



Food and Agriculture
Organization of the
United Nations

Co-creating Thriving Forest-Based Bioeconomy Approaches

***FAO action to promote sustainable forest-based
bioeconomy approaches***

**COP30 FOREST PAVILION: A Shared Commitment
to Our Planet - Forests and
Bioeconomy: Advancing Sustainable Solutions for
Climate and Nature- Tuesday, 10 November 2025 |
14:30 – 18:00**

Sven Walter, Senior Forestry Officer, FAO Forestry Division (NFO)
Francesca Bertola, Private Sector and Partnerships Specialist, NFO



Forests – a cornerstone of bioeconomy

- Cover nearly **one-third of the Earth's land surface** and contain the **majority of terrestrial biodiversity**.
- Crucial for **mitigating climate change**.
- Providing important **societies benefit**:
 - More **than half of world gross domestic product depends** on **ecosystem services**.
 - **75%** of all rural people live within 1 km of forest.
 - **42 million people** around the world were **employed** in the forestry sector in 2022.
 - More than **2 billion people use wood energy** for cooking.
 - **85% of biomass** used for energy purposes is provided by **wood-based energy**.

FAO FORESTRY ROADMAP: From vision to action 2024–2031

Priority Action 11:

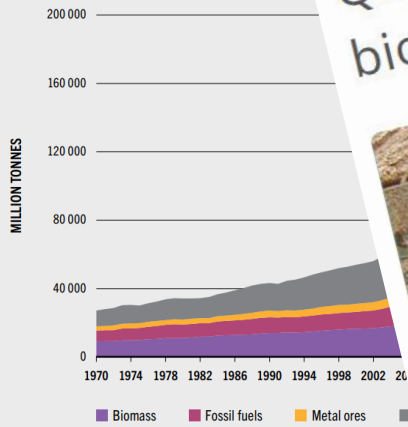
“Enhance sustainable production and build sustainable and resilient livelihoods, value chains and bioeconomy”



Bioeconomy for sustainable food and agriculture

THE TIME IS NOW!

Projected global material extraction, 2015–2050
continuation of current trends.



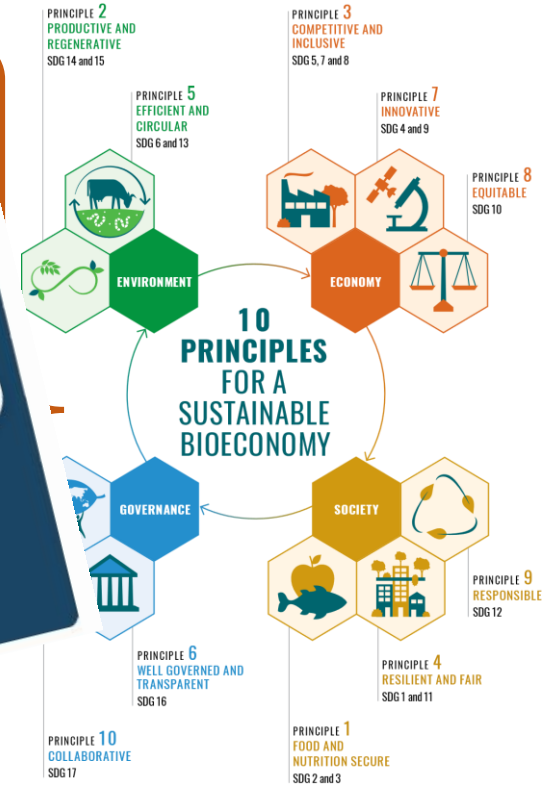
SOURCE: Oberle, B., Bringezu, S., Hatfield-Dodds, S., Hellweg, S., Schandl, H. (2019). *The future we want*. Nairobi, United Nations Environment Programme.

Quick facts - Why forestry matters for sustainable bioeconomy

Climate and environmental importance

- Forests store 662 billion tonnes of carbon and host 80% of terrestrial species — vital for climate stability and ecosystem resilience.
- Wood products, when sourced sustainably, could store 1 billion tonnes of CO₂ per year by 2050 — equal to removing 200 million cars from the road.

