



TOWARDS SUSTAINABLE FOREST-BASED VALUE CHAINS



Global forest-based value chains

(VC) include around 5.000 different wood products that generate an annual commercial value of € 1.500 billion and support the livelihoods of one billion, mostly rural people. Forests are also a source of non-wood forest products (NWFP), which include foods such as nuts, berries and mushrooms as well as raw materials used in construction, chemistry and medicine. Globally from 3.5 to 5.8 billion people use NWFP.

The universe of forest products and services is much more varied and complex than you might imagine.

Forest value-chains in figures

5.000 different wood products

€ 1.500 billion: global value of traded wood products

€ 90 billion: global value of traded non-wood products

33 million formal forest jobs

3.5 to 5.8 billion people using NWFP



CHALLENGES AND OPPORTUNITIES

Since 1990, the world has lost 7% of its natural forests, mainly due to the expansion of agricultural land and pasture. At the same time, the global consumption of wood products has increased by 50% (FAOSTAT), and wood has been increasingly sourced from planted forests.

The world is demanding more materials

In developing countries, population growth and urbanisation are driving a growing need for materials for housing and consumer products, and increasing energy consumption. Charcoal is used by 30% of the global population (2.4 billion people) to cook meals, sterilise drinking water and heat homes. Recent forecasts suggest that the global demand for wood products will double by 2050 (Forest products in the global bioeconomy -fao.org). How can this challenge be turned into an opportunity – maintaining healthy forests while satisfying the growing need for sustainable wood products?

Global population



The world is demanding more materials

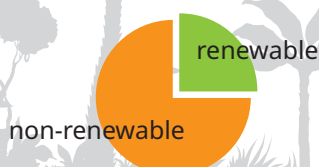
The global population is expected to increase from 7.7 billion in 2019 to 9.7 billion in 2050

Global consumption of natural resources



Global consumption of natural resources is expected to more than double, from 92 billion tonnes in 2017 to 190 billion tonnes in 2060

Total material demand



75 percent of the total material demand today is met with non-renewable resources

The need for affordable housing

Professionally managed natural and planted forests can increase carbon stocks and conserve biodiversity, while supplying deforestation-free and sustainable wood for various products. Long-lived wood products, used in housing for example, can capture significant amounts of carbon, and can replace non-renewable materials such as steel, concrete, and aluminium, which also have far larger carbon footprints than sustainably sourced wood. With an emerging need for affordable housing, especially in African towns and cities, wood can be part of the solution. Investment is particularly needed in modern technologies, re-tooling of industry and skills development to establish new plantation-based forest value chains in Africa.

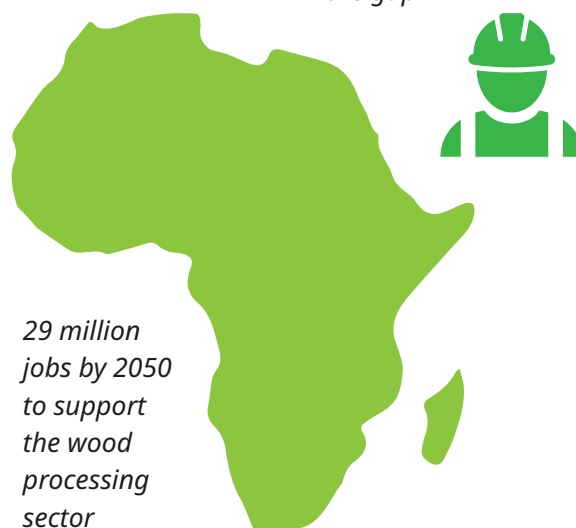
Forest-rich countries are becoming net importers

Several forest-rich developing countries produce only low value-added wood products, using inefficient technologies and wasting large amounts of valuable raw materials. The amount of wood wasted in harvesting and processing can be up to 50% of the total volumes. Many of these countries have become net importers of forest products because investing in the forest sector has not been attractive. The risks for investors are high, due to weak governance, inadequate infrastructure and limited capacities.

