Reduction of GHG Emissions through Avoiding Deforestation and Forest Degradation (REDD):

Committing forests as Carbon Reservoir

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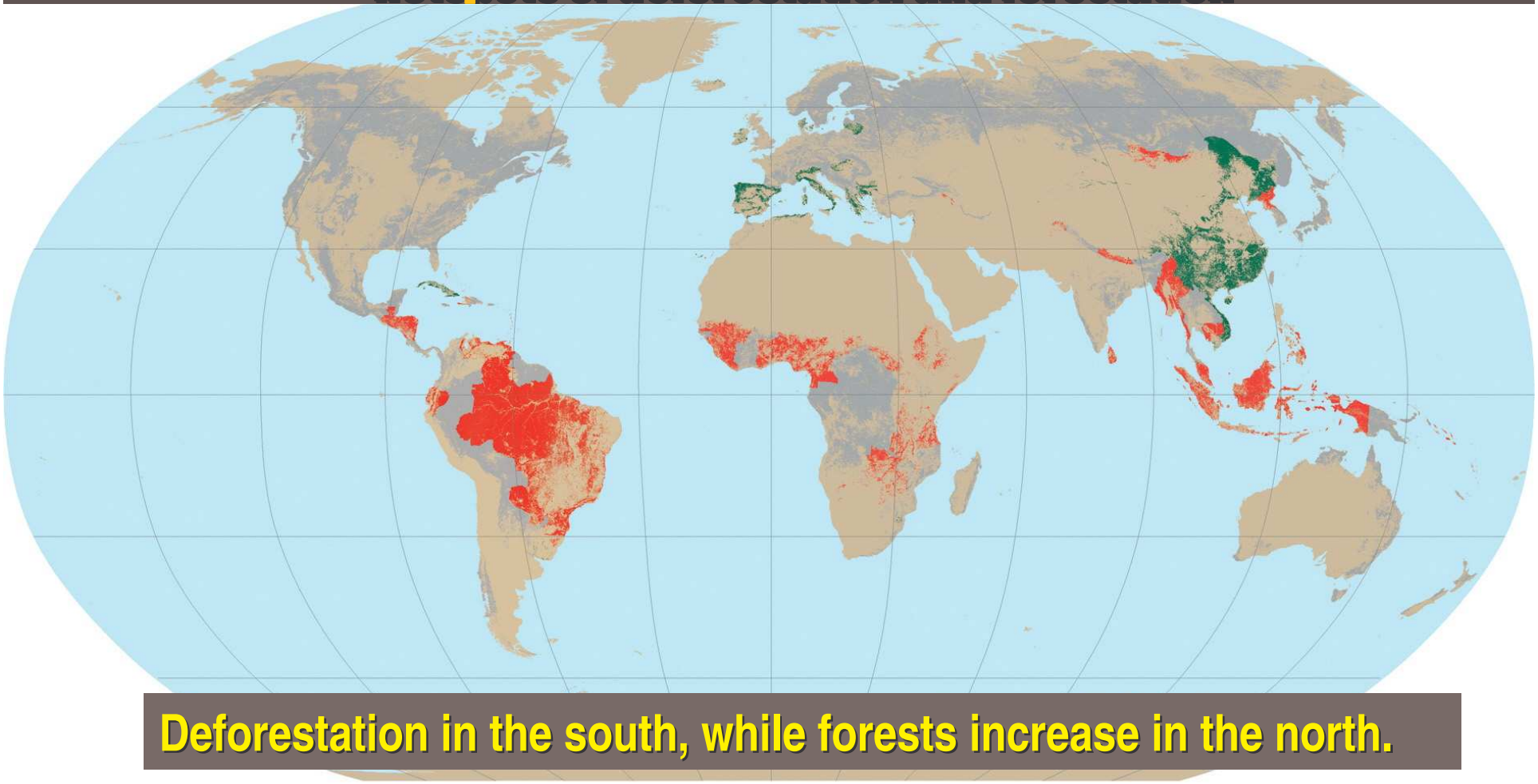
I. Context:
Dynamic in forested areas 2000-2005: hotspots of deforestation and forestation



Deforestation in the south, while forests increase in the north.

