

Future impact of poplar and willow on the evolving European Forestry-Wood-Chain

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Poplars, willows and people's wellbeing

23rd Session of the International Poplar Commission, Beijing, China, 26-30 October 2008



European FWC - poplar

- *Poplar is an important tree / wood species...*
- *Plantations are increasingly important for the world wood production*
- *Now 700.000 ha producing 9 million m³*



European FWC - status

- *New: biomass for energy*
- *New products like WPC (wood polymer composites) could also compete for biomass resource alongside existing wood-based panels like particleboard*
- *Limited increase of hybrid poplar plantations...*



World wood supply ?

- *Forest cover declines at a rate of 10-16 million ha/y.*
- *Increasing population and rising incomes increase demand for wood.*
- *Solutions:*
Mobilization of wood out of underutilized forests; or
Establishing more plantation grown timber.
- *A significant gap between the wood demand and supply from only “natural” forest will anyhow become apparent.*

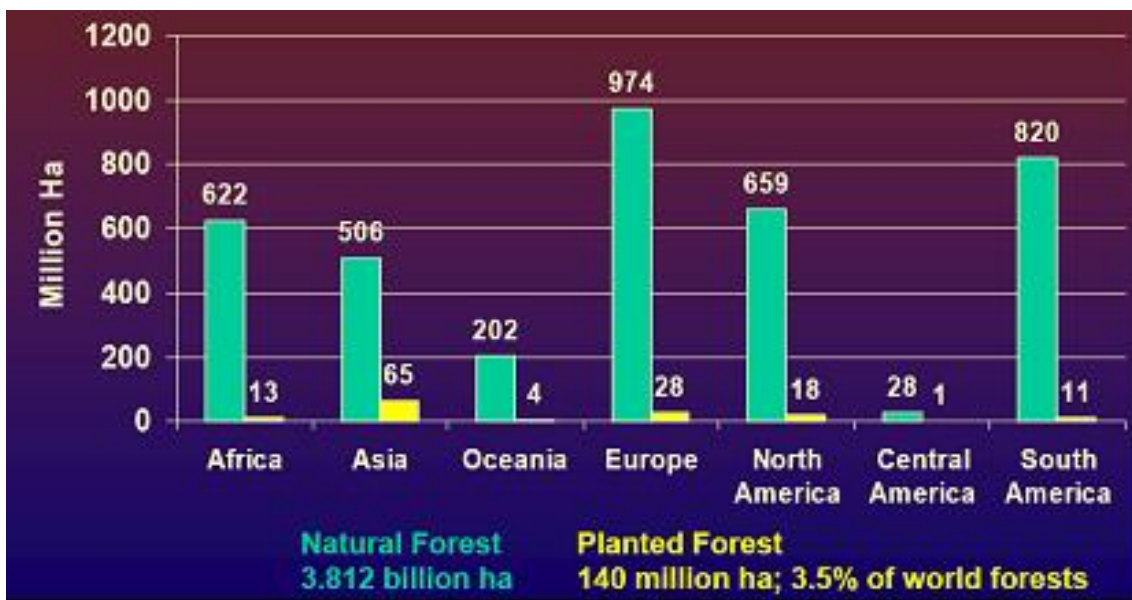
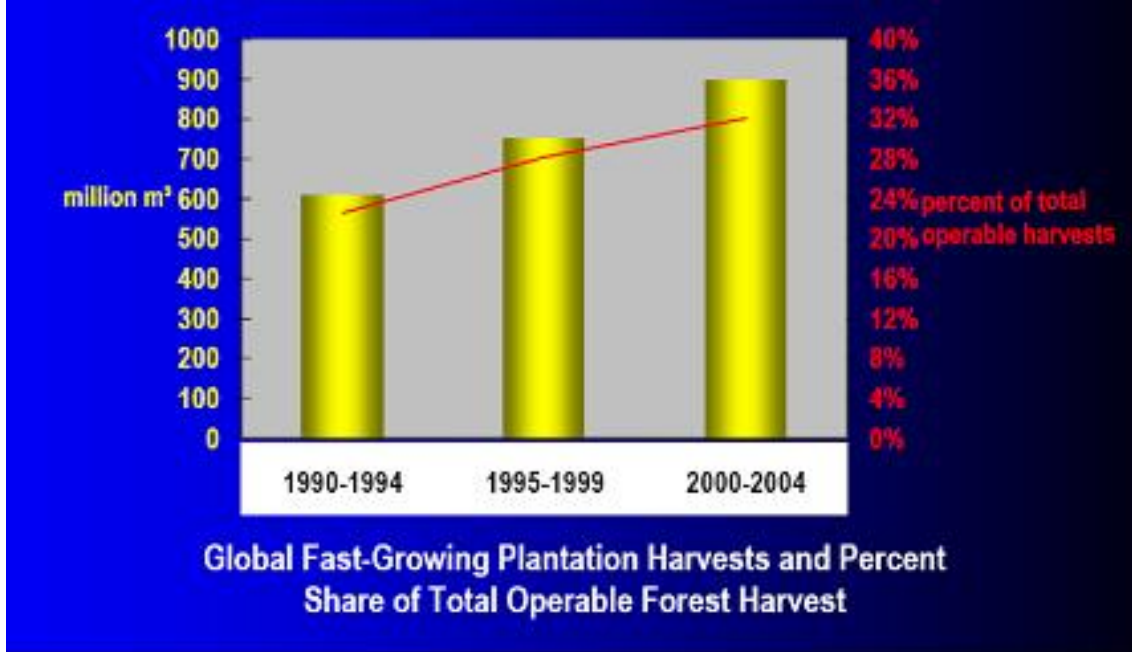