Sustainable development



FAO's work on sustainable forest-based bioeconomy

- I. **Fostering** sustainable production and consumption practices
- II. **Optimizing** forest-based value chains
- III. **Reinforcing** bioeconomy approaches for climate action

Responding to the recommendation of the 27th session of FAO's Committee on Forestry in July 2024

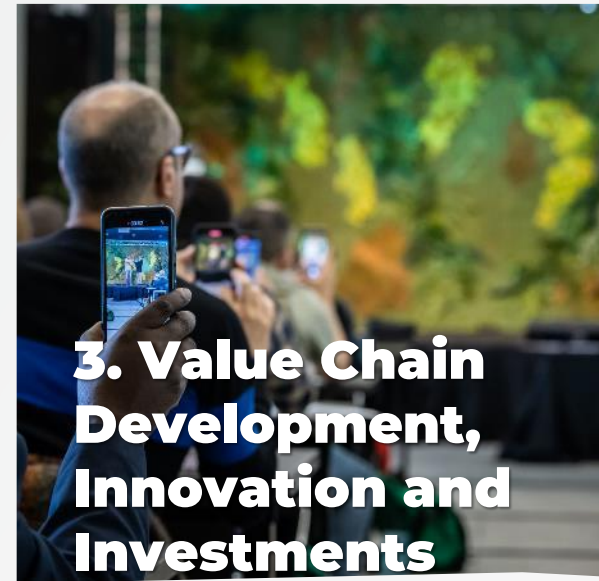
NFO's **CORE INTERVENTIONS** on forest-based bioeconomy



Improving access to and analysis of data through the development of indicators, classifications, monitoring frameworks, and technical standards. Assistance covers strengthening national capacities to collect, analyze, and share information via platforms like **FRA, FAOSTAT and other linked systems.**



Facilitating policy discussions, partnerships and multi-stakeholder engagement at all levels to integrate forest-based bioeconomy approaches into policy agendas, such as through the **ACSFI, SW4SW and Grow the Solution CPF Initiatives, and the COLI Initiative.**



Assessing and upgrading forest value chains for improved enabling environments, business models, innovations, investments, and markets barriers, encouraging sustainable enterprise practices. **On-the-ground support: Forest and Farm Facility (FFF), EU Forest Governance and Value Chains Programme (FGVC).**



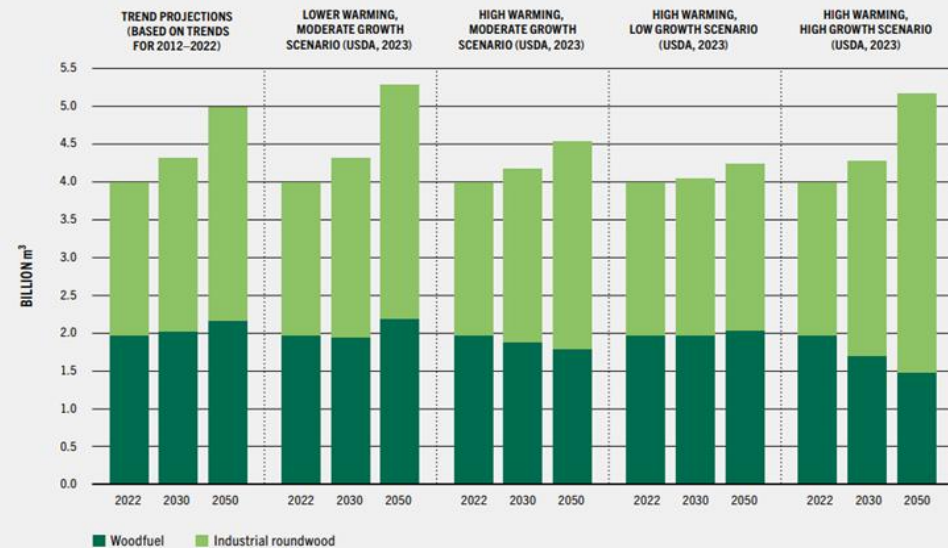
Strengthening institutional and stakeholder capacities to design, implement, monitor, and evaluate evidence-based policies and practices, offering knowledge resources, guidelines, tools, and training to improve skills and bridge the gap between policy and implementation. **Latest: guiding document on sustainable forest value chains.**

FAO's work on forest-based bioeconomy (1)

