

POLICY BRIEF: EVALUATION OF WOOD AND BAMBOO RESOURCES FOR THE DEVELOPMENT OF ENTERPRISE OPPORTUNITIES, AND ASSESSMENT OF OPTIONS FOR SECURING LAND FOR COMMERCIAL PLANTATION DEVELOPMENT IN AMHARA AND OROMIA



KEY MESSAGES

The sustainable domestic supply of wood products cannot keep up with the increasing national demand. To increase national supply, it is vital to engage the private sector in commercial forestry investments.

In Amhara and Oromia regions, state-owned enterprises benefit from vertical integration and dominate industrial forestry plantation and processing resources, making it cumbersome for private sector investors to penetrate this market.

Other impediments to private sector investment include lack of long-term financing options, lack of earmarked forest land for commercial usage, unreliable raw material supply, and sub-optimal transportation routes.

Investments in the commercial forestry sector could increase woodlot and wood processing productivity by two to three-fold – leading to a reduced supply gap, increased gross production, and increased gross value added. These investments would also lead to job creation and carbon sequestration.

INTRODUCTION

Ethiopia's forests have important socio-economic and ecological functions; however, the contributions of production forests to the green economy have been limited due to a lack of financing options and low forest management capacity. These challenges hinder Ethiopia's progress in achieving the ambitious socio-economic and climate targets of their Climate Resilient Green Economy (CRGE) strategy, the Growth and Transformation Plan (GTPII), and the UN Sustainable Development Goals (SDGs).

The engagement of the private sector is essential to mobilize additional investments and attract forest industry expertise for sustainable commercial forestry and the development of forest-based industries. Furthermore, forest-based industry development can provide secure markets for wood and bamboo produced by smallholder farmers, providing additional incentives for reforestation. The synergistic alignment of the public and private sectors to promote sustainable commercial forestry can significantly increase employment, gross production, and carbon sequestration.

This policy brief aims to provide key insights of the status of production forest resources and wood/bamboo-based industries in Amhara and Oromia. This brief will further highlight impediments to private-sector investments in commercially oriented production forests and processing industries. Finally, this brief will provide policy recommendations for the promotion of enterprise opportunities and commercial plantation development.

Nationally, there is a growing gap between the increasing demand for wood products and the current sustainable domestic supply. This gap is currently being filled by imports and the unsustainable extractive use of natural forests and woodlands. The former is contributing to Ethiopia's negative trade balance; the latter is leading to forest degradation and biodiversity loss.

