

Policy Solutions to Illegal Logging: A Forest Sector Model Analysis

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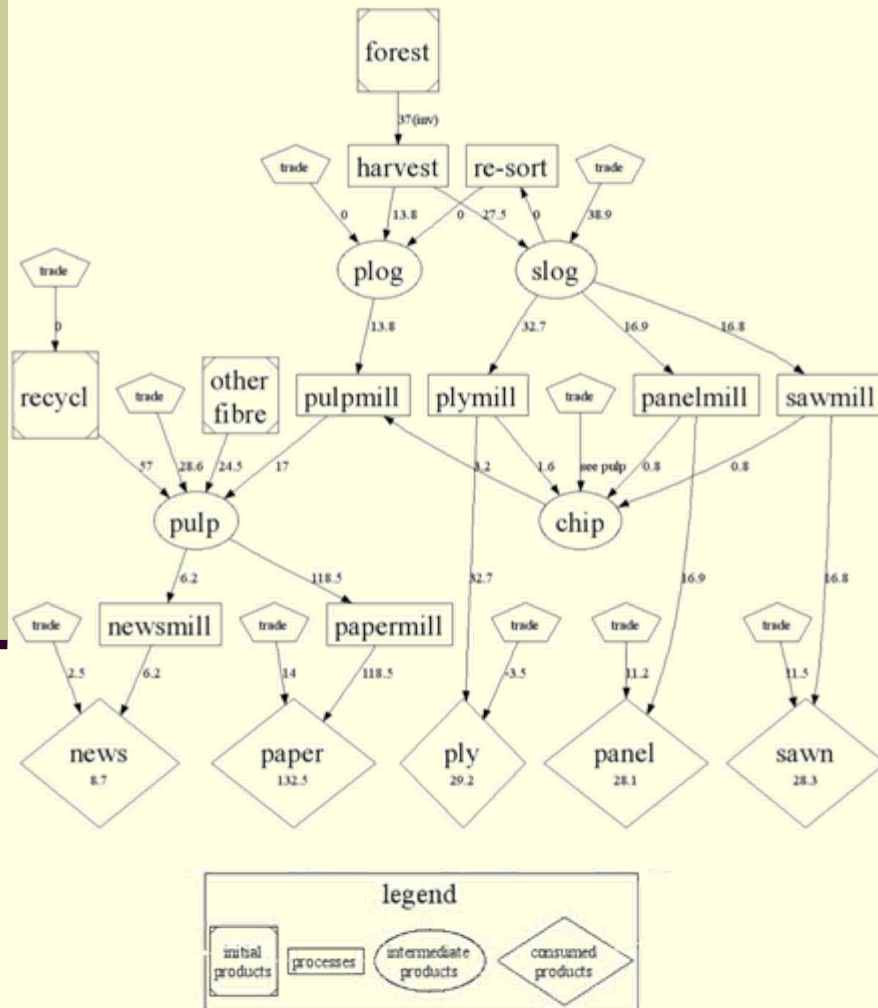
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Outline

- The International Forest and Forest Products Trade Model (IFFP)
- Trade Scenarios to 2030
 - Indonesia's forest certification
- Conclusions