Source: FAO, 2006

I. Context: the ten countries with the highest absolute and relative deforestation in the world

Country	Deforestation (ha) (average per annum 1990-2005)	Country	Deforestation (% of 1990 forest cover)
Brazil	2,821,900	Burundi*	6.0
Indonesia	1,871,500	Togo*	5.2
Sudan*	589,000	Honduras*	3.9
Myanmar*	466,500	Nigeria	3.7
DR Congo*	461,400	Niger*	3.6
Zambia*	444,800	Philippines	3.2
Tanzania*	412,300	Benin*	2.8
Nigeria	409,700	Uganda*	2.4
Zimbabwe	312,900	Ghana	2.3
Venezuela	287,500	Indonesia	2.1
Other 68 countries	3,257,400		
Total	11,334,900	Average 78 tropical countries	0.65

*LDC countries in the UNFCCC

Source: based on data of the Forest Resource Assessment 2005 - FAO 2006

I. Context: Deforestation drivers in the tropics

China, SE-Asia:

Agroindustry (Oil palm), Pulp (China)

West Africa:

- Shifting cultiviation, conflicts, timber extraction

Congo Basin:

- Timber extraction, roads, shifting cultivation

Central America:

- Shifting cultiviation, land speculation

Amazonas Basin:

- Land speculation, Agroindustry (Soja, livestock), shifting cultiviation, conflicts, planned and unplanned colonisation

I. Context:
What is deforestation ?

- Deforestation is defined as the removal of tree-canopy beyond the limits that are indicated in the definition of forests in each country (Forest Law, DNA)
- Refers to changes in land-cover and land-use
- Investments are mostly in alternative land uses
- Distinct from forest degradation (which is not total removal)

What is forest degradation ?

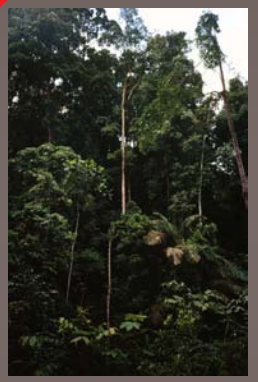
- Forest degradation is a process in which the initial forest structure, functions, productivity, species diversity and dynamics are noticeably altered beyond the elastic capacity of the ecosystem (not an "official" definition)
- Land-cover and land-use remains "forest"
- Mostly "residue" of prior investments in extractive activities

