

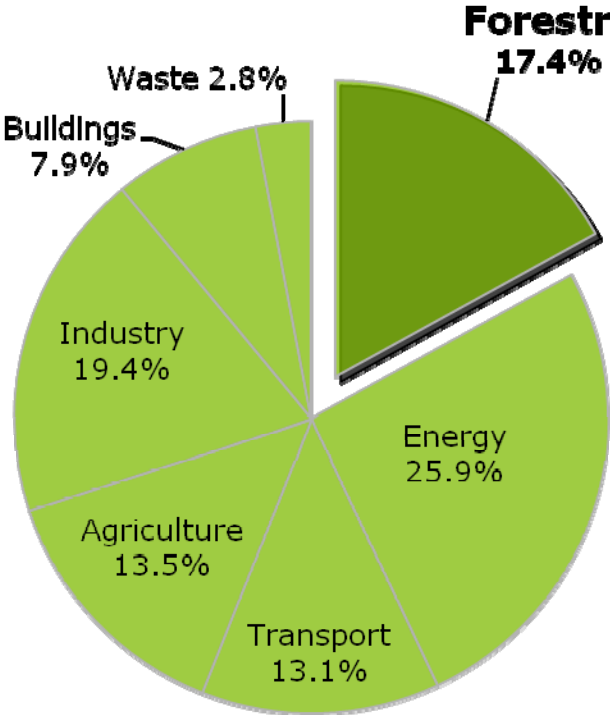
# Climate Change: Financing Global Forests

Review published 14<sup>th</sup> October 2008 at [www.occ.gov.uk](http://www.occ.gov.uk)

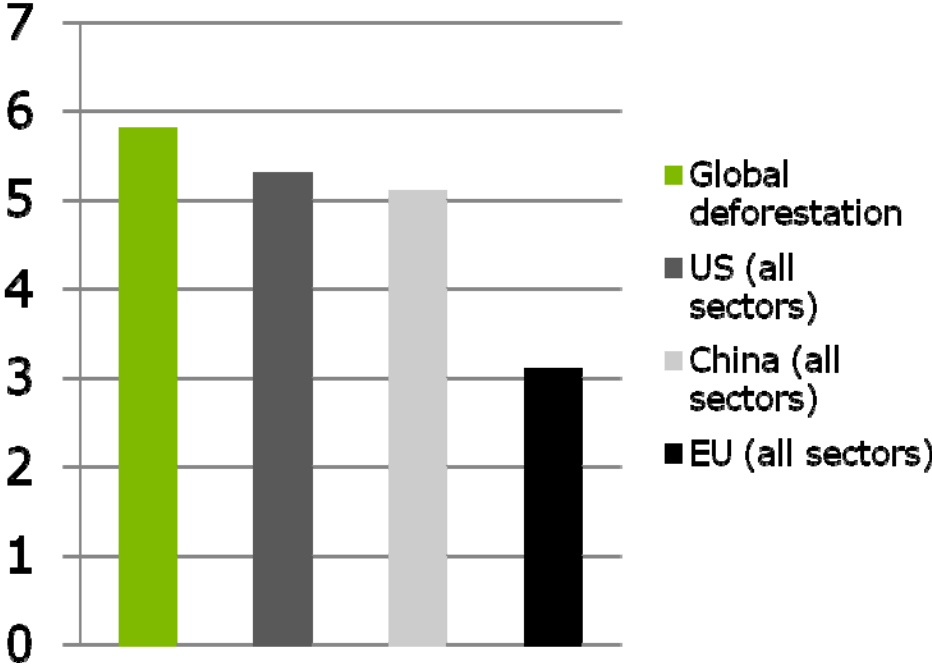


# Emissions from forests are significant...

**Global GHG emissions by sector**



**Annual CO<sub>2</sub> emissions (GtCO<sub>2</sub>)**



Sources: IPCC Fourth Assessment Report (2007), IPCC GHG inventory (2007) and IEA World Energy Outlook (2007)

# The vision: what needs to be done...

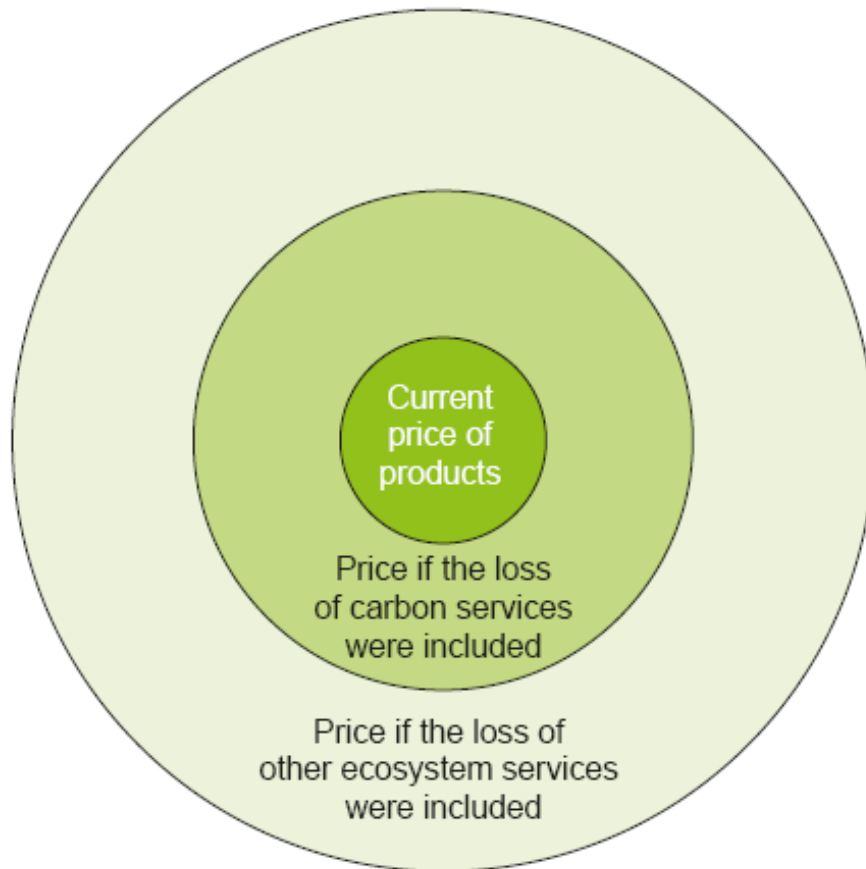
**A step change in how  
land is used and  
commodities produced**