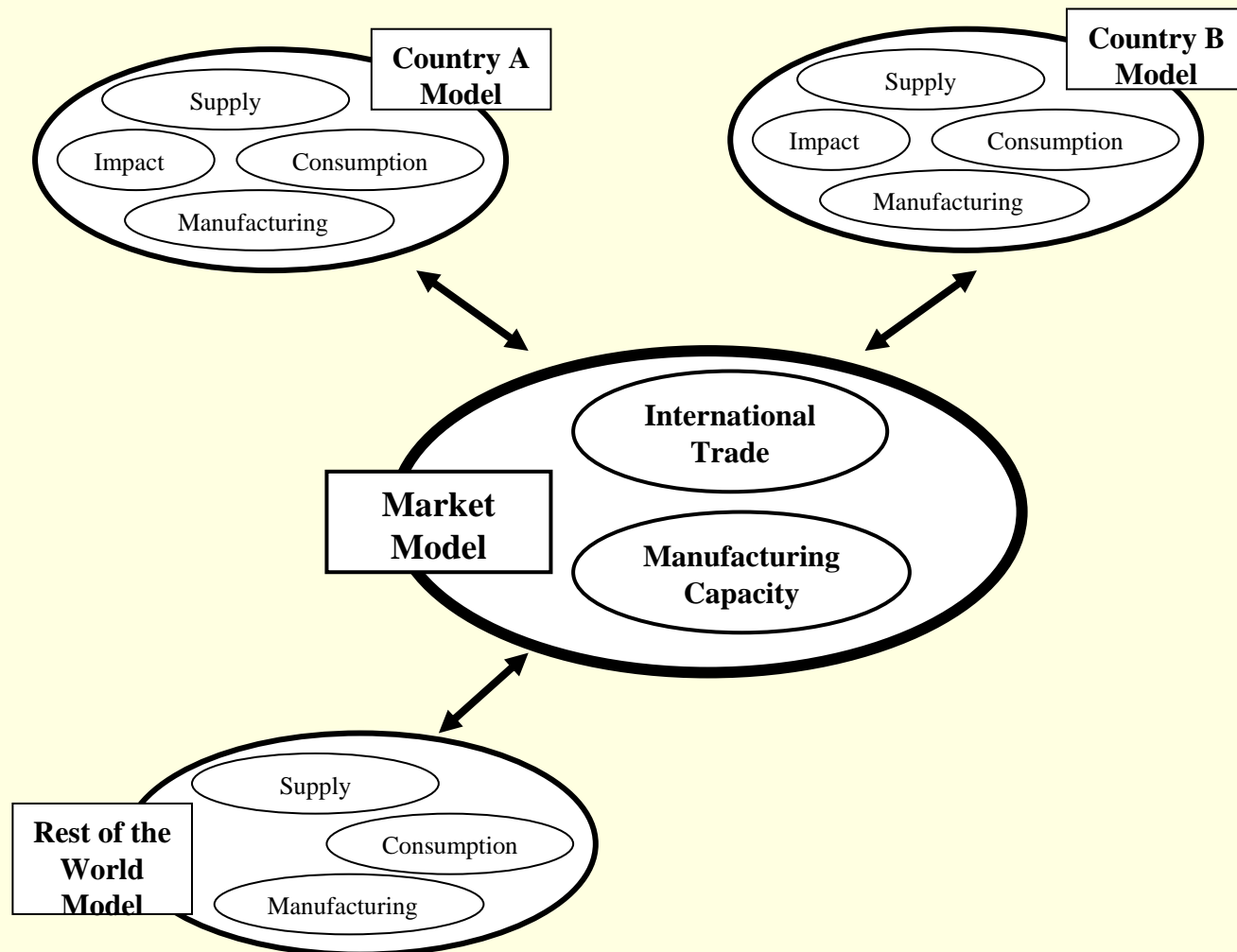
IFFP Model Structure



Key Features

- Multi-country
- Multi-product
- Multi-period
- Embedded forest estate model
- Manufacturing costs related to capacity utilization

