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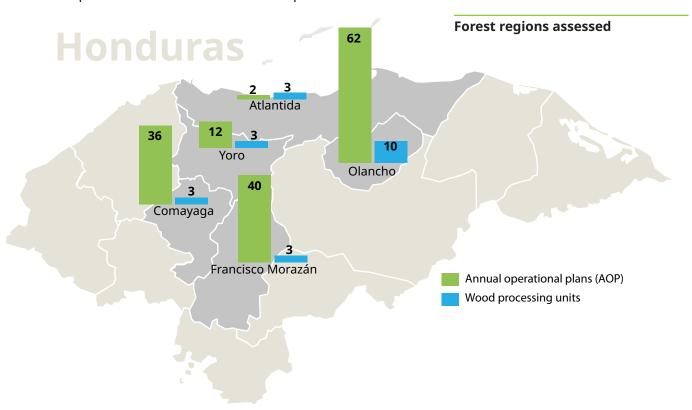
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SUSTAINABLE BUSINESS MODELS FOR THE HONDURAN WOOD SECTOR

The main objective of the study was to identify the most appropriate and sustainable business models for the Honduran wood sector considering possible comparative advantages, such as wood costs, the best use of different wood assortments for various products and markets, industrial infrastructure, capacities, job creation and finance.

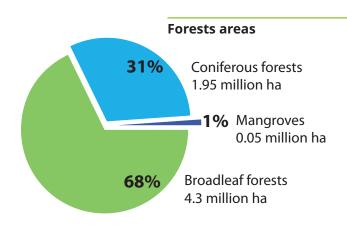
During the study, ten percent of the country's forest production units (operational management units) and forest industries in the Forest Regions of Francisco Morazán, Comayagua, Yoro, Olancho, and Atlantic Coast were assessed. The study included the collection of primary data as well as interviews with forest managers and representatives of the forest companies.



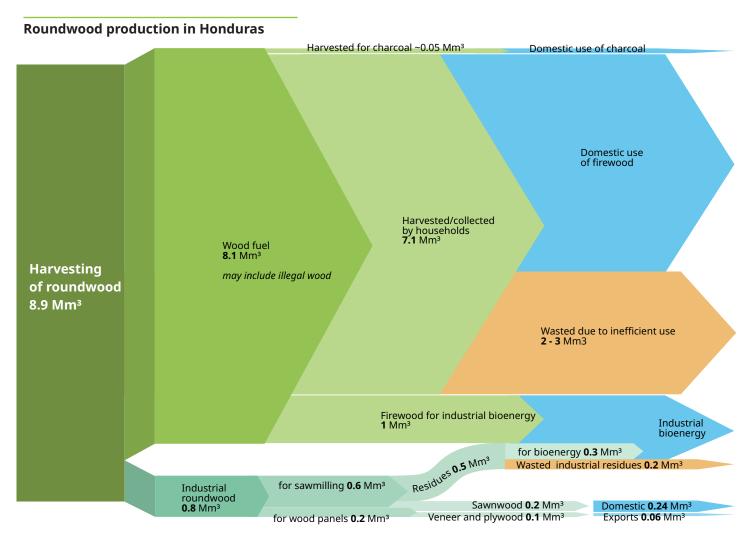
OVERVIEW OF THE CURRENT SITUATION

Forests and wood production

The total forest area in Honduras is 6.3 million hectares, covering 56% of the land. Of this area, 68% are broadleaf forests located in the lower North, Central and Eastern parts of the country, 31% are coniferous forests located in the in a central strip from the western to the eastern parts of the country, and the remaining 1% comprises mangroves in the coastal areas.



The total volume of roundwood production in Honduras was reported at 8.9 million m³ in 2021, of which only 0.8 million m³ (10%) was used as industrial wood, while most (8.1 million m³) was extracted for wood fuel. Industrial wood is sourced legally from natural production forests. In addition, illegal logging occurs, however, there are no reliable estimates of the volumes. Wood fuel extraction is largely informal taking place in all forest areas. The state has dedicated 0.8 million hectares for production forests, over 95% of which are coniferous and only 5% broadleaf forests. Only one fourth of the dedicated production forest area - 0.2 million hectares - is under operational management.



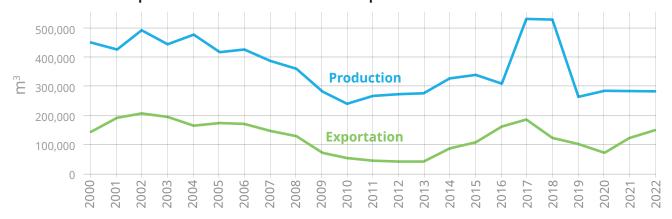
The Honduran rural population is still dependent on wood fuel for their household energy. Many community dwellers are challenged by extreme poverty and cannot afford other sources of energy. Firewood is extracted from all forests adjacent to rural communities. Many public forests suffer from the problem of being considered public goods, without any private owner, that can be freely consumed, especially in rural areas. This is the primary cause for firewood making up the largest share in overall wood consumption, even though some roundwood is also used for energy, by bioenergy plants, brick factories, bakeries, and other industrial plants.

