



# Bottlenecks to supplying legal wood to the domestic market

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## List of Acronyms

ABCECG	Association of Building and Civil Engineering Contractors of Ghana
AGI	Association of Ghana Industries
AMA	Accra Metropolitan Assembly
CIOB	Chartered Institute of Builders
CSIR	Council for Scientific and Industrial Research
DAs	District Assemblies
DM	Domestic market
EU	European Union
FC	Forestry Commission
FDMP	Forest Development Management Plan
FLEGT	Forest Law Enforcement, Governance and Trade
FORIG	Forestry Research Institute of Ghana
FSD	Forest Services Division
FWP	Forest and Wildlife Policy
FZB	Free Zone Board
GREDA	Ghana Real Estate Developers Association
LI	Legislative Instrument
MMDAs	Metropolitan, Municipal and District Assemblies
MP	Member of Parliament
MSD	Multi-Stakeholder Dialogue
NDF	Nature Development Fund
NGO	Non-Governmental Organization
NSAs	Non-State Actors
PPP	Public Procurement Policy
REDD+	Reducing Emissions from Deforestation and Forest Degradation
T&G	Tongue and Groove
TBI	Tropenbos International
TIDD	Timber Industry Development Division
TOR	Terms of Reference
TUC	Timber Utilization Contract
TUP	Timber Utilization Permit
VPA	Voluntary Partnership Agreement

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This research could not have been conducted without the views and inputs of relevant stakeholders from the Ministry of Lands and Natural Resources (MLNR), Forestry Commission (FC), Association of Ghana Industries (AGI), Association of Building and Civil Engineering Contractors of Ghana (ABCECG), Free Zone Companies, timber merchants (Wholesalers/Retailers), Timber Contractors and Sub-Contractors, District Assemblies and Timber Utilization Contract (TUC) Holders.

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# Executive summary

The supply of legal wood to the domestic market in Ghana has been inundated with a number of bottlenecks or challenges for about two decades. Chainsaw lumbering, which over the years has been associated with the supply of “illegal” wood to the domestic market, has become a major challenge for sustainable forest management in Ghana. The domestic timber market in Ghana is typically a hub for illegal timber with huge patronage from different wood users across the country and neighboring countries. This study assessed the bottlenecks to the supply of legal wood to Ghana’s domestic market. It reviewed existing policy and regulatory frameworks that pertain to the supply of legal wood to the domestic market. The study also assessed stakeholders’ perception on what challenges persist in legal wood supply to the domestic market in the wake of the proposed Public Procurement Policy on Timber and Timber Products (PPP). A mixed-method approach including consultations, market surveys of wood merchants or suppliers in selected major timber markets in Ghana, key informant interviews, and literature review were employed in gathering data for the study.

The policy and regulatory frameworks review indicated that the 2012 Forest and Wildlife Policy is the parent sector policy that provides the broad framework for supply of legal timber products to the domestic market in Ghana. The policy’s strategies to support the supply of legal timber to the domestic market include (1) setting up standards and regulations to govern the operations of the small and medium scale forest enterprises including the development of the informal wood sector (section 3.1.1 (a)); (2) enacting the necessary legislation to regulate the production and trade of legal lumber whilst promoting the development of the domestic wood market (section 3.1.1 (b)); and, (3) developing a Public Procurement Policy on timber and timber products for the domestic market (3.1.1 (d)). The Timber Resource Management and Legality Licensing Regulations, 2017 (L.I. 2254) further gives legal backing to the policy aspiration for the supply of legal timber to the domestic market. Section 73 of L.I. 2254 stipulates that the Minister in consultation with the Forestry Commission may by publication in (a) the Lands and Commercial Bulletin; and (b) the mass media, direct the holder of a Timber Utilization Contract on the supply of timber products into the domestic market with specified volume, dimensions or species.

Furthermore, the Free Zone Act, 1995 (Act 504) was enacted to enable the establishment of free zones for the promotion of economic development, provide for the regulation of activities in free zones and for related matters. In pursuant of the general purpose of attracting investment into the country and for such entities, so attracted, to bring economic development into the country, free zone enterprises and developers enjoy a number of incentives (tax rebates and tax holidays, exemption from taxes of import into free zone area) and are required to sell their products under import duty. The import duty requirement makes timber products from Free Zone companies relatively expensive than timber coming from illegal sources. Additionally, the government of Ghana through the Ministry of Lands and Natural Resources drafted a public procurement policy (PPP) on timber and timber products to outlaw the use of illegal timber for public works in Ghana. The objectives of the proposed PPP are to “ensure that all timber and timber products

for public use originate from legal and/or sustainable sources” and “reduce negative social, economic and environmental impacts of illegal timber production and trade.”

The market study revealed that lumber remains the dominant timber product sold in major domestic wood markets in Ghana with relatively few merchants involved in secondary products such as T&G and plywood. Wood on the domestic market is sourced from three major sources namely, sawmill (50 percent), chainsaw lumbering (43 percent) and bush mill (7 percent). In terms of customers and their preferences, the study revealed that individuals were the foremost customers who demand legal timber on the domestic market. This was followed by contractors working on behalf of Metropolitan, Municipal and District Assemblies (MMDAs) and District Assemblies (DAs). Building contractors were ranked third among the category of customers who demand legal wood while overland exporters were reported as customers who do not typically demand legal wood. Reported bottlenecks associated with lumber trade on the domestic market were summarized and categorized into financial, institutional, supply chain and customer preferences. The key bottlenecks in the studied markets include (1) long waiting periods after depositing money with suppliers for legal timber, (2) huge capital requirement needed to purchase legal wood from suppliers, (3) high cost of sawmill lumber, and (4) limited legal lumber at sawmills when demand is high. Reported bottlenecks faced by contractors in sourcing solely legal timber for government awarded projects comprise of (1) issues of cost of legal wood on the domestic market, (2) irregular supply/scarcity of legal timber on the domestic market, and (3) issues of transportation of legal timber.

In consultation with key stakeholders, the study identified two key driving forces upon which plausible scenarios for supply of legal timber to the domestic timber market were developed. The key driving forces were a) wood demand, and (b) regulation of the domestic market (i.e. enforcement of laws). Four plausible scenarios for the supply of legal timber to the domestic market were developed based on the two important driving forces. These are:

1. Only legal timber supply to domestic market
2. Legal timber supply for only government projects
3. Limited (Reduced) timber supply mainly for export market
4. Continuous supply of illegal wood to the domestic market (Business as usual)

The study highlights the fact that current demand for wood (both domestic and export) far exceeds that for the sustainable capacity of the forests, and has important implications for the supply of legal timber to the domestic market. In order to ensure sustainable management of timber resources, any policy option should address domestic (legal) timber needs. Removing the bottlenecks to the supply of legal timber to the domestic market would mean the progressive elimination of illegal chainsaw timber through law enforcement and increasing legal timber supply to meet demand. The possible policy implications are: (1) arrangements must be made to increase the resource base in order to meet demand (export and domestic), and (2) creating sustainable employment opportunities for those currently engaged in illegal chainsaw lumbering operations. Since the domestic market has the potential to consume all legal timber produced from the current production forests, a policy option to increase legal timber on the domestic market might be to restrict timber exports in the short to medium term. Timber export could be progressively restored as measures are being taken to increase the resource base to meet the demand for both export and domestic markets.

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# 1. Introduction and background



Overtime, illegal lumbering, largely associated with the supply of illegal wood to the domestic market, has become a major challenge for sustainable forest management in Ghana. Increasingly, illegal lumbering operations have threatened Ghana's forest resources with an estimated 2.5 million cubic meters of timber exploitation across the country's forest (forest reserves + off-reserve areas). For instance, several authors have reported that illegal chainsaw milling accounted for over 80% of the total lumber demand of about 600,000 cubic meters on the domestic market (Obeng et al., 2014; Hansen et al., 2012; Marfo, 2010). Implicitly, Ghana's domestic timber markets are typically hubs for illegal timber. Fundamentally, sawmill supply of lumber to the domestic market is inadequate and account for only less than 20% of lumber sales in the country (Oduro et al., 2014; Hansen et al., 2012). However, domestic demand for lumber has always outstripped supply (Marfo, 2017), thus the thriving of the illegal wood trade on the domestic market. Moreover, the formal timber industry has over the years been traditionally export-oriented to the neglect of the local domestic market. Since 1994, the government of Ghana has made several concerted initiatives and policy reforms aimed at curbing supply of illegal lumber to the domestic market to ensure sustainable resource management of the country's forest resources. Notable in the last decade are, the introduction of regulation for chainsaws registration at District Assembly levels, use of joint Forest Services Division (FSD)/military/police task forces and legislation to prohibit the operation of chainsaw milling as well as promoting multi-stakeholder dialogue (MSD) platform to understand the wood trade from different stakeholder perspectives (Obeng et al., 2014).

Another key policy direction to curb illegal logging in Ghana has been the implementation of the Forest Law Enforcement, Governance and Trade (FLEGT) programme. FLEGT is a programme initiated by the European Union (EU) and involves a Voluntary Partnership Agreement (VPA) which is a bilateral contractual instrument negotiated between the EU and any country that wishes to export timber to the EU market to ensure that only legal timber is traded between the two jurisdictions (Marfo et al., 2013). Ghana entered into VPA arrangement with the EU in 2009 to supply only legal timber to the European market. Additionally, Ghana decided to commit itself to ensure that legal timber is equally traded on the domestic markets under the FLEGT/VPA agreement. This was crucially important due to the fact that almost all domestic timber is derived from, *de jure*, illegal chainsaw timber (Marfo, 2010).

In spite of all these measures, the domestic market continues to be flooded with illegal lumber with huge patronage from different wood users across the country and neighboring countries. To overcome these challenges and to promote efficiency and positive development in the wood industry sector, there is the need to evolve appropriate policy and regulatory interventions that will reverse the current situation and ensure adequate supplies of legal timber on the domestic market. Furthermore, strategic development interventions as well as a change in policy focus, is necessary for the industry to achieve its envisioned role. One of such appropriate strategy developments to encourage domestic use of legal wood is the proposed Public Procurement Policy on Timber and Timber products (PPP). The government of Ghana, as the largest single consumer is to use its purchasing power through the Public Procurement Policy (PPP) on timber to prohibit the use of illegal chainsaw timber for all projects funded by the government. However, policymakers are in a policy dilemma and are hesitant to pass the PPP with no assurance of the availability of legal timber in the domestic market or to ensure that legal timber is readily available before taking the step of passing the PPP.

## 1.1 Purpose of the Study

The bottlenecks to the supply of legal wood to the domestic market study is an activity under Nature and Development Foundation's (NDF's) "Strengthening the capacity of Non-State Actors (NSAs) to improve FLEGT-VPA and REDD+ processes in Western Africa" and the "Building the capacity of small and medium timber companies and supply and trade in legal timber" projects funded by the EU and UKaid respectively. This study aims to assess the bottlenecks to supplying legal wood to Ghana's domestic market. It seeks to:

- understand stakeholders' perceptive on what challenges persist in supplying legal wood on the domestic market in the wake of the development of the Public Procurement Policy on Timber and timber products (PPP).
- provide further and better information relevant to the domestic market to help government take a proactive step on the proposed public procurement policy on timber and timber products (PPP).
- recommend strategies to help the forest sector and civil society organizations develop advocacy strategies for the passage of the public procurement policy and for increased supply of legal timber to the domestic market.

NDF through its "Strengthening the capacity of Non-State Actors (NSAs) to improve FLEGT-VPA and REDD+ processes in Western Africa" and the "Building the capacity of small and medium timber companies and supply and trade in legal timber" projects has therefore requested consultants to undertake this joint study on 'Bottlenecks to the Supply of Legal Wood to the domestic market' in accordance with the Terms of Reference (TOR) provided.

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## 2. Objectives, scope of tasks and expected outcome



This section reiterates the objectives, scope of the tasks and expected outputs as stated in the TOR for the assessment of socioeconomic baseline.

### 2.1 Objectives

The main goal of the study is to provide further and better information relevant to the domestic market to help government take a proactive step on the Public Procurement Policy on timber and timber products (PPP).

#### 2.1.1 Specific Objectives

The objectives of the study are as follows:

1. To identify the bottlenecks to the supply of legal wood to the domestic market in the wake of the introduction of the small scale TUC under the Timber Resources Management and Legality Licensing Regulation 2017, L.I 2254.
2. Assess the impact of the Free Zones Board Act, 1995 (Act 504) (that requires timber companies in the free zone to sell their product under import duty) on supply of legal timber to the domestic market.
3. Assess the potential impact of the Public Procurement Policy on availability of legal timber for government projects at the district level.

