

Roundwood flow analysis and roundwood balance for Slovenia

Dr. Nike Krajnc and M.Sc. Mitja Piškur



Slovenian forestry
institute

Objectives

Data analysis

Roundwood flow analysis

Balance between production and primary use of
roundwood in Slovenia

Critical review of data

Working methods

Model which covers the complexity of roundwood flow in Slovenia

- A combination of wood balance and wood resource balance
- Based on official data and mainly research results (SFI, SORS)

Boundaries of this model: SLO and import/export

- Only roundwood flow are taking in to account

Reference year: 2004

Functional unit: net m³

Two different approaches were used: "top down" and "bottom up"

The most important data sources were: Statistical office of RS (SORS), SFS, SFI, companies and results of diff. studies

Roundwood was divided

into:

saw logs and veneer logs (L),

pulpwood (PW) and other industrial roundwood (OIR),

fuelwood (WF).

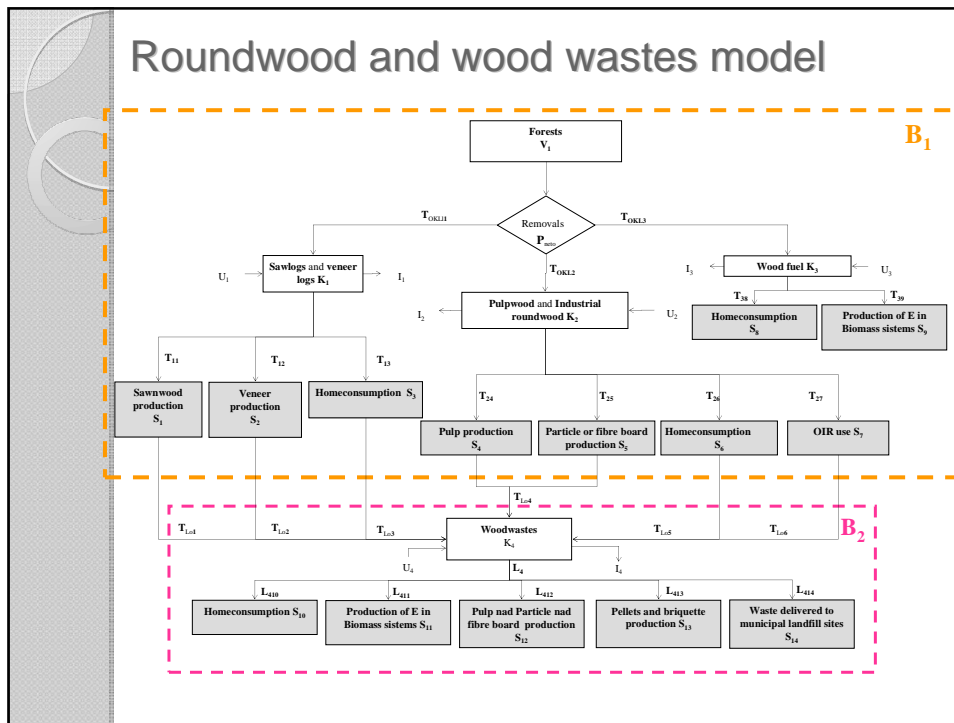
Roundwood uses were divided into

Use in woodworking industry,

Home consumption,

Use for energy production.

Roundwood and wood wastes model



Net removals (y. 2004)

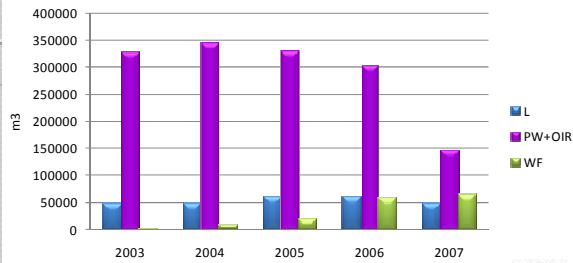
	1. Official	2. Model
Logs	1.371.000	1.583.000
Pulpwood	336.200	388.600
Other industrial roundwood	133.900	142.500
Fuelwood (WF).	709.000	1.028.000
SUM	2.550.100	3.142.100