**Forests more valuable  
standing than cut**

- More efficient and sustainable agricultural production
- Sustainable plantations and forest management
- Infrastructure expansion properly managed
- Alternative employment opportunities
- Protected areas with full participation of communities
- Payments for ecosystem services
- Sustainable biofuels

# Getting there will involve overcoming some challenging obstacles...

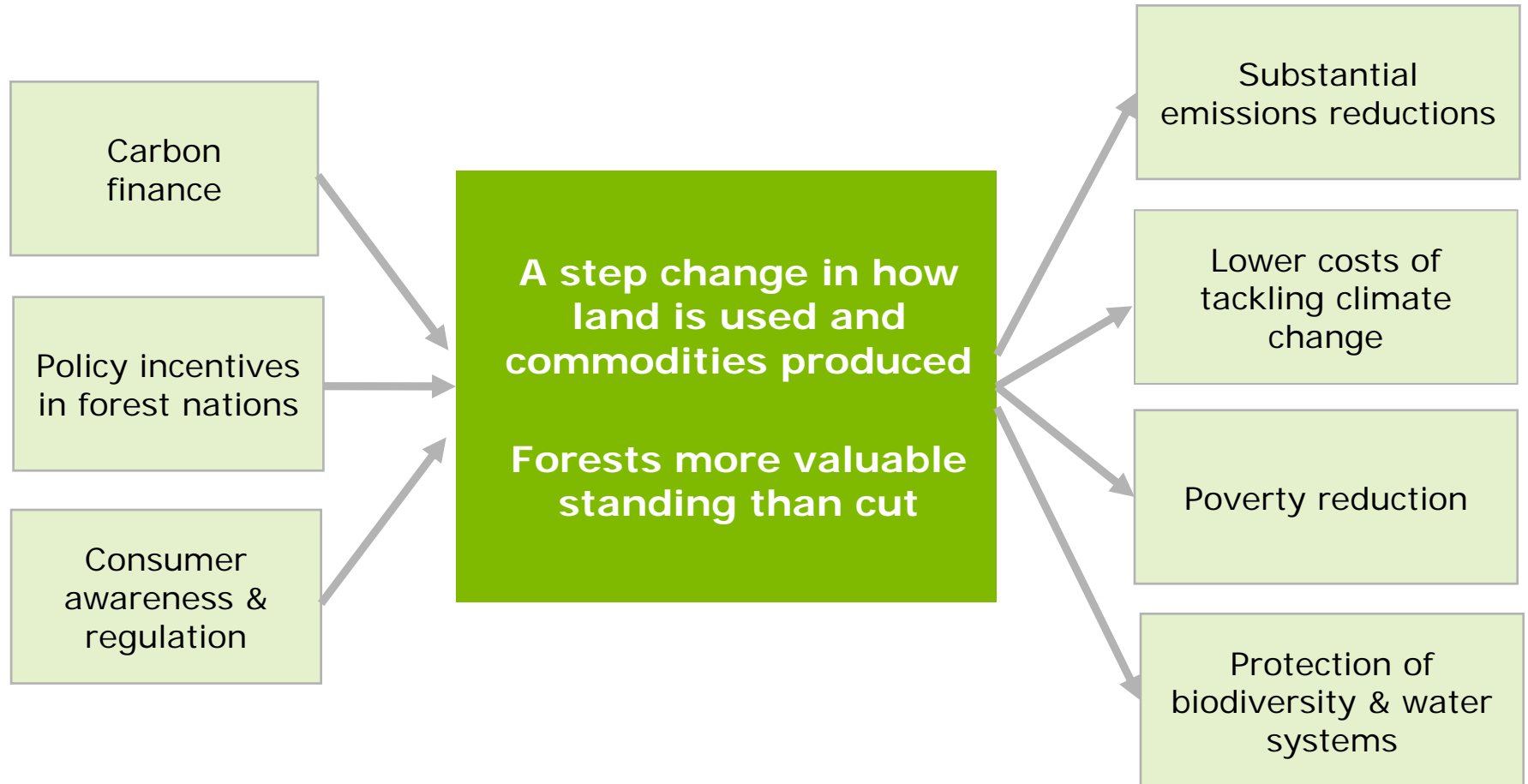
## Price of products from deforested land