## 2.2 Scope and Specific Tasks

The scope of this assignment is to provide an analytical overview on the bottlenecks to the supply of legal wood to the domestic market. The study comprised the following:

- a. Wider stakeholder consultation to assess different perspectives on the bottlenecks to the supply of legal wood to the domestic market in the wake of the PPP on timber. To put this in context, a rapid market survey was conducted in six major timber markets across three regions of Ghana to provide a brief overview of the current status of supply of legal wood to the domestic timber markets. It is important to note that, this study only sought to identify bottlenecks to the supply of legal wood to the domestic market and not to undertake a comprehensive domestic timber market study (See Marfo et al., 2017; Owusu et al., 2015 and TBI 2011 for more comprehensive information on domestic timber market studies).
- b. A comprehensive review of the legal regulations governing the supply of legal wood on the domestic market in particular, the Timber Resources Management and Legality Licensing Regulation 2017, (L.I 2254) Free Zones Board Act, 1995 (Act 504) and the draft PPP on timber and timber products.
- c. Synthesis and scenario analysis for the supply of legal wood to the domestic markets based on key findings of the study.

The specific tasks for this assignment include, but not limited to, the following:

- a. Mapping of key stakeholders and defining a strategy for consulting with appropriate sample on objectives 1 to 3 above.
- b. Lead and coordinate the data collection exercise and activities of the Survey Team at selected wood markets nation-wide.
- c. Consult with appropriate number of stakeholders to collect, analyze and draw meaningful conclusions on objectives 1 to 3 above and come out with appropriate recommendations rooted in the conclusions drawn from the analysis.
- d. Present study findings to stakeholders at a working session to be organized by NDF and incorporate comments to final report.

## 2.3 Expected Outcome

The findings of the study are expected to help NDF and other civil society organizations develop advocacy strategies for the passage of the Public procurement policy on timber and timber products and for increased supply of legal timber to the domestic market.

## 2.4 Output

The study is expected to produce a comprehensive document that outlines policy options and scenarios to help forest sector policy makers take a proactive step on the passage of the public procurement policy on timber and timber products.

## 2.5 Structure of Report

The report consists of three related but distinct studies, which focuses on each of the three specific objectives. After the introductory section, which outlines the background, objectives and expected output, a methodological approach detailing the sampling and analytical procedures of the study is presented. This is followed by the results section, which focuses mainly on a review of the legal framework surrounding the supply of legal wood on the domestic market, findings from the three key specific objectives and possible scenarios that can facilitate the supply of legal wood to the domestic market. A synthesis of the findings is presented afterwards. The final section presents the conclusions, recommendations and policy options to help in developing advocacy strategies to facilitate the passage of the PPP on wood and wood products and for increased supply of legal timber to the domestic market.

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## 3. Approach and methods



The proposed methodology is derived from the scope of work described in the TORs. This section gives detailed account of the approaches adopted to execute the assignment.

### 3.1 Study Approach

A mixed-method approach was employed for this research. First, a process of consultations with key forest sector stakeholders at the Ministry of Lands and Natural Resources, Forestry Commission, Civil Society Organizations and selected District Assemblies was undertaken. The second approach entailed market surveys of wood merchants or suppliers in selected major timber markets. This timber market survey was conducted to better understand the bottlenecks surrounding the supply of legal wood on the domestic market from the perspective of retailers and suppliers at different market centers in Ghana. In order to further enhance the discussion from different perspectives and ensure all relevant issues are well captured, additional key informant interviews were conducted with personnel from Free Zone and TUC holding companies as well as identifiable contractors and sub-contractors involved in government projects at the district levels.

## 3.2 Methodology

The methodology employed under this study has three key components:

### ***Literature review***

Over the years, a number of processes and regulations have been initiated to ensure supply of legal timber on Ghana's domestic market. To put this study in context, relevant information relating to the legal framework surrounding the supply of legal timber on the domestic market (including 2012 Forest and Wildlife Policy (FWP), 2016 Forest Development Management Plan (FDMP), L.I 2254, Act 504) as well as other relevant information on supply of legal timber to the domestic market were reviewed.

### ***Stakeholder identification and mapping***

Four key steps were followed in mapping the key stakeholders for consultation. First, all relevant groups and organizations including individuals, customers and TUP/TUC holders were identified through a brainstorming session. The identified stakeholders were then analyzed in the second step to better understand their relevance; and as the third step, the perspective the identified stakeholders offer as well as their relationship to the issue of supply of legal timber to the domestic market were analyzed. An evaluation and prioritization of useful stakeholders to engage or consult for the study was finally carried out to decide which stakeholders need to be contacted and on what issues to contact each stakeholder for.

### ***Data Collection and analysis***

The data collection was guided by survey questionnaires and checklists developed for the different stakeholder groups that were selected from the mapping exercise. The questionnaire (Appendix 1) and checklist (Appendix 2) contained relevant market level questions, level of awareness of regulations governing the supply and trade of legal timber on the domestic market, bottlenecks and recommendations for the supply of legal timber on the domestic market. Three survey teams, each comprised of three enumerators simultaneously collected the data across the different stakeholder groups. The timber market survey comprised interviews with timber merchants or suppliers selected from six major timber markets in four regions namely, Sokoban and Kwadaso timber markets (Ashanti Region), Muus and Ofankor timber markets (Greater Accra Region), Koforidua timber market (Eastern Region) and Kokompe timber market (Western Region).

The key informant interviews were conducted with semi-structured questionnaires and checklists for relevant personnel from the Free Zone and TUC holding companies, Forestry Commission, Ministry of Lands and Natural Resources, CSIR-Forestry Research Institute of Ghana, and some selected forest sector civil society groups (Tropenbos Ghana and ProForest). Table 1 provides the sources of information, type of data collected, selected sample size, and the relevant stakeholders/institutions contacted. The data collected was analyzed qualitatively and quantitatively using descriptive statistics. The analysis was done in Microsoft Excel and Stata.

Table 1: Data collection protocols and different stakeholders interviewed

Data Type	Relevant stakeholders/institutions	Instrument for data collection	No. of respondents
Face-to-face interviews (Suppliers/retailers)			
Timber Market Survey	Wood marketers, suppliers from six market centers in four regions	Semi-structured questionnaire	140
Key informant interviews (Policy/Regulators)			
Policy Makers and Forest Managers	Forestry Commission	Checklist	2
	Forestry Commission		
	Ministry of lands and Natural Resources	Checklist	4
	Ministry of lands and Natural Resources		
	Ministry of lands and Natural Resources		
Member of Parliament			
Key informant interviews (FZB/TUC/Contractors and sub-contractors at the District Assemblies)			
Timber Companies	FZB companies	key informant interviews	4
	TUC-Holding Companies	key informant interviews	5
Contractors/ Subcontractors	AGI/ABCECG/DAs/Others	key informant interviews	14
Civil Society/ NGOs, Research institutions			
NGO	ProForest	Checklist	2
Research	CSIR-FORIG	Checklist	3

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## 4. Findings



### 4.1 Review of the Policy and Legal Frameworks for Supply of Legal Wood to the Domestic Market

Presently, Ghana's Forest and Wildlife Policy (2012), the 2016 Forestry Development Master Plan (FDMP), the Timber Resource Management and Legality Licensing Regulations, 2017 (L.I. 2254), the Free Zone Act, 1995 (Act 504), and the Public Procurement Act, 2003 (Act 663) form the policy and legal framework for the supply of legal timber to the domestic market. The policy and legal requirements are reviewed below.

The 2012 Forest and Wildlife Policy is the parent sector policy and provides the broad framework for supply of legal timber products to the domestic market in Ghana. Even though the policy document does not give explicit emphasis on supply of legal timber to the domestic market, in terms of direct language, in its guiding principles, the policy intention is directly seen in several other provisions of the policy. Notable among them are the policy objective 3, and policy direction 3.1.1 (b) and (d). The aim of the policy is "the conservation and sustainable development of forest and wildlife resources for the maintenance of environmental stability and continuous flow of optimum benefits from the socio-cultural and economic goods and services that the forest environment provides to the present and future generations whilst fulfilling Ghana's commitments under international agreements and conventions".

The third specific policy objective provides a clearer direction for the supply of legal timber to the domestic market. It is stated as "to promote the development of viable forest and wildlife-based industries

and livelihoods, particularly in the value-added processing of forest and wildlife resources that satisfy domestic and international demand for competitively-priced quality products.” Similarly, the second policy objective provides an implied policy intention to the supply of legal timber to the domestic market. It is stated as “to promote the rehabilitation and restoration of degraded landscapes through forest plantation development, enrichment planting, and community forestry informed by appropriate land-use practices to enhance environmental quality and sustain the supply of raw materials for domestic and industrial consumption and for environmental protection.”

In setting out the strategies to achieve the policy objectives, the preamble for the strategies for viable forest-based industries provides the context for the commitment on the requirements for legal supply of timber to the domestic market. It states that the “policy will seek to promote the establishment of a modern efficient timber and non-timber forest products’ industry that will maximize the forest and wildlife resources to ensure a balance between the industrial capacity and the sustainability of the resource and contribute significantly to the wellbeing of the rural dwellers.” The policy also seeks to facilitate the technological improvements and retooling to increase competitiveness, reduce waste and promote value-addition through high quality secondary and tertiary processing. The strategies to support the supply of legal timber to the domestic market include:

1. Set up standards and regulations to govern the operations of the small and medium scale forest enterprises including the development of the informal wood sector (section 3.1.1 (a)).
2. Enact the necessary legislation to regulate the production and trade of legal lumber whilst promoting the development of the domestic wood market (section 3.1.1 (b)).
3. Develop a Public Procurement Policy on timber and timber products for the domestic market (3.1.1 (d))

In addition to the general policy framework and commitments in the 2012 Forest and Wildlife Policy, the Timber Resource Management and Legality Licensing Regulations, 2017 (L.I. 2254) provides a legal requirement for the supply of legal timber to the domestic market. Section 73 of L.I. 2254 stipulates that the Minister in consultation with the Commission may by publication in (a) the Lands and Commercial Bulletin; and (b) the mass media, direct the holder of a Timber Utilization Contract on the supply of timber products into the domestic market with a specified volume, dimension or species.

Furthermore, the 2016 FDMP recognizes the importance of the domestic wood market and have made provision in its programmes to focus on the domestic wood market development (Programme 3.4). The strategic actions and activities to be pursued in support of the development of the domestic wood market include:

- a. Promotion of sustainable supply of raw material by 2030 through research and dissemination of commercially available secondary and lesser known species by 2020; encouraging increased harvesting yields from coupes that will encourage legal timber operators to fell and supply species not required by these operators into a central timber resource pool by 2020; supporting plantation development targeting the domestic market by 2020; and, limiting the export of lumber through fiscal policies by 2020.
- b. Development and enforcement of standards and specifications by 2020.
- c. Reducing price distortions by 2020. The variance that exists between export and import prices is a function of costs, supply and demand and profit maximization opportunities. To minimize the price distortions requires (i) security of long term domestic timber supply to justify investments in value added processing; and (ii) adoption, application and enforcement of quality and specification standards for timber products in key sectors by all stakeholders – house builders, architects, specifiers, government procurement offices, local and municipal authorities, town and country planning agencies etc.
- d. Facilitating small and medium wood enterprises to have access to investment capital for value addition by 2025.

The Free Zone Act, 1995 (Act 504) was enacted to enable the establishment of free zones for the promotion of economic development, provide for the regulation of activities in free zones and for related matters. A free zone is any area of land or building or any airport, river port, seaport, or lake port that the President on the recommendation of the Board of the Free Zone Authority declared as free zone through a notification published in the Commercial and Industrial Bulletin.

From the tenor of sections 11 and 12 of the Act, any company may apply for a licence to establish an enterprise as a free zone company. However, no such licence will be granted and no company shall carry on a trade, business or industry within a free zone unless it is either registered under the Company Act, 1963 (Act 179) or Incorporated Private Partnerships Act, 1962 (Act 152). In addition, no licence shall be granted to a company to carry out a trade, business or industry even if it is registered under the Company Act, 1963 (Act 179) or Incorporated Private Partnerships Act, 1962 (Act 152) unless the application is in relation to a trade, business or industry, which the applicant company is authorised by his licensed or usual carry out.

In pursuant of the general purpose of attracting investment into the country and for such entities so attracted to bring economic development into the country, free zone enterprises and developers enjoy a number of incentives. One of the most prominent incentives enjoyed by free zone entities is the tax rebates and tax holidays. By the provision of section 21 of Act 504, except as otherwise stated by Regulations made under the Act, the laws for the time being relating to the importation and exportation of goods and services, other than consumer goods for commercial purposes, shall not apply to a free zone enterprise when such enterprise is bringing goods directly from outside the country into a free zone or when such an enterprise is dispatching goods for export out of a free zone to a country outside Ghana. This means that, free zone entities, unless otherwise stated by Regulations made pursuant to the Act 504, shall not pay taxes and duties when such entities are importing goods from outside Ghana into the free zone or when exporting goods out of the free zone to any other country.

