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# Can REDD Save the World's Forests? a case of Indonesia

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## About me and WWF

- Educated as an environmental economist (the ANU, Canberra)
- Indonesia Official Delegate/Negotiator to UNFCCC – on REDD/LULUCF
- 2002-2006 (Forest Program Coordinator, WWF-Indonesia) → 2007-present (Program Director, Climate & Energy, WWF-Indonesia)
- Expert Member of IFCA (Indonesia Forest and Climate Alliance)
- Former Executive Board Member of the Roundtable on Sustainable Palm Oil (RSPO)

Established in 1961, "World Wildlife Fund" → "World Wide Fund For Nature" (works in 100 countries, 5 million supporters).

WWF's mission is to **stop the degradation** of the planet's natural environment and to **build a future** in which humans live in **harmony** with nature

### WWF's projects around the world





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3. Indonesia's readiness for REDD



## 1. Deforestation, GHG emission and REDD



# Scientific note...

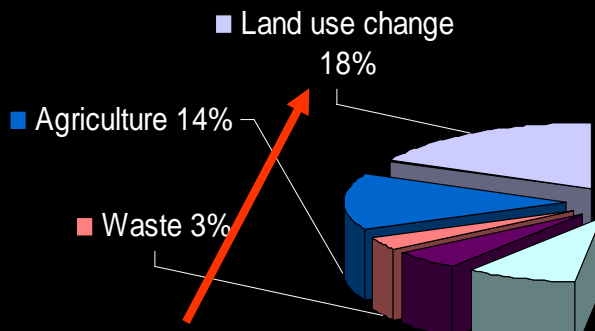
**Positive proof of global warming.**



# Sources of emissions

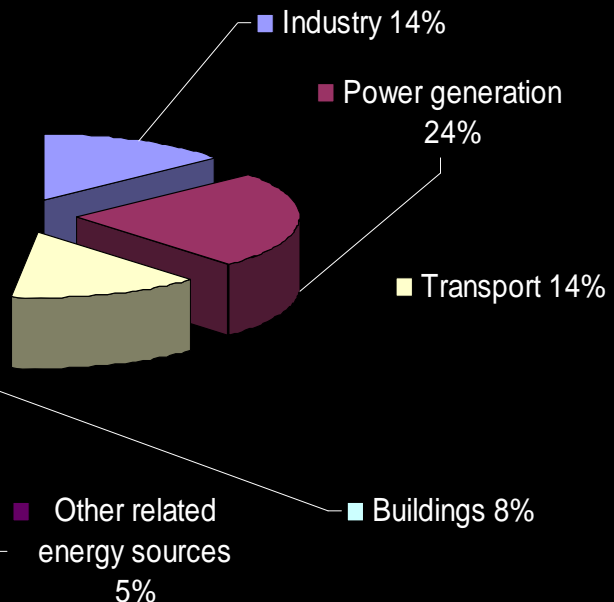
Global Greenhouse Gases (GHG) in 2000

## Non-energy emission



Known as well as **LULUCF** (landuse, landuse change, forestry)

## Energy emission



total emission 2000 = 42GtCO<sub>2</sub>e

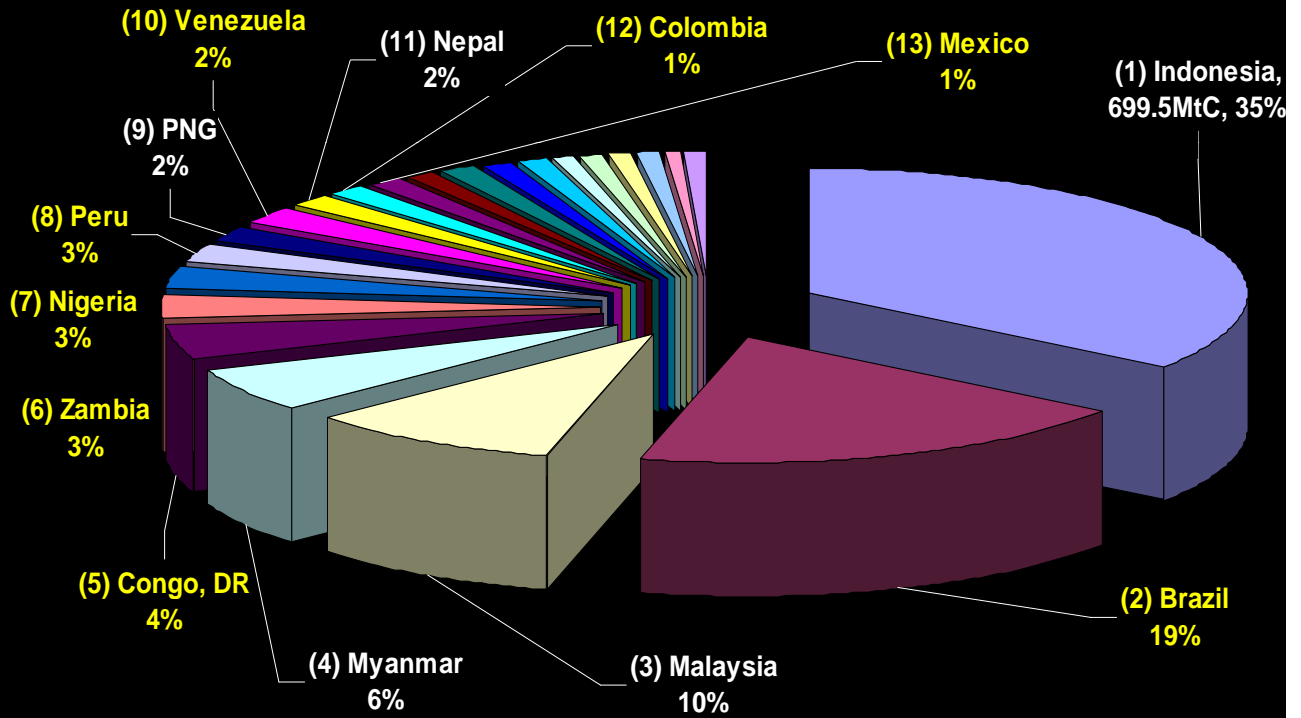
Gt= 10<sup>9</sup> ton

Source: Stern (2007)



