

# REDD: quelle échelle de mise en œuvre pour quel monitoring ?

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*REDD: quelle échelle de mise en œuvre pour quel monitoring ?*

Focus:

Introduction: setting up a REDD mechanism: Reference Emission level and Monitoring and Verification

Forest definition and implications to assess and monitor deforestation and degradation under the various RED+D+ policies

How The state of Art : existing knowledge about forest cover and conversion modification rates in Cameroon (based on EO technology)

Predicting rates: Drivers, Actors

*REDD: quelle échelle de mise en œuvre pour quel monitoring ?*

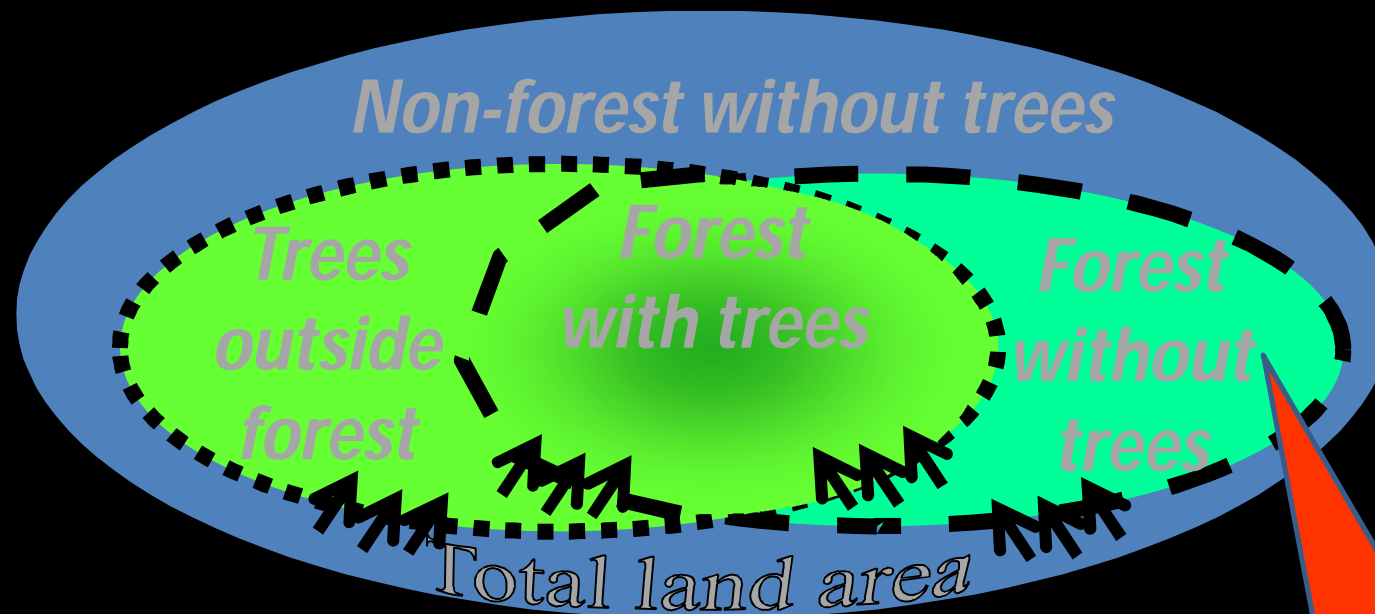
- 1) The reference scenario will be crucial to determine the level of participation of a country or project to REDD and the identification of strategies to be implemented to reduce deforestation and forest degradation.
- 2) Technically it would need to include: (i) the locations that are most likely to be affected by forest-cover change, (ii) the rate at which forest-cover changes are likely to proceed in a given region (Gofc-Gold Source Book 2009).
- 3) The reference scenario can be set at the project level but should be integrated in the bigger picture of the national Monitoring, Reporting and Verification (MRV) system. It should be based on repeatable methodologies and use policy relevant categories (use the Gofc-Gold Source Book 2009 as reference).