Another noticeable incentive that a free zone enterprise enjoys is the exemption from taxes of import into free zone area. According to section 22 of Act 504 and subject to Article 174 of the 1992 Constitution, the imports of a free zone developer, sub-contractor or enterprises into a free zone or single-factory zone shall be exempted from direct and indirect taxes and duties. What this means is that items other than consumer goods for commercial purposes imported by the free zone enterprise for any purpose related to the production of the free zone enterprise shall be exempted from any taxes and duties.

Another area worth noting under Act 504 is section 23. It is entitled “Sales in national customs territory”. The section gives the Minister the power to, by Legislative Instrument, authorise the sale of up to 30% of the annual production of a free zone enterprise into the national customary territory. Therefore, regulation 31 of LI 1618 provides that “30% of the annual production of goods and services of a free zone enterprise may be sold in the national customs territory”. This means that a free zone enterprise cannot export less than 70% of its annual production.

The law treats every product of the free zone enterprise sold or given free of charge to a person in the national custom territory as imports and are subject to the rules and regulations relating to imports into the national customs territory. This is the gravamen of the argument of stakeholders in the forestry sector. That while the domestic market does not have enough timber for national economic development, free zone timber companies are required to export not less than 70% of their annual production.

#### **4.1.1 Proposed Public Procurement Policy on Timber and Timber Products**

The government of Ghana recognized the incongruous policies regarding making legal timber available in the domestic market of Ghana but on the other hand sanctioning top five timber companies to export not less than 70% of their product under the free zone Act. Indeed, government has interest in making legal timber available in the domestic market not only because it is morally right to do so but also because

it creates a choice for persons who are minded to purchase legal timber. In addition, government could use its purchasing power to signal the market that it does not support consumption of illegal logging and its devastating impact on biodiversity and the environment in general. In pursuant of that aspiration, the government of Ghana through the Ministry of Lands and Natural Resources drafted a public procurement policy on timber and timber products to outlaw the use of illegal timber for public works in Ghana.

Although yet to be approved by Cabinet after two unsuccessful submissions by the Ministry of Lands and Natural Resources, the ideas and intentions for developing the policy are laudable. It is therefore worth considering the contents of the policy in understanding the domestic timber market challenges. In a preamble to the public procurement policy on timber and timber product, government states that the policy is an expression of its commitment to show leadership in addressing illegal logging and supporting the development of sustainable forest management by using the purchasing power of government procurement to signal the market in favour of legally and sustainably produced timber and timber products. The policy is in fulfilment of government obligation under the Voluntary Partnership Agreement (VPA) to encourage trade of legal timber in the domestic market. The objectives of the policy are encapsulated in specific objectives 4.1 and 4.2 of the policy document. Policy Objective 4.1 is “to ensure that all timber and timber products for public use originate from legal and/or sustainable sources” while 4.2 is “to reduce negative social, economic and environmental impacts of illegal timber production and trade.”

The Policy Prescription under objective 4.1 was to ensure that all state institutions (procurement entities) listed in section 8.1 of the policy document together with their contractors and sub-contractors working on public projects procure only timber and timber products derived from a legally and/or sustainably harvested forest, or from legal sources for use in public projects. What amounts to legally or sustainably harvested forest is outside the scope of this paper. It can be noted from the above prescription that the scope is limited to only projects funded by the taxpayers’ money. This is reasonable for the time being as it will be an unsurmountable task to require all timber purchase by private persons to come from legal sources. For the time being, it is easier for government to use its purchasing power to discriminate against illegal timber and serve a good example for private entities. Specifically, section 8.1 of the policy states the major government entities within the scope of the project. For the avoidance of doubt, section 8.1 of the policy is reproduced below:

#### **8.1 State Institutions (Procurement Entities)**

*“This policy applies to all institutions and agencies listed in Section 14 (2) of the Public Procurement Act, 2003 (Act 663) and their contractors, sub-contractors and agents:*

- (a) Central Management Agencies;*
- (b) Government Ministries, Departments and Agencies;*
- (c) Subvented Agencies*
- (d) Governance Institutions;*
- (e) State owned enterprises to the extent that they utilize public funds;*
- (f) Public universities, public schools, colleges and hospitals;*
- (g) Bank of Ghana and financial institutions such as public trusts, pension funds, insurance companies and building societies which are wholly owned by the State or in which the State has majority interest;*
- (h) Institutions established by Government for the general welfare of the public or community.*

The policy also clarifies the procedure and institutions to ensure verification of purchase of legal timber by these entities. Indeed, an implementation guideline to the policy was developed, which shows the procedure and documentations needed when procuring legal timber. It is important to mention that the public procurement policy on timber and timber products remains a ‘foetus’ yet to be delivered’. Notwithstanding, its conception has generated considerable excitements because of the promise it holds in reducing illegal logging and associated trade. Mention ought to be made of the Nature and Development Foun-

dation’s projects that were implemented following the development of the policy. Specifically, there was effort on building capacity of procurement officers at the local authorities on the policy and the subsequent campaign to generate interest of private entities such as Ghana Real Estate Developers Association (GREDA), Association of Ghana Industries (AGI), Chartered Institute of Builders (CIOB) and Association Building and Civil Engineering Contractors of Ghana (ABCECG) to purchase legal timber for their work.

## 4.2 Stakeholders’ Perspectives on Bottlenecks to the Supply of Legal Wood to the Domestic Markets

### 4.2.1 Supply of legal wood to the domestic market: an overview/ perspective from timber merchants on the domestic markets

#### 4.2.1.1 Domestic Market Overview

To understand the prevailing market conditions and retailers’ perspective on the supply of legal timber to the domestic market, a total of 140 retailers were interviewed across six market centers in the county (Table 2).

Table 2: Distribution of timber merchants interviewed across different markets in four regions

Regions	Timber Markets	No of Dealers/Merchants Interviewed (%)
Ashanti Region	Kwadaso Timber Market	16 (11.43)
	Sokoban Wood Village	22 (15.71)
Greater Accra Region	Ofankor Market	23(16.43)
	Muus Timber market	30 (21.43)
Western Region	Kokompe Timber market	32 (22.86)
Eastern Region	Koforidua Timber Market	17 (12.14)

Lumber remains the dominant timber product sold in major wood markets in Ghana with relatively few merchants involved in products such as T&G and plywood (Figure 1). About 96.5 percent of timber merchants interviewed in all the six markets sell lumber as their primary products. Approximately 2 and 1.4 percent of respondents indicated T&G and plywood as the primary products sold on the above markets respectively (Figure 1).

Wood products on the domestic market come from three main sources namely, sawmill, bush mill (artisanal milling<sup>1</sup>) and bush cut (chain-saw lumber). Figure 2 shows the different reported sources of wood products sold on the surveyed markets. About 50 and 43 percent of respondents were involved in selling sawmill and chainsaw lumber respectively on the six studied markets. This trend represents a slight deviation from what was reported by Marfo et al. (2017). In their study of the source of lumber sold on the domestic markets across 10 regions, Marfo et al. (2017) reported that 15 and 74 percent of lumber on the domestic market were sourced from sawmill and chainsaw respectively. The bush mill concept which emerged from the EU chainsaw milling project also seem to be catching up with merchants. The survey revealed 7.3 percent of respondents source their wood from bush mill operators. However, it seems that the original source for the bush mill lumber is actually bush cut (chainsaw lumber). According to some key informants, chainsaws are often used in sawing into lumber before subsequently using wood mizers or bench saws/planning machines to clean or dress them up and referring to such products as

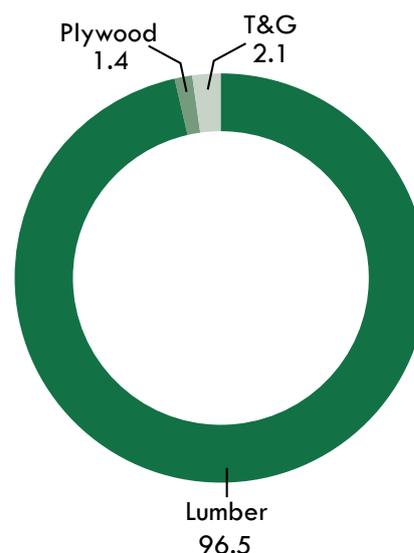


Figure 1: Percentage distribution of respondents and the type of wood products sold on the domestic markets.

1 Small scale sawmills using mainly wood-mizer equipment for sawing timber purposely for the domestic markets.

sawmill and bush mill lumber. In such instances, the lumber (bush mill) may be considered as illegal on the domestic markets.

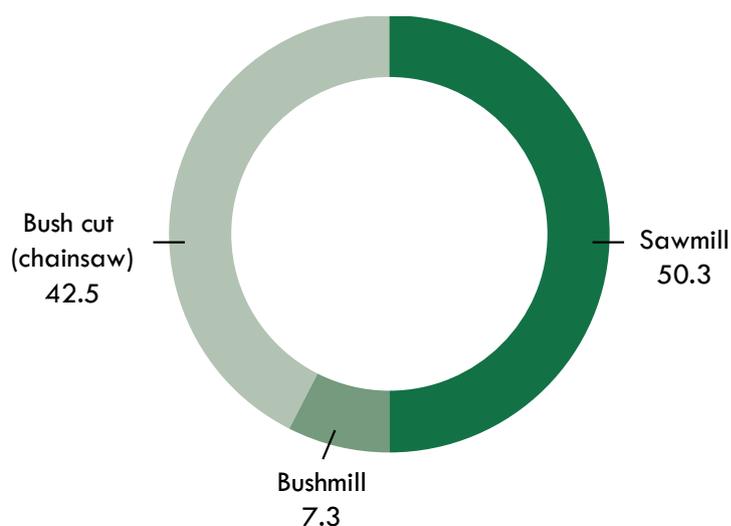


Figure 2: Source of timber on the domestic market as indicated by timber merchants.

Bush cut and sawmill lumber make the bulk proportions of supplies for majority of respondents. Figure 3 gives an overview of reported proportions of lumber stocked from the three sources (sawmill, bush mill and bush cut). Approximately 71.4% and 65.4 % of timber merchants interviewed obtain about 76 to 100 percent of their lumber supply from bush cut and sawmill respectively.

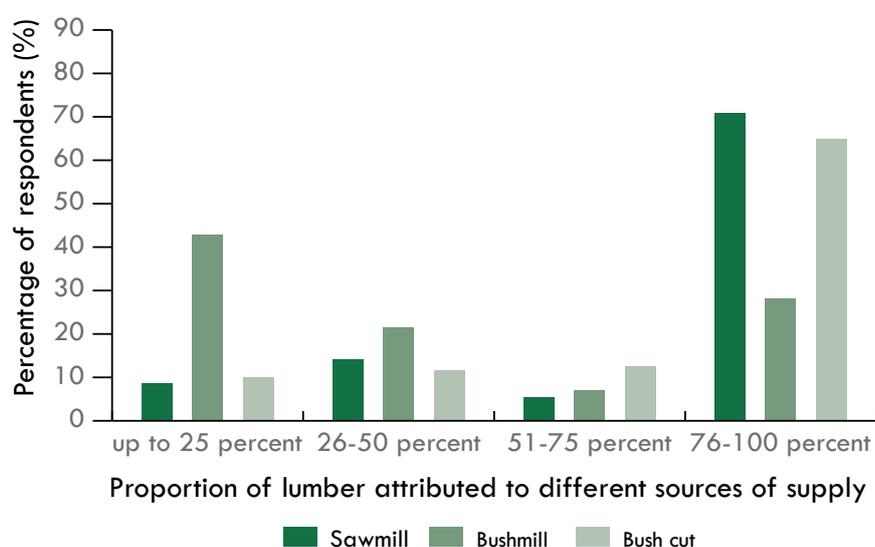


Figure 3: Proportion of lumber attributed to different sources of supply

From Figure 4, merchants of Kwadaso, Kokompe and Koforidua markets seem to patronize bush cut lumber more than merchants in Muus, Ofankor and Sokoban Markets. For example, only 27 and 21 percent of timber merchants interviewed in Muus and Ofankor markets in Accra respectively traded in bush cut relative to all respondents in Kwadaso, and Koforidua (100%). Noticeably, patronization of the bush mill lumber was relatively higher among merchants in the two studied markets in Ashanti region (Kwadaso and Sokoban) than the other remaining markets (Figure 4).