Data, Norms and Standards

Global wood production at record levels, with rise in biomass demand expected

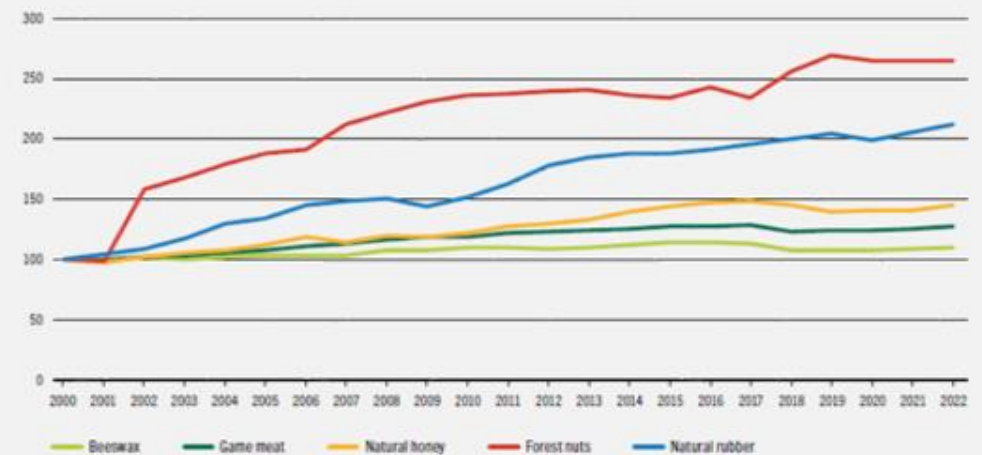
(4 billion m³ per year and nearly 6 billion people use non-wood forest products)



NOTE: This figure excludes the FAO category of "other roundwood" (i.e. roundwood used for tanning, distillation, match blocks, poles, etc.), which accounts for 3–4 percent of total roundwood production.

SOURCES: The trend projections were estimated for this report by L. Hetemäki, University of Helsinki, based on data for the period 2012–2022; data for the USDA (2023) projections were obtained from Johnston, C.M.T., Guo, J. & Prestemon, J.P. 2023. RPA forest products market data for U.S. RPA Regions and the world, 2015–2070, historical (1990–2015), and projected (2020–2070) using the Forest Resource Outlook Model (FORUM), 2nd Edition. In: Forest Service Research Data Archive. <https://doi.org/10.2737/RDS-2022-0073-2>

FIGURE 3 TRENDS IN PRODUCTION VOLUME OF FIVE NON-WOOD FOREST PRODUCTS, 2000–2022



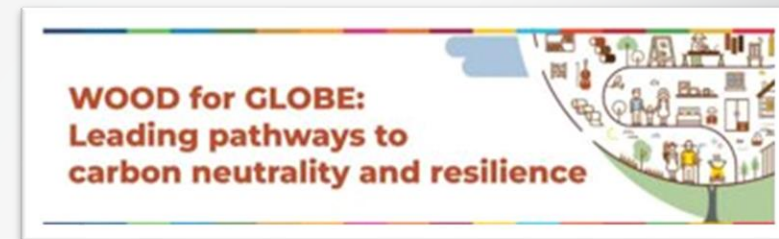
NOTE: Nuts and natural rubber experienced the highest production growth between 2000 and 2022 (165 percent and 113 percent, respectively); honey, game meat and beeswax had smaller increases. There is increasing consumer awareness of the health benefits associated with the consumption of edible forest products such as nuts and honey and growing interest in natural and sustainably sourced ingredients. New technologies have also helped drive growth in production volume. Natural honey and beeswax include both forestry and agricultural products.

SOURCE: FAO. 2023. FAOSTAT: Crops and Livestock Products. (Accessed on 29 December 2023). <https://www.fao.org/faostat/en/#data/QCL>. Licence: CC-BY-4.0.

FAO's work on forest-based bioeconomy (2)

Policy Dialogue, Advocacy and Partnerships

Joint action is crucial to expand awareness and adoption of sustainable forest products in the bioeconomy



FAO's work on forest-based bioeconomy (3)

Value Chain Development, Innovation and Investments

Greening forest-based value chains by applying innovative financing

Forest and Farm Facility (FFF)



Expanding smallholder
plantation-based
value chains



Improved SFM, value
added and
conservation with
community
concessions



Smallholder
restoration with
carbon credits
combined with value
chains



Integrating forest-
based value chains for
conservation and
restoration

EU Forest Governance and Value Chains Programme (FGVP)



Improvement in the
business environment
for sustainable forest-
based value chains