## Forest definition adopted by Cameroon:

**« La forêt est une terre d'une superficie minimale de 0,1 hectare, portant des arbres et végétaux arborescents dont le houppier couvre plus de 30% de la surface (ou ayant une densité de peuplement équivalente) et qui peuvent atteindre à maturité une hauteur minimale de 5 mètres ».**

IPCC definition includes "Young natural stands and all plantations which have yet to reach a crown density of 10 – 30 per cent or tree height of 2 – 5 m as are areas normally forming part of the forest which are temporarily unstocked as a result of human intervention such as harvesting or natural causes but which are expected to revert to forest."

The term **'Forest'**, covers many types of land cover and use, varying in presence of trees (including zero tree cover lands), C-storage and C-emission potential.



The term 'Non-Forest' can cover many types of land cover and use, potentially with a lot of trees, C-storage and C-emission potential.

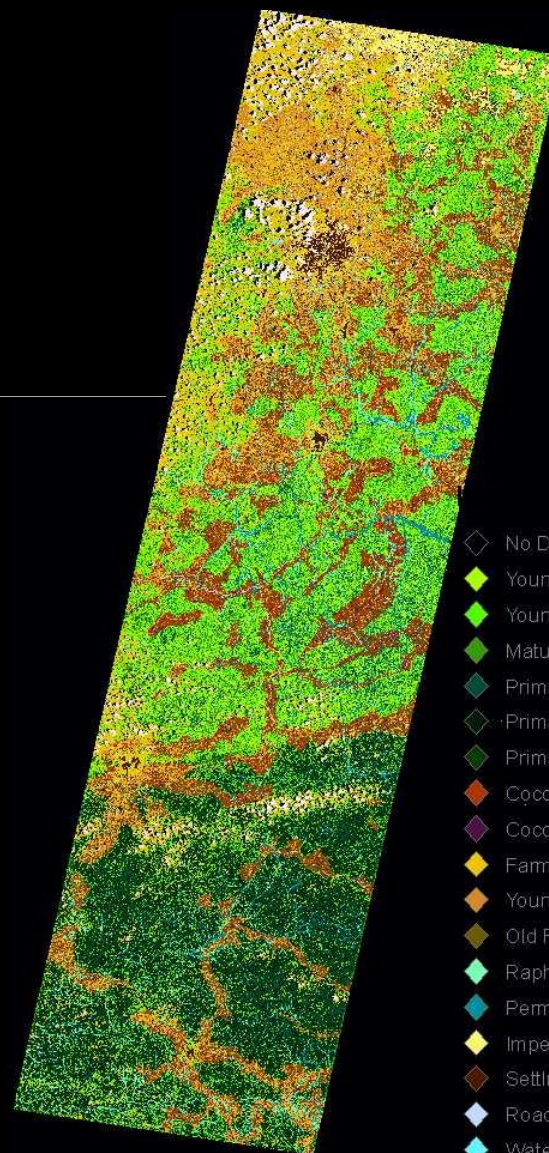
"Temporarily unstocked", without time limit...

ASB benchmark Area:  
1.43 M ha  
Centre and Southern Region



Map derived from SPOT –  
HRV -1995

<u>Land Use Class</u>	<u>Entire</u>
Mature Forest	90240151
Young secondary forest	76773372
Old fallow	12519171
Cocoa in secondary forest	20618512
Young fallow	11296628
farmland	151187885
Swamp	nd
<b>forest total</b>	<b>362.635.719</b>



- ◇ No Data
- ◇ Young an mature secondary forest: dense
- ◇ Young and mature secondary forest: very dense
- ◇ Mature Secondary Forest: humid, swampy
- ◇ Primary forest: very inaccessible
- ◇ Primary Forest: swampy, plains, inaccessible
- ◇ Primary Forest: moist/wet soils
- ◇ Cocoa and young secondary forest
- ◇ Cocoa and mature secondary forest
- ◇ Farmlands slash and burn
- ◇ Young fallow, chromolaen odorata
- ◇ Old Fallow, regenerated Forest (some cocoa)
- ◇ Raphia, predominant wetlands
- ◇ Permanently Floded Swamp forest
- ◇ Imperata wetlands, barren, burn
- ◇ Settlement Built up area
- ◇ Roads system
- ◇ Water
- ◇ Clouds
- ◇ cloud shadows