# Global emission: LULUCF (2000)

Mostly from deforestation and forest degradation

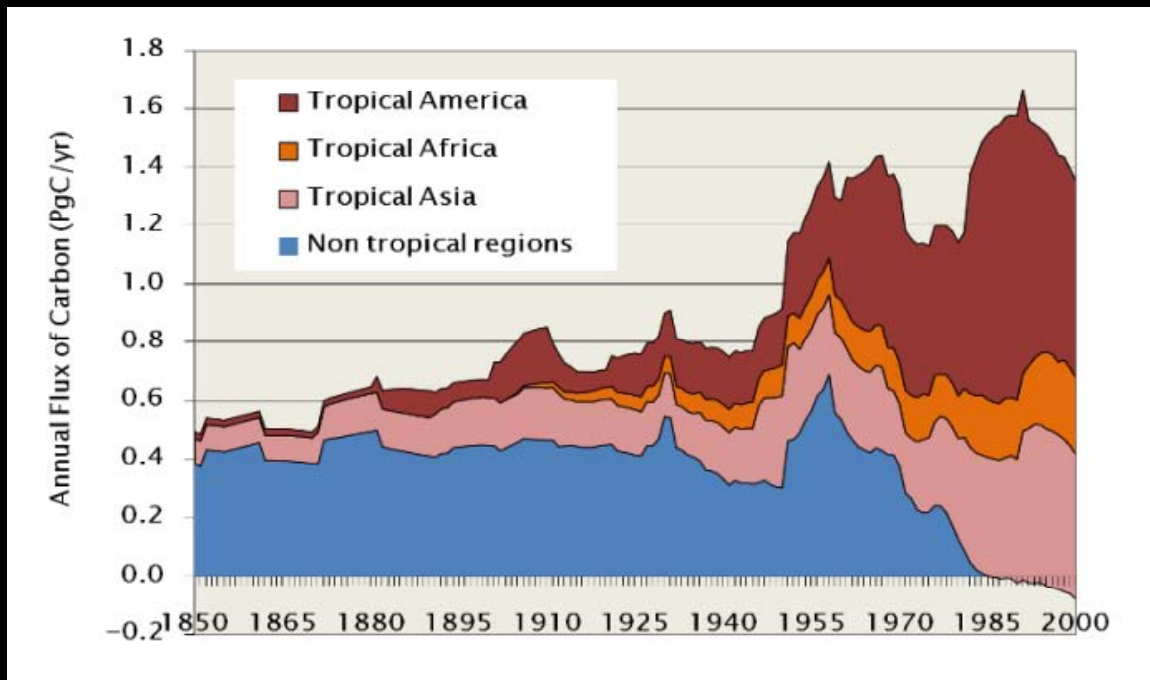


Source: CAIT-WRI, 2005. Mt= 10<sup>6</sup> ton



# Historical distribution of emissions

(1 PgC = 1 petagram or 10<sup>9</sup> metric tons of carbon)



	Tropics	Non-tropics
Long term	60%	40%
1990s	100%	0%

Source: Houghton, 2007



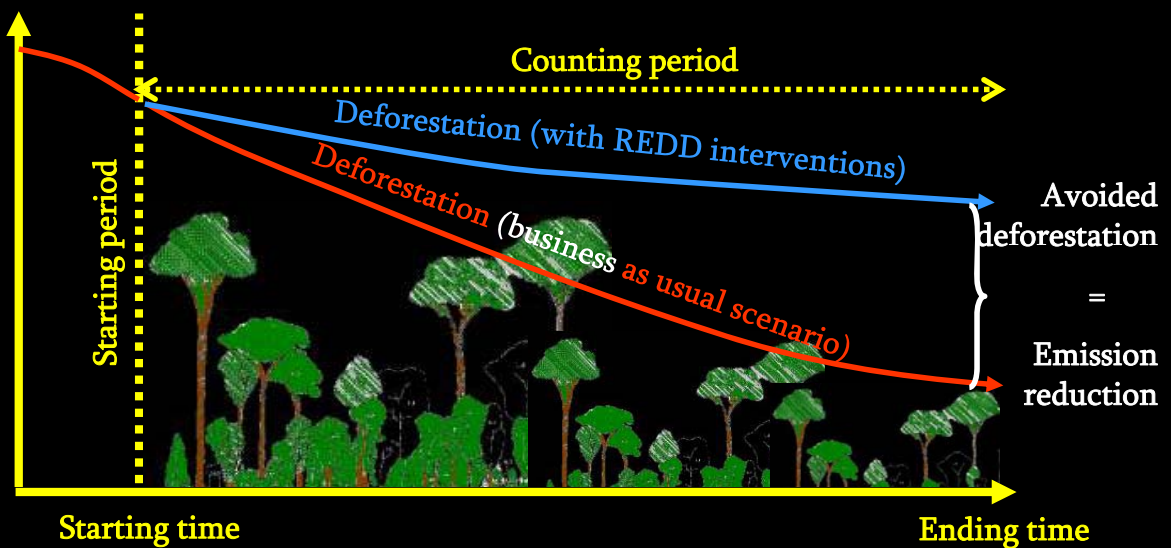
# The loss of goods and services

- 30% of the earth cover, but losing 7.3 million ha annually (FAO)
- The loss of high conservation value areas and species → habitat for endangered species, water catchment areas, sources of life for local and indigenous communities
- Economic loss due to the loss of timber, other products, environmental disasters (i.e. flooding, etc.)
- Human-wildlife conflicts
- Social costs: tenurial conflicts, land rights



