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# Taking the Lead: Payments for Ecosystem Services in Southeast Asia

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# Assessing, Reporting and Scenario Building for International Forest Carbon Leakage from REDD Countries

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# Objective

To review a proposed approach to assessing, reporting and predicting the REDD projects **leakage** problems

# Background

REDD (or REDD+/REDD++) projects have significant potential to reduce carbon emission.

Analysis of REDD's impact will have to include trade in timber and timber products

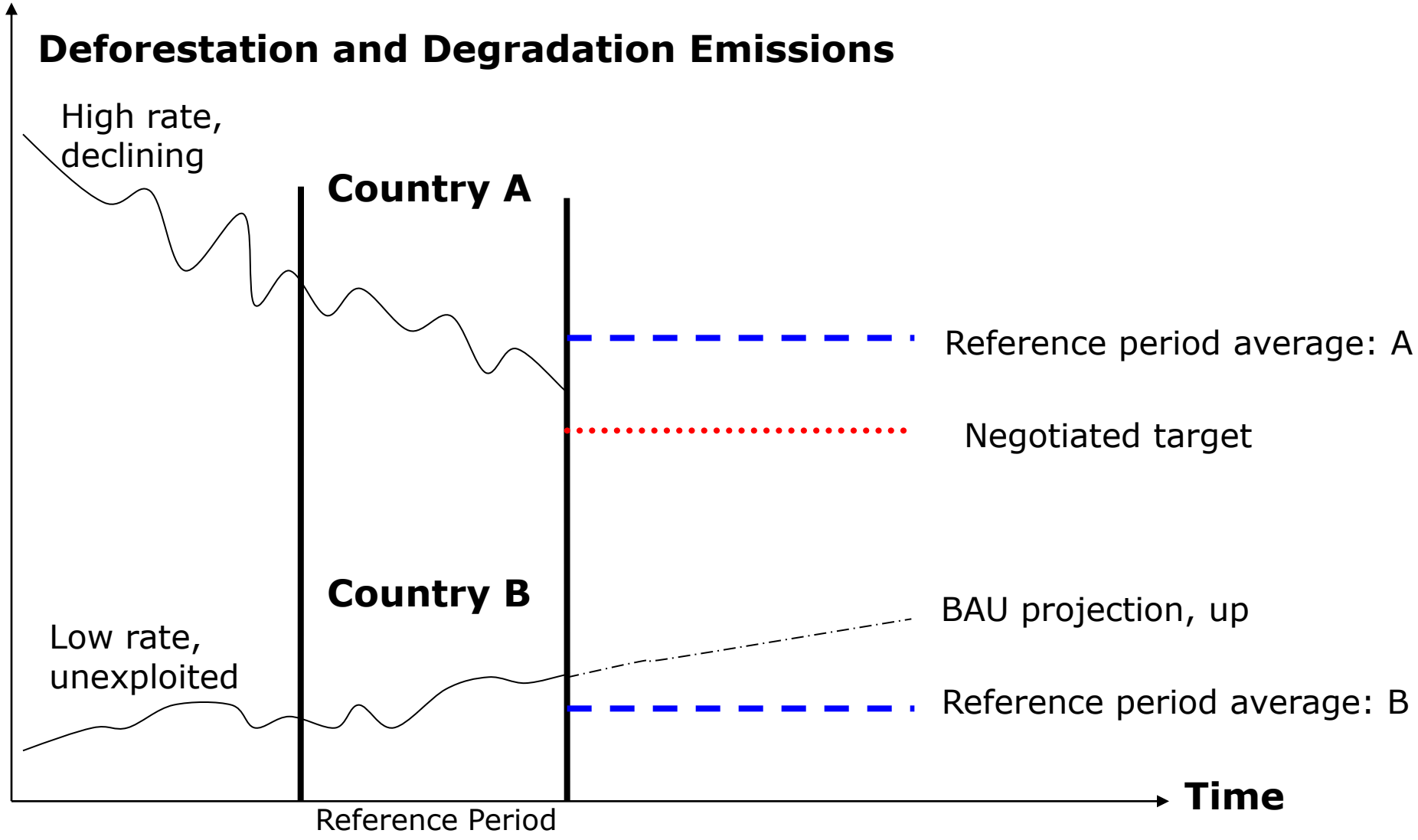
# Leakage Defined

Carbon leakage is defined as the increase in $CO_2$ emissions outside the accounting boundary … (IPCC 2007).