Total carbon stock (T) in the ASB benchmark area

Forest Definition and Implications for the analysis of AFOLU: Analysis of the definitions versus reality of land cover continua

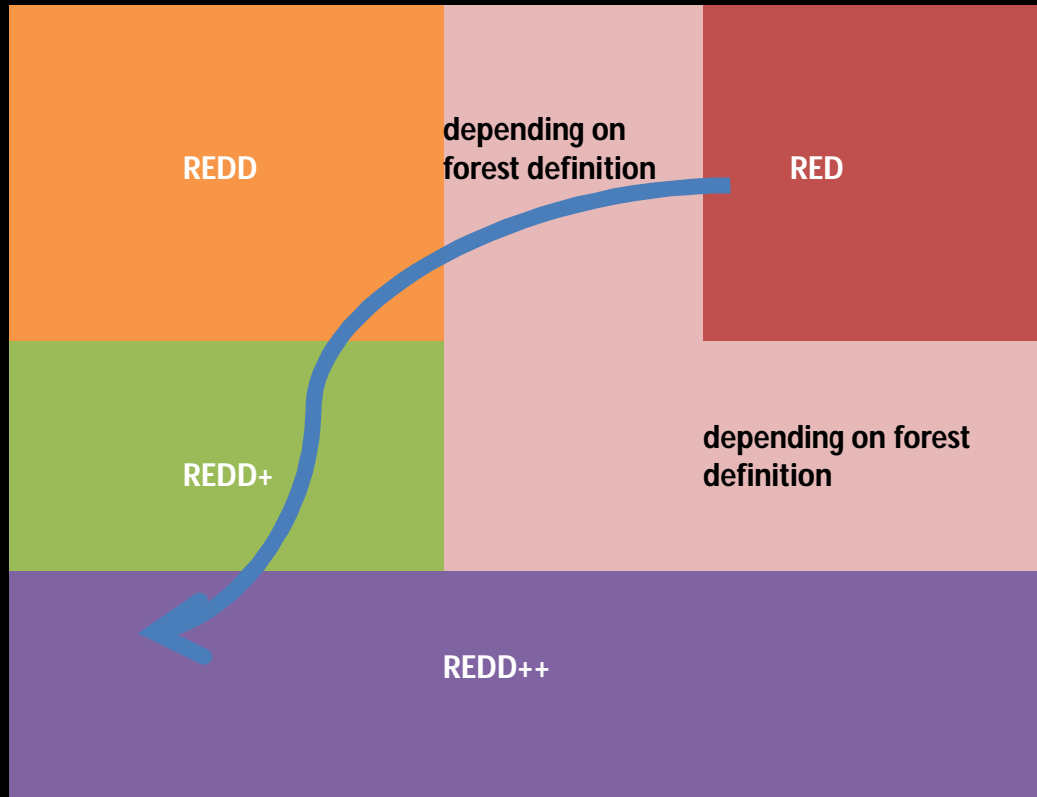


Rules of the game, eligibility of types of emission reduction

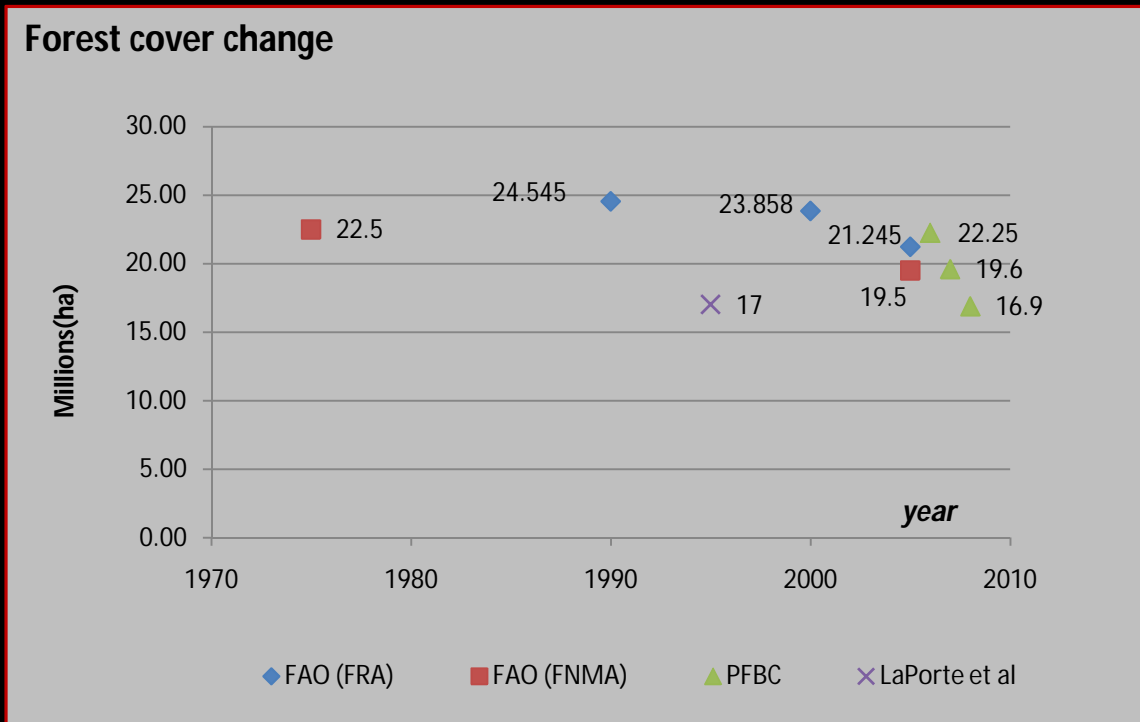
Land Cover

- Young an mature secondary forest: dense
- Young and mature secondary forest: very dense
- Mature Secondary Forest: humid, swampy
- Old growth forest very dense
- Old growth forest dense
