

# The Economics of 2°C and REDD

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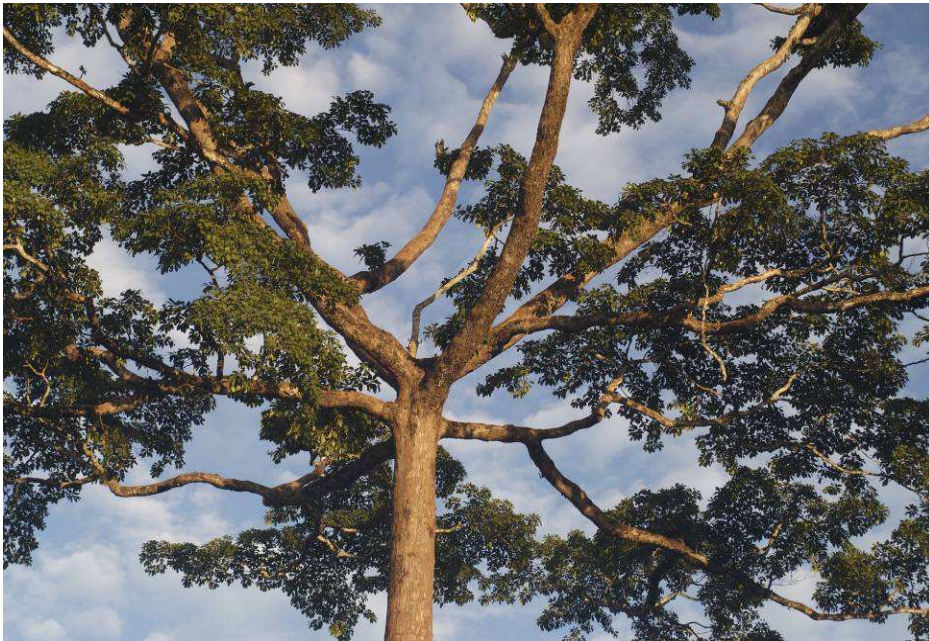
SAVE THE PARADISE FORESTS

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## Our End Goal



**To avoid catastrophic effects of climate change we need to keep the global average temperature rise as far below 2°C as possible.**

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# The Carbon Price: Yes, It's Important

***An effective carbon-price signal could realise significant mitigation potential in all sectors.***

-IPCC AR4, WGIII, Summary for Policymakers, at 19 (2007).

***The higher the market prices of fossil fuels, the more low-carbon alternatives will be competitive, although price volatility will be a disincentive for investors.***

-IPCC AR4, WGIII, Summary for Policymakers, at 19 (2007).

***Providing a strong, stable carbon price is the single policy action that is likely to have the biggest effect in improving economic efficiency and tackling the climate crisis.***

- Lord Nicholas Stern and Joseph Stiglitz, Obama's chance to lead the green recovery, Financial Times, 2 March 2009 (emphasis added).

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# KEA3 Report

- Commissioned by Greenpeace
- Purpose: examine impacts on carbon price of including REDD in carbon markets
- Emphasis: incentives for clean tech and ability to stay below 2°C

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# Greenpeace Summary of Key Findings

- Crashing the carbon price
- Stalling the energy [r]evolution
- The “Lock in” Effect
- Market Efficiency (or lack thereof)

# Crashing the Carbon Price

- **Crash in carbon price of 75% for currently stated targets and 70% for a 40% A1 target (based on IPCC and UNFCCC rates of deforestation)**
- **If lower potential supplies of REDD credits are assumed (through lower deforestation baselines), the price of carbon still falls by 50-60%.**
- **Key Finding: price impacts appear most dependent upon limitations placed on REDD regardless of the overall reduction targets.**
  - **Unlimited REDD: 50-75% collapse in price of carbon**
  - **50% Supp Limit on REDD: 50-60%**
  - **20% Supp Limit on REDD: 25-45%**
- **GP: potential for volatility (market destabilization) & indirect effect on investments**