Top down – official data

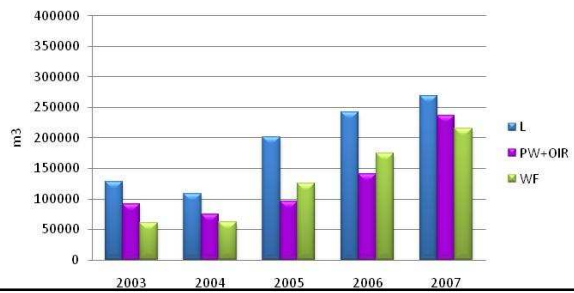
Bottom up –
estimated
from actual use

Import – Export RW

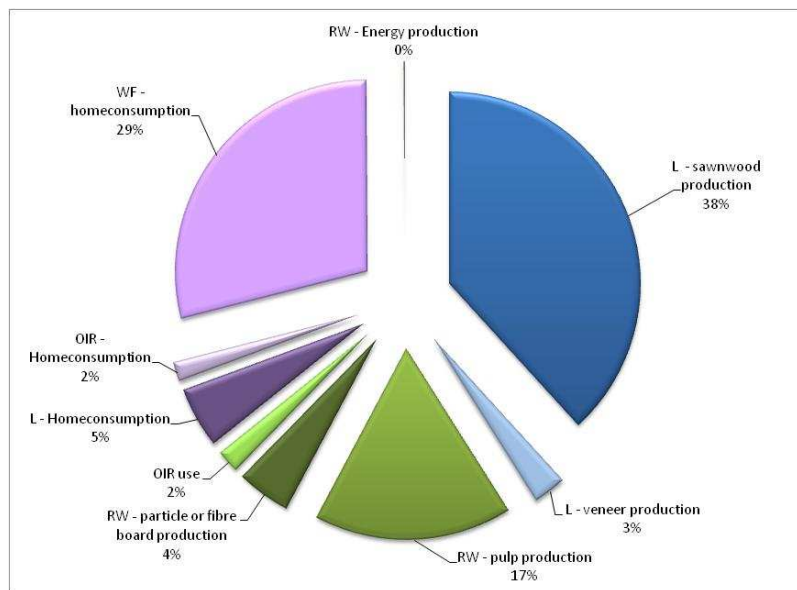
RW Import

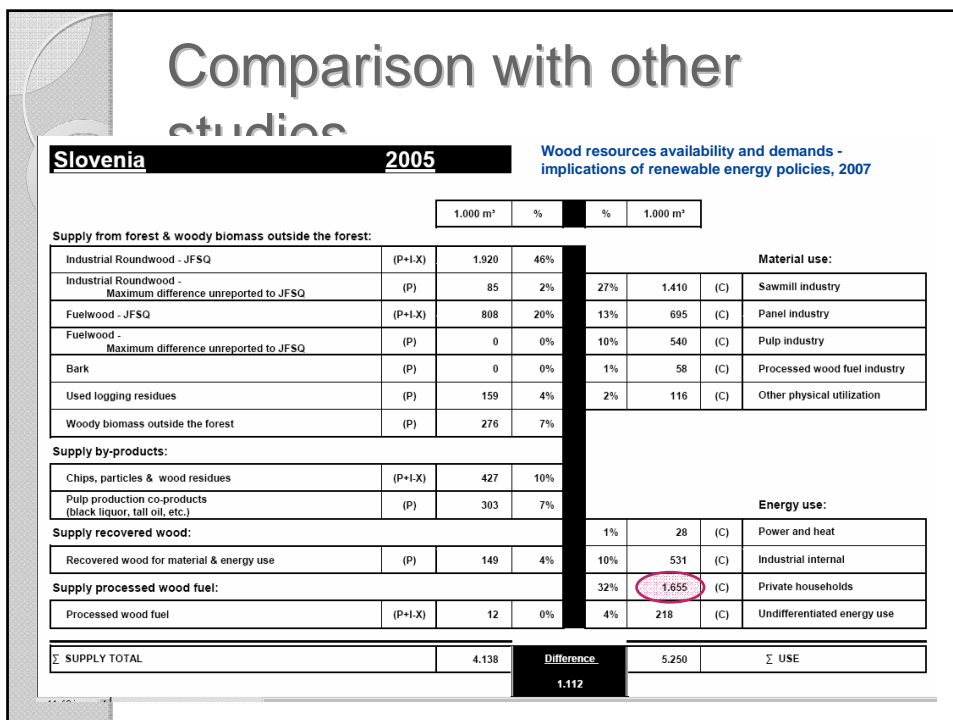
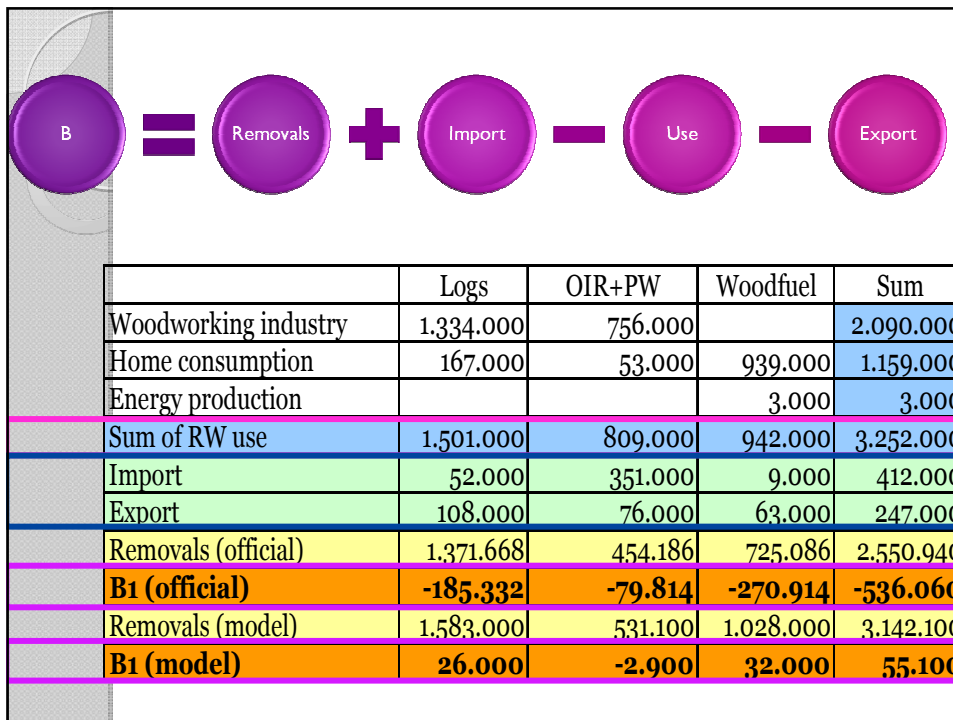


RW Export



Roundwood use





Conclusions

According to the very specific national conditions, a model of wood flows based on material flow analysis (MFA) was made for Slovenia

Official data are often incomplete

Method is user-friendly and will be used for future annual balances

A good overview of wood flows is a tool for strategic decision making at the sector level and also at local, regional and national levels

High quality data are of key importance