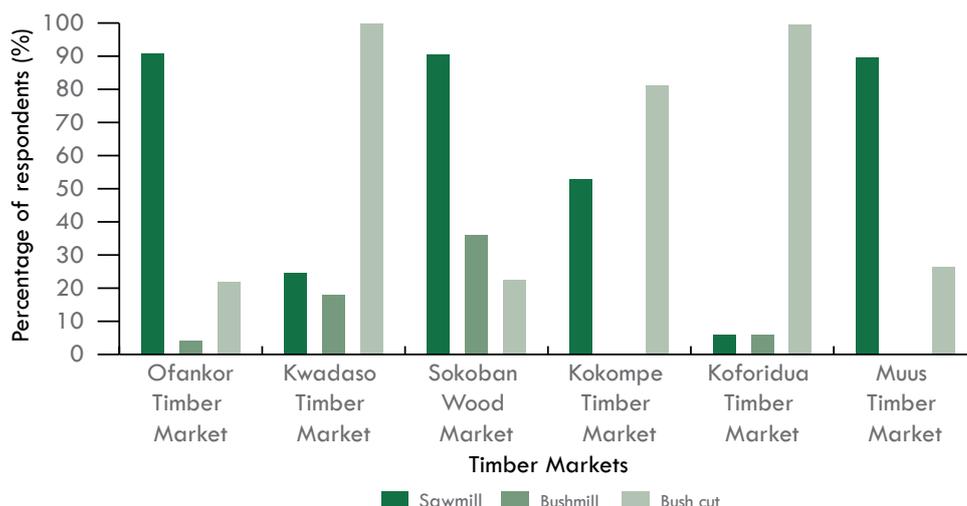


Figure 4: Timber merchants in different market location and the source of lumber

Table 3 shows reported categories of customers that patronize wood on the domestic market. Individuals, carpenters and building contractors were the three most reported categories. Overland exporters seem to operate only within three out of the six markets surveyed (Muus in Accra, Kwadaso and Sokoban in Kumasi). About 62.5 percent and 41 percent of the merchants interviewed in Kwadaso and Sokoban markets respectively reported overland exporters as customers who patronize their products while almost all (93.3%) of the merchants interviewed in Muus timber market mentioned overland exporters as customers. Besides individuals and carpenters, merchants at the Kokompe markets, Takoradi seem to have a high patronization by building contractors relative to the other studied markets.

Table 3: Reported category of customers at different timber markets

Timber Markets	Individuals	Carpenters	Building contractors	Real estate developers	Overland exporters
Muus Timber Market (n = 30)	96.7	56.7	43.3	0.0	93.3
Ofankor Timber Market (n = 23)	100.0	95.7	69.6	52.2	0.0
Kwadaso Timber Market (n = 16)	100.0	100.0	68.8	37.5	62.5
Sokoban Wood Village (n = 22)	95.5	72.7	77.3	27.3	40.9
Kokompe Timber Market (n = 32)	100.0	96.9	84.4	18.8	0.0
Koforidua Timber Market (n =17)	100.0	100.0	70.6	0.0	0.0
Total (140)	98.6	21.4	59.3	13.6	72.9

Table 4 indicates the ranking among the different categories of customers who usually demand for sawmill lumber on the markets. Individuals were ranked first by about half (51%) of respondents as the group that usually demand legal lumber (sawmill). Almost half (49%) of the respondents interviewed also ranked contractors working on behalf of MMDAs and DAs first.

Table 4: Ranking of category of customers who typically demand sawmill wood (legal timber)

Category of Customers	No. of Responses (n)	Percentage of respondents (%) Rank (1= high to 5= least)				
		1	2	3	4	5
Individuals	100	51.0	37.0	10	1.0	1.0
Real estate developers	21	23.8	57.1	14.3	0.0	4.8
Contractors working on behalf of MDAs and DA	82	48.8	29.3	13.4	7.32	1.2
Building contractors	22	31.8	18.2	45.5	4.5	0.0
Overland exporters	9	22.2	22.2	11.1	22.2	22.2
Carpenters	71	12.7	26.8	47.9	9.9	2.8

Overland exporters seem to be the category that do not typically demand sawmill wood as about a quarter of the respondents (22.2%) ranked them as the least category. About 46% of the respondents ranked building contractors third on the scale of 1 to 5 with only 22% of the respondents ranking them first on the scale.

#### 4.2.1.2 Awareness of regulations on supply and trade of legal wood on the domestic markets among timber merchants

Knowledge of regulation on supply and trade of legal wood on the domestic markets remains key for attitudinal changes and compliance to trading legal wood. Figures 5 and 6 show the level of awareness of the existence of regulations on trade in legal timber products on the domestic markets assessed on a Likert scale of 1 to 5 (1 = Not at all aware; 2 = slightly aware; 3 = Somewhat aware; 4 = moderately aware to 5 = Very much aware). About 37% of the total number of timber merchants interviewed reported not being aware of regulations governing legal trading of lumber on the domestic market while 47.9% had moderate to high level of awareness (very much aware) (Figure 5). The percentage distribution of the level of awareness of merchants in all six markets is shown in Appendix 3.

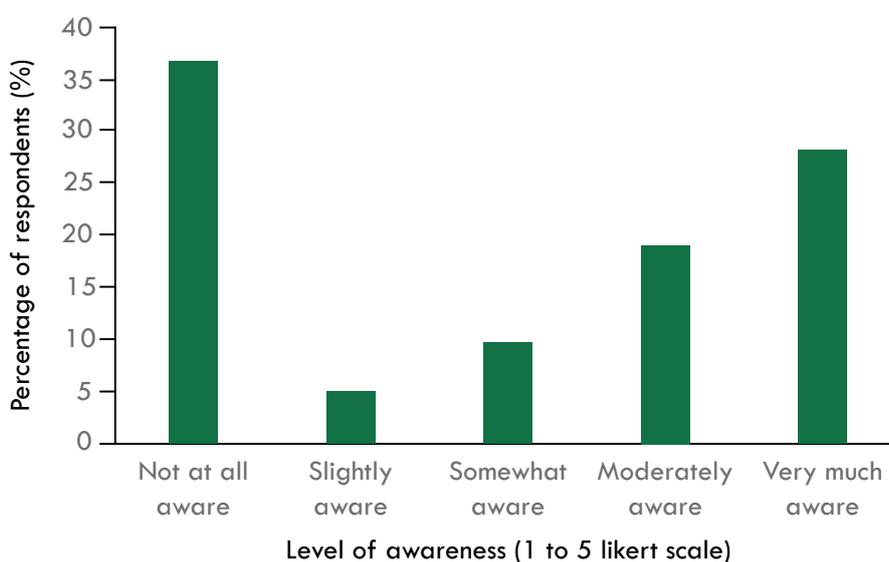


Figure 5: Percentage distribution of timber merchants' level of awareness of the existence of regulations on trade in legal timber products on the domestic markets

The overall mean level of awareness among the timber merchants was 3.0 denoting “somewhat aware” (Figure 6). Comparing the level of awareness among merchants from the different markets, respondents at Sokoban seem to have a higher level of awareness than merchants of the remaining 5 markets (Figure 6). The highest mean level of awareness was by merchants interviewed at Sokoban market (mean = 4 with a standard deviation of 0.9) which denotes “moderately aware”. Merchants at Kokompe market, Takoradi, had the lowest mean (1.9) which denotes “slightly aware” on the 5-point Likert scale. Merchants at Kwadaso, Koforidua, Ofankor and Muus markets had means indicative of somewhat aware, reflecting a middling knowledge level about regulations governing the trade of legal wood on the domestic markets.

#### 4.2.1.3 Challenges Faced by Timber Merchants on the Domestic Market

Reported bottlenecks associated with lumber trade on the domestic market are summarized in Table 5. These bottlenecks can be categorized into financial, institutional, supply chain and customer preferences. The top most category mentioned by majority of the respondents (45.2%) is the challenges associated with the supply chain. This is followed by financial, institutional and customer preferences. The top five (5) challenges that confront the timber merchants in all the studied markets are long waiting periods after depositing money with suppliers for legal timber, huge capital requirement needed to purchase wood from suppliers for legal timber, high cost of sawmill (legal) lumber, unavailability of legal lumber at saw-

mills when demand is high, and harassment from FC and other authorities, especially during transportation of legal timber. These challenges do not seem to differ from that outlined by Marfo et al. (2017), TIDD-FORIG (2009) and TIDD (2002).

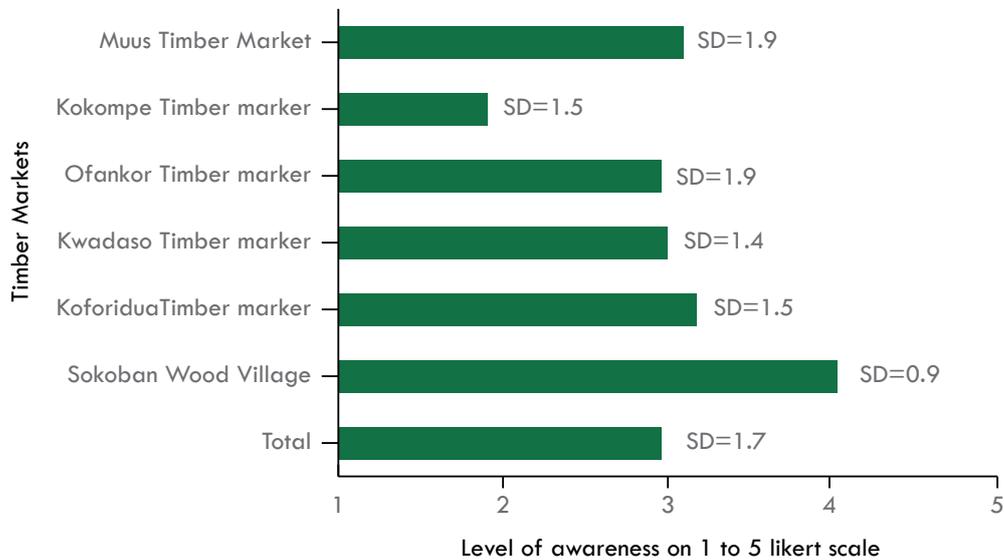


Figure 6: Timber merchants' mean ranking of the level of awareness of the existence of regulations on trade in legal timber products on Ghana's domestic markets (NB: standard deviations denoted as SD)

Table 5: Reported challenges associated with timber trade among timber merchants

Challenges		Freq. (n)	Percent of resp. (%)
<b>Financial</b>	Huge capital required	28	13.5
	Accruing interests on loans used to finance wood purchase	2	1.0
	Large amount of deposits required from suppliers	10	4.8
	High prices of sawmill wood	27	13.0
	<b>Total</b>	<b>67</b>	<b>32.3</b>
<b>Institutional</b>	Interruptions from FC and other authorities	16	7.7
	Bribery and corruption at checkpoints during transportation	9	4.3
	Documentations/Accreditation of logs for transportation from suppliers	6	2.9
	Time wastage at check points	3	1.4
	Small scale concessionaires are few and are crippling	2	1.0
<b>Total</b>	<b>36</b>	<b>17.3</b>	
<b>Supply Chain</b>	Long waiting period after deposits (difficulty in accessing sawmill lumber)	62	29.8
	Lies from suppliers	1	0.5
	Insufficient supply of wood from sawmills to meet market demand	15	7.2
	Irregular supply of wood from suppliers	7	3.4
	Inferior products supplied from sawmill at high price	9	4.3
	<b>Total</b>	<b>94</b>	<b>45.2</b>
<b>Customer Preference</b>	High preference for bush cuts	2	1.0
	Sawmill companies sell their wood to only preferred merchants and does not operate on open to all market system	9	4.3
	<b>Total</b>	<b>11</b>	<b>5.3</b>

NB: Multiple response

#### 4.2.1.4 Recommendations to promote legal timber trade on the domestic market: Perceptive of Timber merchants in different market centers

Table 6 outlines recommendations provided by timber merchants on effective ways to promote supply and trade of legal timber on the domestic market. Six key areas were highlighted, namely capacity building (4.8%), institutional interventions (27%), monitoring and enforcement (23%), review of accreditation and documentation process (14%), availability of sawmill/legal wood on the domestic market (18%) and provision of incentives (13%). The top 4 specific recommendations provided by majority of respondents include the following:

1. Government should enforce the law that requires the TUC holders to supply local market
2. Sawmills should be tasked to supply to the domestic market
3. Sawmill wood should be readily available to dealers at affordable prices
4. Concessions should be allocated to TUC holders to supply wood to the domestic market

*Table 6: Recommendations provided by timber merchants to promote supply of legal timber to the domestic market*