I. Context: What is deforestation ?
UNFCCC context

Deforestation

Forest Degradation Process

Devegetation




100%
Crown cover

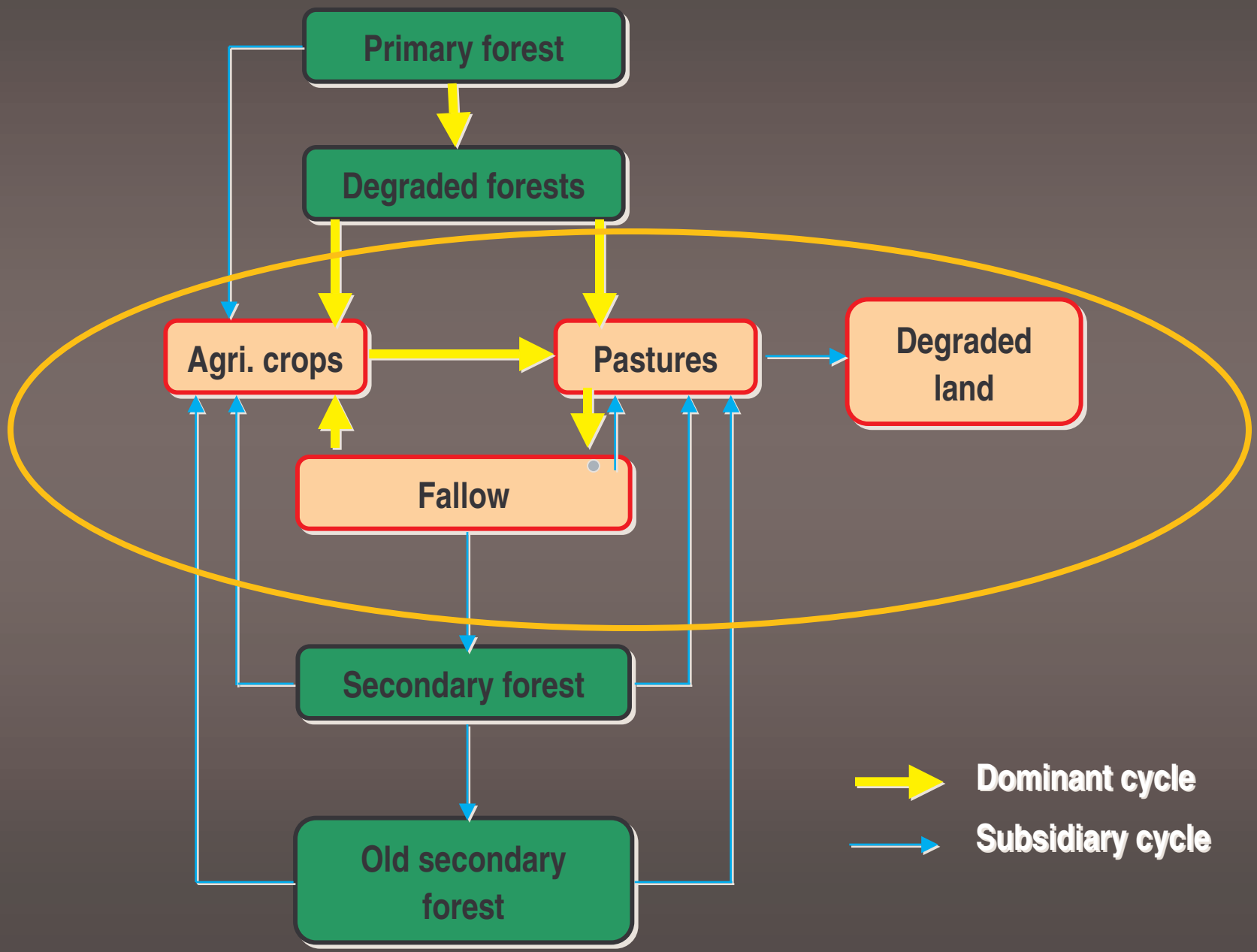
FOREST

e.g. 30% crown cover
Madagascar

Non- FOREST

Where do we emit the most GHG?

I. Context: Deforestation patterns



I. Context: Common rational

- Deforestation normally benefits landholders and sometimes the national economy because there are generally higher returns from alternative uses than from forests
- Both, rich and poor deforest:
  - Some poor deforest incrementally to "survive"
  - …but many poor deforest to increase their living standards
  - Some large-scale deforestation destroys livelihoods… but much deforestation creates more jobs
- Deforestation is in many cases rational for the landholder – but also benefits national economy
- The (private and social) returns per-hectare are highly variable – e.g. Amazon soy vs. cattle vs subsistence agriculture: potential for REDD very different
- Often joint causality: e.g. logging + road building + small-scale agriculture

→ Deforestation is often rational, not all deforestation is undesireable.

I. Context: Deforestation – what kind of emmission ?

- Land use change makes about between 15 and 25% of all anthropogenic GHG emissions in the 1990's (IPCC)

- Natural tropical forests: Huge differences in emissions (deforestation, forest degradation, fire) , depending on natural conditions, uses and land policy scenarios

- At present there are no real financial incentives available for developing countries to reduce deforestation

- Forest degradation – a source of GHG emmission that is yet not fully assessed

→ Deforestation nullifies the major part of the emission reductions that is aimed to achieving through the Kyoto protocol

II. Lessons learnt: Main Drivers are outside the forest sector

- Deforestation is a complex process that evolves over time
- Avoidance of deforestation cannot be solved by the forests sector alone
- A certain degree of deforestation is unavoidable
- Avoiding deforestation needs adjustments and flexibility

Gestion de terroirs, Morondava, Madagascar © JBlaser

- **REDD needs to closely take into consideration the macro-economic drivers as well as the socio-economic specificities of each country**

II. Lessons learnt: Creation of agricultural land to feed people

Who can be against that?

- Not all deforestation is undesirable:
  - Social and economic pressures make it inevitable that substantial areas of what is still natural forest today will be converted to agriculture and other uses

- However, deforestation should be discouraged when:
  - it is not efficient from an economic viewpoint;
  - it is non-sustainable – in other words, it is a threat to environmental stability; and
  - it leads to social inequities and conflicts.

Rizière, Haut Plateaux, Madagascar © JBlaser

- **Make a distinction of in DD, countries need to decide upon their priorities**

II Lessons learnt:
Avoiding Forest Degradation: often a "non-issue" for the primary beneficier

Forest degradation and deforestation is often intentional !

- "Technical objection": Type of resource management implemented by "economic operators"

- "Political objection": powerful political and economic groups are the winners when forest are exploited beyound their capacity or is cleared and brought to a more "economic" land use

Concession forestière sur terroirs traditionnelle de Penans en Sarawak, Malaisie.
©JBlaser

II. Lessons learnt:
Avoiding Deforestation: not necessary always a socially acceptable solution

Objections and obstacles

- Consensus finding in respect to the objections: under which circumstances will forests remain?
- Reducing deforestation efforts can compete/be contradictory to sustainable livelihood efforts
- Reducing poverty not necessarily reduces emissions

Communauté Kuna Yala, Panama © JBlaser

➲ Concentration on institutional challenges, show flexibility to fit local conditions

III. Major challenges

→ REDD as an instrument to maintain carbon pools and support sustainable development

What forests to commit?

- In the absence of existing deforestation strategies
- In the absence of appropriate quantification tools (social and economic costs and benefits, actually avoided emissions)
- Which actors? What role?

Teak forest, Madhya Pradesh, India © JBlaser

Commit forests in hot spot areas of deforestation and forest degradation:
→ Developing countries in tropical and subtropical climatic zones.