- Cocoa and young secondary forest
- Cocoa and mature secondary forest
- Old Fallow, regenrated Forest (some cocoa)
- Farmlands:slash and burn
- Young fallow, chromolaen odorata
- Imperata wetlands, barren, burn
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- Old growth forest dense
- Old growth forest very dense
- Mature Secondary Forest
- secondary forest: very dense
- secondary forest: dense



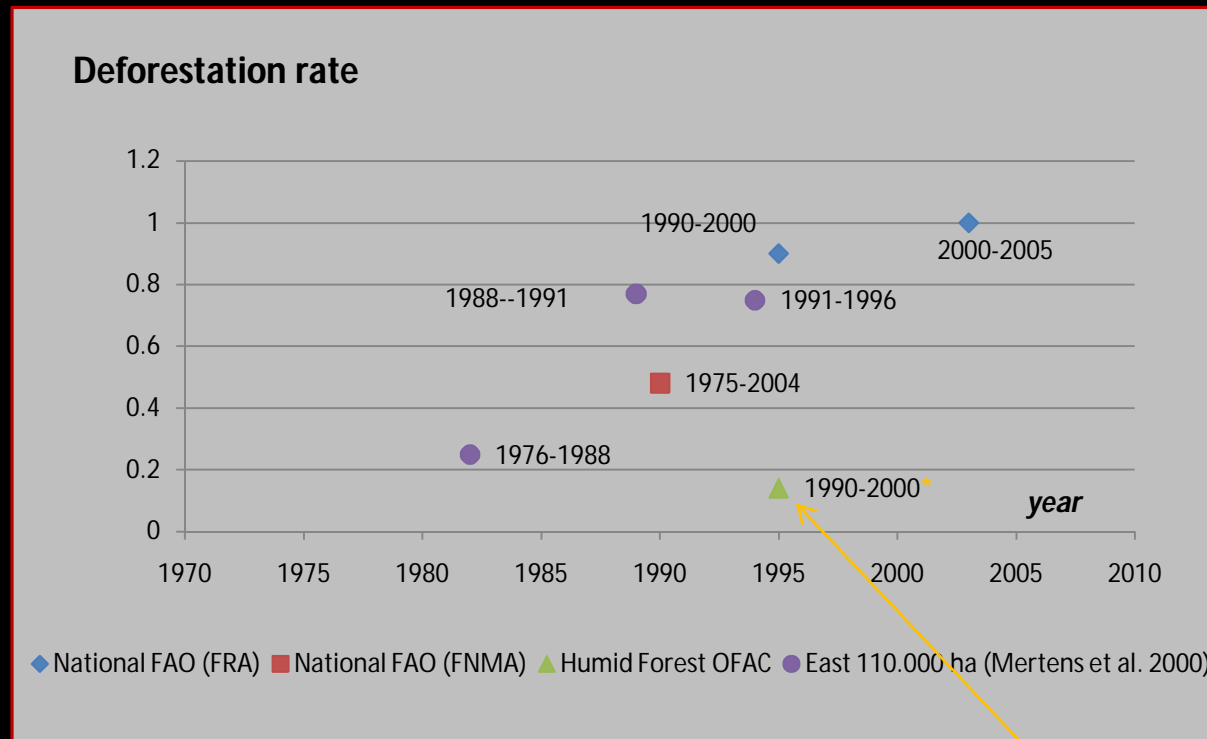
The state of art: Forest cover? Deforestation rate? Degradation?