# Simple sketch of REDD\*

\*Reducing emission from deforestation and forest degradation in developing countries



$$\Delta \text{ Avoided deforestation} = \Delta \text{ Emission reduction, compensated}$$

Policy interventions in REDD  $\approx$  land use, no/ reducing conversion, etc

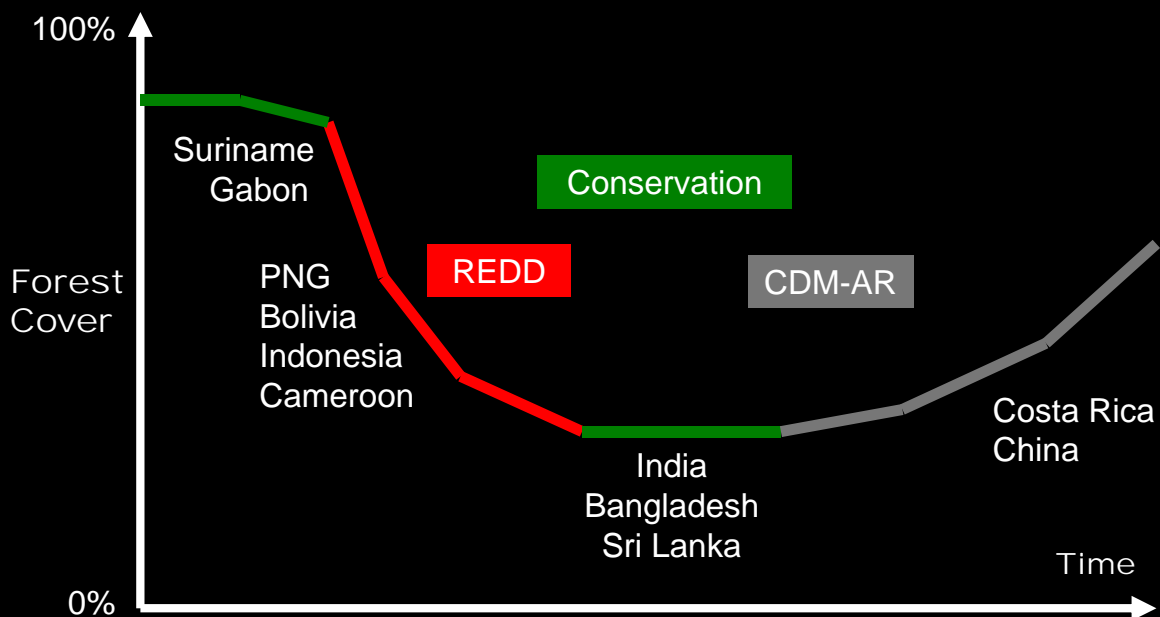


# REDD principles

- Simply: a country will obtain compensation if it can show that deforestation has been avoided and/or forests are sustainably managed → avoiding the release of carbon to the atmosphere
- REDD: “*payment for performance*” → incentives will be paid if deforestation is clearly avoided compared to *baseline* or *reference period* in an agreed time frame
- Issues needed to be addressed: *baseline or reference period, monitoring deforestation, carbon accounting, additionality, permanence, leakage, addressing opportunity costs, governance, benefit distribution mechanism*, etc.



# Forest cover trends





# UNFCCC Negotiation

Decision 2/CP.13 in Bali (2007) → SBSTA Conclusion – REDD in Poznan (2008) → SBSTA Conclusion & Draft Decision -/CP.15 in Bonn (2009), covering:

- **Voluntary** → preparing for compliance in post 2012
- Support for **capacity building, technical assistance, transfer of technology** esp. for data collection, emission estimation, **robust and transparent national and sub-national forest monitoring systems** and reporting, and the implementation of *demonstration activities*
- *Policy approaches: REDD+* → deforestation, degradation, conservation, sustainable management of forests and enhancement of forest carbon stocks.
- **National and sub-national approaches**
- *Positive incentives: market and non-market (REDD fund)*
- The needs to have full and effective participation of **local and indigenous communities**
- The use of the **Revised 1996 IPCC Guidelines and Good Practice Guidance for LULUCF** to estimate forest-related emissions by sources and removals by sinks



“These illiterates don’t realise what they’re doing to the environment”