Enhancing non-wood
forest product-based
value chains



Enhancing efficiency
and competitiveness
through business
clustering



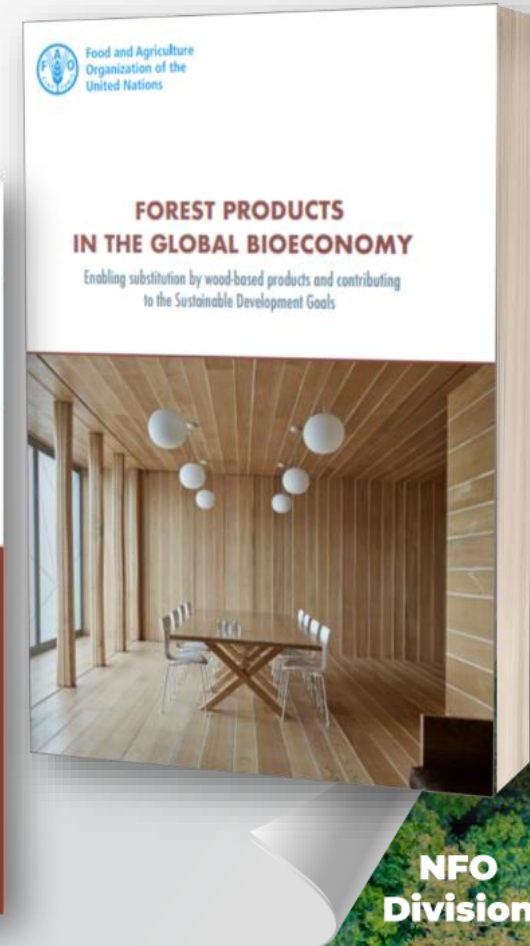
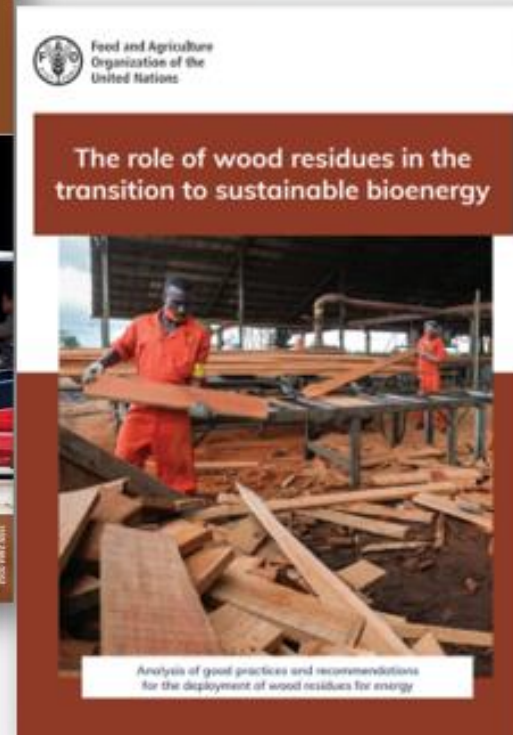
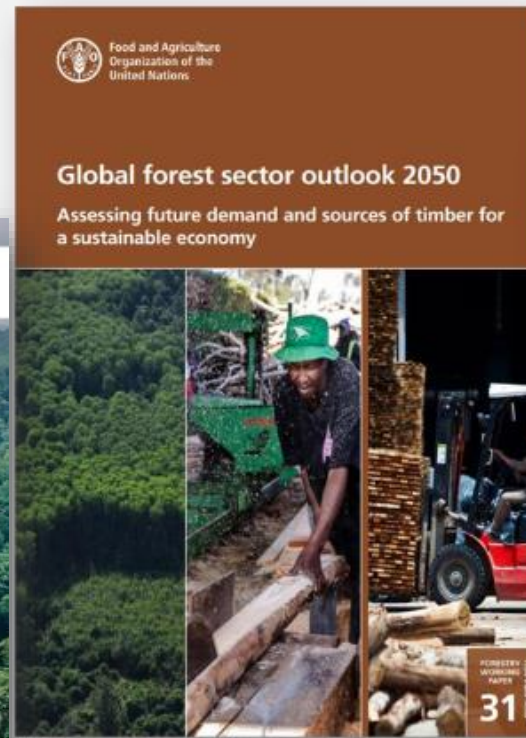
New products, new
technologies and new
markets with
engineered wood
products

African Forest Landscape Restoration Initiative Programme (AFR100)

FAO's work on forest-based bioeconomy (4)