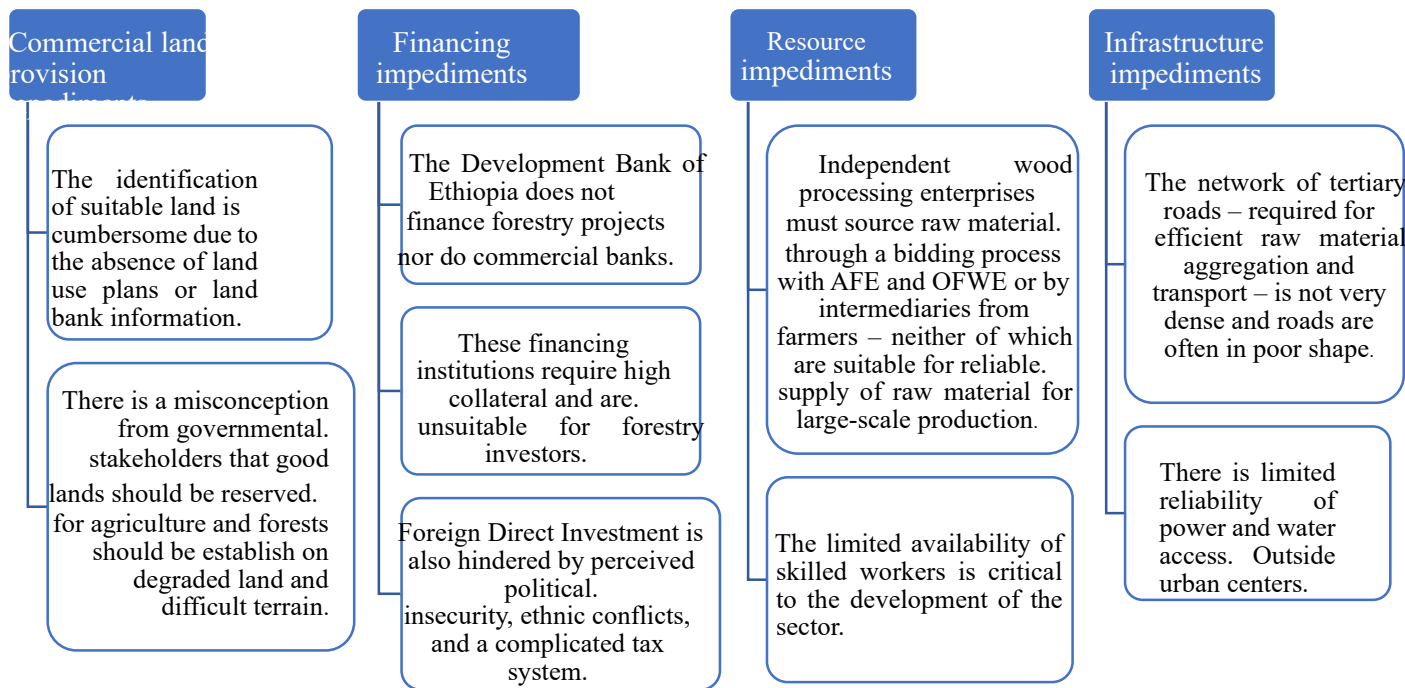
Regionally, Amhara and Oromia are the two states with the largest area dedicated to production forests. Industrial-scale Forest plantation and processing in these states are almost exclusively managed by state-owned enterprises: the Amhara Forest Enterprise (AFE) and the Oromia Forest and Wildlife Enterprise (OFWE). Many of the plantation sites areas are stocked with trees that are 30 years or older and recent plantations will only produce timber in 15-20 years – which may cause supply gaps in the future. Moreover, old-growth timber resources are not suitable for all types of commercial utilization and may limit commercial processing volumes.

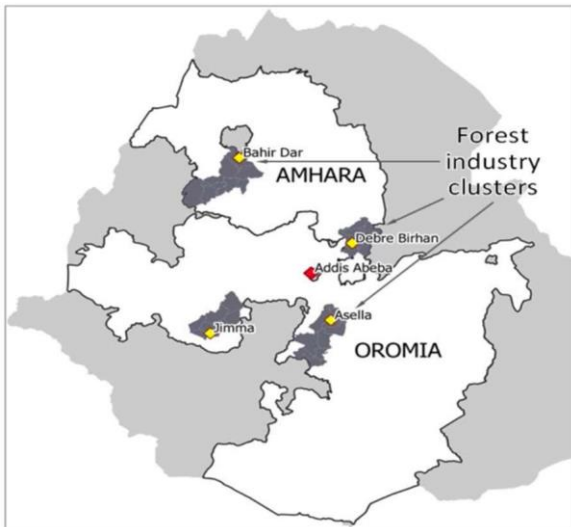
In Amhara and Oromia, woodlots constitute a substantial and growing resource, with a combined 900,000 ha of woodlots coverage. However, the resources available, by woodlots, far exceeds the current forest industry processing capacity. Due to the age of AFE and OFWE plantations and poor management in the past, the average annual growth rates are well below the regular performance standards expected in industrial plantations.

The total area of bamboo in Amhara and Oromia is estimated to exceed 500,000 ha. The vast majority is natural bamboo. Farmers are cultivating bamboo for income and to restore degraded land. However, very few formal industries exist to date. The sub-sector is dominated by micro and small-scale enterprises.



IMPEDIMENTS TO INVESTING IN COMMERCIAL FORESTRY IN AMHARA AND OROMIA





Four clusters (see map) were selected to assess the options for forest industry development. Analysis showed that only the Debre Berhan and Asella clusters have significant processing capacity, including sawmills, plywood, particle and fiber board factories. The current wood supply exceeds the processing capacity in the clusters, leaving room for the installation of additional processing factories to meet national demand.