Demand for housing & construction in Africa

The wood supply gap in Africa is estimated at 219 million m³ per year

Some 25 million jobs would be created by 2050 to support the additional plantations needed to fill the gap

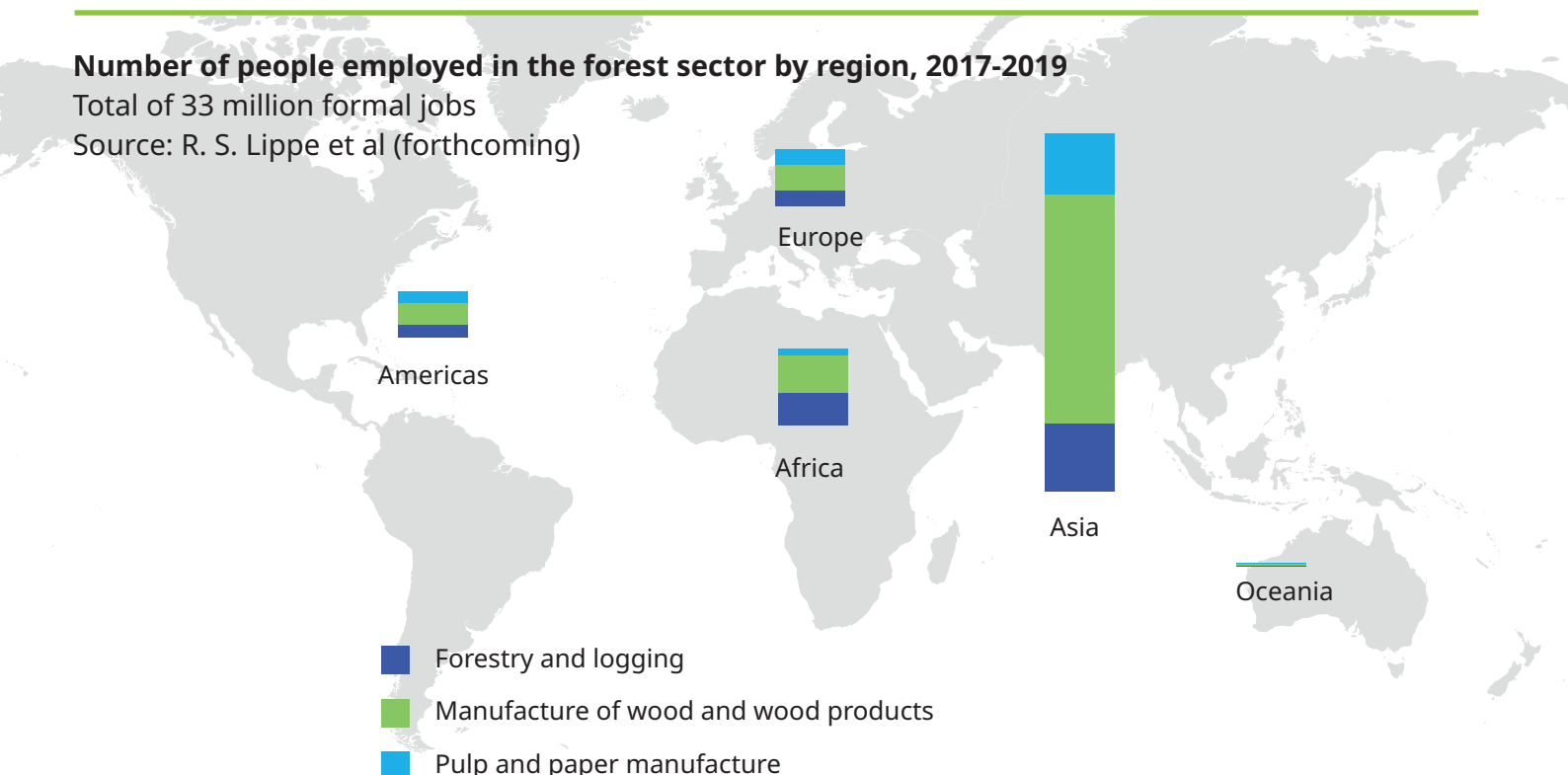


New plantations for sustainable supply would create carbon sinks (approx. 300 000 hectares of newly planted forests needed per year)