Multi-country



Multi-products

■ Initial products

- Forest area by type
- Recycled pulp
- Non-wood fibre

■ Intermediate products

- Saw logs
- Pulp logs
- Pulp

■ Consumed products

- Plywood – Paper and paperboard
- Paneling – Newsprint
- Sawn timber

Indonesia: Forest Estate Description

■ Forest Tenure

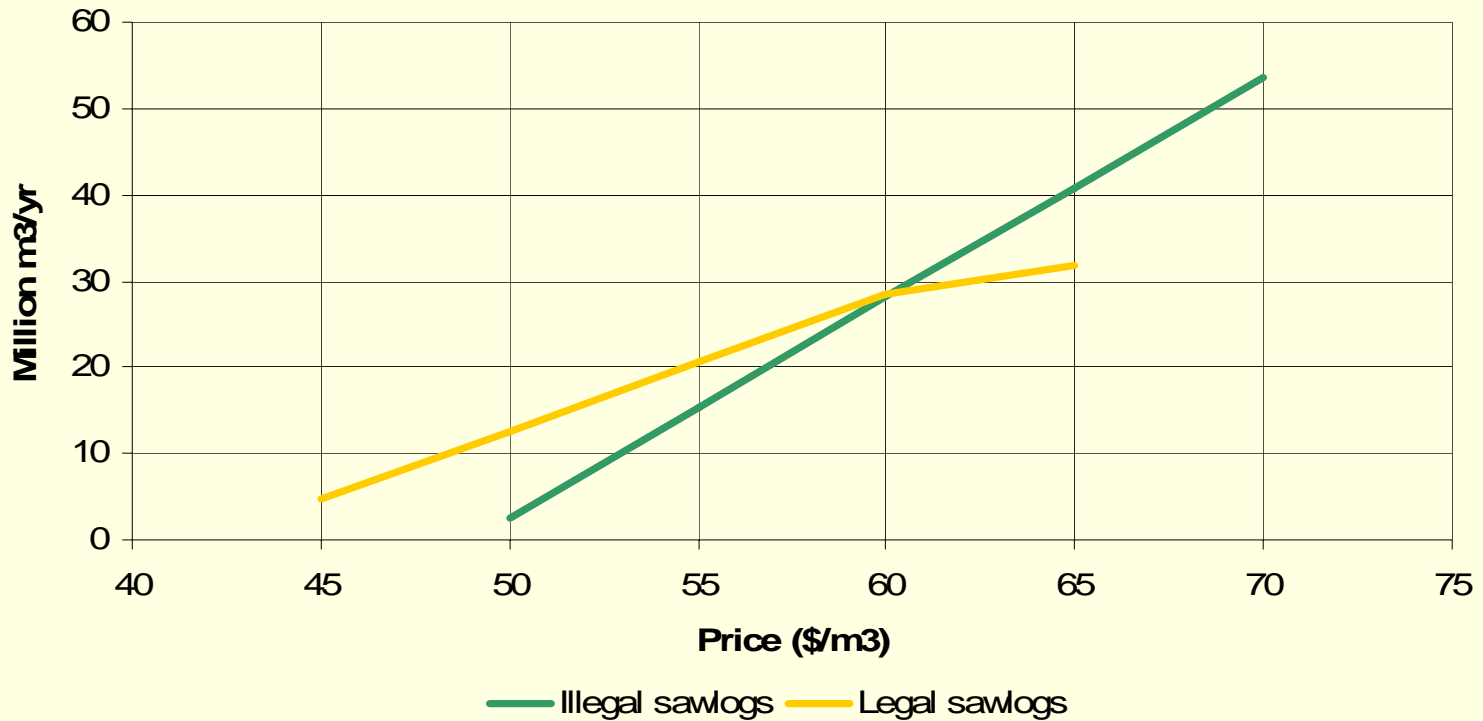
- Production
- Convertible
- Conservation
- Protection

■ Forest Condition

- Primary
- Secondary
- Plantation
- Damaged

Source: Brown, T. (2005). Forest Future Scenario Analysis. China and the Asia-Pacific: Forest Markets for Sustainable Livelihoods and Forests, Beijing, China.