# Where is the Leakage?

Leakage between REDD and non-REDD projects, within a REDD country's regions and between REDD countries

# International Leakage



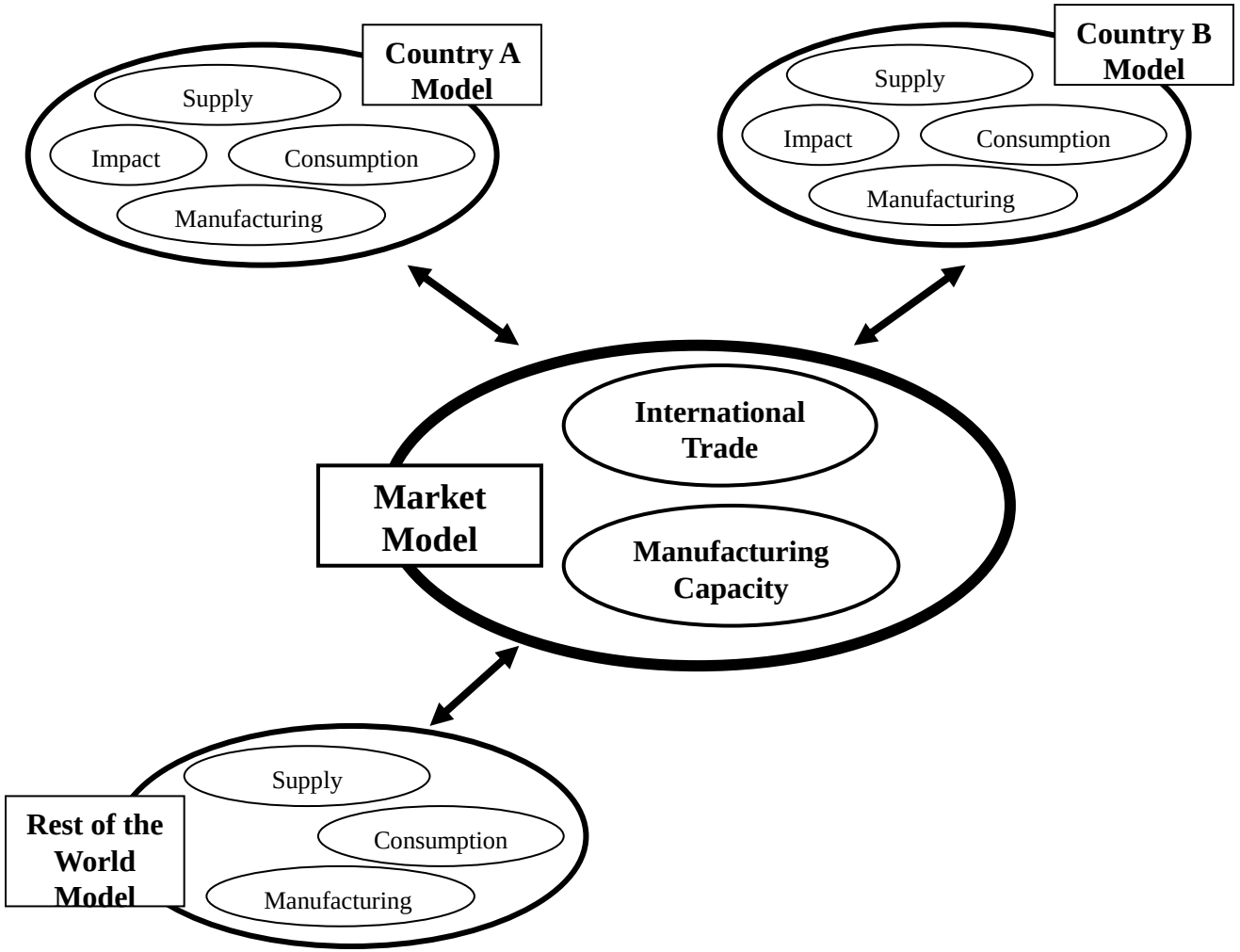
# Between Country Leakage?

International carbon leakage need monitoring through better economy-wide or global forest product **trade models** using **improved data**, to improve our assessment (Wunder, 2008).

# Methods - Trade Models Options

| Trade Models | Advantages | Disadvantages |
|---|---|---|
| CGEM (e.g. Global Trade Analysis Project) | ▫ Captures policy impact on the whole economy | ▫ Large data requirement<br>▫ High degree of complexity<br>▫ Sensitive to the pre-defined Armington elasticity rate |
| PEM (International Forest and Forest Products Model) | ▫ Less data and less complexity<br>▫ Directly links forest estate modeling and trade data<br>▫ Flexible to reflect policy impacts – including leakage to analyze REDD impacts<br>▫ Freely available | ▫ Does not reflect policy impact on the entire economy |

# Trade Models - Multi-country



# IFFP and Carbon Accounting

The embedded forest estate model can be used to assess, report and predict carbon impacts associated changes to the forest and then we can link with log and forest products trade.