## 2. Using REDD to address deforestation

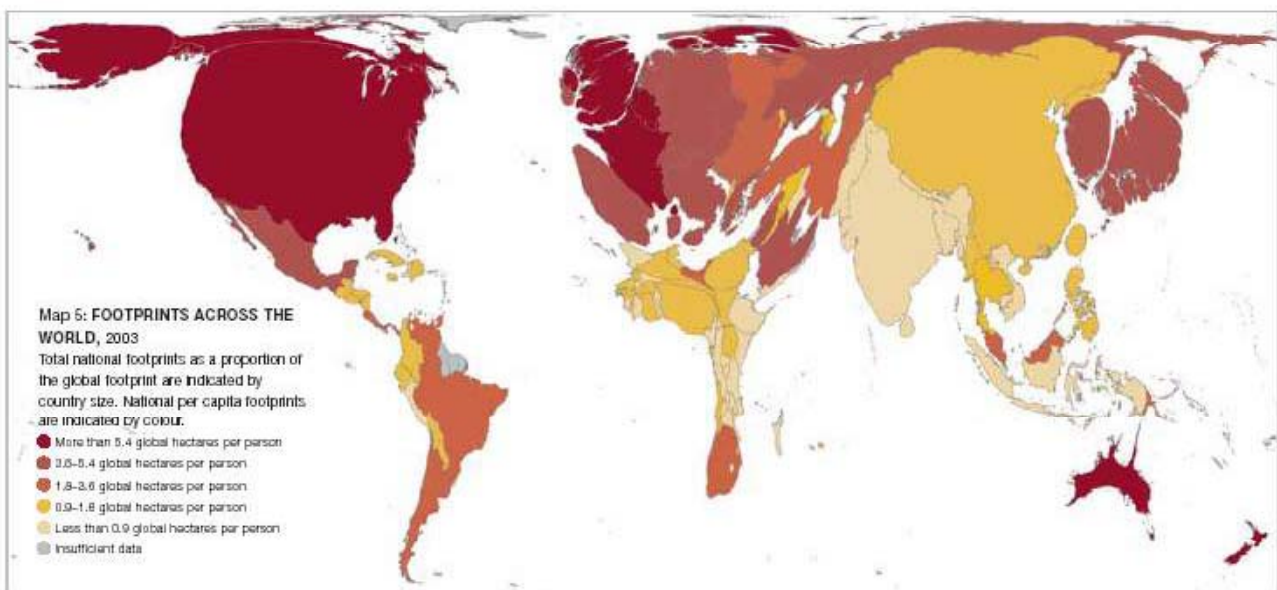


# Drivers of deforestation & forest degradation

- Population growth → poverty linkage
- Market/ commodity development (i.e. timber, pulp & paper, palm oil, biofuel) → logging & forest conversion
- Large-scale infrastructure & energy development (mining, biofuel)
- Unclear tenurial issue & acknowledgement of communities rights
- Conflicting policies/ weak governance



# Global footprint







# The growth of consumption



## WHAT CHINA EATS (AND DRINKS AND...)

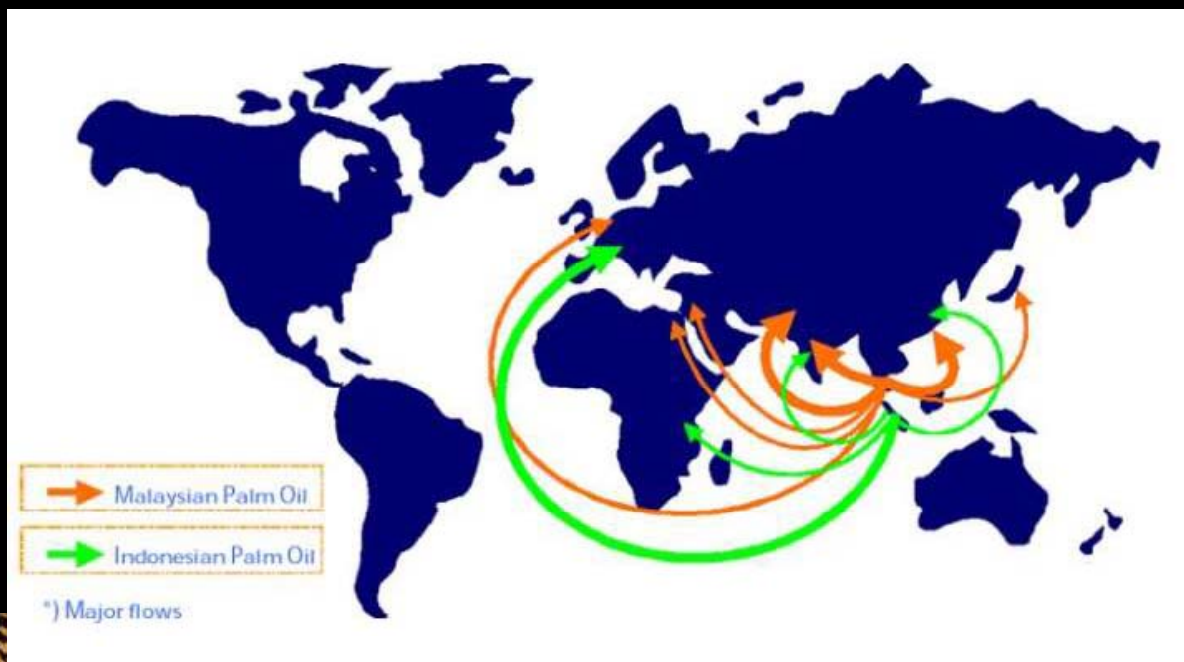
With 1.3 billion people—about a fifth of the world's population—China is consuming an ever-growing percentage of the world's commodities and products, from aluminum to washing machines.

Source: The Economist

Numbers show what percentage of the world's consumption is accounted for by China.



# Palm oil flows





# Forests destruction for world's commodities



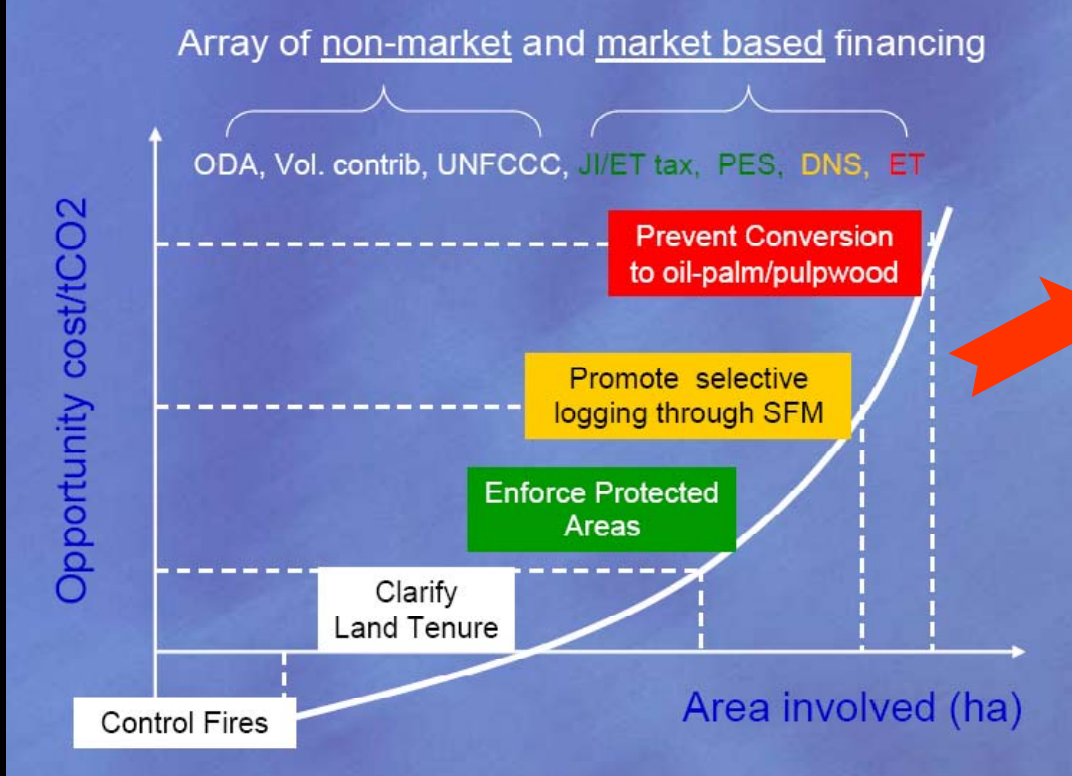
- Government purchase of timber products is estimated to account for 18% of all timber imports into G8 countries
- €10–15 billion: lost through illegal logging globally/year
- The EU → €3 billion of this loss due to its trade with countries in the Amazon Basin, the Baltic States, the Congo Basin, east Africa, Indonesia and Russia