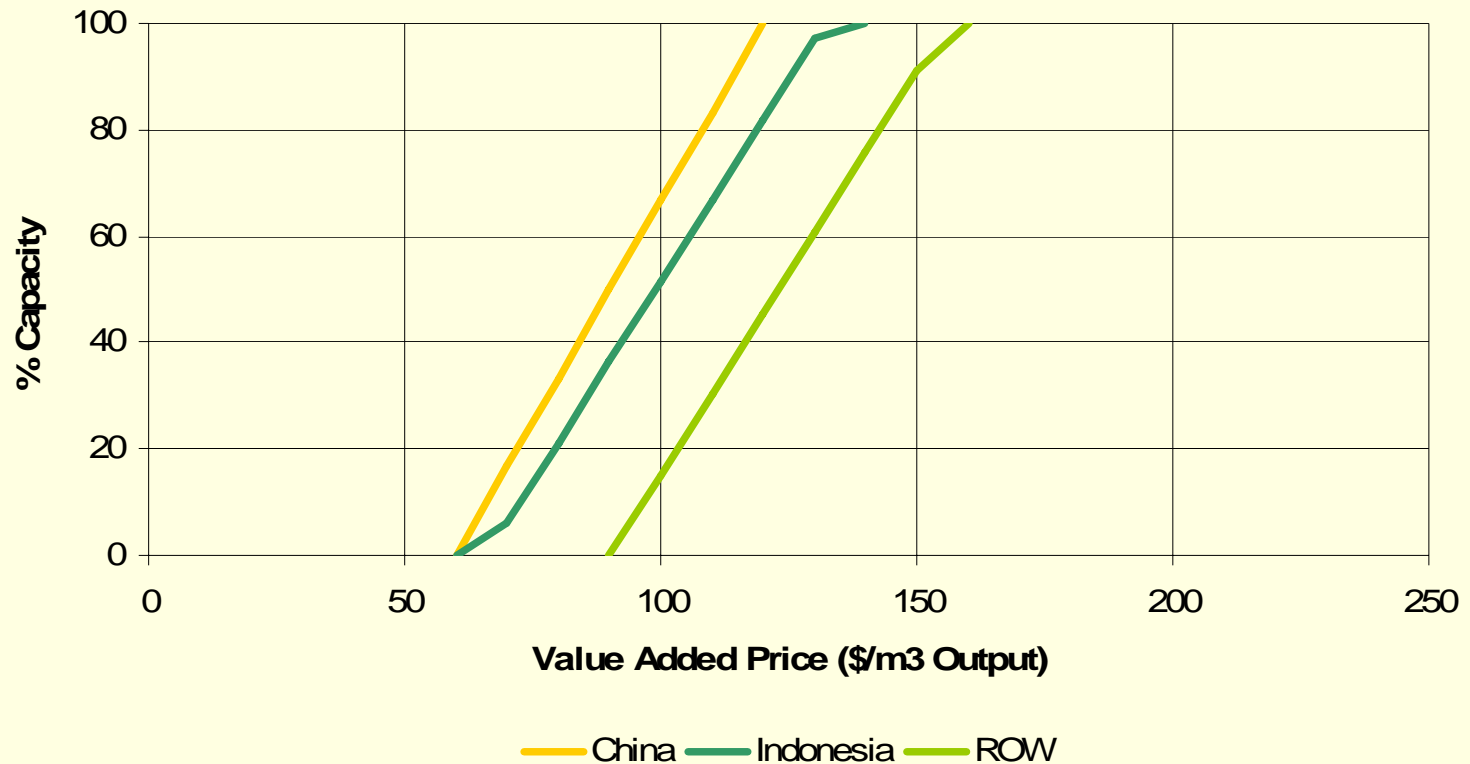
Indonesia: Harvest Response to Prices



Indonesia's Sawlog Harvest in Response to Price

There is evidence for a reduction of illegal logging since since this analysis.