Recommendation		Freq. (n)	Percent (%)
<b>Capacity Building</b>	Government policies and regulations should be well taught to vendors in the timber industry	4	3.2
	Interpret FLEGT & VPA laws to lay timber merchants	2	1.6
	<b>Total</b>	<b>6</b>	<b>4.8</b>
<b>Institutional interventions</b>	Government should enforce the law that requires the TUC holders to supply local market	19	15.1
	Soft loans from government to promote sawmill wood	5	4.0
	Government should facilitate easier and quicker renewal or revalidation of TUC	5	4.0
	Government should release information of requirement (documents) needed by FC	1	0.8
	Government should recruit and boost FC workforce to provide protection to the forest	1	0.8
	Import timber from other countries to preserve/conservate our timber	1	0.8
	Reduce long and tiresome search and checks on timber at check points	2	1.6
	<b>Total</b>	<b>34</b>	<b>27.0</b>
<b>Monitoring and enforcement</b>	Government should check and monitor activities of task forces and FC	6	4.8
	Sawmills be tasked to supply domestic market	16	12.7
	Sawmills be made to supply 80% of stock to domestic market and 20% to export	4	3.2
	Monitor exports judiciously	2	1.6
	Stop exporting wood and supply all wood to domestic market	2	1.6
	<b>Total</b>	<b>30</b>	<b>23.8</b>
<b>Accreditation and documentation</b>	Legalize operations of bush mill to supply domestic market	5	4.0
	Correct standardization of sawmill lumber	2	1.6
	Proper documentations be used to sawmill wood dealers	3	2.4
	Allow and regularize accreditation for saw millers	4	3.2
	Legal documents to cover sold lumber to be transported to Accra	3	2.4
	<b>Total</b>	<b>17</b>	<b>13.5</b>

table 6 continued

Recommendation		Freq. (n)	Percent (%)
<b>Availability of sawmill wood</b>	Sawmill wood should be readily available to dealers at affordable prices	13	10.3
	Establish regional mills to supply domestic market	4	3.2
	Sawmills should widen their customer not to provide for all dealers	2	1.6
	List/select millers to supply domestic market	1	0.8
	Equate/standardize prices of bush cut to sawmill wood	1	0.8
	Wood to be sold to dealers on credit bases	2	1.6
	<b>Total</b>	<b>23</b>	<b>18.3</b>
<b>Incentives and motivation</b>	Electricity tariff be reduced to millers ready to supply domestic market	2	1.6
	Taxes be reduced for millers to be able to supply domestic market at affordable prices	4	3.2
	Adopt re/afforestation approach to supplying wood to market	2	1.6
	Concessions should be allocated to TUC holders to supply wood to the local market	8	6.3
	<b>Total</b>	<b>16</b>	<b>12.7</b>

#### 4.2.2 Supply of legal timber to the domestic market: an overview/perspective from timber companies.

This section highlights the timber companies' perspectives on the challenges associated with supplying legal timber to the domestic market. Based on availability and willingness to participate in the study, nine (9) timber companies were sampled for interviews. Three (3) of these, which were TUC/TUP holding companies are categorized as Free Zone companies. The different category of companies allowed for an in-depth understanding of all the relevant issues from the perspectives of timber companies including free zone timber companies. Table 7 shows the categories of companies and timber products sold.

Table 7: Different category of companies interviewed and timber products produced

Companies	Category		Products					
	TUC	Free Zone	Lumber	Plywood	Moulding & flooring	Doors	Rotary veneer	Others
A	X	X		√				
B	X	X		√			√	
C	X	X	√					
D	X	X	√		√	√		
E	√	√	√	√	√	√	√	√
F	√	√	√	√	√	√	√	√
G	√	√	√	√	√	√	√	√
H	√	√	√	√	√	√	√	√
I	√	√	√	√	√	√	√	√

The companies without TUC reported that sawmills, individual contractors and plantations were their timber supply sources. The companies with TUC reported established plantations and concessions as their main source in addition to sourcing timber from individuals. All the nine (9) companies reported moderate to high level of awareness of existing legislation/regulations governing trade in legal and sustainable timber and timber products in Ghana.

Reported challenges faced by the companies include:

- lack of concession
- lack of wood (raw materials)
- poor road networks during rainy season
- high cost in sourcing wood directly from the forest/field
- difficult to get wood during rainy season
- competition from the Chinese who have sited factories close to forests for wood
- tedious paper work to renew concession
- difficulty in getting log measurement conveyance to transport logs

Lack of wood (declining raw material base) was the most reported problem with all nine companies indicating the dwindling situation of the forest, hence difficulty in sourcing wood. Suggested recommendations needed to promote the supply of legal timber on the domestic markets from the TUC holding companies' perspectives are:

- providing concession to several timber firms and individuals
- supporting companies with machines
- government should help companies willing to supply to the domestic market acquire the necessary permits in a shortest possible time
- reducing utility prices to serve as incentives
- enforcing agencies to make sure raw materials get through right process so that prices of products are standardized
- prompt renewal of document
- enforce the law that bans chainsaw lumber

### **4.2.3 Impact of the Free Zones Board Act (Act 504) on supply of legal timber to the domestic market**

For the reasons stated in section 4.1.0 of this report, a number of industries and businesses manufacturing different products were incentivized to become free zone enterprises. One of such businesses or industries is the wood manufacturing sector. As timber exports remain one of the significant foreign exchange earners for Ghana, the large to medium scale timber companies took advantage of this law. Indeed, the export of timber earned Ghana an average of not less than Euro160 million between 2007 and 2017 (TIDD Monthly Export Statistics).

As stated already, many of the vibrant timber companies in Ghana are free zone enterprises. Research data from the Timber Industry Development Division (TIDD) of the Forestry Commission of Ghana (Personal Communication) shows that about six large timber companies are free zone enterprises as of the year 2017. These include Samartex Timber and Plywood Company Limited, John Bitar and Company, Logs and Lumber Limited, Naja David Group of Companies, Mondial Veneer Ghana Limited and Evans Timber Limited. For the past ten years, these companies have ranked among the top leading exporters of wood to various destinations exporting thousands of cubic meters of wood every year. In terms of control of the timber resources of the country, the six (6) timber companies operate total concessions measuring over 400,000 hectares of forest reserves. The current forest area for timber production is estimated at 1.5 million hectares of which an estimated 1.1 million hectares are the forest reserves (FRA 2010a, Oduro et al 2014). Currently, an area of about 0.4 million hectares inside the forest reserves have less than the minimum basal area and are classified for conversion into commercial plantation (FRA 2010). This reduces the area of the total available production forest to about 0.7 million hectares. In essence, these free zone timber companies cumulatively have access to more timber resources than the next 50 timber companies put together. Invariably, they are also the largest employers for people in the localities.

From the Forestry Commission timber export statistics for the year ending December 2017, the total volume of export of timber from Ghana was about 339,000 cubic meters (FC, 2017). According to analyst, the annual volume of timber consume by the timber market is not less than 600,000 cubic meters (TIDD,

2018). This means that the demand for timber by the domestic market of Ghana is almost double the volume exported in 2017. There is increasing demand to meet the growing economic development. Notwithstanding the fact that there is not enough legal timber for the domestic market, free zone timber companies producing legal timber, are statutorily required to export not less 70% of all their products outside the country. These companies although operating within the jurisdiction of Ghana are deemed to be operating outside Ghana. It is also important to note that the spirit and intent of establishing a free zone area and the granting of licenses to persons to operate either as free zone developers or enterprises is to encourage export of products and to bring foreign exchange earnings to this country. Therefore, a free zone entity is required by the law to export all its products except otherwise stated by the law. The exception to the requirement to export all annual production is provided for by LI 1618. Regulation 31(1) of the Free Zone Regulation 1996 LI 1618 provides that thirty percent (30%) of the annual production of goods and services of a free zone enterprise may be sold in the national customs territory and shall be subject to the applicable taxes and duties.

It is pertinent to note that any sale of goods or services from a free zone enterprises or single factory zones to the national customs territory is considered as imports and is subject to the rules and regulations relating to imports into the national customs territory. So that the 30% of annual production from a free zone timber company sold in the domestic market is subject to taxes and duties. This means that any sale of timber product by any of the five timber companies to any person in Ghana will attract import duties and other related taxes of about 34%. These extra taxes and duties make the timber from these companies comparatively expensive and discourages persons from purchasing legal timber.

The argument is that the six timber companies are among the registered timber companies with assurance system to produce legal timber. The companies do not import their raw materials from outside this country but obtain all of it from within the country. Therefore, there is no tax rebate on the logs hauled from the forest floor that necessitates compensating the state with corresponding import duties and taxes when the goods are sold within the country. Furthermore, there is a strong proportional relationship between the increasing consumption of illegal timber in the country and the unavailability of legal timber in the domestic market. It is submitted that the strict application of the 70% annual production export requirement on the timber companies and a further strict application of the about 34% duties and taxes on the 30% sold in country is contributing to jeopardize effort to ensuring sustainable forest management. It creates disequilibrium between the need to earn foreign exchange and the need to make legal timber available in the domestic market so as to reduce destruction of the natural forest by illegal chainsaw operators. Indeed, for government to encourage sustainable production and consumption of forest products in tandem with SDGs 12, 13 and 15, there is strong reasoning for government to take a second look at the mandatory of a free zone timber enterprise to export 70% of timber products and also the payment of about 34% duties and taxes on the product sold within the territory.

Four free zone board companies were interviewed under this study (listed in this report as Company 1, 2, 3 and 4). All the four (4) companies were very much aware of the Free Zone Act, 1995 (Act 504) that requires timber companies to sell their products under import duty. Their responses on perceptions about Act 504 include:

- To encourage users of wood to source legally for all wood base projects and in doing so eliminate illegal timber from the local market.
- Complying with Act 504 to supply 30 % of legal wood will enhance availability of legal wood on the domestic market
- High cost to supply legal wood to the domestic market (purchasing of form 9 and other administrative charges and third-party costs)
- Willingness to supply to the domestic market but tax additions (import duties) poses a challenge to offering competitive prices relative to illegal wood

Company 1 indicated regular supply of legal timber products, which mainly come as off cuts (4 tractor loads per day) to the domestic market. Company 2 on the other hand does not supply to the domestic

market based on the fact that their main product has been sliced veneer which is not widely patronized on the local market. Both company 3 and 4 supply plywood regularly to the domestic market with company 4 supplying about 1,500 m<sup>3</sup> per year to the domestic market. All the four companies reiterated the fact that the supply of legal timber to the domestic market will reduce the influx of illegal timber, strengthen the Voluntary Partnership Agreement (VPA) process and ultimately save our natural forest from the activities of illegal chainsaw operations. However, the import duty requirement makes timber products from Free Zone companies relatively expensive than timber coming from illegal sources. Suggested factors to motivate free zone companies to supply legal timber to the domestic market include tax incentives, scraping off the import duty to ensure competitive prices or review of the import duty on free zone company products being sold on the local markets, and enforcement of existing laws on chainsaw operations. Likewise, addressing challenges associated with customers' failure to pay import duty on supplied products leading to companies being held accountable for such failures.

### 4.3 Impact of public procurement policy (PPP) on availability of legal timber for government projects at the district level.

To understand the likely impact of PPP on availability of legal timber for government projects, a total of 13 respondents, comprising of contractors/subcontractors and procurement officers of 8 district and metropolitan assemblies (Table 8) across four (4) regions (Greater Accra, Western, Ashanti and Eastern regions) were interviewed.

*Table 8: Distribution of contractors and district assemblies interviewed*

District/Municipal Assembly	Freq. (n)	Percent (%)
Tema West	2	15.4
Sekondi Takoradi Municipal	1	7.7
La Dade Kotopon	2	15.4
Accra Metropolitan Assembly (AMA)	4	30.8
Gbawe	1	7.7
Awutu Senya East	1	7.7
Osu Klottey	1	7.7
Okere	1	7.7
Total	13	100.0

Preferred timber patronized by the contractors/subcontractors include both sawmill lumber and bush cut (illegal chainsaw lumber) (Table 9). Nine (9) contractors representing 69% ranked sawmill lumber as the most patronized lumber for government awarded contracts. Illegal chainsaw lumber was similarly ranked by 31% of respondents as the most patronized lumber for government contracts.

*Table 9: Rankings of the type of lumber patronized on the domestic market by contractors*

Type of lumber patronized	Rank type of lumber patronized						total
	rank 1	rank 2	rank 3	rank 4	rank 5	rank 6	
Sawmill (legal)	9	0	1	0	0	0	<b>10</b>
Bush mill (illegal)	2	0	2	0	1	4	<b>9</b>
Bush cut (illegal)	1	1	1	0	0	1	<b>4</b>

Figure 7 provides an overview of bottlenecks faced by contractors in sourcing solely legal timber for government awarded projects. Reported challenges ranged from issues of cost, scarcity of legal timber, irregular supply to transportation. The cost (legal timber deemed expensive) remained the dominant challenge reported by majority of respondents (Figure 7).