Estimates of Forest cover depend on:

- 1) Technology available/used (fn of information requirements, costs trade-offs, capacity tradeoffs etc.)
- 2) Methodology adopted (fn of information requirements, costs trade-offs, capacity tradeoffs etc.)
- 3) Definition of land cover classes (what is forest?)





\*Gross rate is 0.20%, with 0.6% regenerating  
= there is 0.26% of total forest cover  
interested by conversion

Estimates of Deforestation Rate for a temporal interval depend on:

- 1) Forest cover data
- 2) Definition of Deforestation
- 3) Spatial and temporal scale considered

## Degradation:

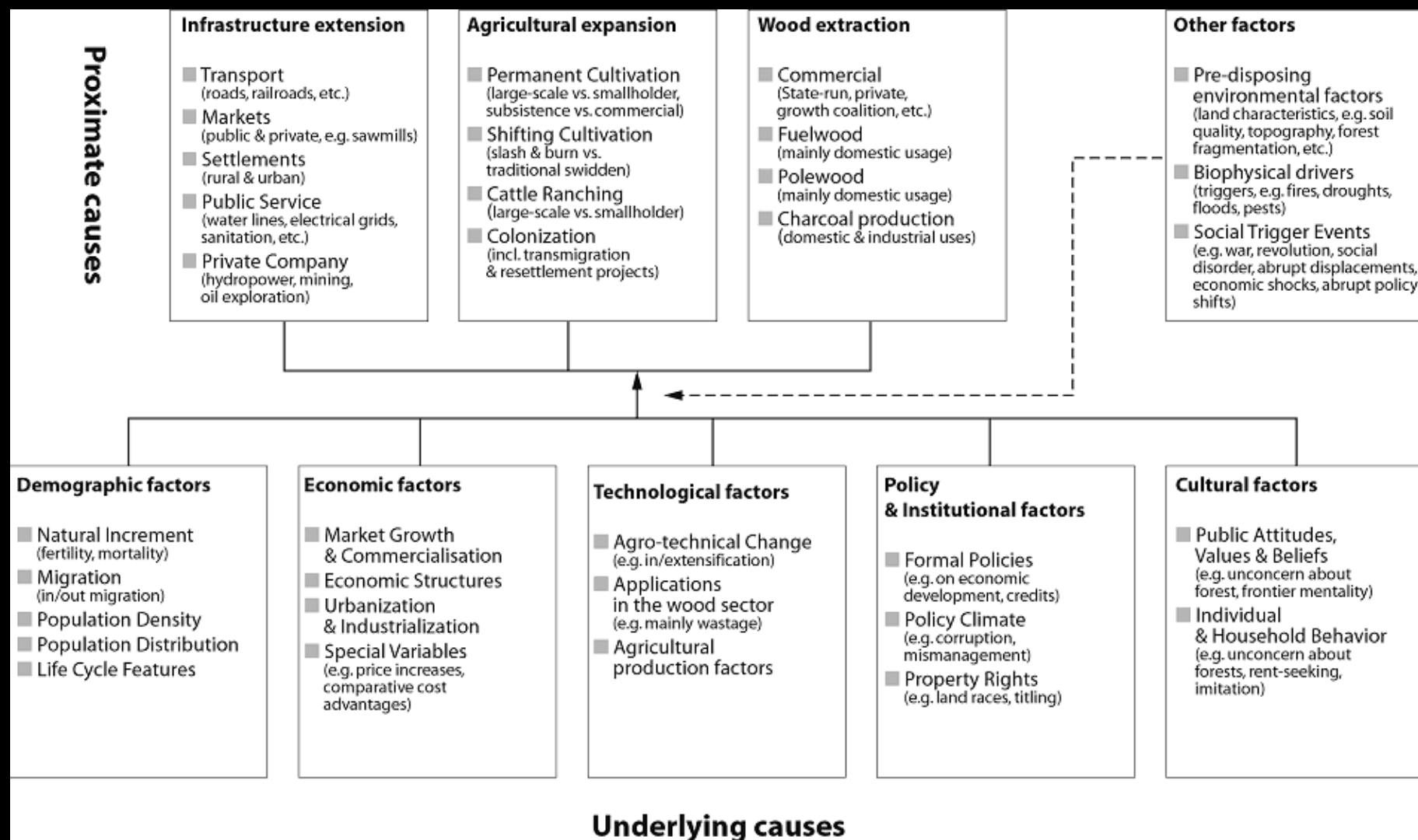
Data on degradation in Cameroon: Duveiller et al. 2008