The created model enables:

Permanent repetition

An overview of CO₂ flows (forests, HWP)

Evaluation of the actual removals

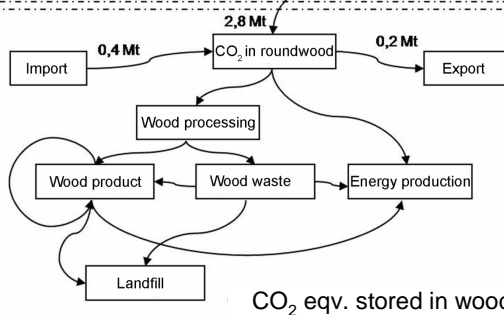
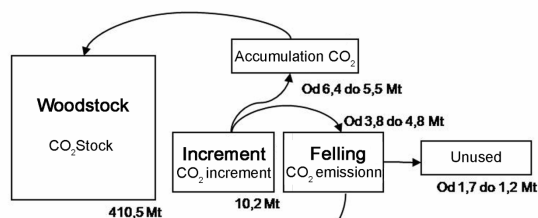
Overview of value flows in wood supply chain

Analysis of the significance of import and export

Further development – covering all wood flows (tree – wood products – recovered wood – end of life uses)

CO₂ flow from forests → wood

CO₂ equivalent in above-ground and below-ground dendromass



Thank you !

For more information:

Article: Roundwood flow analysis in Slovenia

<http://crojfe.sumfak.hr/v28no1/piskur39-46.pdf>

Nike.krajnc@gozdis.si

Mitja.piskur@gozdis.si

www.gozdis.si