China: Trade Scenarios for Forest and Forest Products

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Towards a Sustainable Chinese Forest Sector: Reforming trade and Strengthening Domestic Policy
Overview

• Rationale for project
• Project objectives
• Data acquisition
• Model development
• Results
Rationale

• Dramatic rise in imports of forest products and logs (Ms. Canby’s presentation).

• The world became aware that China is now a global player in the consumption, production and trade in forest products.

• China’s strategic direction will be influenced by its own forest management policies.
Objective

• To develop a modeling tool that allows us to explore scenarios that are relevant to public policy.

Under the overall direction of Dr. Chris Barr at CIFOR, we examined scenarios in China and Indonesia.
Date sources

- Chinese State Forestry Administration inventory reports
- International Forestry Review 2004
- CIFOR studies
- FAO
- Various other sources
Model development

• There are other trade models available but they are either costly, somewhat outdated or have some theoretical shortcomings.

• In model development we strived for:

  ✓ Transparency
  ✓ Collaboration
  ✓ Flexible
  ✓ Embed forest estate model
  ✓ Parameterized easily
Methodology

- Define the structure of the model through **products** and **processes** (e.g. sawlog to plywood)

<table>
<thead>
<tr>
<th>Initial Products</th>
<th>Intermediate Products</th>
<th>Final Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest by type</td>
<td>Sawlogs, Pulplogs, Pulp</td>
<td>Plywood, panels</td>
</tr>
<tr>
<td>Recycled pulp</td>
<td></td>
<td>sawntimber, newsprint</td>
</tr>
<tr>
<td>Non-wood fibre</td>
<td></td>
<td>Paper and paperboard</td>
</tr>
</tbody>
</table>
Parameters

- Manufacturing capacity and production
- Fibre source (e.g. forest by country by forest type)
- Consumption

We start by developing our assessment of the world’s production, manufacturing capacity, fibre sources and consumption
World IRW Production
World Fibre Source

Fraction of World Fibre Furnish Source

Year


Fraction

WdPlp, RecPap, OthPlp

Fraction of World Fibre Furnish Source
China’s in IRW Production

China as a Fraction of World Production

Year

Fraction

Panel  Sawn  News  Paper  Pulp
China’s IRW Consumption

China as a Fraction of World Consumption

Year

Fraction

Panel  Ply  Sawn  News  Paper
Fiber source – China’s Forest:

- Forest Type
  - Fast plantations
  - Slow plantations
  - Deciduous forest
  - Coniferous forest

- Forest Condition
  - Non-forest
  - Forest
  - High cost forest
Scenarios and Results

Scenarios: supply shocks
• China’s NFPP
• China’s plantation success
• Indonesia’s illegal logging

Result
• Forest self-sufficiency?
China’s Three Scenarios

- Status Quo
- End NFPP
- Poor Plantation Growth

Graph showing the trend of Million m3/yr from 2005 to 2030.
China’s Three Scenarios

China’s IRW Consumption and Production

- IRW Consumption
- Status Quo
- End NFPP
- Poor Plantation Growth

Year

2005 2010 2015 2020 2025 2030

Million m3/yr
Indonesia’s Scenarios

Indonesia's IRW Consumption and Production

Year

Million m³/yr

Status Quo

IRW Consumption

End Illegal Logging
Concluding comments

• Trade models help us understand the worldwide implications of individual country’s forest and industrial policies

• If China’s consumption grows as forecasted, there will be a challenge with finding the wood domestically.

• If Indonesia implements an illegal logging ban their domestic consumption will absorb their production.