net degradation 0.01% = 1970 ha (0.07 degraded + 0.06 recovered => modification dynamic that concerns 0.13% of the humid forest cover ).

Uncertainties at various levels from the tree to the cover

Uncertainties in the definition and institutional management of degradation

## Predicting Rates: Drivers



Deforestation (and degradation) rates are related to a combination of direct drivers and underlying causes (Lambin et al. 2001), and to the type of feedbacks that relate land use decision-making to land cover change.

## Cases of and Actors in Deforestation

Case	Location	Primary actors	Secondary actors
Small-scale agricultural conversion for subsistence and market (domestic consumption e.g. Plantain, or export e.g.cocoa)	NPFD	Small-scale farmers, National Institutions and Private Companies.	Traders, Exporters, regional and international MINADER, MINEPAT, MINCOM,
Conversion for agro-industry and plantations: oil palm, banana, rubber.	NPFD	Companies (national/multi-national ) agricultural and economic sectors	MINADER, MIN-COM, MINEPAT
Mining	PFD NPFD	Mining companies, banks	Central and regional governments, Minister of Mining , MINEPAT.
Infrastructure development (roads)	PFD NPFD	MINTRANSPORT,	Central and Regional governments, MINEPAT.

## Cases of and Actors in Forest Degradation

Case	Location	Primary actors	Secondary actors
Industrial logging	PFD: UFA, Council Forests, SSA	logging companies/ concessionaries, councils,	councils, timber industry, MINFOF, MINEP.
Artisanal logging	NPFD: Private and community forest (SSA, RBA etc.)	Owners, local communities, small scale loggers,	Local timber industry, building industry, MINFOF
Illegal logging formal sector	PFD	logging companies and local communities.	Governments, timber industry
Illegal logging informal sector	NPFD	Small scale loggers, small scale farmers, local communities .	Local timber industry, building industry

## conclusions

- Assessing deforestation and degradation in the countries along the coast in the Gulf of Guinea is still challenging:
  - There are technical issues in the applications of EO techniques that will be solved with the evolving technology (use of RADar etc.)
  - There are issues related to definition of land cover /land use classes and the policy framework that makes modifications/transitions eligible or not and should be tackled soon.
  - There are issues related to the fine grained small-scale farming that determines specific requirements for monitoring (e.g. Cocoa is not detected, Fallow rotations are captured depending on the time and spatial scale considered but fallows could be considered forest).
  - Need of integrating as much as possible project level initiatives into national level implementation (in particular the understanding of the dynamics) and to precisely situate case studies and initiatives into the national context in order to avoid leakage risks and assure permanence.
  - Need to develop a strong cross-sectoral collaboration and to look outside the forest to the agricultural/mining etc. sectors.

THANK YOU!