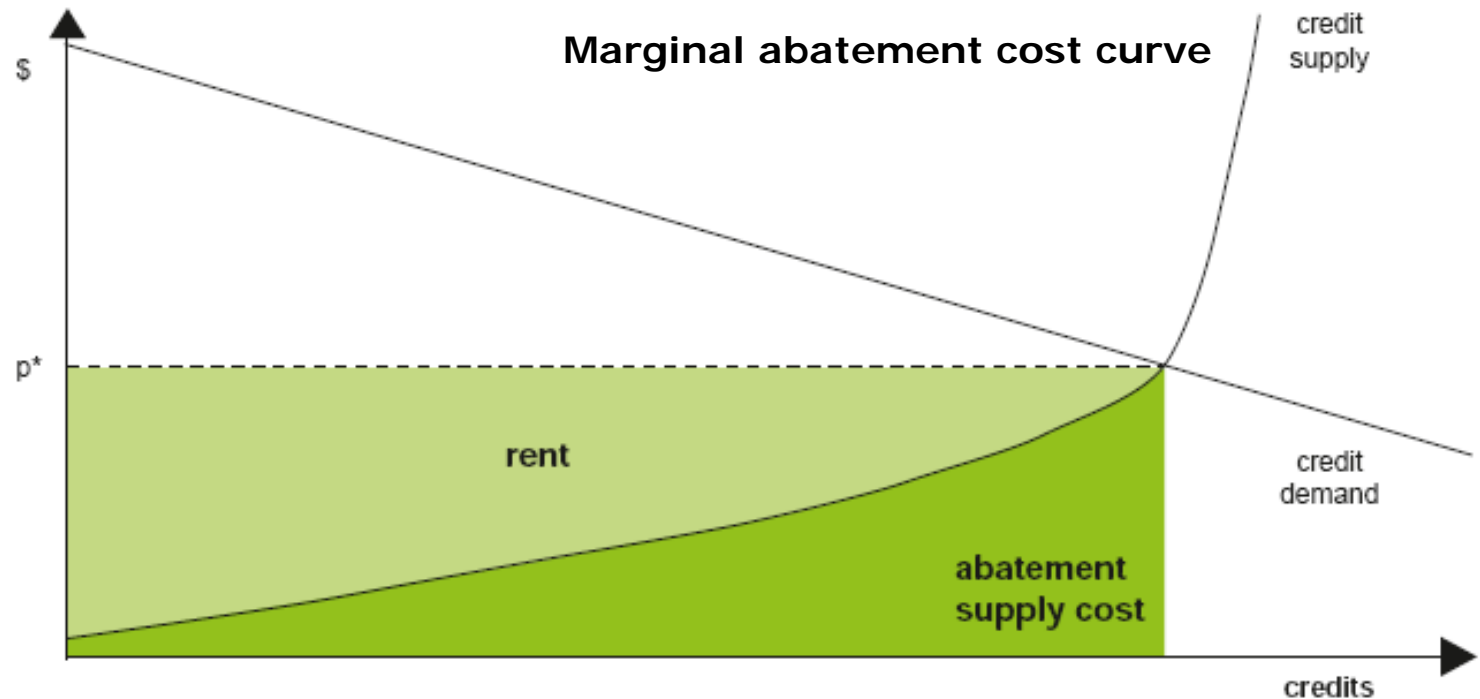
- The social and environmental costs of deforestation are not reflected in the price of timber and agricultural products (i.e. **externalities**)
- **Subsidies** and other policies in producer countries further incentivise deforestation
- **Unsustainable purchasing practices** in consumer countries provide yet more incentive to deforest

# Delivering the vision...

## How do we deliver this?



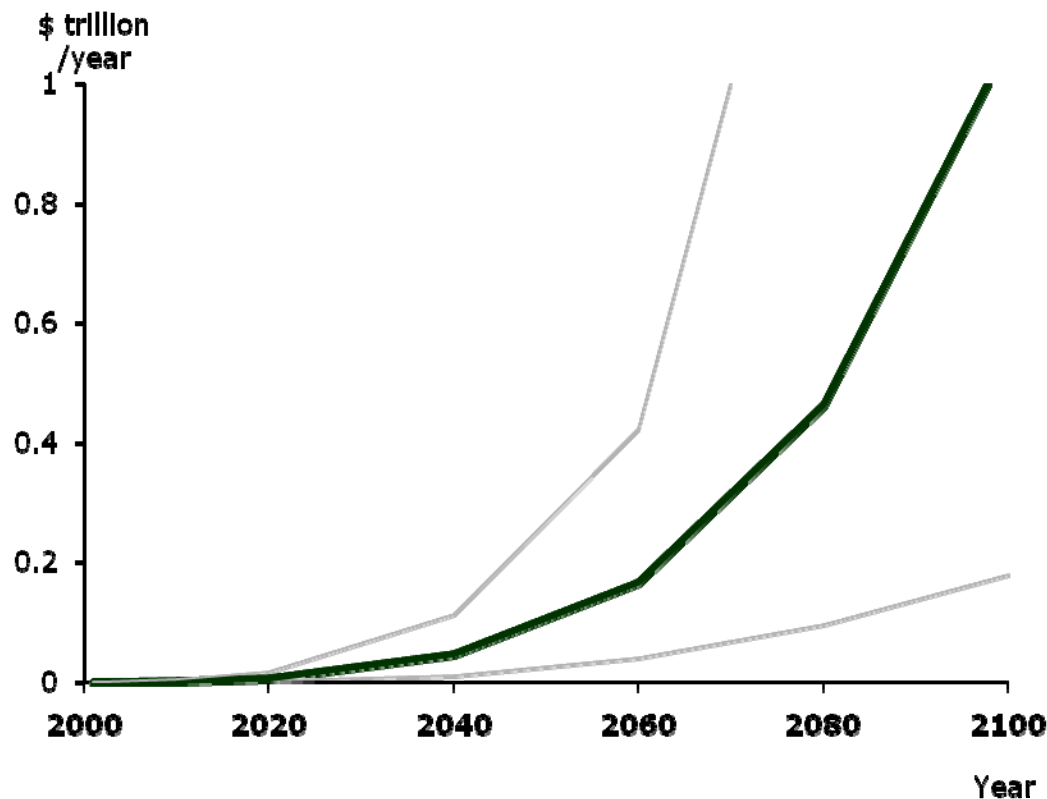
# How much could it cost?