Relative Efficiency in Plywood Manufacture



Relative Efficiency in Plywood Manufacture

Collaborative Framework

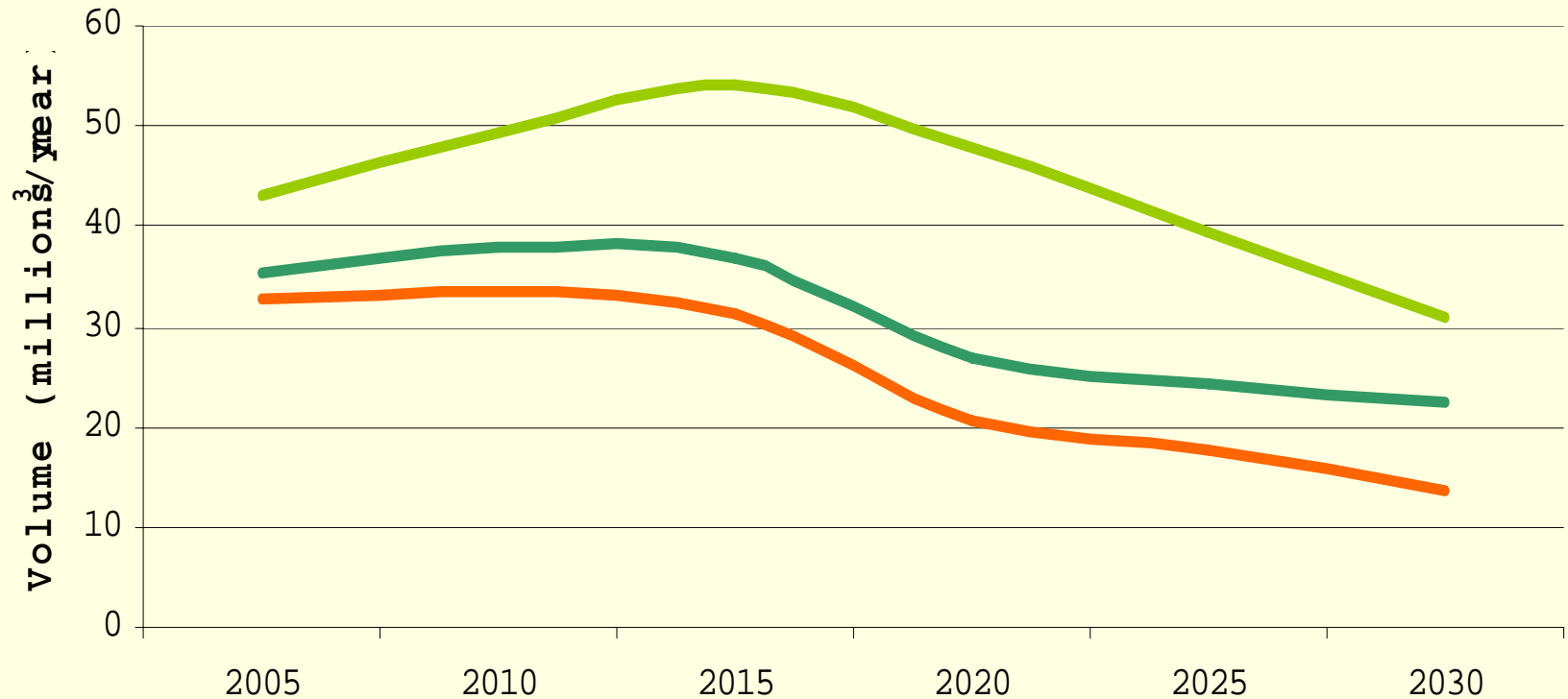
- Supports a collaborative website with forum and wiki
- Allow user's to run their problem on website through standard browser
- Text files for model input
- Java / Servlet as programming language
- html files for model output