In all clusters, except Bahir Dar, wood supply can be increased without necessarily increasing the production area by introducing new genetic material and improving forest management practices. In Bahir Dar, a large pulp and paper plant is planned to be installed in the long term. The plant will have a wood intake of 1.2 million m³/year, which would require at least 45,000 ha of additional production forests and better management of the existing ones.

	Amhara Bahir Dar cluster	Amhara Debre Berhan cluster	Oromia Jimma cluster	Oromia Asella cluster
Resources	47,000 ha woodlots 2,400 ha plantations 20,500 ha bamboo	7,000 ha woodlots 8,800 ha plantations	72,000 ha woodlots 7,600 ha plantations	28,000 ha woodlots 11,600 ha plantations
Operational and proposed industries	Operational - Sawmill Proposed - Pulp mill - 5 bamboo mat board factories	Operational - Sawmill - Wood panel mills	Operational - Sawmill - Plywood mill	Operational - Sawmill - Plywood mill - MDF mill
Main products	- Current: Particle board - Proposed: bamboo mat board and pulp	- plywood - particle board - MDF and fiber board	- Plywood board - MDF board	- Sawmills - Plywood particle - Fiber board
Proposed Projects	- Improved forest management - Upgrade existing sawmill. - Infrastructure development – Pulp mill construction, roadways, and power plants (441 million USD) - Establishing 5 bamboo mat board factories	- Improved forest management - Sawmills and panel mills upgrade. - Road infrastructure and transport trucks	- Improved forest management - Sawmill and plywood mills upgrade - New MDF mills. - Road infrastructure and transport equipment	- Improved forest management - Sawmill, plywood mills, and MDF mills upgrades -Road infrastructure and transport equipment
Total investment	481 million USD	29 million USD	41 million USD	45 million USD

IMPACTS OF INDUSTRIAL CLUSTER DEVELOPMENT IN AMHARA AND OROMIA

If investments are realized in the Amhara and Oromia clusters the annual sustainable Industrial Roundwood (IRW) production could be tripled – resulting in a 22% reduction in the supply gap by 2040. Moreover, the value of the gross production of wood products is predicted to increase to 85.7 million USD, which would equalize the current Ethiopian wood products import bill of 87.6 million USD. With the pulp mill going online in Bahir Dar, Ethiopia’s trade balance for pulp/paper could become positive.

Socially, cluster investments are predicted to lead to the direct creation of 6,100 full-time jobs, and another 6,100 downstream industrial production jobs. Environmentally, these investments are also anticipated to help contribute to climate change mitigation through the sequestration of over two million tons of Carbon Dioxide in the long-term average.

Promote forestry as a business

- Emphasize the need to allocate suitable land for commercial forestry to key decision-makers and showcase the positive economic and social advantages of forestry as a business.

Accelerate integrated land use planning

- Identify areas suitable for commercial forest development and bamboo management for both small and large-scale forestry investors.
- The available resources for the development of road infrastructure, the establishment of professional nurseries, and technical assistance should be focused on those forest development clusters.

Ensure a consistent raw material supply for the developing processing industry

- The government can support the development of wood and bamboo producing enterprises by creating entry points for out grower relationships.
- State forest enterprises (AFE and OFWE) can enter joint ventures to raise finance and gain industry know-how.

Develop organizational and professional capacity

- Gaps in the practical education of professionals in the processing industry can be filled by the private sector by training engineers, foremen and workers on the job.
- Targeted government programs should dedicate technical advice and training to woodlot owners, timber and bamboo producing enterprises, and forestry contractors.

Support access to new technology and genetic material

- Productivity and wood quality could be improved by introducing new breeds, hybrids and clones suited to the specific environmental conditions of forest investment sites.
- The government should lower the import barrier for the import of seed or live plants (clones).

Create a business model for investments in production forests and processing industries

- International forest funds with support from development banks can reduce the early mover risk and provide long-term capital in combination with grants for technical assistance.

Improve the regulative environment

- To facilitate private-sector forestry investments, the EFCCC should work with the Investment Commission to compile a comprehensive document outlining all pertinent legislations and regulations for investors.

Forest Sector Transformation Unit
Ethiopian Forestry Development (EFD)

Director: Tilaye Nigussie

Email: tilaye.nigussie@gmail.com