- An update of the 'bottom-up' *opportunity cost* estimate for the Stern Review gives around \$7 billion per year for halving global deforestation (no rent)
- On the basis of global land-use model results, the Eliasch Review estimates the *cost of purchasing* forest credits on the open market sufficient to halve deforestation to 2030 at \$17-33 billion per year (includes full rent)

However the benefits of taking action far outweigh the costs...

Effects of deforestation on climate change could lead to additional global damages of \$1 trillion a year by 2100

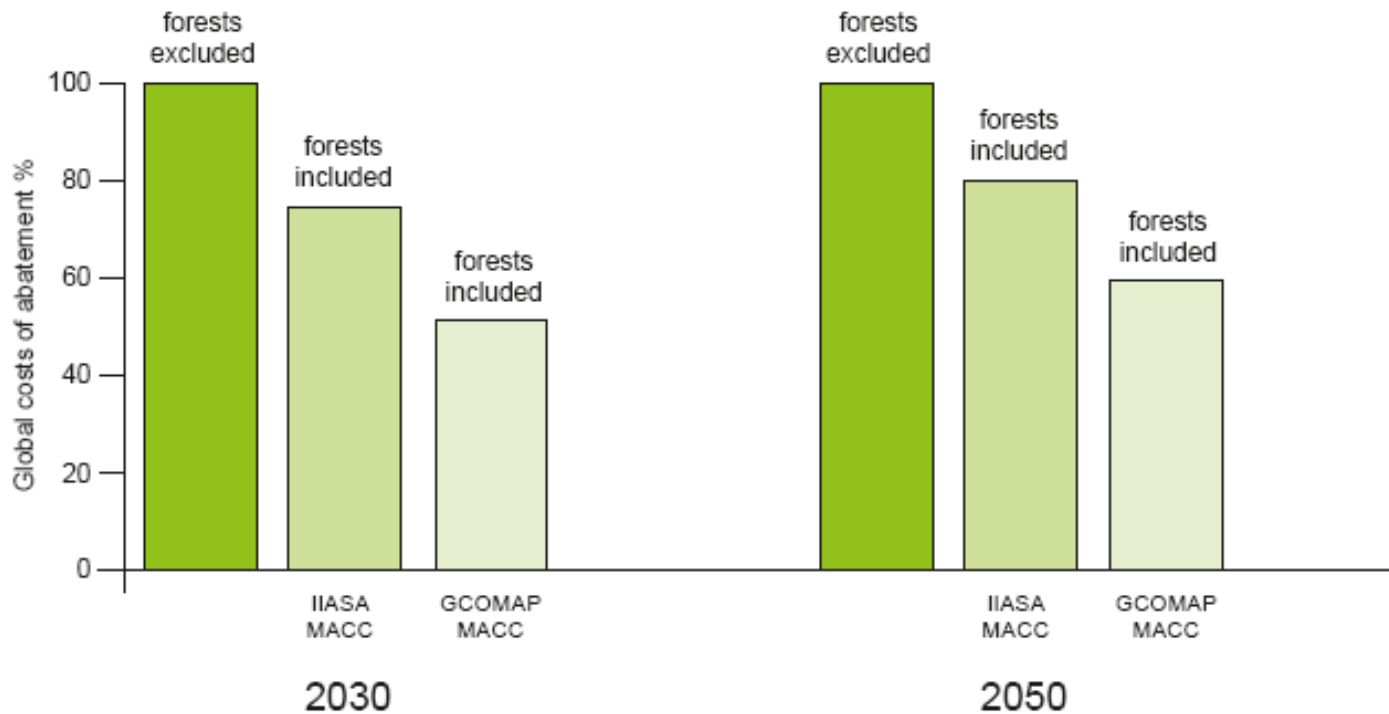


### The benefits of abating forest emissions

- Reducing forest emissions by 50% gives a mean net benefit of around **\$3.7 trillion** (NPV of climate change damages minus mitigation costs)
- The net benefit increases to **\$6.3 trillion** if forest emissions are reduced by 90%