- web site: ***iffp.forestry.ubc.ca***

Indonesia/China Scenarios

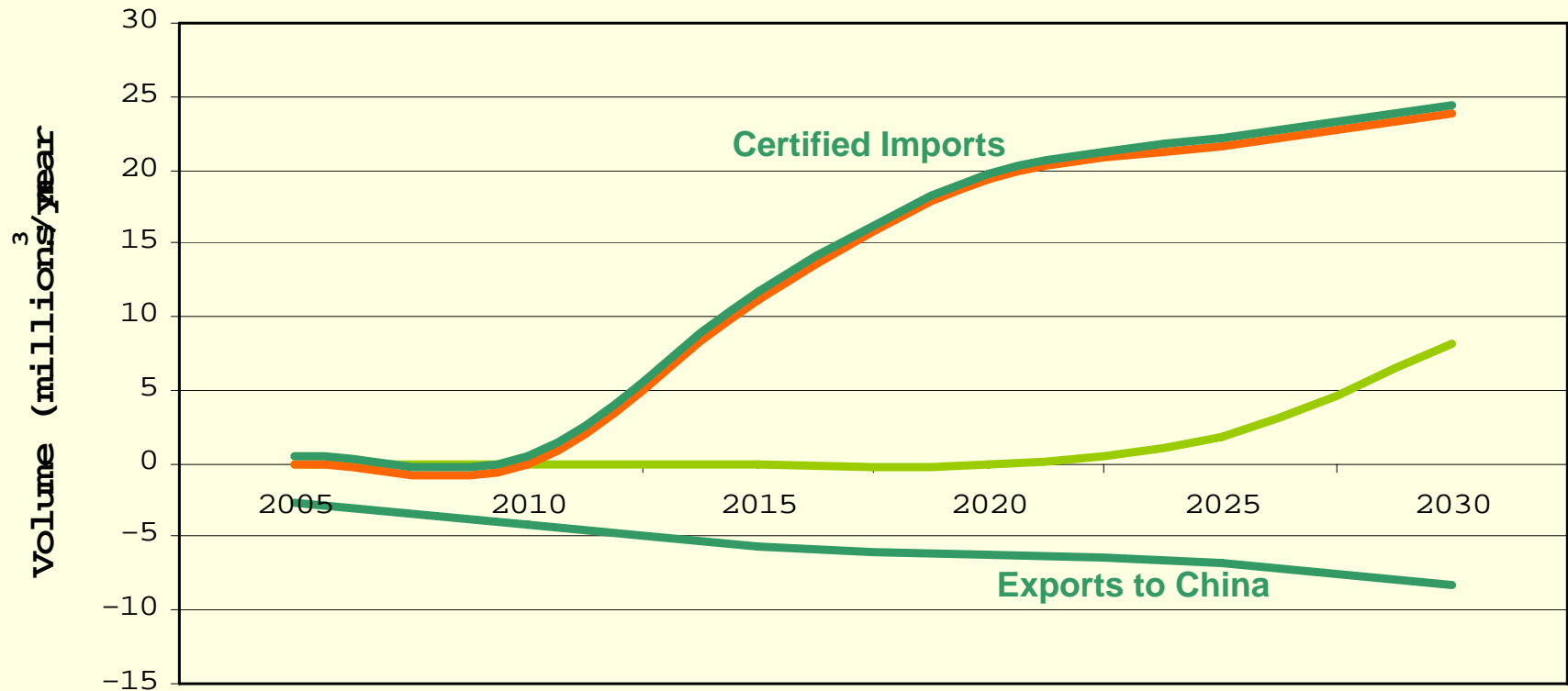
Scenario	Indonesia's Domestic Manufacturing	Indonesia's Trade to China
1	<i>Status quo</i>	<i>Status quo</i>
2	<i>Status quo</i>	<i>Certification required</i>
3	<i>Certification required</i>	<i>Status quo</i>
4	<i>Certification required</i>	<i>Certification required</i>

Indonesia's Certification Effects Harvest Level



- Scenario 1: Status quo; Scenario 2 : Only Trade Certification
- Scenario 3: Only Domestic Use Certification
- Scenario 4: Both Domestic Use and Trade Certification

Indonesia's Certification Effects Saw Log Imports / Exports



- Scenario 1: Status quo; Scenario 2 : Only Trade Certification
- Scenario 3: Only Domestic Use Certification
- Scenario 4: Both Domestic Use and Trade Certification

Indonesia/China: Conclusions

- A bilateral trade agreement, limiting China's imports to certified products from Indonesia, will divert any illegal logs to domestic producers.
- Restricting Indonesia's industry to the use of certified products will lead to:
 - lower harvest levels
 - pressures to divert illegal logs towards China
- A bilateral trade agreement limiting China's imports to certified wood, combined with a domestic certification scheme, will lead to even lower harvest levels.

Controlling Illegal Logging: Conclusions

- Intermediate-sized, plurilateral agreements with a number of countries, seem most likely to be successful (for example the EU's FLEGT).

Forest Sector Models: Conclusions

- Forest sector models can be used to estimate the effects of national and international policies related to forest management and forest product trade.
- Potential policies can be expressed through forest estate objectives and their expected effects on trade and the manufacturing sector.
- Results can be expressed as harvest, manufacturing and trade levels and the follow through effects on biodiversity, economic activity, taxes and employment.

The Finale !!

Forest sector models have a role in exploring the consequences of policies intended to support forest law enforcement and governance.