How important are tree-plantations?

- In 2005 approx. 500 million m³ of the 3 billion m³ harvested is coming from plantations...*
- According to FAO an extrapolation to 2050 shows that out of the 3 billion m³ wood for processing into wood products (now approx. 1.8 billion m³) 1/3 will/should come from plantations?*

Source: FAO Global Forest Resources Assessment, 2005

- Plantations today provide up to 25% of the world industrial fibre and this is still rapidly increasing.*



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(Poplar) Plantations

Positive elements

- Lower land area is needed for the same output*
- Critical demands and market supplies solved on short term*
- High return on investments*
- They do “conserve” natural forest through substitution*



Tree/wood quality

- *Tree/wood quality is considered critical for many poplar/willow wood products: veneer – plywood; engineered wood products; timber constructions; packaging (food, transport, ...)*
- *To produce high quality wood products based on fast growing (poplar) plantations some technical problems need attention: amount of juvenile wood, tension wood; “lower” or “more variable” density; higher percentage “defects”; altered processing parameters (sawmilling or peeling, drying, gluing, ...but also grading)*



What are the new interactions ?

- *Wood for materials
and/or
Wood for energy*



- *short rotation coppice specific for energy?*
- *different 'new' production systems can provide material for wood processing suitable for wood products like MDF, OSB, as well as PB, WPC but also energy*

What are the new options ?

- *Forestry or agriculture*
Legal frame is difficult, example case Italy?
- *Renewed discussion on carbon sinks could boost poplar plantations....save the environment, use (more) wood ... (CEI-Bois campaign)*
- *Need for more lignocellulosic material in general in ititates renewed interest in poplar plantations*

Bio-energy

- *Policies do define the goals for woody biomass needed for energy (realistic goals?)*
- *Competition for the same resources: biomass for energy – particleboard and other WBP – pulp and paper*



Wood price narrowing


- *Since biomass for energy is an issue the low quality resources become more expensive.*
- *The impact of high quality processing is limited and hence prices are not increasing equally fast for quality logs..., some large dimension logs are difficult to process?*
- *This leads to the development of a narrowing price-range, ...*
- *If forest management for high quality logs (e.g. involving pruning,...) no longer has a major impact on prices foresters/growers tend to become less focussed on quality.*

Image building in a modern society

ex. Belgium, ...

- *Hybrid poplar ↔ local indigenous species*
(black poplar, willow, aspen)
- *Monoclonal forestry – agricultural crop*
- *Diseases...leaf disease rust (Melampsora)*