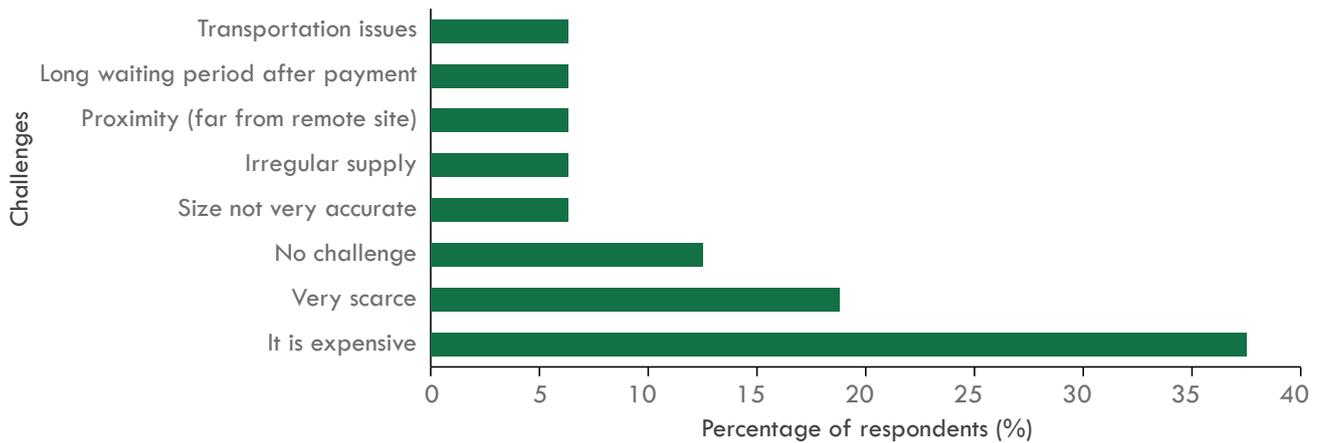


Figure 7: Challenges faced by contractors in sourcing legal timber for government contracts.

Notwithstanding the challenges in sourcing legal timber, the District/Municipal Assembly officials, contractors and subcontractors’ level of awareness of the regulations governing the supply and trade of legal timber on the domestic market was assessed. Figure 8 shows an overview of the percentage distribution of awareness level on a 5-point Likert scale. About 46% and 23% were moderately and very much aware of the existing regulations respectively. Almost 8% indicated they were not at all aware of any such regulations while 23 % were slightly to somewhat aware. An overall mean of 4 was obtained on the 1 to 5-point Likert scale and denotes a moderate level of awareness among all the interviewed contractors and assembly officials.



Figure 8: Percentage distribution of level of awareness of regulations governing the supply and trade in legal timber on the domestic market.

To understand the potential impact of the proposed PPP on the supply of legal timber on the domestic market, the assembly officials and contractors’ level of awareness of the proposed PPP was assessed. Figure 9 shows the percentage distribution of the level of awareness of the proposed PPP on timber and timber products. About 31% and 15% of respondents reported not at all aware and slightly aware respectively on the 5-point Likert scale. More than half of respondents reported being somewhat aware to very much aware on the 5-point scale. An estimated mean of 3.58 was obtained which generally indicates a moderate level of awareness among respondents.

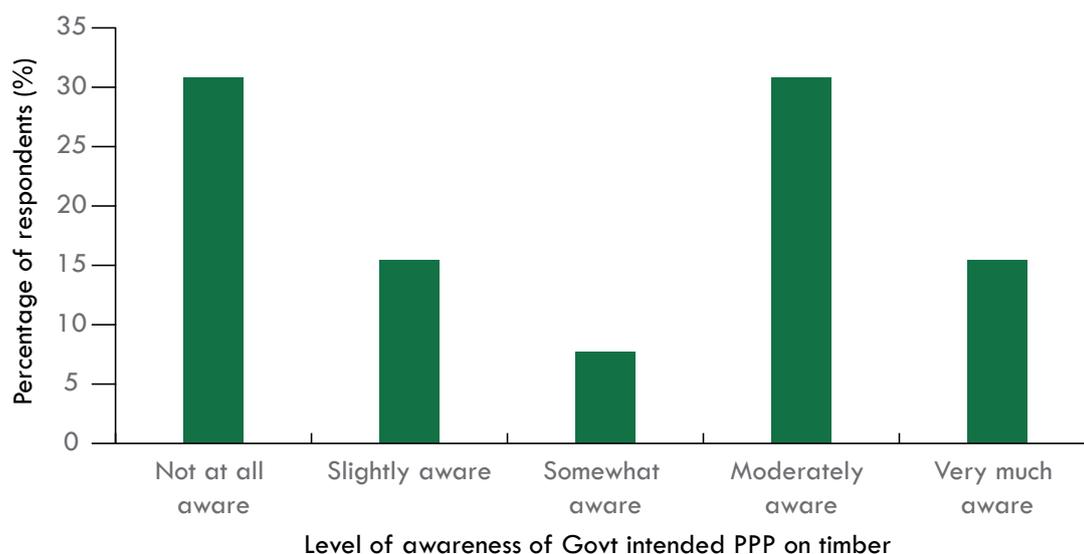


Figure 9: Level of awareness of the proposed PPP on timber among contractors and assembly officials.

Different opinions shared by the contractors on the PPP provision and implementation are outlined in Figure 10. Majority of the respondents (37%) were of the opinion that the availability and relatively cheaper price of illegal timber will make enforcement of such provision difficult. Nevertheless, about 31% suggested the PPP is a good provision which will likely help sustain forest in Ghana. Other views include enforcement of existing regulations, making sure legal wood is affordable and readily available.

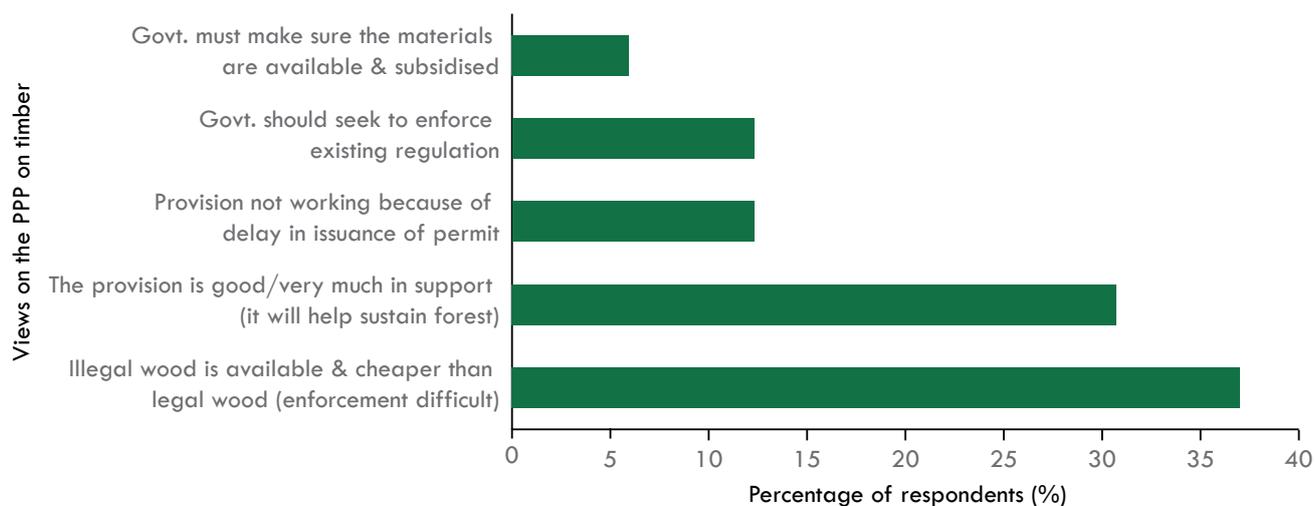


Figure 10: Contractors and officials of assemblies' views on the proposed PPP on timber.

The contractors and assembly officials shared mixed opinions on the potential impact of the proposed PPP provision on awarded government projects. Figure 11 shows the percentage distribution of responses of these impacts. The two most reported impacts were expected high cost of wood in contracts and likely positive impact if legal timber will be readily available. Other opinions were slowing down projects due to unavailability of legal wood, the likely potential to help regulate timber prices and long waiting periods after paying for legal wood.

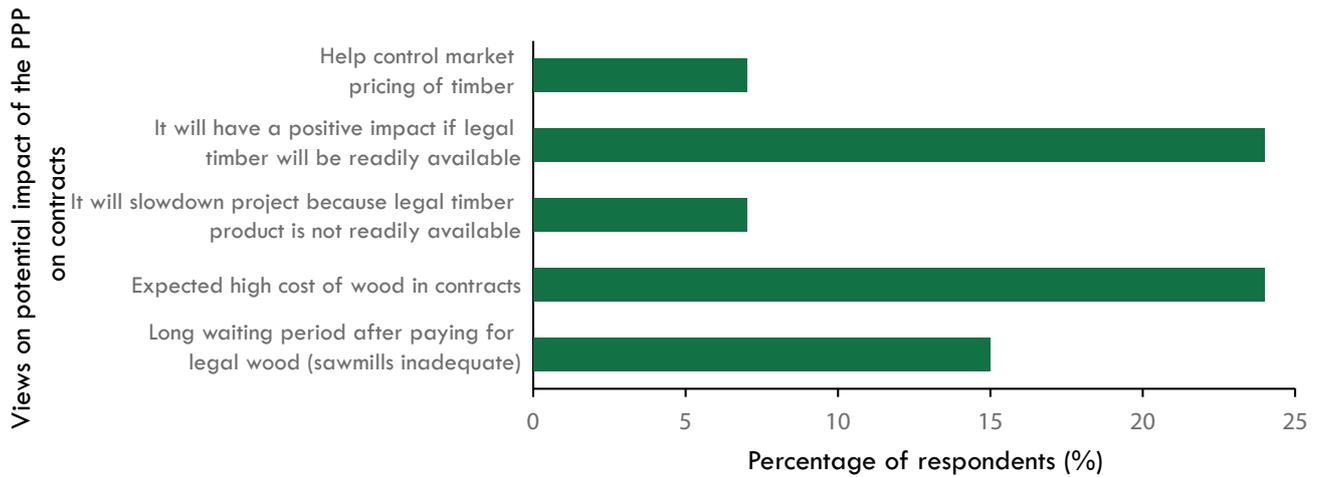


Figure 11: Percentage distribution of respondents' views on potential impact of the proposed PPP provision on awarded government projects

With regards to cost implications, approximately 54% of respondents reported extremely higher cost for execution of projects if they are to source only legal wood for awarded government projects. For example, contractors on average reported an estimated market level wood cost of legal and illegal wood for the construction of 4-bedroom house to be about GH¢50,000 for sawmill legal wood only and GH¢20,000 for bush cut. About a quarter of the contractors interviewed (23%) also suggested the cost will remain unchanged, except the wood is not available. Additionally, 23% were also of the opinion that cost of using legal wood only can be marginally close to using illegal wood if the legal wood would be made available and in close proximity since higher transportation often adds to the overall cost. Recommendations offered by respondents to ensure successful implementation of the PPP on timber include:

- Standardization of prices of legal wood
- Sensitization of all stakeholders on the PPP
- Providing incentives to contractors to encouraging use of only legal timber
- Government partnership with sawmills to supply adequate legal lumber on the domestic market to reduce prices
- Legal timber should be readily accessible and affordable on the domestic market

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## 5. Synthesis of findings



This section provides a synthesis of the findings from the study. It puts the results within the wider context of existing knowledge and focuses on highlighting the key bottlenecks to the supply of legal wood to the domestic market. It also offers possible scenarios for the supply of legal timber to the domestic market and provides basis to develop advocacy strategies for the passage of the public procurement policy for increased supply of legal wood to the domestic market.

### **5.1 Development of possible scenarios for the supply of legal timber to the domestic market.**

In consultation with key stakeholders (identified during the mapping session) including wood industry experts, two key driving forces were identified for the development of possible scenarios namely, a) wood demand and (b) regulation of the domestic market (enforcement of laws) (Figure 12). Four plausible scenarios for the supply of legal timber to the domestic market were then developed based on the two key driving forces. The plausible scenarios are:

1. Only legal timber supply to domestic market
2. Legal timber supply for only government projects
3. Limited (Reduced) timber supply mainly for export market
4. Continuous supply of illegal wood to the domestic market (Business as usual)