- 7.3 million ha of forests lost globally for agriculture (soya, palm oil, cattle ranching, etc.), infrastructure and energy
- Half of the world's timber is used for paper production



# Addressing drivers with opportunity costs



Requires involvement and agreement from other sectors

Source: Murdiyarso et al, 2007



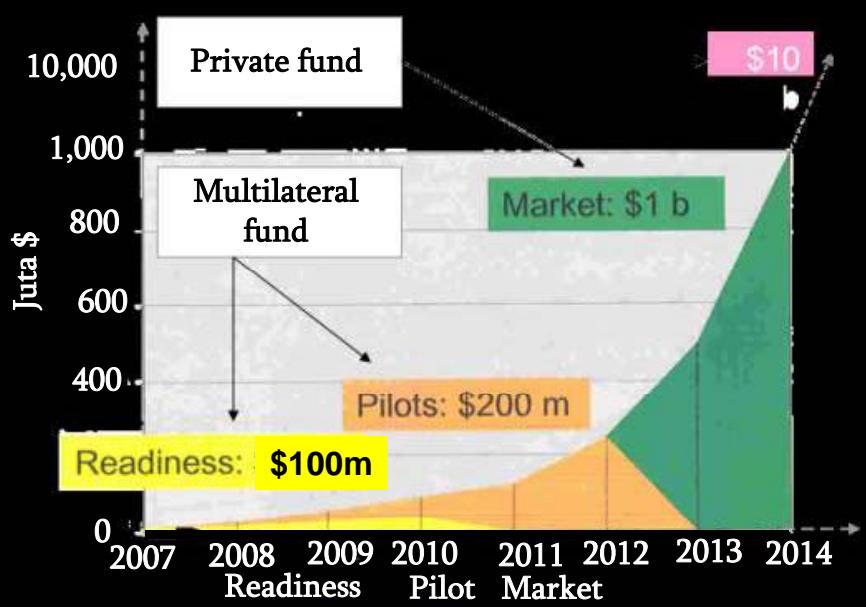
# Policy interventions and benefit distribution mechanism

- REDD cannot work if not supported with **clear policy interventions** e.g., land use (areas to be and not to be converted), investment, sectors coordination, market, etc.
- **Reducing transaction costs** (proportion for the broker, government, concessionaires, communities?).
- Ensuring **equity of impacts** (for different actors):
  - improving livelihoods of the rural poor
  - co-benefits for biodiversity, environmental services (watershed, etc.).
- **Who is going to “pay”?** realising the promises of ODA, voluntary markets and targeting binding agreement for Kyoto (Post 2012).