One of the key issues affecting the Honduran forests in general, is the insecurity of ownership and tenure; there is no register that covers the entire country. Even so, it is estimated that the state and municipalities own 31%, private entities 35%, and communities own 13% of the Honduran forests. The ownership of the remaining 21% is undefined.

Wood product industries and trade

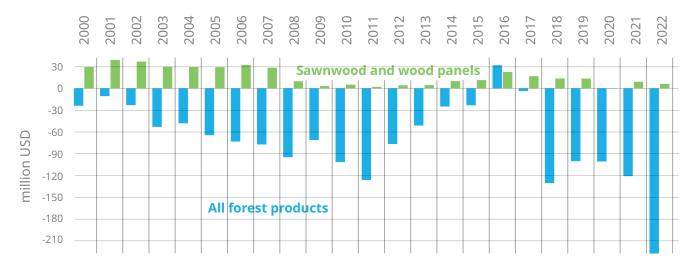
Wood processing industries comprise 100 to 130 operators, 65% of which are micro or small enterprises. Processing is limited to producing sawn pine wood, some volume of veneers and plywood, and various by-products in smaller volumes. The downward trend in the production of sawn wood, except for brief temporary peaks, has been notable over the last 20 years. This trend follows the volatile behaviour of international markets but has also been influenced by a loss in the competitive positioning of the Honduran sawmill industry. The poor state of modernization and loss of competitiveness are the main reasons behind this loss.

Production and exportation of sawn wood and wood panels



Honduras exports one third of its wood products, with a total value of 53 million USD in 2021, and with the United States as the main market, followed by neighbouring countries. The EU is currently a minor market for Honduran wood products; between 2019 and 2021, total exports of wood products to the EU amounted to USD 1.6 million, or 3% of the total exported by Honduras of these products. The EU importers (Spain, Belgium, Germany, and France) import mainly high-quality sawn wood. The export value has decreased significantly in recent years. Given its low production levels and the decline in the production of processed wood products, Honduras needs to import higher value wood products and has become a net importer of wood products; it faces a deficit in the trade balance (which covers exports and imports of all wood products, including pulp and paper) of 138 million USD in 2021.

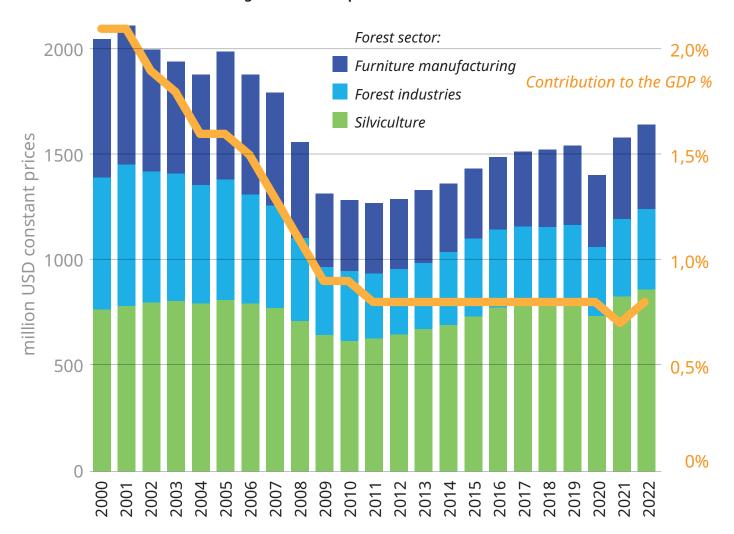
Trade balance (exports - imports)



Socio-economic importance

In socio-economic terms, the importance of the Honduran wood sector has declined as well, over the past two decades. The sector's contribution to the GDP decreased from 2.1% in 2000 to 0.8% in 2019. The main reason for the decline is the deteriorating performance of wood processing industries, whose market value decreased by over 40%, from 2000 to 2019. Despite this decline, the wood sector is still important in terms of rural employment and income. The sector employs over 60,000 people. Two thirds of the jobs are generated by forestry operations, while wood industries employ one third. The GDP does not account for the informal sector – which is also significant in Honduras.