# Crashing the Carbon Price

## Illustrative Example Only

- Need carbon price of €67 (US\$100) by 2030 for 450ppm stabilisation (2°C)
- A carbon price of €33 (US\$50) by 2030 for 550ppm stabilisation (3°C)  
(IPCC 4th Assessment Report, Working Group III)
- KEA3 Report findings (carbon price deflation due to REDD credits):
  - €30 → €12-13 under A1 25%
  - €35 → €15 under A1 30%
  - €48 → €20 under A1 40%

(constant prices through 2020; based on a 50% supp limit or unlimited REDD)
- 2°C rise = potential for major irreversible impacts on tropical forests

# Stalling the energy [r]evolution

- REDD credits would significantly reduce investments in clean and renewable technologies in *both* developed and developing countries under all scenarios.
- Key Finding: Approx. 50-50 split in the loss of A1 domestic abatement and NA1 energy credits
- The losers:
  - Innovative clean tech companies
  - Tech transfer (Stern's cell phones)
- The winners:
  - Exxon-Mobil & Shell

# The “lock in” effect

- Continued investments in high carbon technologies and infrastructures that will not be phased out anytime soon.
- Applies to both developed and developing countries.
- The introduction of REDD credits results in large net economic losses in clean tech for rapidly industrializing countries:
  - China: \$10-100 bil per year
  - India: \$1-15 bil per year
  - Brazil: \$33 million – 1.7 bil per year  
(Approximations. Brazil is assumed to account for 33% of “other CDM”, \$1-5 bil per year)
- GP: impacts on developing country actions and positions in 2CMP, 3CMP, and beyond

# Market Efficiency (or lack thereof)

- **Costs of REDD v Price of Carbon**
- **Efficient use of limited mitigation resources?**
- **GP: limited number of countries with tropical forests**

# Outstanding Issues & Research Needs

- **Closer examination of “lock in” effect**
- **Africa and the carbon markets**
- **CDM Reform**
- **REDD Issues of permanence, leakage, additionality**
- **Biodiversity & Indigenous Rights**