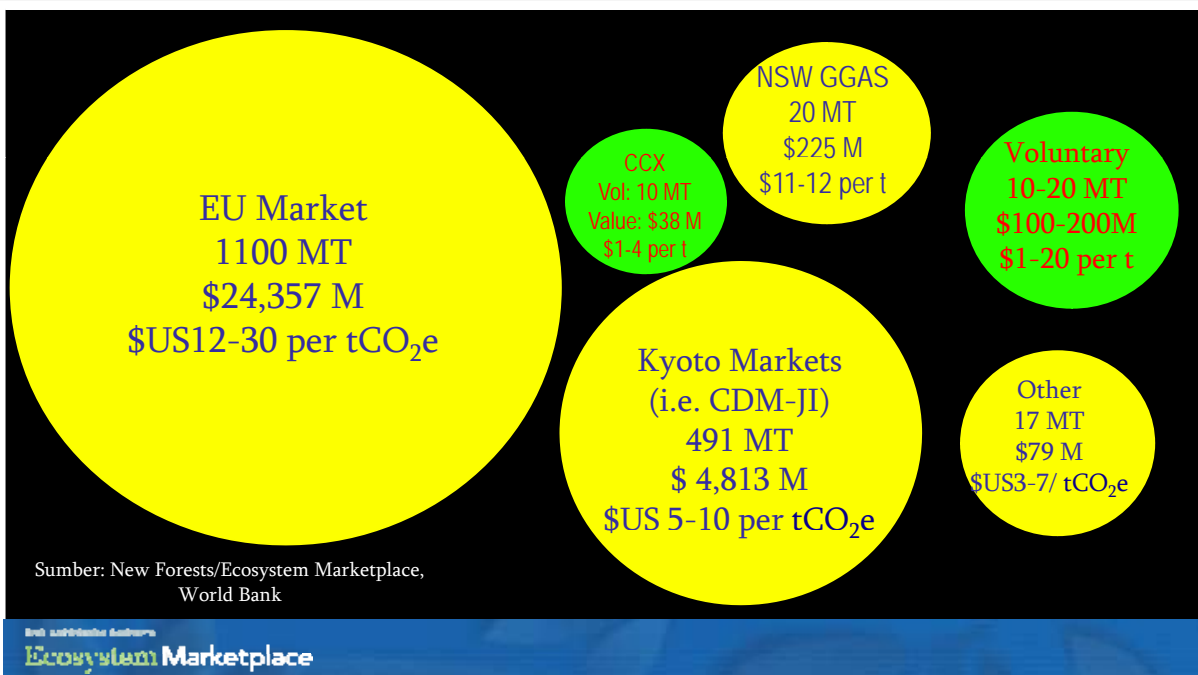
# Public and other funds

- Multi-lateral and bilateral arrangement: from ODA, e.g. FCPF (Forest Carbon Partnership Facility), IFCI (International Forest and Climate Initiative), etc.
- UN REDD (Norway Proposal)
- International REDD Fund
- Debt for carbon swap, etc.





# Carbon market



# Financial context (iii)

**Stern Review:** Estimates \$5 - \$15 billion/year to reduce global deforestation by 50% (likely underestimated.)

### Current Estimates

- GEF: \$100 million/year spent directly on forests (est.)
- Ecosystems: \$80 million/year (est.)
- Certified Forest Products: \$120 million/year (est.)
- Bio-prospecting: \$14 million/year (est.)
- ODA Protected Areas: \$800 million/year (est.)
- Major NGO's: \$1.2 billion/year (est.)

Total ODA: \$80 billion/year?

Carbon Market Growth:  
\$100 billion/year?





## Other financial options (i)

- **Debt for Nature Swaps:**
  - freeing up resources in debtor countries for much needed conservation activities → involves purchasing foreign debt at a discount, converting the debt into local currency, and using the proceeds to finance local conservation activities.
  - Bolivia, Costa Rica, Madagascar, Ecuador, Philippines, Poland, Zambia
- **Conservation Trust Fund:**
  - can be used to finance program costs over many years → establish the administrative and management mechanisms for stakeholders to work together
  - Bhutan, Mexico, Belize
  - <http://www.worldwildlife.org/conservationfinance/>
- **Payment for Watershed Services:**
  - Establishing equitable payment for watershed services → linking downstream users and up stream people
  - Philippines, Indonesia



## Other financial options (ii)

- **Pro-poor budgeting:**
  - adjusting national and local budgeting to cater the needs of poverty nexus conservation
  - Indonesia, India, Nepal
- **Incentives to support the promotion of local sustainable products:**
  - micro-financing
  - opening up market access
  - working with businesses as guarantor and buyers
  - green and fair products, fair trade in Indonesia, Philippines, etc.





## Other opportunities

- More funding and support for integration of biodiversity and climate change → existing work: climate and orangutan in the corridor of BK and DS
- Linking conservation and the provision of renewable energy → Gold Standard CDM for micro-hydro, biomass, etc.
- Ecological footprint assessment: national and island levels



## “Just and fair” benefit distribution

- **Reducing transaction costs** (proportion for the broker, government, concessionaires, communities?).
- Ensuring **equity of impacts**:
  - improving livelihoods of the rural poor
  - addressing tenure → who owns carbon?
  - co-benefits for biodiversity, environmental services (watershed, etc.).
- **Who is going to “Pay”?** realising the promises of ODA, voluntary markets and targeting binding agreement for Kyoto (Post 2012).





## At consumer countries

### Create Best Market Link

- Bilateral governmental dialogue
- Develop responsible guideline

### Purchasing Policy

- Sustainable criteria (following FSC/timber&paper, RSPO/palm oil, RSB/biofuel)

