EFI

ON THE ROAD TO COP26:
ROLE OF RUSSIAN FORESTS AND BIOECONOMY
Online final event of the RUFORCLIM project
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WORKSHOP

Introduction to the EFI's scientific assessment on the topic "The role of the bioeconomy in climate change mitigation in Russia" and its methodological approaches

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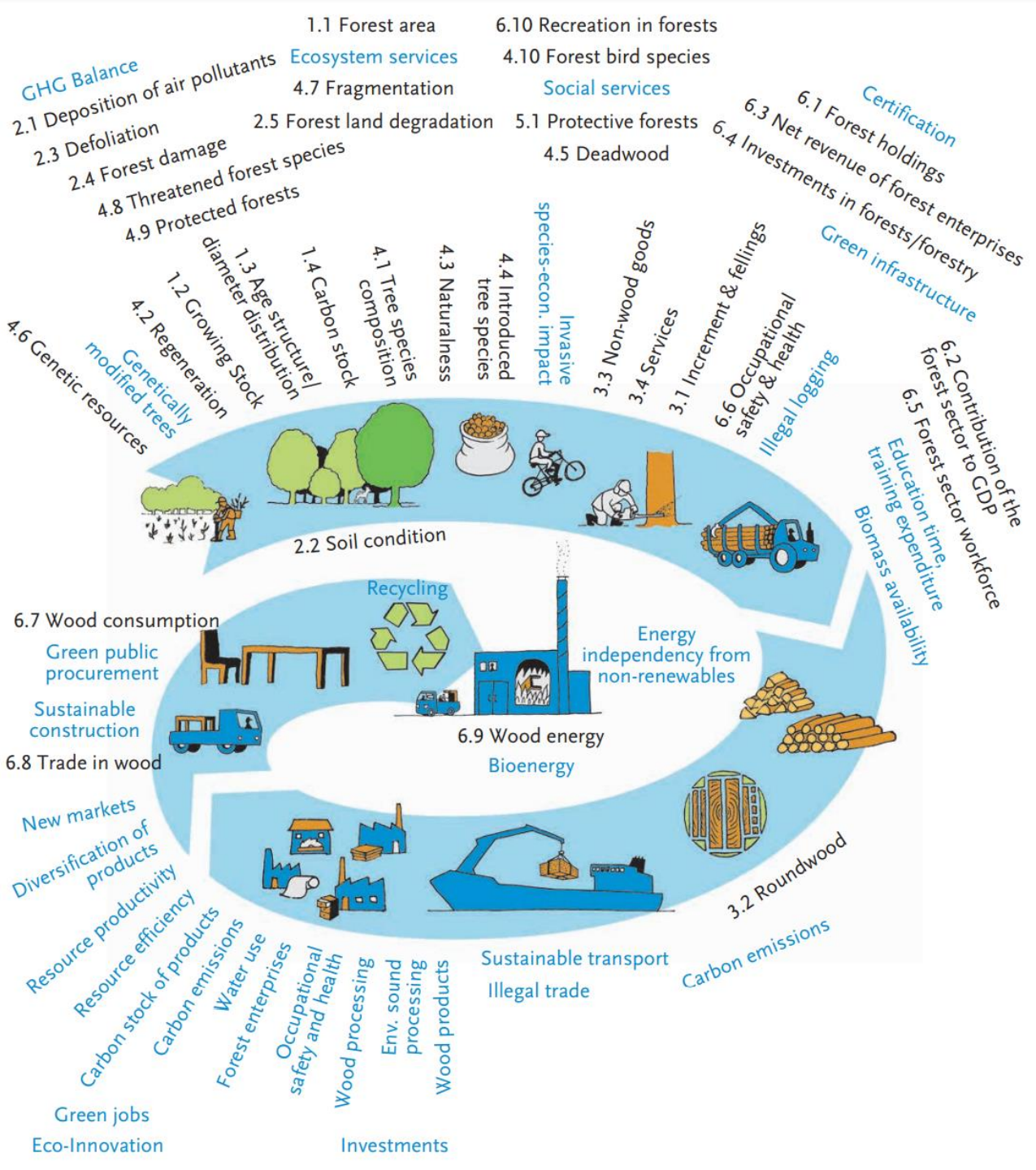
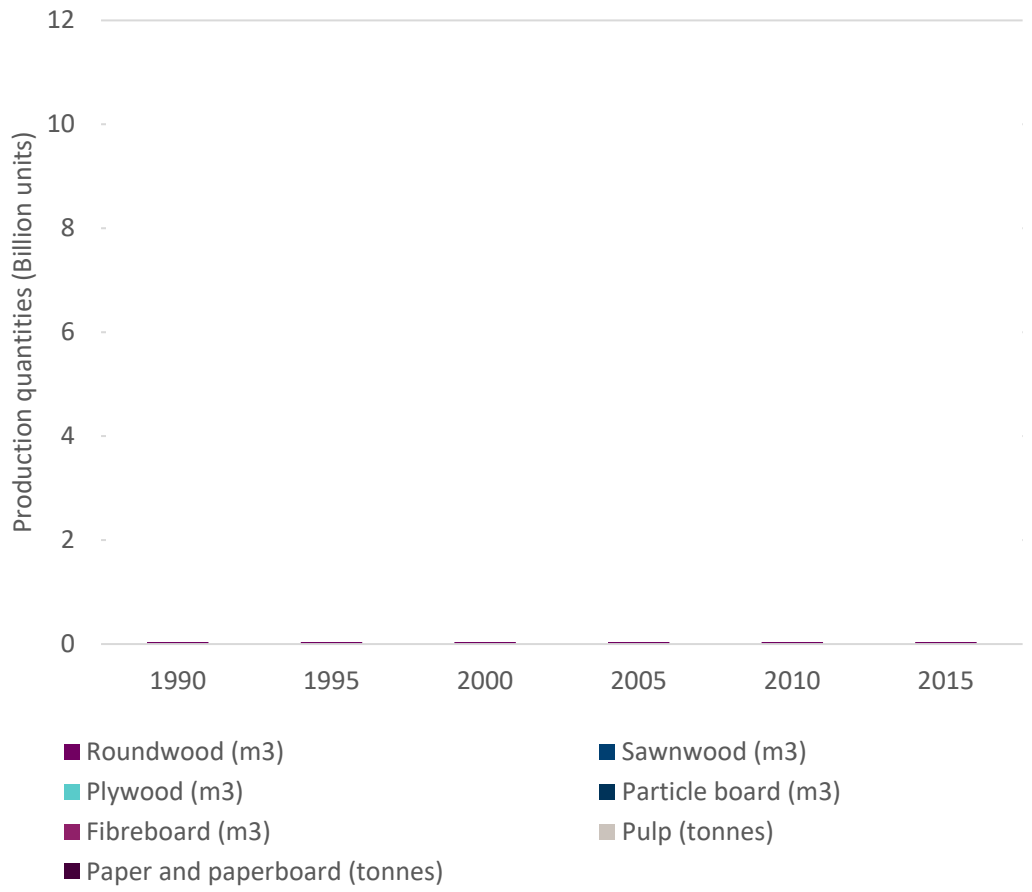
A forest-based bio-economy



