



Forest Products Development

Technologies in Kenyan Wood Industry: Drivers and Inhibitors

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A Historical Walk with the Wood Industry

Year	Number of Mills	Remarks
1913-1915	1	Special Concessions
1920	<10	Initial Sector growth
1930	>10	Timber for settlers
1940	>20	Timber Export Market
1945 - 50	60	During & After WW(II)
1960 - 64	34	Independence battles
1970	200	Africanization
1980 - 85	370	Ban on Ind. Species
1990	361	Outside Forest Operations
1994 -99	450	Ban on SME operations
2012- 18	> 1000	Tech Revolution after ban
2018 – 21		Moratorium
2021	642	Various categories



Forest Products Supply/Demand Scenario (2013)

Product	Supply (m ³)	Demand (m ³)	Diff (m ³)
Sawn Timber	7,363,414	5,262,624	2,100,790
Poles	3,028,907	1,409,482	1,619,425
Fire wood	13,654,022	18,702,748	(5,048,726)
Charcoal	7,358,717	16,325,810	(8,967,093)
Totals	31,405,060	41,700,664	(10,295,604)
By 2032 [20% Projected demand]			(12,354,725)

❖ **Sawn Timber and Poles** – Low demand attributed to availability of substitutes (Steel and Aluminum trusses & Concrete poles etc)

- ❖ **Sector Response** – Improved Processing technologies
- ❖ Increase recovery & Improve product quality
 - ❖ Reduce costs & product price

(Ministry of Environment, Water and Natural Resources, 2013)

Wood Industry Categories

- Classification (KFS, 2021);
 - 14 large-scale with Integrated production of over 20 m³/day (**R > 60%**)
 - 90 medium scale sawmills with sawn timber production 10 – 20 m³/per day (**60 > R > 55%**)
 - Relatively high recovering machinery
 - 516 small millers using outdated and low recovery equipment with (**20 to 35%**).
 - 9 Composite Manufacturers
 - 27 Pole treatment

Wood consumption approx. 85%.



Industry Drivers

- High demand for timber
 - ❖ Increasing Urbanization
 - ❖ Increased demand for modern housing
 - ❖ Increased demand for timber products
- Improved Technology
 - Efficient logging
 - Low power consumption
 - Low labour requirements
 - Smaller space requirement
 - High recovery
- Improved Infrastructure
 - ✓ Roads
 - ✓ Power (Electricity)
 - ✓ Water



Industry Inhibitors

- Shortage of Quality raw material
 - Periodic bans and moratoriums
 - Inadequate silviculture
 - Defects in wood
- Forest Road Infrastructure
- Electricity
 - High cost
 - Unreliable supply and service
- Taxation
 - High and multiple
 - Unpredictability



Industry Inhibitors

- Human Skills
 - Lack of active Practical training
 - Logging operations
 - Milling and Machine operations
 - Saw doctoring and saw mill maintenance
 - Mill management and records
- Cheap sub-standard imports
- Lack of business incubation facilities and mechanisms
- Lack of adherence to standards – Some inefficient technology still in use



Key Interventions

- Forest management through;
 - Regular resource assessment to ensure sustainability and quality control
 - Improved silviculture (Tree growing for purpose)
 - Improved forest road infrastructure
- Support Farm forestry (including dryland forestry) for supplementary supply
- Streamline business licensing and taxation mechanisms
- Operationalize tailored training and incubation
 - Standardized production and value addition for local and international markets
 - Marketing and market linkages
- Protect local investors from cheap imports
- Invest in joint Research and development

Opportunities for Diversification

- Timber Value addition
 - Timber grading
 - Seasoning
 - Cutting to Pre-determined Uniform lengths
- Laminated Timber Structures
 - ❖ Glulam, Cross Laminated Timber (CLT)
 - ❖ Composites from saw mill by-products
- Production of Small Utility Products
 - Matches
 - Tooth picks



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