Non-carbon Benefits
  - Program objectives prioritize Biodiversity, Rights, Livelihoods, Governance, in addition to carbon



# Financing Plan

EXPECTED USES OF FUNDS	Breakdown by Calendar Year							
	2014	2015	2016	2017	2018	2019	2020	SubTotal
Costs related to developing the ER Program	1.0	1.1						2.1
Operational and implementation costs	0.0	4.6	6.7	2.8	2.2	2.4	2.4	33.2
<b>Total Fixed Costs</b>	<b>1.0</b>	<b>5.7</b>	<b>6.7</b>	<b>2.8</b>	<b>2.2</b>	<b>2.4</b>	<b>2.4</b>	<b>35.3</b>

Expected Financing Costs Including Performance Based Payments								
Program Activities costs (Expansion of enabling activities, Proxy payments, Community pay for performance)	3.7	22.5	33.5	33.7	33.8	33.5	31.3	192.0
Other Costs	0.0	0.4	0.6	0.6	0.7	0.7	0.7	3.8
<b>Total Variable Costs</b>	<b>3.7</b>	<b>22.9</b>	<b>34.1</b>	<b>34.3</b>	<b>34.5</b>	<b>34.2</b>	<b>32.0</b>	<b>334.4</b>
<b>Total Fixed and Variable Costs</b>	<b>4.7</b>	<b>28.6</b>	<b>40.8</b>	<b>37.1</b>	<b>36.7</b>	<b>36.6</b>	<b>34.4</b>	<b>369.7</b>

EXPECTED SOURCES OF FUNDS	2014	2015	2016	2017	2018	2019	2020	SubTotal
Grants (including parallel grants for enabling activities)	4.4	7.7	6.7	4.5	3.5	2.2	0.0	29.0
Loans (FCPF Upfront Investment @ 10%)		2.5	2.5					5.0
Revenue from REDD+ activities (e.g., sale of ag products)**	Revenues other than ER revenues will not be managed by the ER Program. N.A.							
Revenue from sale of Emission Reductions (contracted)	0.0	4.5	9.0	9.0	9.0	6.8	6.8	45.0
<b>Total Sources</b>	<b>4.4</b>	<b>14.7</b>	<b>18.2</b>	<b>13.5</b>	<b>12.5</b>	<b>9.0</b>	<b>6.8</b>	<b>79.0</b>

Expected Revenues from Selling ERs								
Revenue from sale of additional Emission Reductions (not yet contracted)	0.0	19.8	33.6	33.6	33.6	36.6	36.6	193.9
<b>Total at risk income (before taxes)</b>	<b>0.0</b>	<b>19.8</b>	<b>33.6</b>	<b>33.6</b>	<b>33.6</b>	<b>36.6</b>	<b>36.6</b>	<b>377.0</b>
Net revenue before taxes (=total sources – total uses)	-0.4	5.9	11.0	10.0	9.4	8.9	9.0	86.3

- Donor-funded Start Up Financing is needed, e.g., \$20M (2 years at \$10M) before revenues start
- **\$5-7M Annual Fixed ER Program Cost Estimate**
- **Approx. \$14-27M in annual variable costs based on \$24-43M in revenues from ER sales**
- **The program would net up to \$10M a year revenue for the government as a return on its REDD+ forestry sector**

# ROAD MAP

## Forward Timetable

- **June 2014:** Launch of Design Phase with all the stakeholders (CSO, IPs, private sector, etc.)
- **February 2015:** ER Program Document
- **June – Dec 2015:**
  - Start of ER Program implementation
  - Complete R-Package
  - Sign ERPA
- **December 2015:** first verification



# Why Choose DRC?

## **1. DRC offers one of the highest abatement potentials in the world and a model for HFLD.**

Mai Ndombe ER Program will provide experiences and lessons for other COMIFAC and HFLD countries

## **2. The Mai Ndombe region is of global ecological, social importance with highest deforestation rates in the Congo.**

Contains the world's largest Ramsar site and habitat for bonobo, forest elephant etc., but high forest loss due to proximity to Kinshasa with 10 million people. Indigenous peoples and local communities major beneficiaries.

## **3. The DRC Government is leading Africa in REDD+ policy; field implementation is now the priority.**

DRC has consistently led REDD+ in Africa and is globally the most advanced country on the R-Package track. The next step is implementation of a full jurisdictional ER Program.

## **4. A strong public – private partnership is ready for implementation.**

A genuine partnership between the national and provincial government and experienced private sector and NGO players will deliver emissions reductions and sustainable development at large scale. Each partner already has extensive activities in the region.

## **5. The ER Program is designed not only for REDD+ but as a foundations for Green Development**

DRC sees REDD+ as an alternative green development mechanism. The ER Program is designed to deliver strongly on co-benefits and to build the foundation for a broader approach to Green Development at Provincial scale.

## **6. Diversity and Learning Value for Congo Basin and HFLD countries – Innovations and leadership in the first**

jurisdictional REDD Program in HFLD country have relevance for global REDD+ process



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Ministère de l'Environnement, Conservation de la Nature et Tourisme



Ministère de l'Environnement,  
Conservation de la Nature et Tourisme



**Merci!**

**Victor Kabengele**

National REDD+ Coordinator

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Province du Bandundu