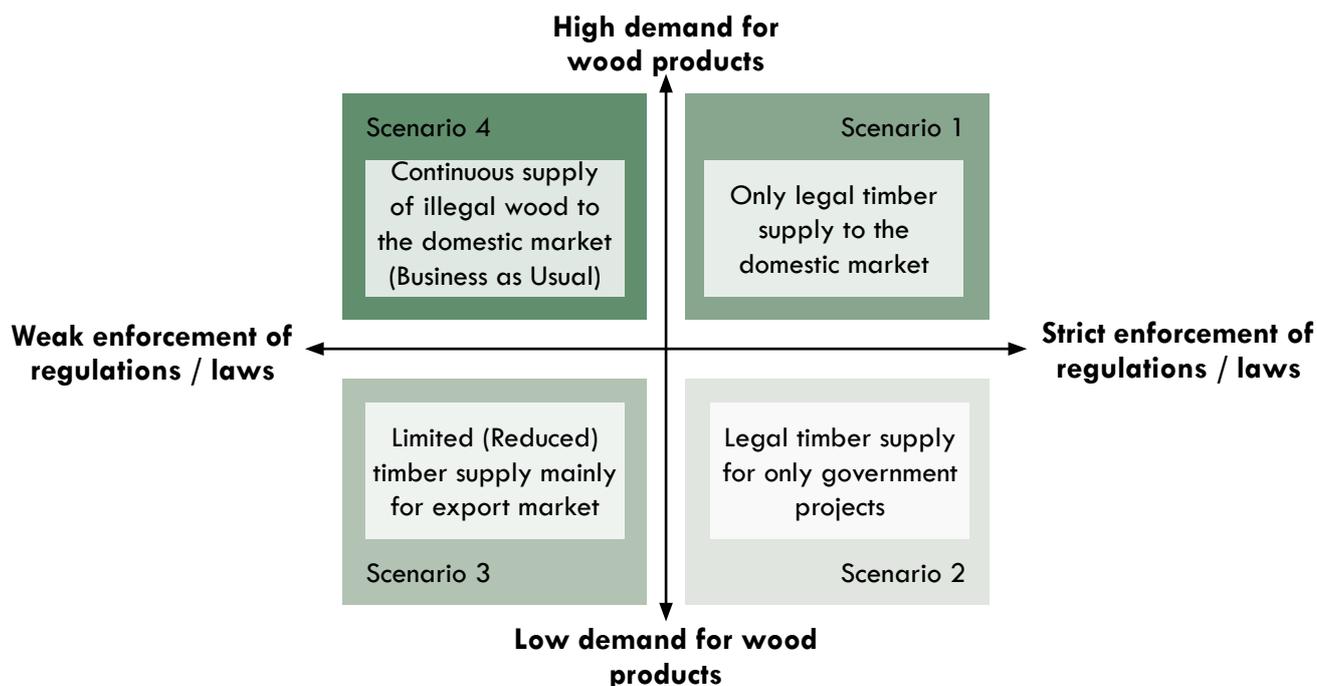


Figure 12: Scenarios for the supply of legal timber to the domestic within the context of the proposed PPP on timber and market

**Scenario 1: Only legal timber supply to domestic market (only legal timber sold on the domestic market)**

There is an effective regulation and strong enforcement system in place and there is high demand of wood on the domestic market. Although deemed unlikely in the very short term (e.g. within 5 years), given the long history of corruption, weak law enforcement and non-compliance, this scenario assumes that it would be possible in the medium to long term to put an effective governance system in place to regulate the domestic timber market. In this scenario, government embarks on registration of all timber merchants and sets up pre-requisite registration and licensing regime for all merchants in the country. This is to ensure that government has an oversight responsibility over the entire domestic market. In addition, sales depot around the regional and district market levels and at vantage areas would be created for the supply of legal timber in the short to medium term. Underlying requirements of all depots would include accessibility, proximity, availability and assurance of supply of legal wood by companies. Mechanisms to ensure that procurement contracts are fully adhered to is in place. Publication of legal wood sources to the public would be done through different media houses. In addition to the regional and district sales depots, the infusion of technology for online sales of legal timber through electronic sales platform systems would be explored. There would also be the need for public education using illegal wood versus legal wood in regards to quantity and quality relative to differential costs of sawmill and bush cut. This scenario also considers increasing timber prices on domestic market to match the export market prices (fear of high price quotations on wood by contractors; prices of wood could go up for all consumers).

Fiscal policies are reformed to ensure that appropriate fees and taxes are paid for timber resource extraction and used. Furthermore, institutional and administrative structures would be streamlined to ensure transparency, accountability and good cooperation between relevant government agencies, civil society and operators of depots for legal timber for effective law enforcement and compliance. In the medium to long term, the strict enforcement of rules and regulations will ensure progressive elimination of illegal chainsaw lumber and that resources are used efficiently. At that point there might not be the need for depots but all timber on the domestic market will be legal. Considering the reduced/declining nature of the resource base, and to meet increasingly high domestic demand for timber, perhaps Ghana would temporarily import lumber or suspend all exports until there is adequate natural regeneration and growth of the production forests and commercial timber plantations reach maturity. That means that under this scenario, there should be massive investments in commercial forest plantation development in the short to medium term. A revision of the current benefit sharing to provide an incentive for maintaining and managing trees on farms would be considered.

**Scenario 2: Legal timber supply for only government projects**

A strong enforcement of regulations governing supply of legal timber to the domestic market is in place coupled with low demand for timber on the domestic market. Thus, the strict enforcement is geared towards the operations of contractors working on government projects who require legal timber for their projects. In this scenario, the creation of sales depot as described in scenario 1 is in place. In view of government's consumption of a large chunk of wood in their construction projects, it would therefore be important to ensure that government contractors only patronize legal timber for government projects. The low demand indicates the availability of some substitutes/alternatives to wood but the government would continue to rely on wood. Contractors will use prices of legal wood in their estimates for bidding for contracts and would be required to purchase only legal wood from the created depots. There would be the need for periodic sensitization programs for contractors working on government projects. In the short term, chainsaw lumber on the domestic market will continue to be available to other customers of the domestic wood market but would be flushed out in the medium to long term with integration of legal wood depots on the domestic market centers at regional and district levels. Sensitization and communication/publication of sources of legal wood on the domestic market remains the same as described in scenario 1 above. In this scenario, timber prices would be standardized at all depots to prevent a likely occurrence of legal timber price hikes by depot operators. Furthermore, a chain of custody mechanism would be put in place for tracing source of wood being used by contractors (i.e. how to differentiate wood from depot and wood from other markets). Assembly procurement officials and inspectors sensitized on differences in wood types on the domestic market as a prerequisite for periodic monitoring at project sites.

**Scenario 3: Limited (Reduced) timber supply mainly for export market**

This scenario seems unlikely considering recent trends in wood demand for both export and domestic markets. Under this scenario, there is corruption, lax law enforcement and non-compliance in the timber market sector. There is limited fiscal reform and forest fees and taxes are comparatively low. The allocation of timber rights is centralised and the export oriented timber industry receives most of the rights. Though the demand is low, the formal timber industry continues to be export-oriented, and the weak enforcement of laws and regulations still allows for some very minimal illegal chainsaw activities, mostly for export. Domestic market prices of timber are low to medium but local demand mostly shifts to wood substitutes.

**Scenario 4: Continuous supply of illegal wood to the domestic market (Business as Usual)**

In this case, weak law enforcement is in place coupled with high demand for timber on the domestic market. Domestic market remains largely informal (with lots of unregulated activities). No licensing of timber merchants and no standardization of timber prices on the domestic market. Formal timber companies (sawmills) including those of the free zone enterprises, remain largely export oriented due to tax incentives and better export prices. There is non-adherence of the timber right requirements to the domestic market. Concessions are mostly given to export driven companies even in the wake of L.I 2254. The export driven companies would continue to focus on specific species for export with no direct use for lesser used and lesser known timber species allowing chainsaw operators to penetrate and take advantage of the gap created with regards to the lesser known species for the domestic market. Enforcement of laws in any form including proposed PPP not likely to be feasible as demand pool is greater than supply. Weak market level law enforcement and the dwindling resource base coupled with high overland timber demand encourages corruption/bribery to ensure that timber is always available on the domestic market. Domestic market is flooded with illegal lumber supplied mainly by chainsaw operators. Weak law enforcement creates disincentive for the sawmills (who pay tax and are regulated). The prices of wood on domestic market remains unregulated so sawmills are usually "swallowed up" by unlicensed merchants whose main suppliers are illegal (chainsaw) operators. In this scenario, creation of depots for supply of legal timber on the domestic market will likely increase prices of timber since the supply is less than demand. Contractors and district assembly staff lack the technical know-how on detection of legal wood at proposed depots.

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## 6. Conclusion



This section provides a summary of the key findings of the study and their implications for the supply of legal timber to the domestic market. The high demand for timber in Ghana coupled with the decline in the forest resource base has necessitated the need for policy makers and forest resource managers to embrace integrated approach to manage forest and timber utilization. This would ensure a sustainable forest resource base capable of providing continuous supply of forest goods and services. This study has focused on identifying the bottlenecks to the supply of legal timber to the domestic market in the wake of the proposed PPP on timber and timber products. Perspectives of different stakeholders were sought through interviews with semi-structured questionnaires and checklist.

Currently, Ghana's Forest and Wildlife Policy (2012), the 2016 Forestry Development Master Plan (FDMP), the Timber Resource Management and Legality Licensing Regulations, 2017 (L.I. 2254), the Free Zone Act, 1995 (Act 504), and the Public Procurement Act, 2003 (Act 663) form the policy and legal framework for the supply of legal timber to the domestic market. In addition, the government of Ghana through the Ministry of Lands and Natural Resources has drafted a public procurement policy on timber and timber products to outlaw the use of illegal timber for public works in Ghana. The PPP is yet to be endorsed by cabinet. However, the proposed PPP is in fulfilment of government obligation under the VPA to encourage trade of legal timber in the domestic market.

Wood on the domestic market is sourced from bushmill (7 percent), sawmill (50 percent) and chainsaw lumbering (43 percent). Individuals were ranked as the foremost customers who demand legal timber on the domestic market. This was followed by contractors working on behalf of MMDAs and DAs. Building contractors were ranked third among the category of customers who demand legal wood while overland exporters were reported as customers who do not typically demand legal wood. Reported bottlenecks associated with lumber trade on the domestic market can be categorized into financial, institutional, supply chain and customer preferences. The key bottlenecks in the studied markets include (1) long waiting periods after depositing money with suppliers for legal timber, (2) huge capital requirement needed to purchase legal wood from suppliers, (3) high cost of sawmill lumber, and (4) unavailability of legal lumber at sawmills when demand is high. Reported bottlenecks faced by contractors in sourcing solely legal timber for government awarded projects comprise of (1) issues of cost of legal wood on the domestic market, (2) irregular supply/scarcity of legal timber on the domestic market, and (3) issues of transportation

Based on two key identified driving forces, four plausible scenarios for the supply of legal timber to the domestic market were developed. The first scenario "*Only legal timber supply to domestic market*" focused on an effective regulation and strong enforcement system in the wake of high demand of wood on the domestic market. The second scenario "*Legal timber supply for only government projects*" provides measures to ensure legal wood is available for contractors working on government projects who require legal timber for their projects. In this scenario, the creation of sales depot remains key for the supply of legal wood for the domestic market. The third scenario "*Limited (Reduced) timber supply mainly for export market*" is based on the premise of low demand for timber on the domestic market, corruption, lax law enforcement and non-compliance in the timber market sector. This scenario however seems unlikely considering recent trends in wood demand for both export and domestic market. The final scenario "*Continuous supply of illegal wood to the domestic market (Business as usual)*" considers weak law enforcement coupled with high demand for timber on the domestic market. The domestic market under this scenario remains largely informal with lots of unregulated activities and illegal wood supplies. Formal timber company operations including those of free zone enterprises remain largely export oriented due to tax incentives and better export prices.

The study highlights the fact that current demand for wood (both domestic and export) far exceeds the sustainable capacity of the forests, and has important implications for the supply of legal timber to the domestic market. In order to ensure sustainable management of timber resources, any policy option should address domestic (legal) timber needs. Removing the bottlenecks to the supply of legal timber to the domestic market would mean the progressive elimination of illegal chainsaw timber through law enforcement and increasing legal timber supply to meet demand. The possible policy implications are: (1) arrangements must be made to increase the resource base in order to meet demand (export and domestic), and (2) creating sustainable employment opportunities for those currently engaged in illegal chainsaw lumbering operations. Since the domestic market has the potential to consume all legal timber produced from the current production forests, a policy option to increase legal timber on the domestic market might be to restrict timber exports in the short to medium term. Timber export could be progressively restored as measures are being taken to increase the resource base to meet the demand for both export and domestic markets.

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## Referenced Acts and Legal Instruments

- 2012 Forest and Wildlife Policy (FWP)
- 2016 Forest Development Management Plan (FDMP)
- The Free Zone Act, 1995 (Act 504)
- Timber Resource Management and Legality Licensing Regulations, 2017 (LI 2254)
- Public Procurement Policy on Timber and Timber Products (Draft Version)
- Public Procurement Act, 2003 (Act 663)

# Appendices

All supporting data, stakeholders consulted, questionnaires and checklists used for field study and other relevant information are included as appendixes.

## Appendix 1: Semi-structured questionnaires for the different stakeholders interviewed



### STUDY ON BOTTLENECKS TO SUPPLYING LEGAL WOOD TO THE DOMESTIC MARKET

#### Questionnaire for Free Zone Companies

The purpose of this survey is to determine the bottlenecks to supply and consumption of legal timber and timber products on the domestic markets. This study will assist in policy makers to determine and advocate for measures to ensure supply of legal timber and timber products to our domestic market. Your responses shall be used solely for this work and will be treated confidentially. So kindly provide honest answers to these questions. Thank you.