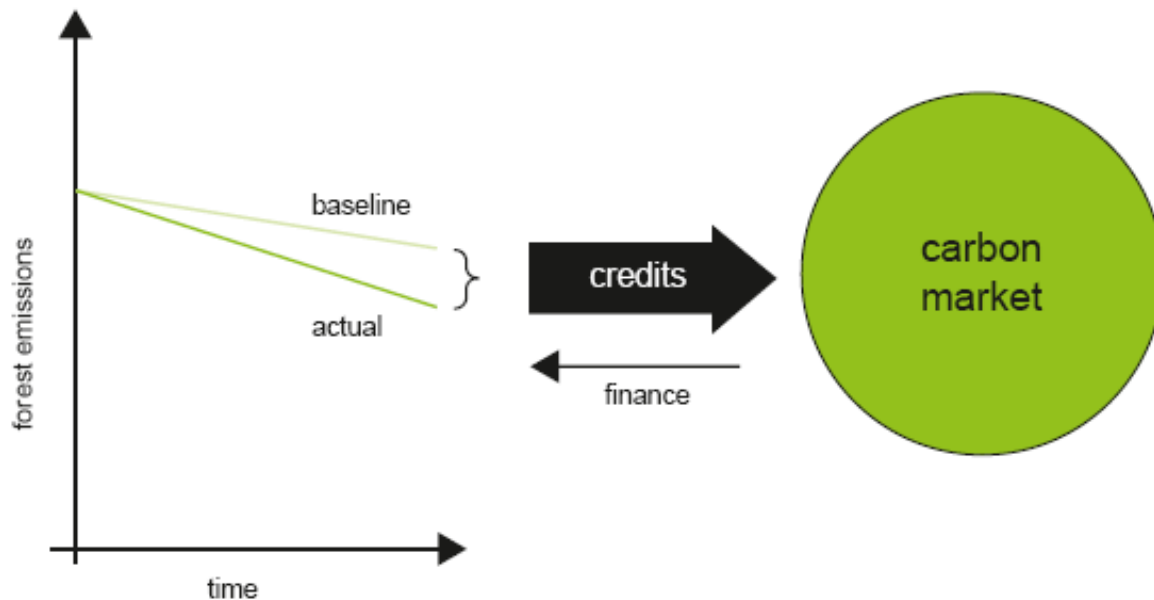
# In the long term, the forest sector should form part of a global cap and trade system

- Including the global forest sector in a well-designed cap and trade system could make it carbon neutral by 2030 (**3.5 GtCO<sub>2</sub> of abatement**)
- Including forests could **reduce global costs** of climate change mitigation by up to 50% in 2030 and by up to 40% in 2050



- This could enable an **extra 10% reduction** in global CO<sub>2</sub> emissions in 2050.

In the transition, four building blocks will be essential to access carbon finance...



### 1. Effective targets

National baselines, inclusive of all countries

### 2. Robust measuring

Forest credits based on real reductions in forest emissions

### 3. Linking to carbon finance

Carbon markets and other funding initiatives

### 4. Governance

International standards and full participation of forest communities

# 1. Targets that minimise leakage and maximise additionality

## National level

- Prevents intra-national leakage
- Activates government policy levers
- Reduced transaction costs

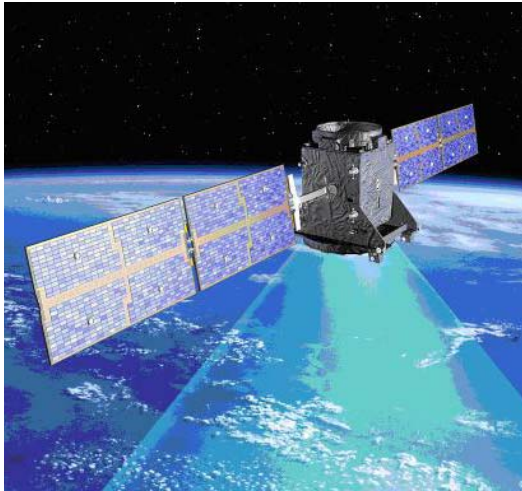
## Inclusive

- To reduce international leakage, targets should incentivise both high and low deforesting nations
- Should also be simple & transparent

## Additional

- Baselines should diminish over time:
- Emissions are projected to decline as forests disappear
  - Forest nations to take on greater commitments

## 2. Robust measuring and monitoring



- Forest emissions can be estimated with **similar confidence** to emissions from other sectors.
- However, **capacity building** is needed in many countries to realise this in practice. The Eliasch Review estimates that for 25 forest nations, a total of around \$50 million will be needed in set-up costs. A further \$7-17 million would be needed for annual running costs.
- While capacity is developing, **conservative estimates** should be used.
- There should be **verification** of emissions reductions, just like for Annex I countries.