Côte Est Madagascar © courtesy CI

→ **Committed forest approach:**
where and how to conserve carbon reservoirs?

→ **And there in areas where pressure on forests is real,**
NOT in those areas that are not under immediate threat (e.g. Parks)

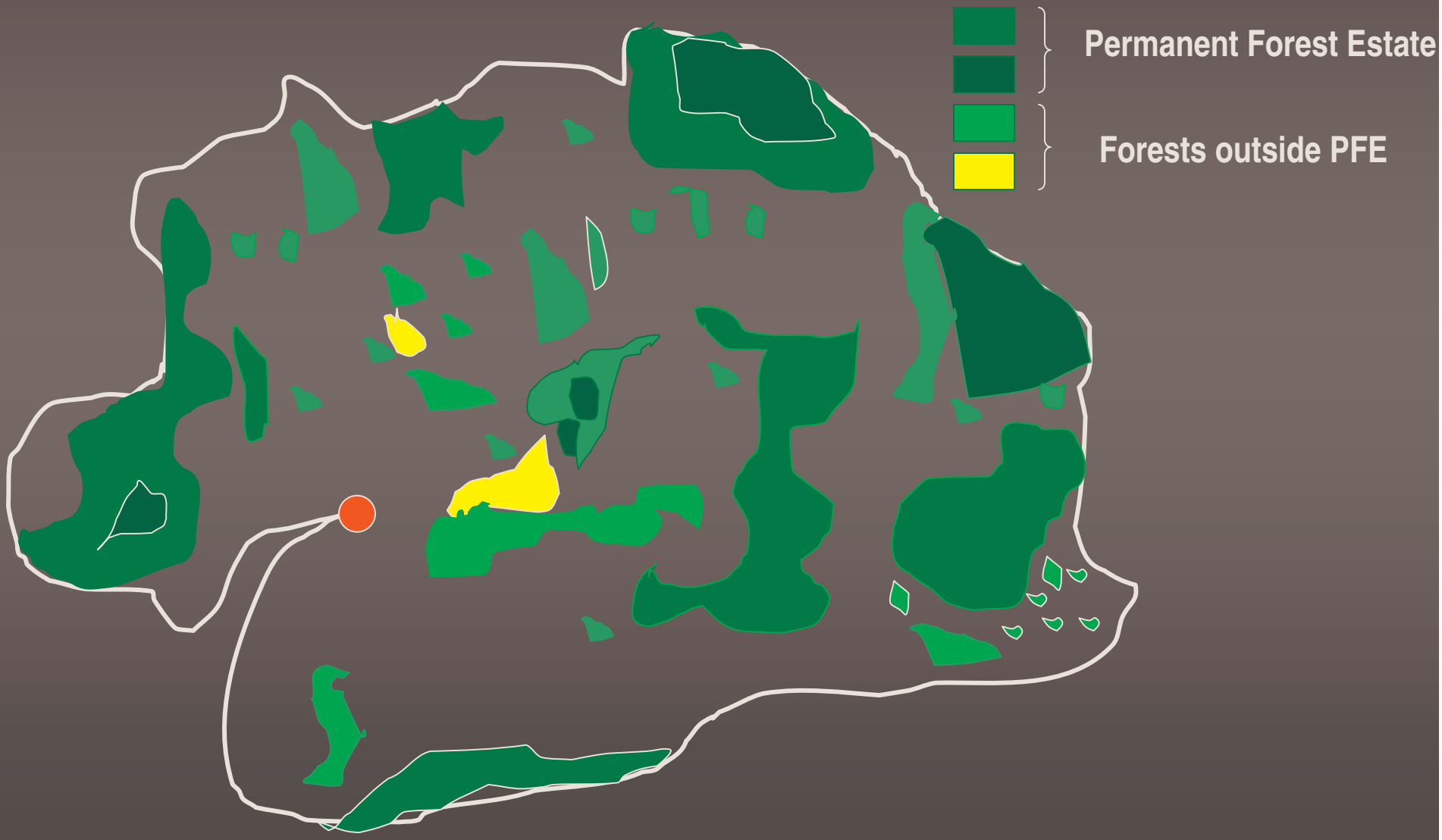
III. Major challenges: Define Committed Forests

The committed forest area is defined by each country (on a voluntary basis) on the basis of agreed selection criteria, e.g.:

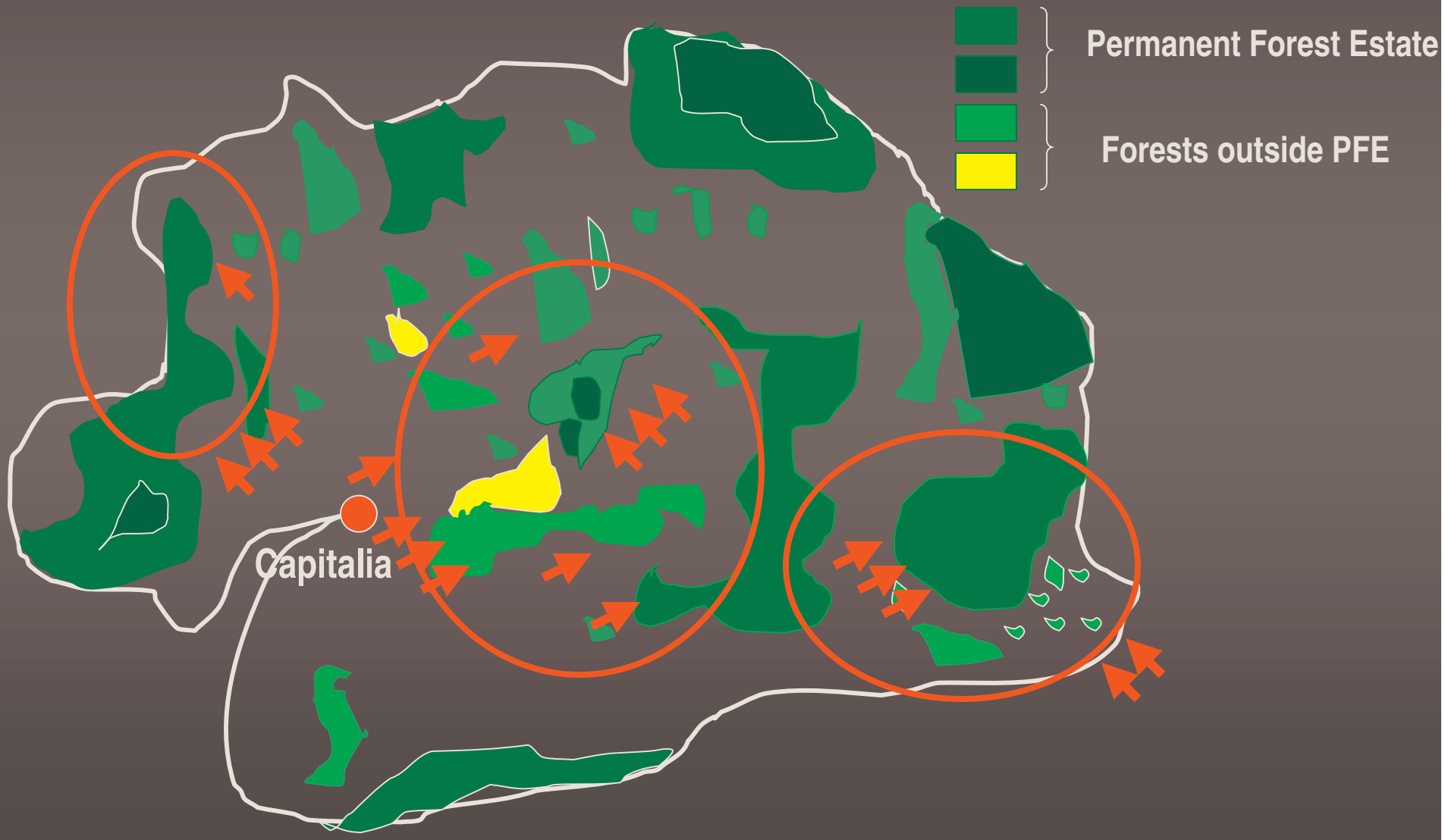
- A sub-set of the permanent forest estate within a defined landscape/watershed/political boundary (= project area)
- Specifically classified as a carbon reservoir that falls in an area threatened by deforestation and forest degradation
- Baseline: the average loss of CO2e through deforestation and forest degradation over a specified period of time in the project area
- Filed in the UNFCCC.