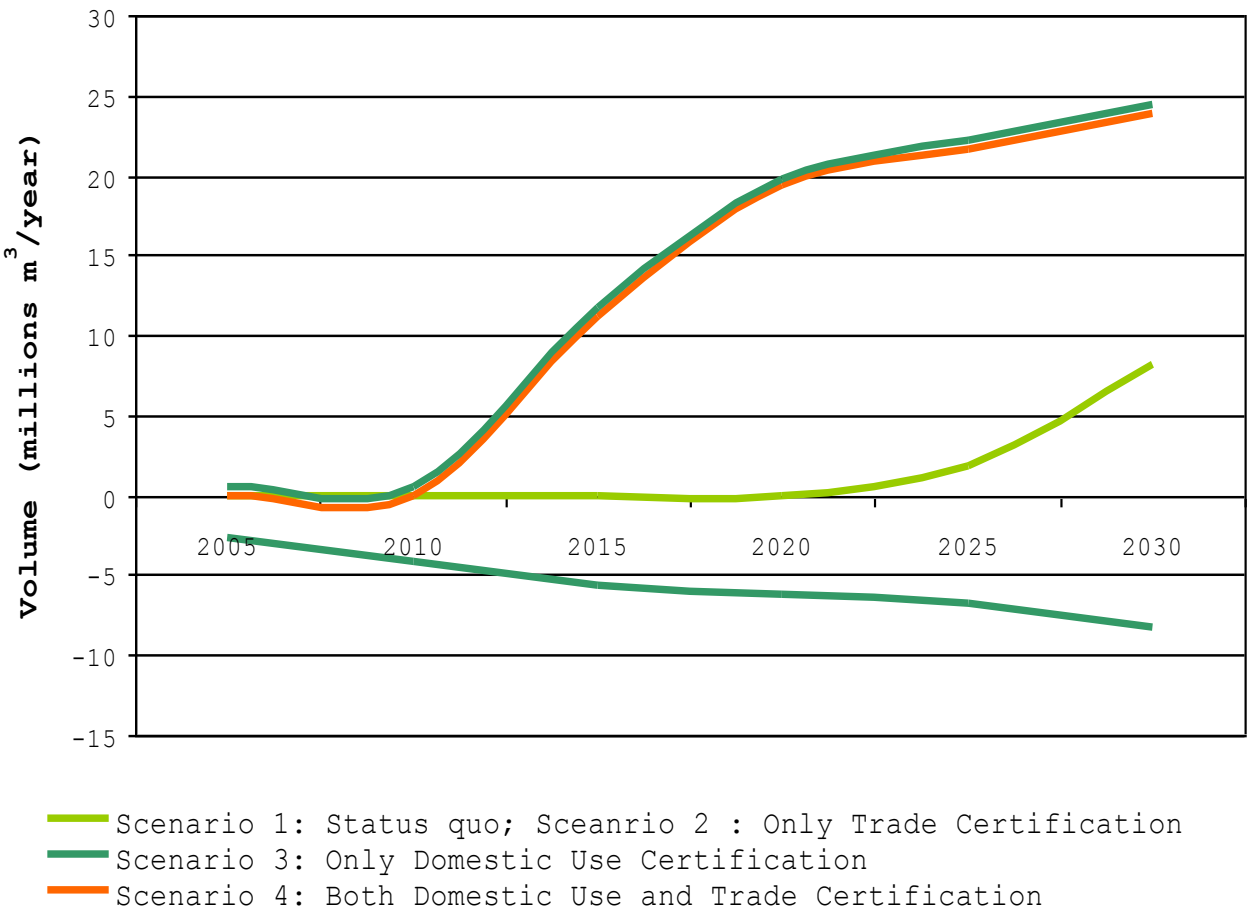
# Data

- Required Data
  - -Forest data: high resolution remote sensing data, national wide forest and land investigation data, carbon density…
  - -Production data: prices, efficiency, capacity….
  - -Consumption data
  - -Trade data: disaggregated data, cost data

- One key foci is to work with stakeholders to improve data in all these categories