### 3. Linking to carbon markets

- The impact of forest credits on carbon markets will depend on **four variables**:

The stringency  
of emissions  
targets

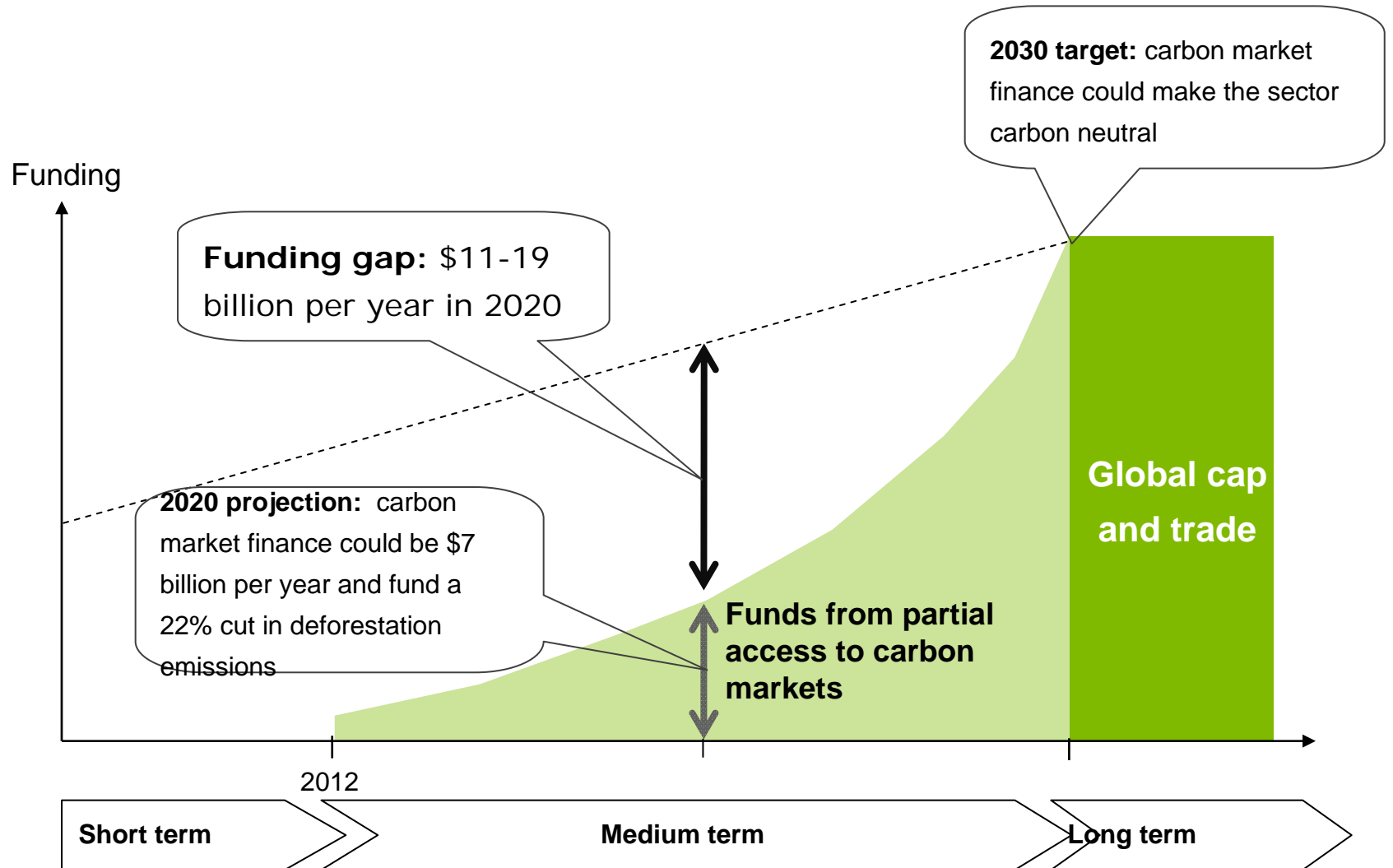
Supplementarity  
limits

The cost of  
supplying forest  
credits...

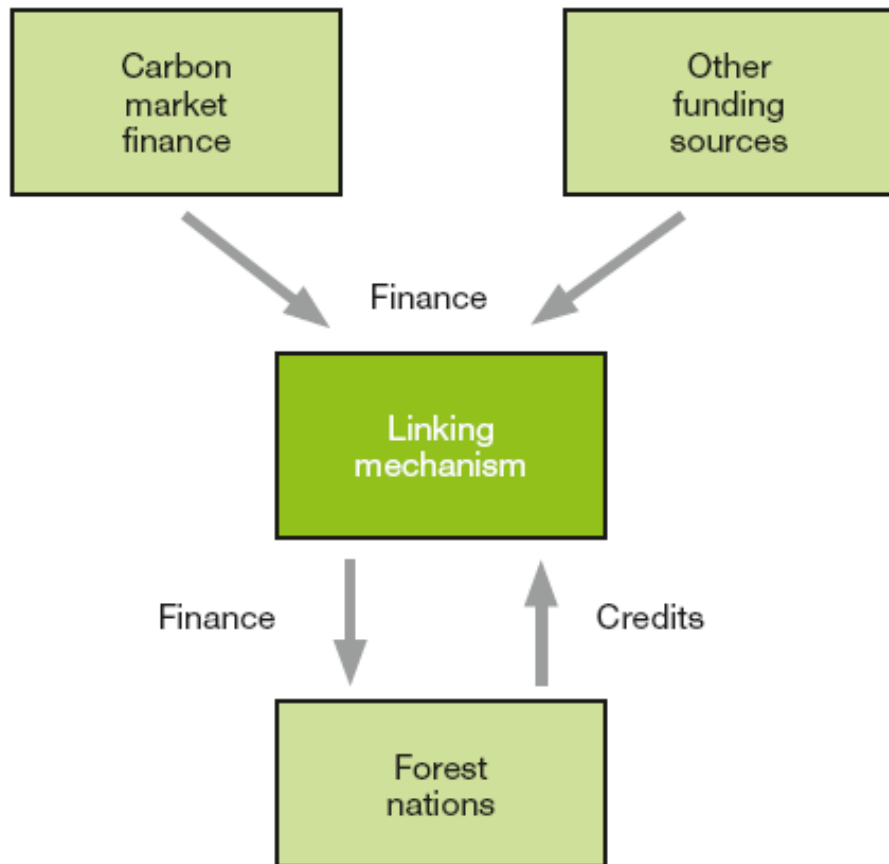
...and the  
relative cost of  
supplying other  
credits