### Industry awareness



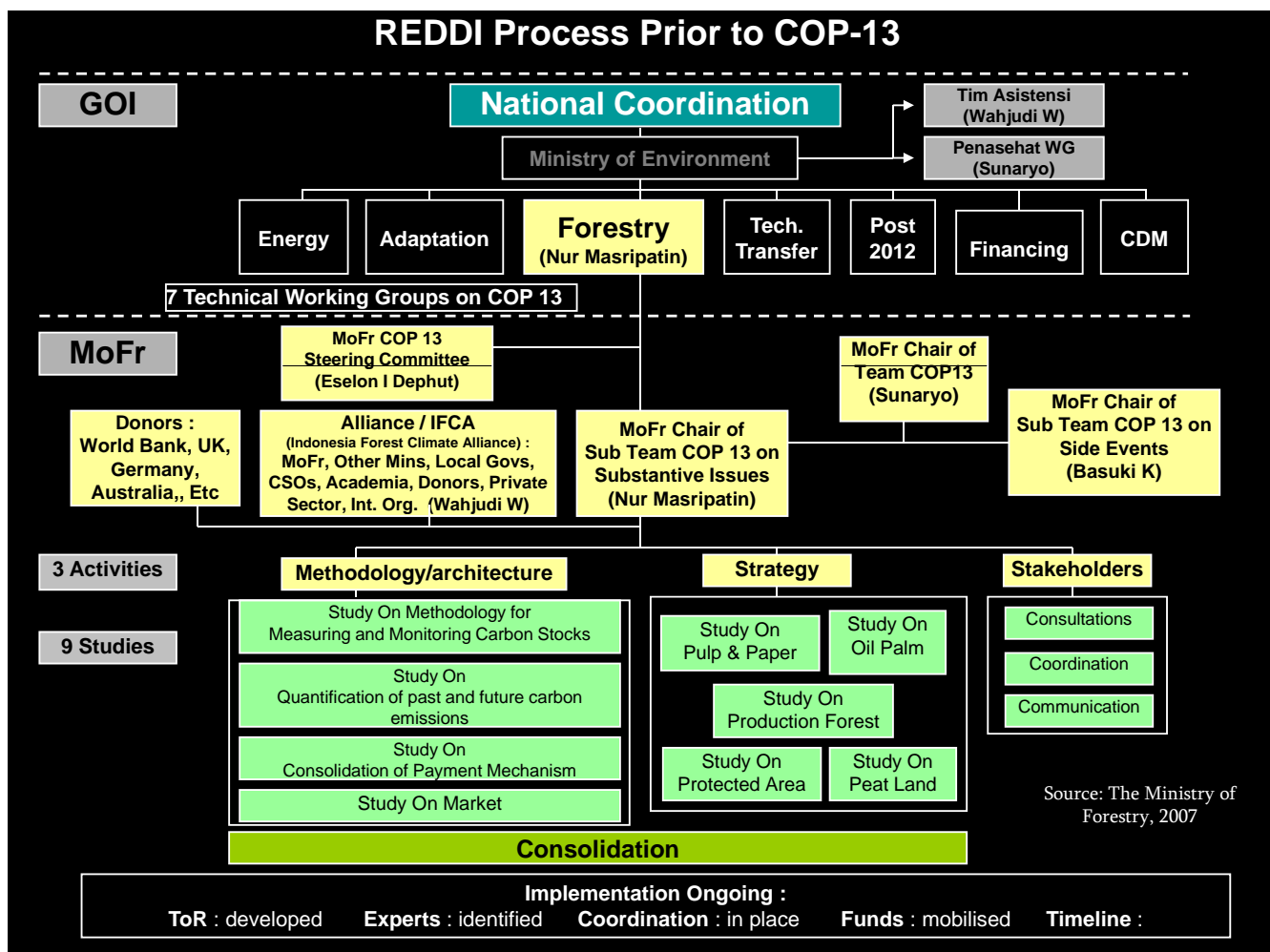
## 3. Indonesia's readiness for REDD





# Political and policy context (i)

- Commitment to **reduce hotspots** of forest and land fires down to 50% by the RI's President.
- Establishment and the work of **IFCA** (Indonesia Forest Climate Alliance) led by Ministry of Forestry → guiding & navigating the process of REDD readiness (architecture, strategy & stakeholders), pilot and implementation.
- **Declaration of the Governors** of Aceh, Papua and Papua Barat on Climate Change, April 26, 2007 → moratorium logging in Aceh, proposal for stopping conversion in Papua, pilot development → **Declaration of 10 Governors of Sumatra** to save the remaining forests and important ecosystems, October 2008.







## Political and policy context (ii)

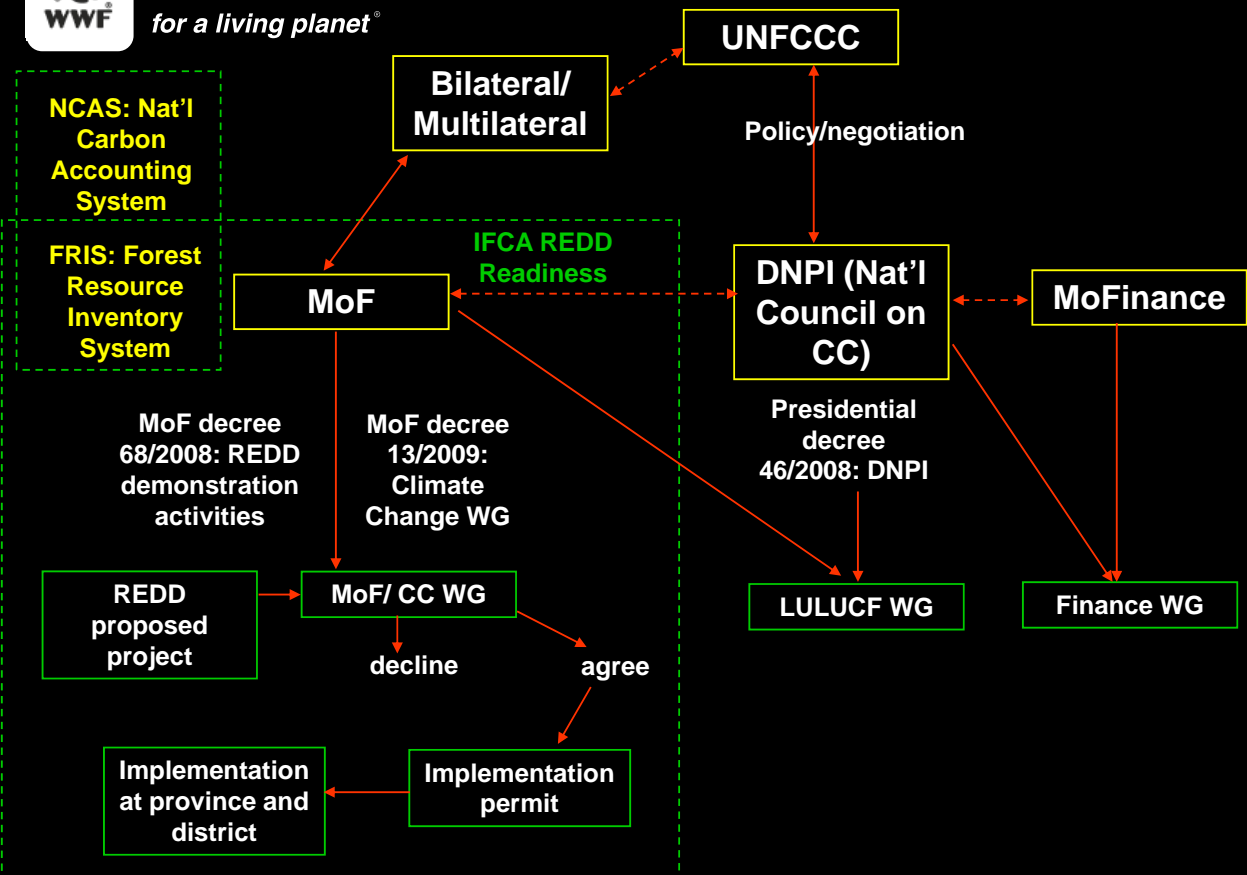
- Presidential Decree no. 46/2008 → **National Council on Climate Change (DNPI)**, overseeing overall climate policy development issues
- Minister of Forestry (MoF) Decree no. 68/2008 re **REDD demonstration activities**, no. 13/2009 re **the establishment of Climate Change WG under the MoF**, no. 30/2009 re **procedures for REDD implementation**
- Leadership from the Ministry of Finance to develop financial arrangement for climate related programs incl. REDD