→ **Reductions must be: Real, Additional, Verified, Certified**

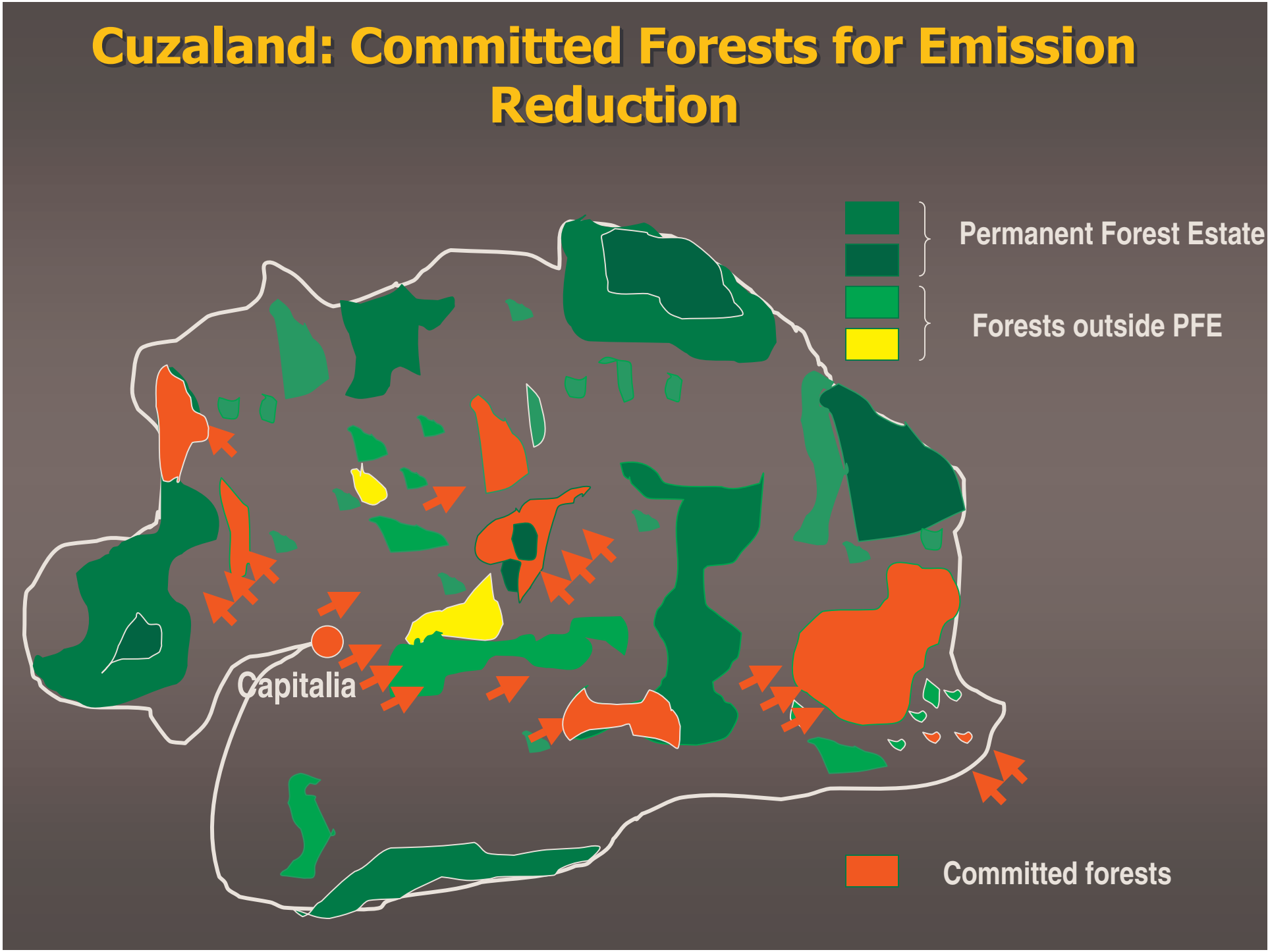
Cuzaland: Forest Area



Cuzaland: Hotspot Deforestation Areas