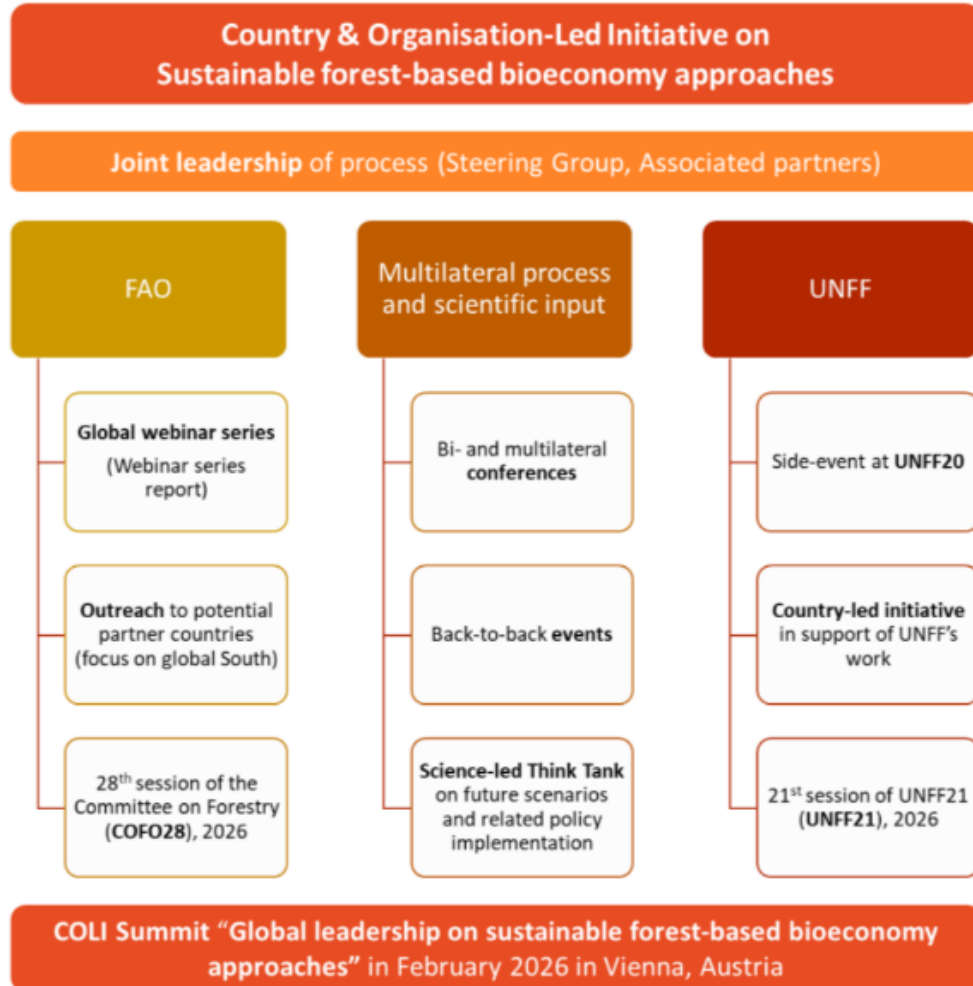
Knowledge Generation and Capacity Development

Examples of knowledge resources, guidelines, tools to support the forest-based bioeconomy



WHAT'S NEXT: COLI Global Summit (23-25 February 2026, Vienna, Austria)

Forest-based bioeconomy discussions (2)



Conclusion – Let's Scale the Forest-Based Bioeconomy

Global Trends & Emerging Focus

 **Material demand rising** → bioeconomy and forests offer sustainable alternatives

 **Bioeconomy** must be **locally adapted**

 **Forest value chains** support low-carbon economies, livelihoods and ecological integrity

 **Sustainable wood growing relevance** → need for sustainable production and trade planning

 **Integrated approaches are essential** → 4 core actions: Data, Policy & Partnerships, Value Chains, Capacity development

 **Successful field-based actions exist** → VC development linked with forest production, restoration, value addition, and livelihood improvement

Looking ahead 2026/27 - momentum continues

 23-25/2/2026 – **COLI Summit**
[Advancing Sustainable Forest-based Bioeconomy Approaches](#)

 2026 – **UNFF21 & COFO28**

 2027 – **World Forestry Congress**

2027 – **FAO Regional Forestry Commissions: Regionalization of COLI outcomes, including private sector engagement**

 Strengthening **partnerships** for sustainable (forest-based) bioeconomy



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Thank you

**Presentation of the Forest Products and
Bioeconomy Team, FAO Forestry Division (NFO)**

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