Number of people employed in the forest sector by region, 2017-2019

Total of 33 million formal jobs

Source: R. S. Lippe et al (forthcoming)



TIPS FOR DEVELOPING SUSTAINABLE FOREST-BASED VALUE CHAINS

A real opportunity exists to produce more from less, with more efficient use of raw materials for higher value products. Raw materials (roundwood and other forest products) can be produced under more sustainable forest management regimes, using efficient logistics and processing, to supply higher value-added products to local and regional markets, and wood-based energy can be produced and used in a more efficient way. This development path requires new skills and abilities, new products and applications, as well as financing. It is an important opportunity for EU support.

Include forest-based value chains in EU support

The development of forest-based value chains (VC) is well aligned with Green Deal objectives (green economy, climate change, biodiversity, jobs, etc.) and international agreements. EU policies, budget support, grants, technical assistance, and the use of EFSD+ to mobilise private sector investment can be game changers in developing sustainable forest-based VC in partner countries.

Identify sustainable forest-based VC

A sustainable forest-based VC involves a full range of forest owners or managers and firms, and their successive coordinated value-adding activities that produce particular raw materials from forests (e.g. roundwood) and transform these into particular products (e.g. wood products), which are sold to final consumers and disposed of after use, in a manner that has broad-based benefits for society and maintains forest ecosystems.

The first step is to select the VCs with the greatest potential (based on markets, resources, infrastructure, and comparative advantages), then to analyse the selected VCs, mapping the actors and their specific interests, capacities, opportunities, risks and constraints, and formulating strategies to address these. The analysis should take into account the effects of climate change on the VCs and suggest how to increase the resilience of the VC actors.

More efficient use of wood

Wood-based VCs can be carbon neutral if the wood sourcing is sustainable, raw material is used efficiently, sufficient wood volumes are used in products that store carbon for long time and/or substitute fossil-based materials, and if residues from processing are used for other secondary processing or energy products. The use of engineered wood products such as cross-laminated timber (CLT) and laminated veneer lumber (LVL) contributes to lowering a building's carbon footprint by displacing fossil-based materials, reducing waste during construction, reducing construction time and the cost per constructed area, among other things. In addition, the carbon sequestered from the atmosphere is stored in a durable product, reducing GHG emissions. Such wood products can be used in the construction of homes in growing urban areas in many partner countries (in Africa, Latin America and Asia). In integrated wood-based VCs, raw material and residue flows are used efficiently and thus contribute to a circular economy.

Reduce investment risks

Investments in forest-based VCs in EU partner countries are challenging due to the high (or perceived high) risks related to the limitations in infrastructure, organisations, human skills and capacities, available technologies as well as weak governance and policies. EU and other international support can reduce the risks and accelerate the urgently needed investments. For this purpose, it is important to assess opportunities to develop forest based-value chains, map value chain actors, and available financing.

Assess the impact on jobs and livelihoods

A state-of-the art approach to wood-based VCs can create decent jobs and income for local communities in rural areas and increase the means available for conservation of forests and the provision of ecosystem services.

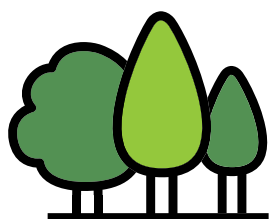




Mushrooms from Zambia's miombo woodlands - Photo © CIFOR, Fiona Paumgarten

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Forest Partnerships promote sustainable value chains

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The EU-funded [Forests for the Future Facility \(F4\)](#) provides technical support to contribute to healthy forest ecosystems and forest-related value chains in Asia, Africa, the Caribbean and Latin America. The Facility is managed by [DG International Partnerships Unit F2 – Environment, Natural Resources, Water](#).

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