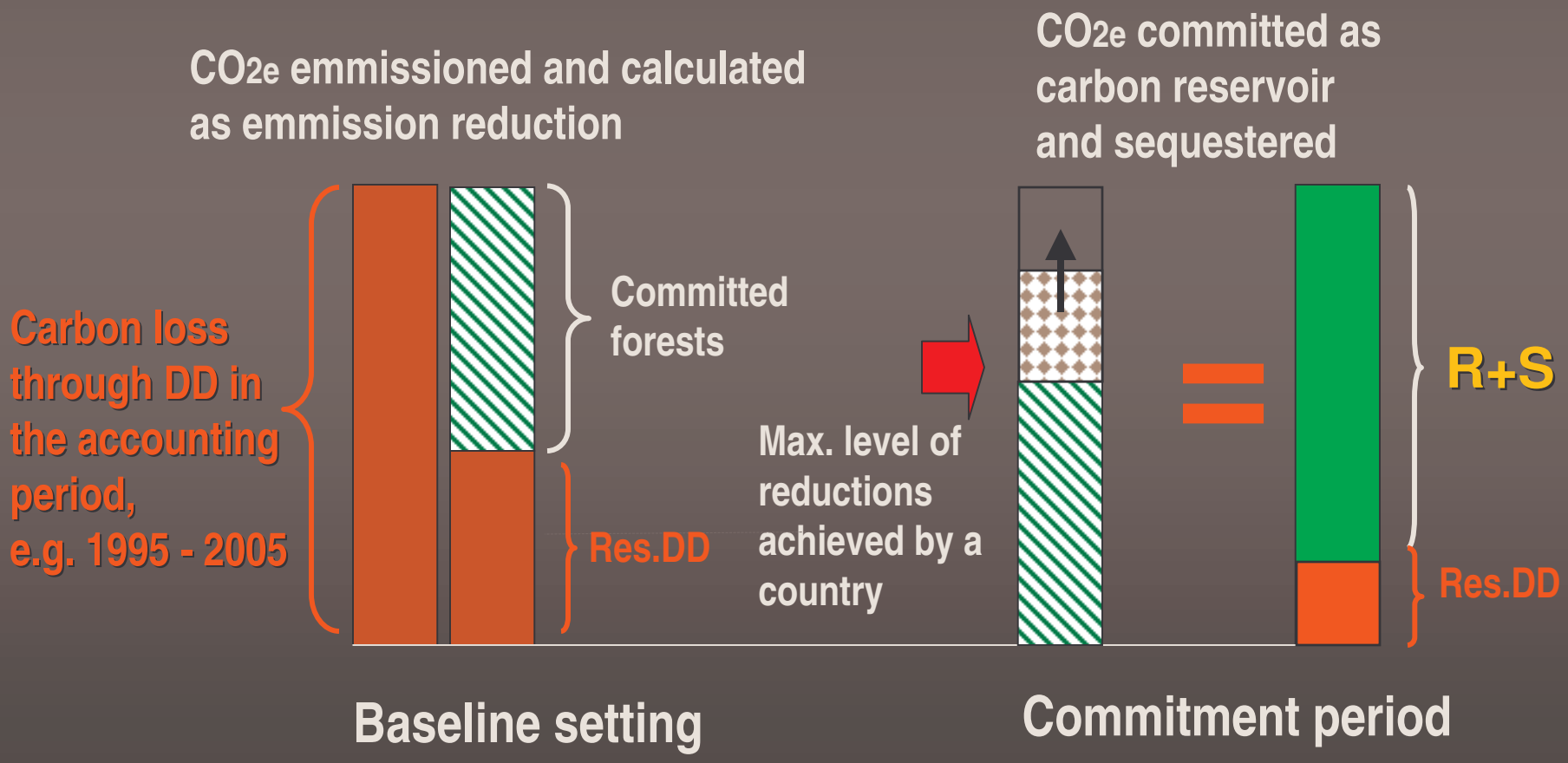


Cuzaland: Committed Forests for Emission Reduction



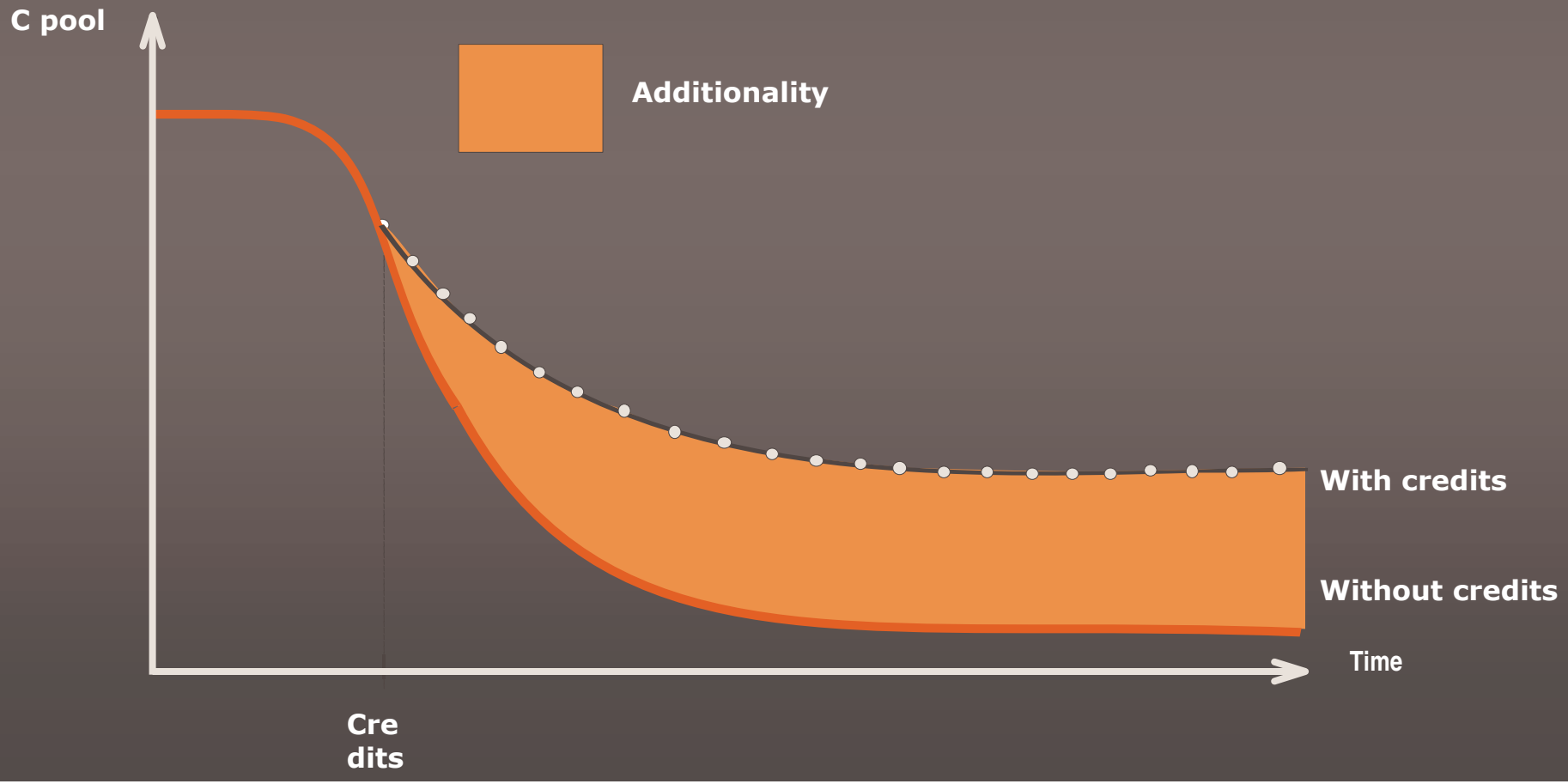
III. Major challenges
Committing forests: setting a national balance