- Modelling suggests that if supplementarity limits are set at 50% or lower in phase III of the **EU ETS**, then admitting forest credits to the international credit market will have little or no impact on the EU carbon market price.
- There would, however, be an impact on the **international credit market** unless global emissions targets are tightened or supplementarity restrictions loosened on forest credits being admitted. Without such adjustment, forest credits would displace some more expensive abatement in other sectors.

# Carbon market finance alone will not be sufficient in the medium term...



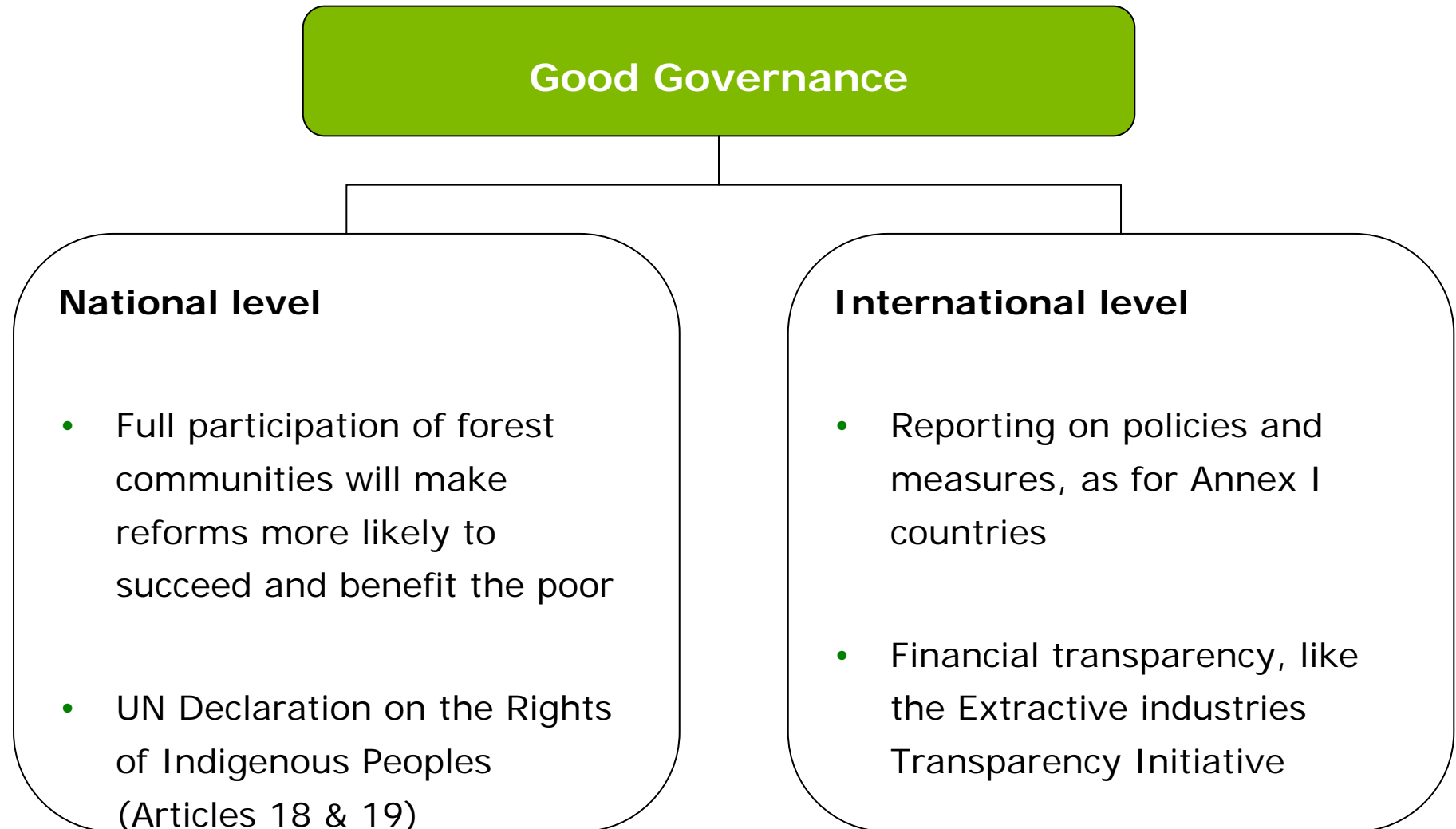
A linking mechanism could combine different funding sources & perform other functions...