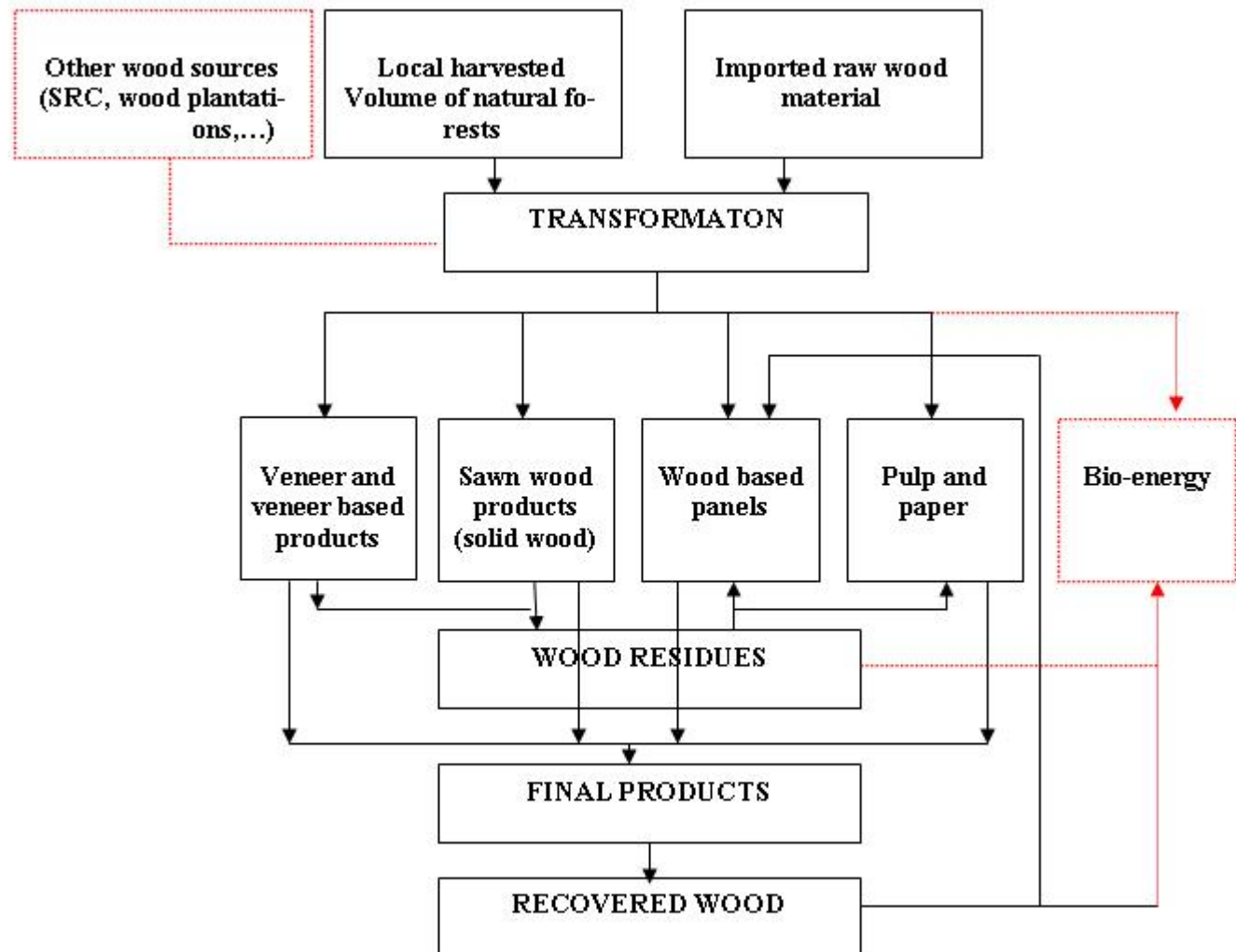
Poplar wood resource

Country based FWC in Europe

Need for a well designed & integrated Poplar Forestry-Wood Industry Chain

- *Some industry seeks for more sustainable poplar resources (ex. Belgium – France – Spain ...)*
- *Some countries seemingly could do with more local industry (ex. Hungary – Romania - ...)*
- *Some countries would need high quality poplar processing to boost plantations (ex. United Kingdom...)*

Current FWC



Poplar Forestry-Wood-Chain Change for a better future?

- *Supply from semi-natural forests or more man-made plantations or ...?*
- *Quantity does not imply poor quality !*
- *Environmental discussion should lead to “Save the environment, use (more) wood!”*
- *New players on the market for the same kind of raw material – strategic decisions needed.*
- *Narrowing of price settings could lead to lower interest in wood/tree quality.*

Recommendations (1)

- *Poplars are both forest trees and agricultural crop*
- *Poplar is ideal for re(a)forestation*
- *Increase or maintain poplar as part of semi-natural stands*
- *Introduce more multiclonal approaches – but this should be linked to the ability to process mixed clone supply*

Recommendations (2)

- *Focus on sustainable production of quality timber/wood products: plywood, sawn goods...*
- *Assess potential to use residues / residuals for engineered wood products, WBP and...*
- *Finally after reuse/recycling convert to energy*
- *Initiate more responsibility from the agricultural sector for producing wood for both material and energy conversion*

Conclusions

- *Filling the gap between demand and supply of wood resources, poplar plantations will play an important role.*
- *Questions must be raised on how Europe will provide the industry with enough wood resources, especially taking into account the new emerging bio-energy producing sector.*
- *Accurate and up to date data on the whole Forestry-Wood-Chain is essential to identify needs for adopted policy. This should lead to proposal on a poplar processing strategy in Europe.*



*THANK YOU FOR
YOUR ATTENTION*

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