Forest sector's contribution to the gross domestic product

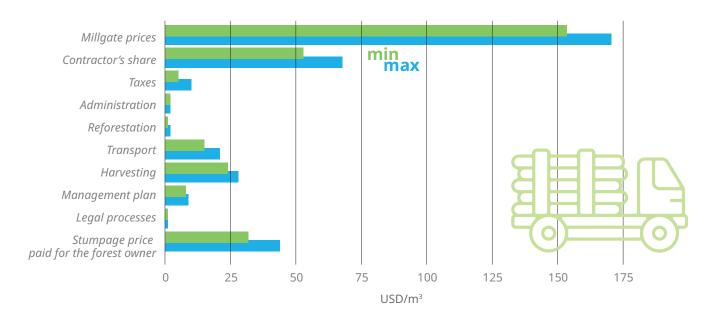


FINANCIAL VIABILITY OF CURRENT FOREST BUSINESSES

Forest operations from the stump to mill gate appear to be highly profitable for the forest contractors, who are the main beneficiaries in the forest value chains. Their share of the wood value up to mill gate varies from 30% to 40%. They have a unique position and drive the high wood costs for the industrial buyers.

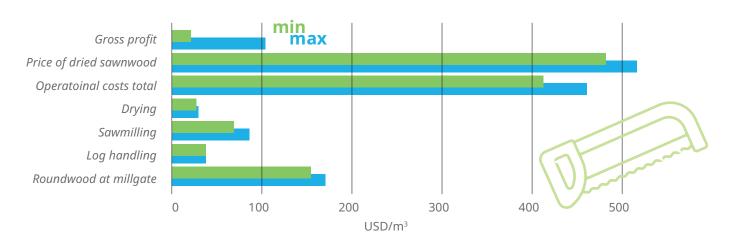
In the processing of sawn wood, the profit margin is low and depends on the use of the wood residues and how secondary and higher value-added products, such as toothpicks, broomsticks, pallets, profiles, and other products are handled. The viability of sawmills is also extremely sensitive to market prices for sawn timber. The average gross profit margin among the assessed processing units was less than 10% (ranging from 4% to 20%) which is low compared to international forest industry benchmarks (it ranges normally from 20% to 40%).

Breakdown of millgate price of pine roundwood



Financial analyses reveal that companies will have difficulties financing any new investments from their cash flows if the enabling business environment is not improved. This implies that there are favourable conditions for investment that allow the escalation of the investments required for its modernization and improvement in efficiency and at the national level. This includes measures to enable credit insurance and reinsurance, the reasonable use of collateral and other forms of fronting and other credit instruments. This will favour the scaling and investments that will be required from companies to comply with the Honduran Legality Assurance System for Timber Products (SALH).

Costs, revenues and gross profit in sawmilling



CONCLUSIONS

Sustainable forest production

Honduras has an important forest resource base – namely coniferous forests – that could be the foundation for competitive forest-based value chains and clusters. There are good examples of sustainable management practices of private pine forests in the country, as well as professional capacities that could be strengthened to ensure increased flows of valuable roundwood for processing industries.

Challenges for sustainable forest production

- Insecure and unclear land tenure
- Landowners' tendency to convert forests to other land uses for short-term financial gains
- A weak commitment of forest owners to long-term forest management
- Lengthy and inconsistent approval processes of operational forest plans by government authorities, which jeopardizes regular wood harvesting and wood flows for industries
- Illegal practices that maintain an uneven playing field for operators
- Forest fires, pest and deceases, especially in poorly managed forests

Availability of sustainable wood

The National Institute of Forest Conservation and Development (ICF) in 2020 has classified about 800,000 hectares of the coniferous forests for commercial production - less than half of the total area of coniferous forests. The allowable annual cut is limited to 800,000 m³/ year. Based on the latest forest inventory (ICF 2018) and forestry research, this volume of industrial round wood can be harvested sustainably – it is less than the annual growth of forests. The mean annual increment at most sites is a minimum of 4.0 m³/ha/year (D. Zamora et al. 2006). Recent research on yields in sustainably managed areas in private forests reveals volumes between 4 to 20 m³/ha/year (CIFORMAH, 2023). In the long-term sustainable forest management practice can at least to some extent increase potential sustainable harvestable volumes.

2 Forest industries and market outlook for wood products

The market outlook for wood products is promising. There are good opportunities in the traditional export markets (USA, adjacent countries, EU) as well as in domestic markets. While there have been significant short-term fluctuations, the long-term price development indicates an upward trend for many solid wood products. The industries also have a good potential for the development of competitive clusters.

Challenges for downstream wood processing

- Low profitability due to unsecure and expensive wood procurement as well as a heavy bureaucratic burden
- Unfair competition from illegally produced timber
- A lack of product standards, limiting the optimal use of wood assortments for different wood products
- Limited scale to expand product portfolios
 (e.G., That would allow efficient use of residues for secondary products)
- Obsolete technologies due to low investments over the last decade

The current business models are not functioning well. The challenges have resulted in reduced margins in processing, and many companies have downsized their production or even closed industrial plants. Companies have no appetite to invest in upgrading and scaling of the industries as long as conditions remain insecure. The high risks are translated to difficulties in accessing preferred financing for new investment or working capital.

