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**GLSTF 2023
GLOBAL LEGAL &
SUSTAINABLE TIMBER FORUM
21-22 November 2023
Macao, SAR, China**

**THE ECONOMIC, SOCIAL AND
ENVIRONMENTAL BENEFITS AMID THE
DEVELOPMENT OF GLOBAL TIMBER INDUSTRY**

**Session I: Contributions of Timber Industry to Climate Change
Mitigation and Economic & Social Development**

IVAN TOMASELLI – GTI BRAZIL FOCAL POINT

22/11/2023

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1. INTRODUCTION

- ✓ The global timber industry has ...
 - A significant **ECONOMIC** impact globally
 - A positive **SOCIAL impact** as millions depend on forestry and timber industry-related activities
- ✓ The timber industry also generates **ENVIRONMENTAL** benefits ...
 - Forest areas are sustainably managed and contributes to soil, water and biodiversity conservation
 - Trees sequester and store carbon as they grow.
 - Wood products: long-term carbon storage, demands less energy and contributes with climate change mitigation



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2. ECONOMIC BENEFITS OF TIMBER INDUSTRY

- **ECONOMIC contribution:**

- *International trade in wood products has become increasingly important over the past 30 years.*

- Global wood products trade rose 143% to **US\$244 billion** between 2017 and 2021).

- Contribution of **US\$ 1.3 trillion** to the world economy (CSFEP, 2022)

- The global **timber sector alone** is worth **US\$ 600 billion** each year
 - In Brazil, log production was valued at **over US\$ 2.5 billion**
 - By **2030**, **SFM** has the potential to create **\$230 billion** in business opportunities (while curbing the effects of deforestation and generating million of jobs) (CSFEP, 2022)

- Largest contributors ... economic and population growth, fast demand growth from China (FAO, 2021)

- **Access to New Markets:** Legal timber has made exports easier to countries with stringent environmental standards, offering opportunities for developing and developed countries alike to access new markets.

- **Boost to the Economy:** The use of mass timber in construction is likely to take off at scale over the

3. SOCIAL BENEFITS OF TIMBER INDUSTRY



- **Job Creation:** Forest economies support over **45 million direct and indirect jobs** globally. The global timber sector alone employs **13 million people**.
 - In Brazil, the industry employs **1.4 million direct workers**, that climbs to **3.7 million** adding **indirect jobs** and those resulting from the **income effect**.
 - The Brazilian forest industry invest around **US\$ 4.5 billion** annually in social and environmental programs that benefit **6.9 million people**.
- **Healthier Living and Working Environments:** People benefit physically and mentally from living and working in timber buildings.
- **Promoting Regional Development:** It can serve as the basis for regional development where forests are plentiful.
- Future job creation in the global forest sector depends on ... **labour productivity:**



4. ENVIRONMENTAL BENEFITS OF TIMBER INDUSTRY



- **Sustainable Resource:** Timber is a renewable resource that can be sourced from sustainably established and managed forests.
- **Carbon Sequestration:** Trees capture and store carbon as they grow. The use of timber in construction (for instance) allows for the storage of this sequestered carbon in long-life products.
- **Biodiversity conservation/ecological corridors:** Contribution of the forestry sector to the sustainability/maintenance of biodiversity, soil protection and water quality.
- **Substitution of Higher Environmental Impact Materials:** Wood construction can cut down carbon emissions by substituting for carbon-intensive materials like concrete and steel.
- **Energy Efficiency:** The manufacture of wood products and structures consumes less energy compared to similar products/structures made of other materials.
- **Mass Timber Construction:** Mass timber products, such as “cross-laminated timber”, are strong enough to replace concrete and steel.



Source: ABAF, 2023.