# Greenpeace Conclusions

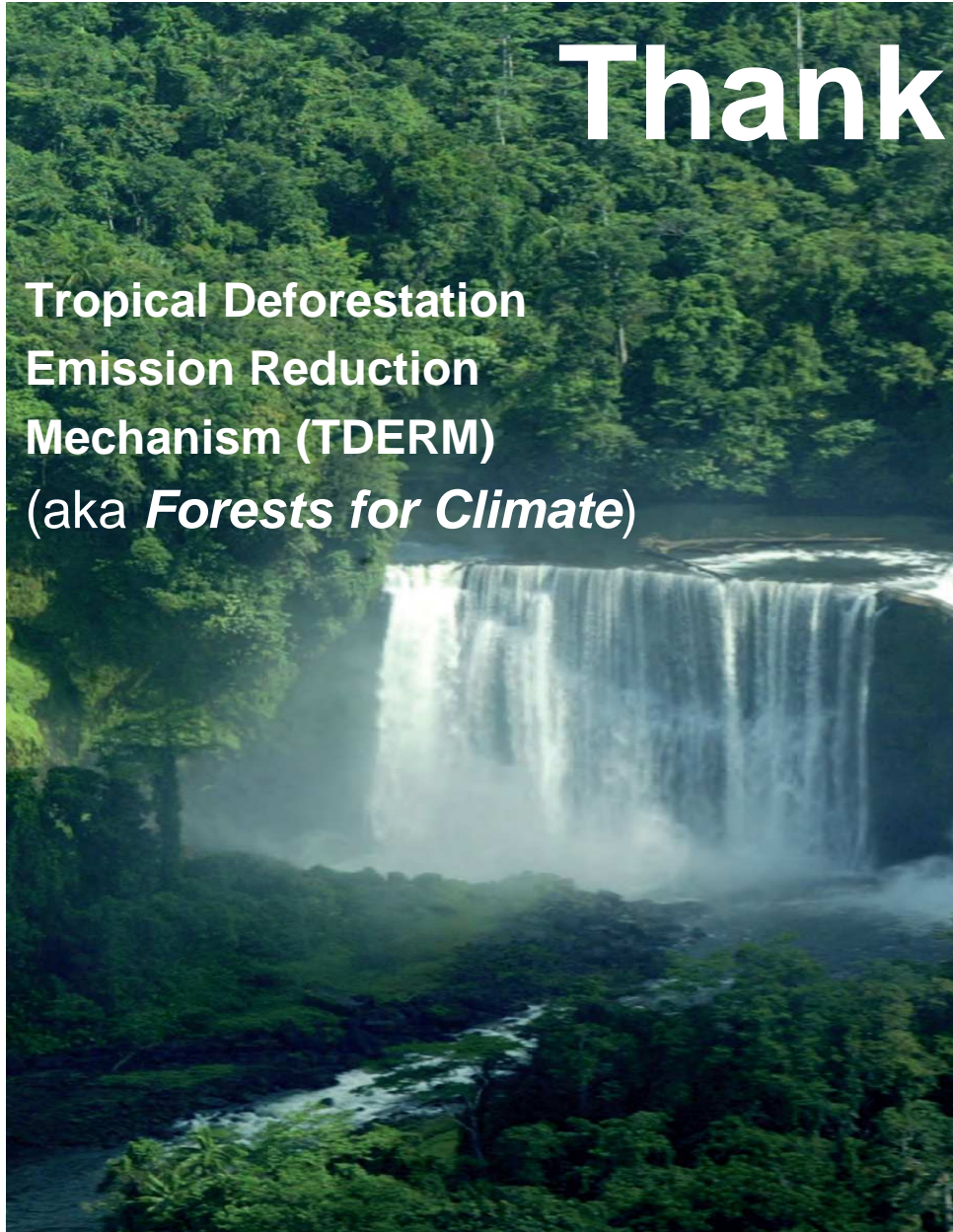
- World leaders must find a way to provide significant and reliable financing for REDD which is additional to deep emission reductions in industrialised countries and ambitious renewable energy and energy efficiency investments in developing countries. Among available financing options, the direct inclusion of forest offset credits in the carbon markets carries the greatest risks to both the climate and the forests. REDD credits could depress and cause major fluctuations to the price of carbon thereby preventing the investments in clean and renewable technologies needed to keep global temperature rise well below 2°C.
- Including REDD credits in carbon markets would cause countries – both north and south – to “lock in” dirty technologies, such as coal-fired power stations, in the next decade. Such a scenario could significantly increase the overall costs of long term mitigation and impede the ability to stay well below 2°C. To prevent such unintended consequences, governments must focus on providing a strong and stable price of carbon as well as providing strong overall reduction targets.
- While certain developing countries with tropical forests could initially benefit financially from selling REDD offset credits, the resulting delay in stopping global emissions would mean their forests could ultimately be destroyed due to the impacts of failed mitigation of climate change, which is likely to increase as a result of REDD offset credits. According to recent modelling by the Met Office Hadley Centre (UK), the probability of irreversible loss of much of the Amazon forest increases dramatically above a 2°C rise in temperature.
- The report shows the negative impacts of REDD credits while assuming they are of comparable quality to energy credits. However, significant questions of permanence, leakage, and additionality have been raised about potential REDD credits; as well as the ability of countries to accurately measure, monitor, and report on such emissions. Issues of quality need to be addressed for any REDD mechanism to succeed, but cause significant problems when REDD is used to offset industrialised country emissions.

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# Thank You

Tropical Deforestation  
Emission Reduction  
Mechanism (TDERM)  
(aka *Forests for Climate*)



report global energy scenario

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