RECOMMENDATIONS

1

Government: ICF and other government agencies

Improve the forest business environment to enable investments in an expansion of sustainable forest management and modernization of the wood industries

- Adjust the process of approval and monitoring of the forest management plans/ annual operational plans. The current bureaucratic burden should be reduced, and the process should become lean, clean, and more flexible.

 This is a critical step for the scaling of the Legality Assurance System for Timber Products as part of the VPA-FLEGT process.
- Ensure security of tenure for forest lands. This is another critical precondition for sustainable forest management. The land tenure process can benefit from the lessons learned from the VPA FLEGT pilot in mechanisms for resolving legal, judicial, operational, and social conflicts. Forest land tenure security also reduces the risk of forests being converted to other land uses.

Redefine the role of the National Institute of Forest Conservation and Development (ICF)

- > Shift from a regulator of forest operation towards a promoter of sustainable forest development.
- Change the current role of the Qualified Forest Technicians, as regulators controlling forest sector operators, to become collaborators of sustainable forest management who enhance capacities of forest owners, managers, forest companies and other stakeholders.
- Apply models from other countries e.g., the EU member states, USA, Chile, Guatemala, Costa Rica, among many others, where the state has promoted successful forest management and respective value chains.

Create incentive packages for sustainable forest management of private forests (including community forests) and for wood industry clusters

- The incentives can be tax exempts for sustainable practices and industrial parks for processing facilities, for example.
- > The incentive package should be linked with financial packages developed by the finance sector.
- Experiences from other countries e.g., Costa Rica, Brazil, Chile can serve as examples of how incentives have worked out.

Promote the development of micro-, small- and medium sized enterprises (MSMEs) in forestry and forest industries

- > Build capacities at government level, in partnering with private and finance sectors.
- Improve competitiveness of MSMEs through capacity building and targeted incentive packages. micro, small and medium-sized producers can be more competitive and creative in the use of wood residues from larger industries and primary processes.
- Engage the finance sector and increase their awareness of the opportunities among forest MSMEs.

Private sector: forest owners / operators, including communities/companies

Establish partnerships with other actors

Organizations and associations of forest owners, communities, and/or companies can enable horizontal and vertical integration – leading to scaling, more efficient use of raw materials, a stronger negotiation position with the finance sector and end-markets, as well as improved access to technologies.

Carry out feasibility studies of potential investments considering:

- Strategic location (primary industries closer to the forest, for example).
- Modernization and development of clusters (closeness of processes for secondary products and use of waste in geographical concentration), in the modernization of the industry (machinery to process secondary pine forests more efficiently, smaller diameters, greater precision and less waste, energy use, etc.).
- Needs for technical assistance, support services, infrastructure improvements, and finance.

Finance sector

Develop financing for the forest sector

- Forest financing should be part of any sustainable finance initiatives and be linked with bankers' associations that guide financial institutions in sustainable financing.
- Improve risk assessment procedures (including sustainability).
- Develop and apply appropriate instruments: loans, guarantees, equity, and insurances in innovative ways.
- Design an inclusive and sustainable forest financing mechanism targeting small and medium-sized enterprises, including forests operators, processing companies, and service providers.



4 European union and other forestry development partners

Promote sustainable forest management models based on past experiences

- > Apply the lessons learned from past interventions successes and failures in SFM in the newly supported interventions.
 - There are a few examples of long-term sustainable management cases (cases with internationally recognized forest certification standards) in Honduras; however, there are several such cases in adjacent countries e.g., in Costa Rica.
 - Dedicated support will be required to create capacities for sustainable forest management at the level of forest owners.
- Other support required includes funds for training and extension programs such as field schools, materials, and technical assistance to the government in reviewing policies and incentives for certification.

Promote the creation of forest industry clusters

Support policies, fiscal instruments and incentives that enable the creation of forest clusters, using applicable reference frameworks, such as from Chile or from EU-supported cases in Colombia and Mexico (benchmarking).

Catalyse finance and investments from private sources

- Support identification of the current offer and main needs (gaps) for forest finance, as well as the root causes for the gaps.
- Exchange of good practice in forest finance, support match-making events that bring potential investors and promotors/companies/initiatives together.
- Support mobilization of local finance (local finance sector, companies).
- Enable international finance from different sources.
 - Major investment in scaling and new technologies (machinery and equipment).
 will require international finance e.g., from European DFIs that benefit from EFSD+.
 - Promote alliances of investors in impact investment schemes, co-investment, export credit funds.





This overview of Competitivity of forest sector business models in Honduras is the summary of a more comprehensive study produced by the Forests for the Future Facility (F4).



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