$$CF_{(\text{national register})} = \Sigma\ (CF_{(1)} + CF_{(2)} + \ldots * A_i)$$



III: Major challenges (Committed forests):

Principles of reducing deforestation and forest degradation, increasing carbon pools through international transfer payments. Methodology to be developed.



III: Major challenges:
What should be committed as carbon pools?

200 mm ha	900 – 1200 m ha	150 mm ha	>200 mm ha

No potential	High potential	Limited potential	Limited potential
Non-accessible intact forests, Remote forest Protected areas	Multiple-Use Forest Area: Accessible forest areas threatened by conversion and degradation, Degraded old-growth forests, Secondary forests, Accessible forest protected areas	Timber production forests, in production or in reserve	Forestry outside forests, afforestation and reforestation, agroforests, Degraded forest land

Committed forest: defined by each country as a sub-set of the permanent forest estate that is specifically classified as a carbon reservoir that falls in an area threatened by deforestation and forest degradation

III: Major challenges: UNFCCC principles on committed forests

- Deforesting and/or degrading committed forests is not a rational development strategy and should be avoided at any means. It is as part of a sustainable development approach within a country.
  - PRINCIPLE 1 → UNFCCC/post-Kyoto/a scenario based on a CDM principle

- Annex 1 countries and [Non-Annex 1 countries (?)] can achieve part of their commitments through REDD in a post 2012 scenario:

  How to compensate countries and communities that avoid deforestation and forest degradation in committed forests?
  - PRINCIPLE 2 → UNFCCC/post-Kyoto scenario

III: Mayor challenges: Principles for committing forests

- Need for clear baselines (= committed forests in year X): combining landscape and livelihood approach
- Need to define a baseline that combines the total national emissions with the sum of all committed forests at local level
- No distinction between “good” and “bad” deforestation, but define committed forests through a participatory process of all involved actors in deforestation
- Start with voluntary agreements and in hot-spot regions to learn about feasability, efficiency, equity and other aspects of committing forests
- Develop clear approaches in respect to quantification and leakages

IV. Final considerations (1)

- REDD is happening in a **more integral and diversified framework than all other mitigation strategies to climate change**
- **REDD is characterised by:**
  - A compensation for setting aside committed forests as carbon reservoir is a "Payment for an environmental service".
  - It is in the global interest as it can contribute substantially to reduce human-induced changes in the climate system
  - It also addresses vital concerns of other global agreements that include environmental concerns (e.g. CBD, CDD, UNFF, ITTO)
  - Hence it should be compensated through a global transfer payment
  - Such compensation can happen through a defined approach in the context of the UNFCCC (because it has already a track record in the CDM)

IV. Final considerations (2)

- Elegibility, additionality and leakage, as well compatibility with sustainable development remain the major challenges to reduce emmissions from deforestation and forest degradation and to commit forests as carbon reservoirs.

- Recognising the multiple interests
- Creation of a favorable political commitment for REDD, including strategic coalitions
- Recognize the opportunities; utilising flexible approaches and approaches adapted to the situation:

→ REDD should combine a landscape and a livelihood approach to fit to its purpose!!!
Don't loose sight of the essential.