Source: Bernhard Wolfslehner, Stefanie Linser, Helga Pülzl, Annemarie Bastrup-Birk, Andrea Camia and Marco Marchetti. 2016. Forest bioeconomy – a new scope for sustainability indicators. From Science to Policy 4. European Forest Institute.

State of Russian wood-based sector



- Significantly underscoring estimated potential
- Output of basic wood products steadily increasing for the past thirty years
- Mostly in low-margin/low-value-added segments – roundwood, sawn wood and plywood
- Total revenue in 2016 nearly 20 bill. USD
- Contribution to GDP was 0.5%
- 4% share in industrial production
- 2.4% share in export revenue
- 0.8% of employed people (500K)

What is the novelty in a modern bioeconomy?

I-beams

dataholz.eu

Cross Laminated Timber (CLT)

dataholz.eu

Wood pellets

Qlima.be

Pyrolysis oil

valmet.com

Wood foam tiles

Fraunhofer

Wood-plastics composites

woodproducts.fi

Wood-based plastics

woodly.com

Wood-based fiber

spinnova.com

Wood-based textiles

marimekko.com

Wood foam for packaging

VTT

Carbon storage in harvested wood products


(Photo: J. Van Brusselen)

- Harvested wood products can contribute to achieving the Paris Agreement goal of limiting global warming to well below 2 degrees Celsius, compared to pre-industrial levels.
- Harvested wood products (HWP) can store carbon over medium and long-term, substitute emissions-intensive materials such as concrete and steel in the construction sector, and prevent the use of fossil-based products that bring exogenous carbon into the troposphere.
- The range of products and applications on the basis of wood is becoming more versatile year on year, from mass timber, insulation and packaging materials over textiles to plastics and chemicals

The emission reduction goes beyond the carbon in the wood itself

Substitution factor: avoided GHG emissions

$$SF = \frac{GHG_{non-wood} - GHG_{wood}}{WU_{wood} - WU_{non-wood}}$$

(Further reading: Leskinen et al., 2018. Substitution effects of wood-based products in climate change mitigation. From Science to Policy 7. European Forest Institute. https://doi.org/10.36333/fs07)


(Photo: Google Maps

Enabling the circular forest-based bioeconomy

Systemic change usually takes time and resources, unless the urgency is understood and facilitated

- **Technological innovation**
- **Consumer behaviour**
- **Market development**
- **Societal**
- **Finance and insurance**
- **Governance, legislation and regulation**

Wood-based bioeconomy requires strategy


WSCTU11 with wordcloud.com

- Critical issues e.g. lack of skilled workers due to low wages in the sector, lack of legislative mechanisms to stimulate the construction and operation of forest roads, low investment attractiveness of new wood processing industries, poor consolidation of logging industry

- Enabling environment to include, strong political support and coordinated legislative action, new investments to forest-based industries, and increased awareness of consumers.

- circular forest-based bioeconomy strategy to clarifying objectives, policy instruments, roles and responsibilities for all actors

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Thank you!

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