4. ENVIRONMENTAL BENEFITS OF TIMBER INDUSTRY

4.1 Carbon Emissions Reporting

- The Paris Agreement (2015) recognizes the urgency of reducing emissions to mitigate climate change and the key role of forests in both mitigation and adaptation
- Countries may report on **Harvested Wood Products (HWP)** as part of voluntary commitments (INDCs) under the land use, land-use change, and forestry (LULUCF) sector
- The Intergovernmental Panel on Climate Change (2006; 2014, 2019) provides good practice guidelines for estimating carbon emissions and removals from HWP



4. ENVIRONMENTAL BENEFITS OF TIMBER INDUSTRY



4.2 Carbon Market Opportunities

- Given the anticipated demand for **carbon credits** from global attempts to reduce GGE, the world will require a large, transparent, verifiable, and environmentally sound carbon market.
- Factors like stringent climate policies by various countries, their commitments under Paris agreement to reduce carbon emissions, and corporate sustainability goals are likely to contribute to the growth of the carbon credits market which is expected to reach the level of **USD 250 billion by 2030** (Barclay, 2023)
- The worldwide voluntary carbon market is likely to hit a "tipping point" in the near future, causing a surge in the carbon offset credits trade in the next years, turning it into a \$1 trillion business by 2050.
- **McKinsey (2021) ... demand for Carbon Credits could increase +15X by 2030 and 100X by 2050.** These **carbon credits** would come from four sources: avoided nature loss (including deforestation); **NATURE-BASED SEQUESTRATION, SUCH AS REFORESTATION**; avoidance or reduction of landfill emissions, such as methane; and technology-based removal of CO₂ from the atmosphere.

5. STRATEGY OF TIMBER INDUSTRY FOR CLIMATE CHANGE MITIGATION



- **Increasing Forest Cover:** mainly through **forest plantation** and restoration can help sequester more carbon, thereby reducing the amount of CO2 in the atmosphere.

The most cost-effective way to boost carbon storage is to promote reforestation and restoration

- **Sustainable Use of Forest Products:** Wood is a renewable resource with wide applications in many industries. Wood products sourced from sustainably managed forests store carbon.
- **Carbon Storage in Harvested Wood Products (HWPs):** Timber harvesting can move the carbon stored in forest sectors to HWPs, thus creating an HWPs carbon pool. The carbon stored in HWPs is allocated to end-use wood products (e.g., paper, wood construction, furniture), landfills (e.g., waste wood materials), and charcoal (e.g., biochar).
- **Innovation in Wood Use:** The development of new products that can replace traditional fossil-based carbon-intensive materials, particularly in the construction and energy sectors.
- **Substitute Non-Renewable Materials with Wood:** Substitute wood from sustainable sources for non-renewable materials and energy.
- **Manage Risks in the Forest Sector:** Manage the risks associated with a changing climate can help ensure the long-term sustainability of forests.

6. CALL TO ACTION

✓ The timber industry has a **unique opportunity** to make a significant **contribution to mitigating climate change**:

- **Promoting SFM:** Commit to sourcing timber from sustainably managed forests.
- **Investing in Reforestation/Afforestation:** Establishing forests on previously non-forested lands can sequester significant amounts of carbon dioxide.
- **Promoting the Use of Timber in Construction:** It can help to reduce the carbon footprint of the building sector.



- **Implementing Measures to Reduce Waste:** Implementing them in all stages of the timber production process, including everything from improving efficiency in logging operations to finding uses for sawdust and other by-products, mainly in remote areas (such as in the Amazon).
- **Implementing Sustainable Practices:** in the operations (e.g. education and awareness; certification; consumer demands).
- **Best practices:** Expanding and sharing knowledge on climate mitigation potential of forest products.

7. FINAL REMARKS

... on the Contributions of Timber Industry to Climate Change Mitigation and Economic & Social Development

We must not only look at the positive economic, social and environmental benefits of developing the global wood industry... but also to understand and act on the

POTENTIAL IMPACTS OF CLIMATE CHANGE ON THE FOREST SECTOR AND THE TIMBER INDUSTRY.

This is a point of attention, since potential negative impacts (of the climate change) can become either a problem or an opportunity for the Global Timber Industry.

CLIMATE CHANGE CAN REDUCE THE FOREST COVER IN SOME AREAS (QUANTITATIVE AND QUALITATIVE - NATURAL DEGRADATION, WILDFIRES, OTHERS) AND TRIGGER DANGEROUS ECONOMIC, SOCIAL AND ENVIRONMENTAL IMPACTS IN DIFFERENT REGIONS OF THE WORLD.

IT CAN ALSO BENEFIT OTHER REGIONS AND BRING MORE OPPORTUNITIES FOR THE FOREST SECTOR.

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