Enumerator:

Date:

#### **Location/area**

Name of free zone company

Location (Name of Town/City):

Region:

1. Are you aware of the Free Zone Act, 1995 (Act 504) that requires timber companies to sell their products under import duty?

a. Not at all aware [    ]

d. Moderately aware [    ]

b. Slightly aware [    ]

d. Very much aware [    ]

c. Somewhat aware [    ]

2. What is your view/perception of this provision of Act 504 to the supply of legal timber to the domestic market?

3. Do you sell some of your products on the domestic market?

a. Yes [    ]      b. No [    ]

4. If yes what products and at what quantities do you supply and where?

Timber Product Type	Quantity/year	Outlet supplied

5. If No, please explain why or give reasons/challenges for not selling to the domestic market?
  6. What are the comparative advantages of supply of legal products to the domestic market?
  7. Is there any additional costs in supplying legal lumber to the domestic market?
  8. What factors will motivate you to supply legal timber to the domestic market?
  9. Any final comments?
- 



## STUDY ON BOTTLENECKS TO SUPPLYING LEGAL WOOD TO THE DOMESTIC MARKET

### Questionnaire for Contractors and sub-contractors, DAs

The purpose of this survey is to determine the bottlenecks to supply and consumption of legal timber and timber products on the domestic markets. This study will assist in policy makers to determine and advocate for measures to ensure supply of legal timber and timber products to our domestic market. Your responses shall be used solely for this work and will be treated confidentially. So kindly provide honest answers to these questions. Thank you.

Enumerator

Date

**Location/area**

Region

District

Location (Name of Town/City):

Name of Contractor/Subcontractor/Official at the DAs

1. Are you aware of the public procurement policy (PPP) on timber and timber products?
  - a. Not at all aware [    ]
  - b. Slightly aware [    ]
  - c. Somewhat aware [    ]
  - d. Moderately aware [    ]
  - e. Very much aware [    ]
  
2. Are you aware of the existence of regulations on trade in legal and or sustainable timber and timber products in Ghana?
  - a. Not at all aware [    ]
  - b. Slightly aware [    ]
  - c. Somewhat aware [    ]
  - d. Moderately aware [    ]
  - e. Very much aware [    ]

3. What type of timber products do you use for your projects? (Please rank by most frequently used –1 = most patronized to 6 least patronized)

Type of lumber patronized	Tick	Rank (1 to 6 or higher)
Saw mill (legal lumber)		
Bush mill (legal lumber)		
Bush mill (illegal lumber)		
Bush cut (illegal/chainsaw lumber)		
others (specify.....)		

4. What challenges do you face in sourcing legal timber from the domestic market for your projects?

5. Are you aware of the requirement for state institutions and their contractors and subcontractors working on public projects to procure timber and timber product from legally and or sustainably harvest forest?

- a. Not at all aware [ ]
- b. Slightly aware [ ]
- c. Somewhat aware [ ]
- d. Moderately aware [ ]
- e. Very much aware [ ]

6. What is your view of this provision?

7. What do you think will be the impact of this provision on your activities in future?

8. What will be /do you foresee to be the cost involved in sourcing legal for timber for your projects including awarded government projects?

Required activities	Foreseeable cost (GHC)	Comments
Maintenance of database		
Certification/permits		
Other (specify..)		

9. What are your current operational costs in sourcing timber for your wood /timber and timber products for your projects?

Operational Activities	Cost (GHC)	Challenges/Comments

10. Can you provide us with some differential cost implications for using only legal timber and illegal timber products for your projects?

Specify an example of project (use of legal timber product)	Cost Implications (GHC)	Specify an example of project (use of illegal timber product)	Cost Implications (GHC)

Any Additional Comments

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## STUDY ON BOTTLENECKS TO SUPPLYING LEGAL WOOD TO THE DOMESTIC MARKET

### Questionnaire for TUC Holders

The purpose of this survey is to determine the bottlenecks to supply and consumption of legal timber and timber products on the domestic markets. This study will assist in policy makers to determine and advocate for measures to ensure supply of legal timber and timber products to our domestic market. Your responses shall be used solely for this work and will be treated confidentially. So kindly provide honest answers to these questions. Thank you.

Enumerator:

Date:

#### **Location/area**

Name of free zone company

Location (Name of Town/City):

Region:

1. Please indicate your level of awareness of the timber resource management and legality licensing regulations, 2017 (LI2254)
  - a. Not at all aware [    ]
  - b. Slightly aware [    ]
  - c. Somewhat aware [    ]
  - d. Moderately aware [    ]
  - e. Very much aware [    ]
  
2. Do you know of the provision that specifies the supply of lumber to the domestic market in LI2254 (Article 73)
  - a. I have never heard of this provision [    ]
  - b. I have heard of it but know nothing about its implication [    ]
  - c. I have heard of it and have moderate knowledge about it [    ]
  - d. I have heard of it and am very knowledgeable about its implication [    ]
  - e. I have heard of it and am extremely knowledgeable about it [    ]
  
3. Have you ever been directed by the minister/FC to supply legal timber products to the domestic market?
  - a. Yes [    ]
  - b. No [    ]
  
4. If yes did you comply?
  - a. Yes [    ]
  - b. No [    ]

5. If yes (in 4), what products did you supply and at what quantities did you supply and where?

Timber Product Type	Quantity	Outlet supplied

6. If no (in 4) why didn't you comply with the directive

7. To what extent do you agree with the provision that allows the minister/FC to direct TUC holders to supply legal timber products to the domestic market?

- a. Strongly disagree [   ]
- b. Disagree [   ]
- c. Neither agree nor disagree [   ]
- d. Agree [   ]
- e. Strongly Agree [   ]

8. Please give reasons for your choice in 7 above.

9. In your perception/view, how effective has this provision worked in the supply of legal timber to the domestic market

- a. Extremely ineffective [   ]
- b. Ineffective [   ]
- c. Somewhat effective [   ]
- d. Effective [   ]
- e. Extremely effective [   ]

10. Do you distribute or sell legal timber (lumber, other products) on the domestic market?

- a. Yes [   ]
- b. No [   ]

11. If yes what products and at what quantities do you normally supply and where?

Timber Product Type	Quantity	Outlet supplied (Main customers)

12. If no where do you sell your products?

13. What challenges do you face in supplying legal timber to the domestic market?

14. Please indicate the costs associated with the following activities/operations and provide any challenges/comments you may have on them

Activity	Cost (GHC)	Remarks
Forest management operations / managing TUC area		
Applying for timber rights		

Licensing of timber (products)		
Legally produced timber		
Legality licensing		
SRA		
Other (specify...)		

15. Have you ever obtained a license for your timber products for sale to the domestic market?

- a. Yes [    ]
- b. No [    ]

16. How does the length of the validity period of a permit affect your supply of timber to the domestic market?

17. Do you supply legal timber to the domestic market?

- a. Yes [    ]
- b. No [    ]

18. If no to 17, why not on the domestic market?

19. Please outline the challenges you face in the supply of legal timber to the domestic market

20. What factors will motivate you to supply legal timber to the domestic market

Any final comments:



## STUDY ON BOTTLENECKS TO SUPPLYING LEGAL WOOD TO THE DOMESTIC MARKET

### Questionnaire for Timber Markets (Retailers/Wholesalers)

The purpose of this survey is to determine the bottlenecks to supply and consumption of legal timber and timber products on the domestic markets. This study will assist in policy makers to determine and advocate for measures to ensure supply of legal timber and timber products to our domestic market. Your responses shall be used solely for this work and will be treated confidentially. So kindly provide honest answers to these questions. Thank you.

Enumerator

Date

**Location/area**

Region

Name of Market

Location (Name of Town/City):

Name of Seller

Phone Number

1. What wood products do you sell? Please tick

- a. Lumber [  ]
- b. Plywood [  ]
- c. T&G [  ]
- d. Others (please specify)

2. Where do you source your timber products from (Please tick as appropriate:

- a. Sawmill (legal) [  ]
- b. Bush mill (legal) [  ]
- c. Bush mill (illegal) [  ]
- d. Bush cut (chainsaw/illegal) [  ]
- e. others (specify)

3. Please indicate by proportion the quantity of lumber and lumber products you usually obtain from the different sources you have ticked

Type	Supply source	Proportion (%) obtained
Sawmill (legal)		
Bush mill (legal)		
Bush mill (illegal)		
Bush cut (chainsaw/illegal)		
others (specify)		

4. Are you aware of the existence of regulations on trade in legal and or sustainable timber and timber products on Ghana's domestic markets?

- a. Not at all aware [  ]
- b. Slightly aware [  ]
- c. Somewhat aware [  ]
- d. Moderately aware [  ]
- e. Very much aware [  ]

**Demand sources**

5. Who are your main customers? Please tick where appropriate

- a. Individuals [  ]
- b. Real Estate Developers [  ]
- c. Building Contractors/Contractors working on behalf of MDAs and District/Metropolitan Assembly [  ]
- d. Overland Exporters [  ]
- e. Carpenters [  ]
- f. Others (please specify)

6. Which category of customers usually demand legal timber from you? (Please rank: 1 = highest demand to 6... least demand)

Category of Customers	Rank
Individuals	
Real Estate Development	
Contractors working on behalf of MDAs and District/Metropolitan Assembly	
Building contractors	

Overland Exporters	
Carpenters	
Others (specify).....	

**Problems and expectations**

- 7. What are the challenges you encounter with sourcing legal timber to sell on the domestic market?
- 8. What problems or challenges do you face in selling legal timber on the domestic market? Please tick  where appropriate and rank (1 = most challenging issue/problem, 2.....5 least challenging issue/problem):

Problems/Challenges	Tick	Rank
Ease of access to Bush-cut lumber		
Difficulty/Irregular supply of mill-sawn lumber from sawmill		
High sawmill timber prices vis-a.-vis Consumer affordability		
Consumer preference/patronage of Bush-cut lumber due to affordability and availability		
Other problems or challenges (Please state)		

- 9. What would you suggest or recommend to promote supply of legal timber to the domestic market?

Any Additional Comments

## Appendix 2: Checklist for other identifiable stakeholders



### STUDY ON BOTTLENECKS TO SUPPLYING LEGAL WOOD TO THE DOMESTIC MARKET

#### Checklist for other stakeholders (Ministry, AGI, ABSEC, FC, etc.)

The purpose of this survey is to determine the bottlenecks to supply and consumption of legal timber and timber products on the domestic markets. This study will assist in policy makers to determine and advocate for measures to ensure supply of legal timber and timber products to our domestic market. Your responses shall be used solely for this work and will be treated confidentially. So kindly provide honest answers to these questions. Thank you.

Respondent

Date

#### **Please tell us your perceptions on the following issues:**

1. Challenges to the supply of legal timber/lumber to the domestic market (DM)
2. Effectiveness of provisions/requirements to supply legal timber to DM
3. What are the opportunities for the supply of legal timber of the DM
4. Are you awareness of FZB Act (Act 504)?
5. In your view how does Act 504 relate to supply of legal timber to DM (opportunities and challenges)
6. Are you awareness of the draft public procurement policy (PPP) on timber & timber products?
7. Assuming there is a PPP in force, what do you perceive to be the impact of the PPP on supply of legal timber to DM
8. If Contractors & subcontractors working on government projects were to source only legal timber for government projects, what do you perceive would be the impact on supply of legal timber to the DM?
9. Any additional comments?

### Appendix 3: Percentage distribution of the level of awareness of merchants in all five markets

Timber markets	Not at all aware (1)	Slightly aware (2)	Somewhat aware (3)	Moderately aware (4)	Very much aware (5)
Ofankor Timber Market	43.5	0.0	8.7	13.0	34.8
Muus Timber Market	40.0	6.7	3.3	3.3	46.67
Kwadaso Timber Market	25.0	6.3	25.0	31.3	12.5
Sokoban Wood Village	0.0	9.1	4.5	45.5	40.9
Kokompe Timber Market	68.8	3.1	9.4	6.3	12.5
Koforidua Timber Market	23.5	5.9	17.6	35.3	17.6
<b>Total</b>	<b>37.1</b>	<b>5.0</b>	<b>10.0</b>	<b>19.3</b>	<b>28.6</b>

### Appendix 4: List of Institutions and Key Informants contacted

<b>Companies/ Institutions</b>	<b>Location</b>
Tonynan Co. LTD	Spintex Road
Biriame Company LTD	Sekondi
Tallman House LTD	La - Accra
Hardans Ent.	Accra
Parkway Development	Osu
CSD LTD	Accra
Orel City Company LTD	Kasoa
Ghana Statistical Service	Accra

<b>Timber Companies</b>	<b>Location</b>
JCM	Takoradi
LLL	Kumasi
Sarmatex	Sambreboi
A & A Wood company	Kumasi
Jussack limited	Kumasi
Pan African Engineers	Kumasi
Modern Wood Technology	Kumasi

<b>Key Informants</b>	<b>Institution</b>
Mr. Dei Amoah	FC
Mr. TabiAgyarko	MLNR
Mr. Osiakwan	MLNR
Mr. Joseph Abbey	MLNR
Dr. E. Marfo	Parliament/CSIR-FORIG
Dr. L. Damnyag	CSIR-FORIG
Dr. Beatrice Darko Obiri	CSIR-FORIG
Mr. James M. Parker	ProForest





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