## REDDI Process towards COP-15

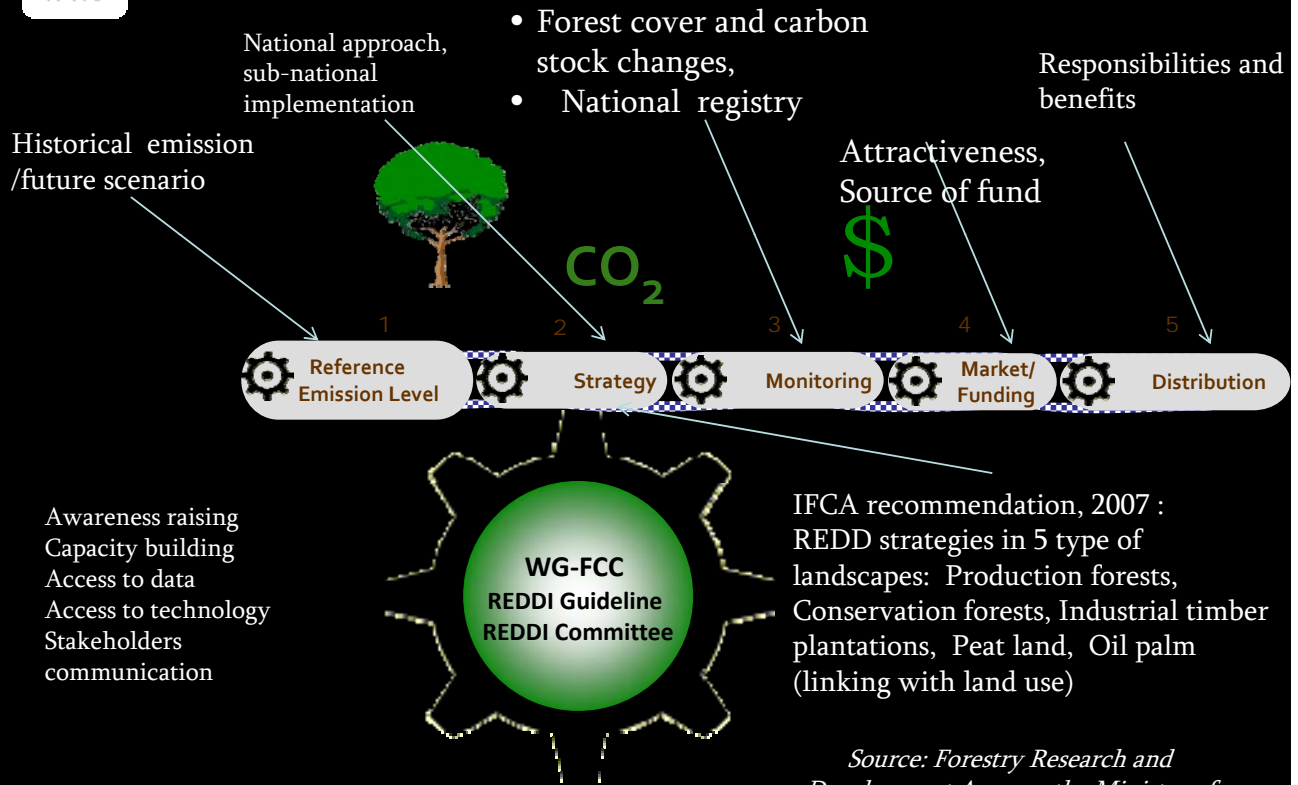


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# Planned REDD infrastructure



Source: Forestry Research and Development Agency, the Ministry of Forestry, 2009



# Bilateral and multilateral framework

- **MoU UK-Indonesia on Climate & Energy:** REDD → co-benefits (biodiversity & poverty), sub-national
- **Indo-Australia on REDD:** 1<sup>st</sup> phase → KFCP (Kalimantan Forest & Climate Partnership) ex-mega rice peat swamp demonstration activities, national carbon accounting & monitoring systems; 2<sup>nd</sup> phase → access to international carbon market
- **ASEAN on REDD:** Mekong REDD and Heart of Borneo Initiative & Strategic Plan of Actions
- **Norway/UK on REDD:** national REDD strategies, international architecture, financial flows, framework of methodologies
- **Germany on REDD:** Kapuas Hulu, Malinau: part of HoB



## Contributing to policies, negotiation and capacities

- **Components** need to be focused:  
*Baseline, benefit sharing mechanism, institutional arrangement, methodologies*
- No carbon credits provided during demonstration activities
- **Roles and challenges** for WWF:
  1. *Developing baseline and methodology,*
  2. *Project planning (developing ideas, PDD, etc..),*
  3. *Policy formulation (implementation mechanism, institutional arrangement, benefit sharing).*
  4. *Monitoring.*
- Capacities building when dealing with partners



## Actors involved or influencing REDD

- **Opportunity costs:** commodities (palm oil, pulp and paper, mining, energy), infrastructure, settlements, etc.
- **Policy approaches:** land use, administrative (central/ local)
- **Positive incentives:** finance, trade, etc.
- **Entities:** corporations, governments, donor communities, local communities, NGOs, academia





# Components for demonstration

1. Developing baseline and methodology
2. Project planning (developing ideas, PDD, etc..)
3. Policy formulation (implementation mechanism, institutional arrangement, benefit sharing, legal requirement)
4. Monitoring
5. Capacities building when dealing with partners



Source: IUCN, 2008 Forest Conservation Programme



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