# Modelling

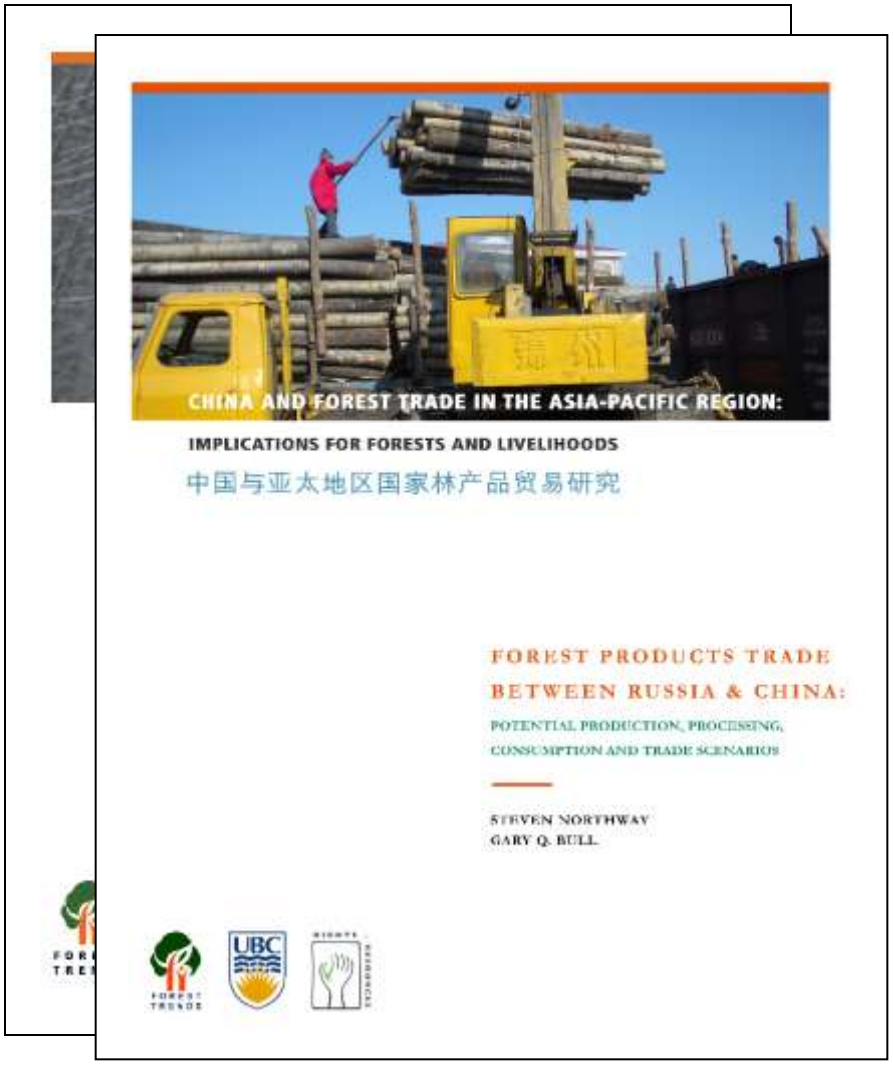
- Run the modified IFFP model to assess leakage



# Analysis

- Sensitivity analysis can assess the magnitude of carbon leakage. These factors might be:
  - Carbon pricing;
  - Carbon in harvest wood products
  - Log and forest product pricing
  - Change in manufacturing costs
  - Shifts in production capacity
  - Trade and Transaction costs

# Track Record: Data, modelling, analysis and results




Engage key stakeholders from industries, government, and NGOs

Produce results

# Proposed SE Asia Case Study

If Vietnam/Indonesia have national REDD program, how do we assess leakage potential to other countries (e.g. Cambodia, Laos, Gabon?

- Data Collection and Validation
- Modelling Scenarios
- Analysis
- Results

# Expected Results

- The identification of key factors which could mitigate leakage.
- An assessment of the magnitude of international leakage in selected REDD countries
- An assessment of the impacts on forest products trade for selected countries.

# Policy Implications

- Improve design of policy instruments
- More engagement of key policy actors in improving data quality, modelling assumptions, analysis and predictions.
- Capacity building with local institutions.

# Publications and Contacts

## Sample Publications

-Northway, S. and Bull, G. Q. 2007. Forest products trade between Russia and China: potential production, processing, consumption and trade scenarios. Forest Trends report.

-Northway, S. and Bull, G. Q. 2009. Recent developments in forest product trade between Russia and : potential production, processing, consumption and trade scenarios. Forest Trends report.

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## Contacts

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