**A linking institution could perform three functions:**

- **Aggregate** different sources of funding
- Manage the risk of reversal of emissions reductions using a **reserve of credits**
- Reduce the risk to forest nations of investment in emissions abatement by guaranteeing a **minimum price** for a minimum number of credits

## 4. Good governance will be needed for forest abatement efforts to succeed



# Immediate action: mobilising international funds for capacity building

## Research & analysis

- National drivers of deforestation
- Solutions and strategies
- Development of baselines

## Policy reforms

- Reform of policy and legal framework
- Land tenure reform
- Measuring and monitoring capability
- Institutional strengthening

## Investment in early action

- Demonstration activities
- Major practical programmes

## Mechanisms proposed

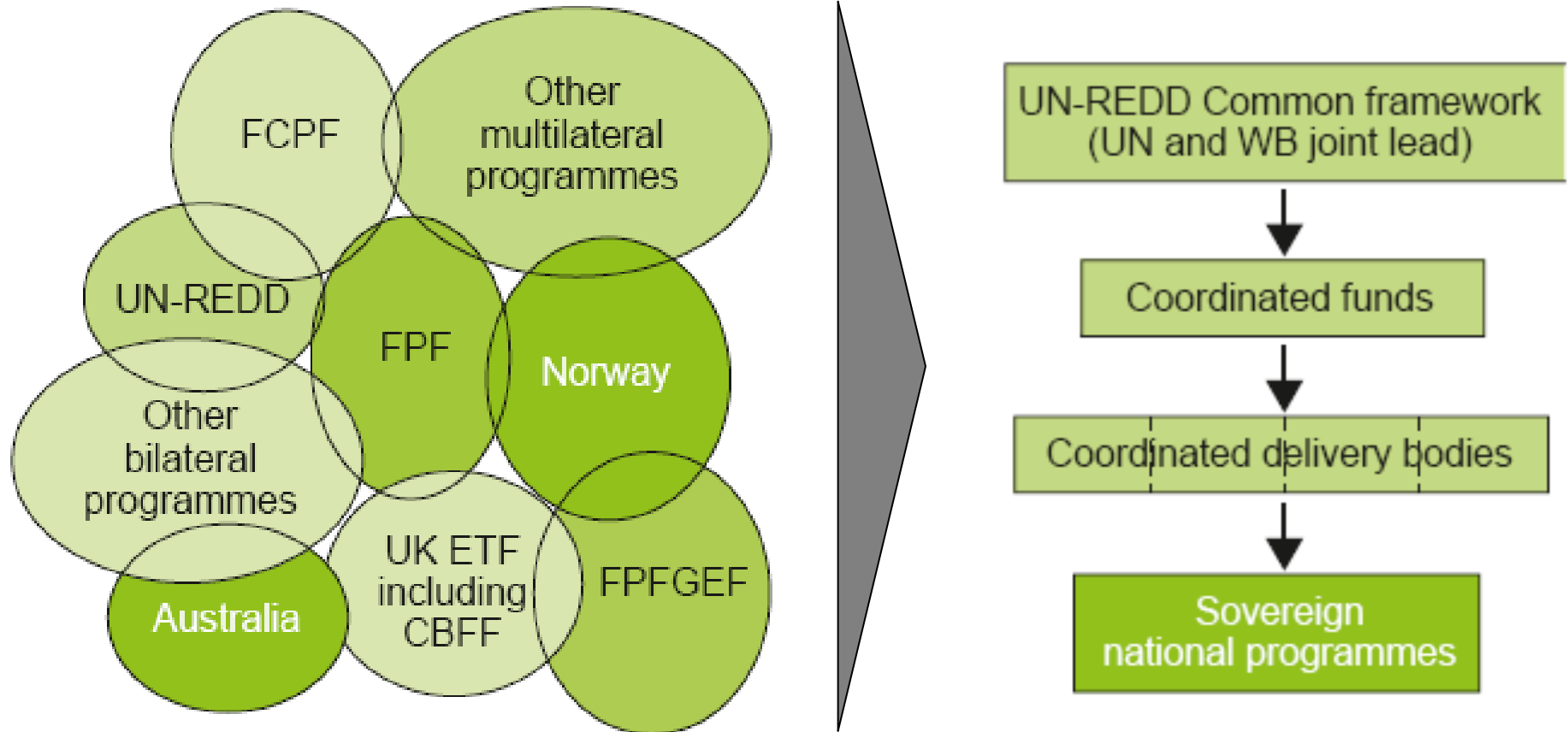
FCPF carbon fund

FIP

UNREDD

**Capacity-building costs estimated at up to \$4 billion over 5 years**

International coordination will be needed if support is to be efficient and effective...



# Key Eliasch Review recommendations

- The international community should aim to support forest nations to **halve deforestation by 2020 and make the global forest sector carbon neutral by 2030**, with emissions from forest loss balanced by new forest growth.
- The global forest sector should be **fully included in any post-2012 deal** at Copenhagen.
- **Forest nations should develop their own strategies** to combat deforestation, including establishing baselines, targets and effective governance and distribution of finance.
- Access to finance from **carbon markets as well as funding from other initiatives** will be required.
- The international community should provide **support for capacity building**. Total capacity building costs are up to \$4 billion over 5 years for 40 forest nations.

Any questions?



**Contact details**

• [Duncan.Stone@occ.gsi.gov.uk](mailto:Duncan.Stone@occ.gsi.gov.uk)

• +44 (0)20 7238 4255

[www.occ.gov.uk](http://www.occ.gov.uk)

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