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POLICY BRIEF

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Challenges and Recommendations in the Industrial Tree Plantations

Wood processing is an important downstream activity of the forestry sector as it adds value to timber and promotes economic activity. Various stakeholders who benefit from processing include wood processors, farmers, seedling providers, traders, furniture makers, and other end-users of processed wood. The industry uses wood from industrial tree plantations (ITP) primarily Falcata (*Falcataria moluccana* [Miq.]) and Gmelina (*Gmelina arborea*).

In 2012, the Department of Environment and Natural Resources (DENR) shut down 94 of 119 wood processing firms in the CARAGA

Region due to their failure to obtain timber from legal sources and the government's crackdown on illegal loggers and deforesters. CARAGA is the primary producer of Falcata. The situation, however, displaced hundreds of workers in the wood processing sector in the area.

Gmelina, on the other hand, has been gaining popularity as source of raw material for the furniture industry in Regions 2 and 3. However, there is dearth of information on the supply chain of Gmelina in these regions. A better understanding of the supply capacity, as well as the constraints being faced by the upstream and

downstream players, is imperative for informed policy decisions to assist the development of the industry.

An assessment of the supply chains for Falcata and Gmelina, two of the most widely planted species in ITP, were conducted by Laureto et al. (2016) and Sarmiento et al. (2016), respectively, to provide a better understanding of the industry.

THE FALCATA INDUSTRY

Over the years, Falcata has become of great importance to the Philippine wood industry, especially in the CARAGA Region. As of 2014, the species is widely grown by more than



2,000 tree growers over an area of 25,447 hectares of slope lands and alienable and disposable lands. Falcata is primarily used for veneer and plywood manufacturing, poles, pulp, paper, furniture, wood crafts, and wood-based kitchen utensils. It has figured prominently in the National Greening Program (NGP). Falcata is used by wood processing plants (WPPs) within CARAGA and the neighboring Regions 10 and 11 as substitute for premium tree species for lumber production and the manufacture of veneer, plywood, and other wood-based products.

Domestic production of processed wood such as lumber, veneer, and plywood has not always met domestic demand, thereby inducing the importation of wood products such as lumber from Malaysia and veneer and plywood from China. The importation of wood products from China, coupled with the proliferation of smuggled China-made wood products in the market, presented serious problems not only for consumers but also for domestic WPPs and the people they employ. According to the Philippine Wood Producers Association, no less than 300–400 40-foot containers of China-made plywood

enter the country on a monthly basis with one container worth P1 million. Such volume of cheap, substandard plywood not only displaced 50% of the market share of locally produced plywood but more seriously, has displaced domestic labor. For every container of plywood entering the country, about 16 local workers are displaced. This also results in huge losses in government revenues from import tax, value-added tax, and other environment-related taxes.

In terms of exports, forest-based exports consist mainly of lumber, 72% of which is made from Falcata. China is the major recipient of these lumber exports, rendering the entire wood industry vulnerable to market fluctuations in the Chinese market. For example, when China stopped buying lumber in the middle of 2014, the lumber industry crashed which heavily impacted small saw-mill operators.

Similarly in 2013, lumber production has increased fourfold following a rapid increase in demand of lumber for export, also for China. The high export demand for lumber products competed with the domestic demand of logs for the production of other wood products (e.g., plywood),

thereby driving prices of Falcata logs upwards. While the price increase might have been profitable to some industry players (i.e., Falcata growers, log suppliers, and lumber producers), the situation had severely affected other domestic players, particularly plywood and veneer producers.

THE GMELINA INDUSTRY

Gmelina is another important ITP species. It is primarily used for pulpwood production. The round timber is used for posts, house timber, and poles, while rotary cut veneers are utilized for plywood. It has been gaining popularity because of its usefulness as substitute for banned forest wood, particularly for use in the furniture industry in Regions 2 and 3. Smallholder tree growers in these regions could potentially benefit from the increasing commercial interest in this tree species.

The actual supply and demand situation for Gmelina in Regions 2 and 3 remains unclear. Secondary data suggest that there is a continuing supply gap. However, interviews with upstream (farmers and nursery owners) and downstream (agents, furniture makers, etc.) players reveal conflicting situations. The Gmelina cooperative plantations in Nueva Ecija have received support from DENR but attest to difficulties of disposing their matured trees due to highly stringent cutting permits and weak demand for Gmelina seedlings. In Tarlac, farmers were awarded lands by DENR for reforestation purposes and were encouraged to plant Gmelina for the local association of furniture makers.

Downstream informants claimed that there was no consistent and fixed demand for Gmelina and that other



Falcata seedlings.

wood varieties are still preferred. However, furniture makers, saw-mill operators, and sash factories insisted on a growing and unmet demand.

Perceptions on the supply-demand situation also differ across regions/provinces. Customers reported that their log requirements are mostly sourced within the region/province where they operate, except for a few larger-scale manufacturers which then source additional supply from other region/province such as Kalinga and Apayao and even as far as Mindanao. Thus, while there appears to be enough supply of Gmelina and the demand is growing, there is a serious disconnect among key players in the supply chain which restricts the potential of the sector to expand.

POLICY ISSUES ALONG THE ITP SUPPLY CHAIN

The ITP supply chains are beset with issues ranging from production, marketing and logistics, and policies. Production problems pertain to smallhold production areas and limited access to inputs such as capital and availability of good quality seedlings. Market-related issues include lack of market information resulting to intermediaries setting prices to their advantage. Poor means of transportation, mostly involving the use of draft animals and poor roads, exacerbated by unfavorable weather conditions, result to prolonged transport of logs and high cost of transportation. Middlemen, whose roles are to ensure log requirements of the WPPs by arranging sales agreements with tree growers are considered facilitators. However,



Gmelina nursery in Isabela.

they are not easily identifiable as most of them operate without proper licenses.

Unclear policy implementation governing the production side and the seeming conflicting policies that govern the demand side hinder the efficiency of the supply chains. From the supply side, a farmer is required to get clearance from DENR before a permit to cut is issued. However, before a clearance is issued, an inventory of the trees needs to be conducted and the title of land ownership must be established. Such requirements make it difficult for farmers to get permits to cut. Respondents narrated problems in acquiring permits which include long processing time, costs to fulfill certain requirements, inadequate knowledge in the value chain, and limited understanding on why they need to acquire permit to harvest wood which they themselves planted.

Executive Order (EO) 23, which declared a moratorium on the cutting and harvesting of timber from the natural and residual forests

and created the anti-illegal logging task force, governs the workings of the domestic wood industry. To ensure the legitimacy of log sources, WPPs are required to furnish five-year log supply contracts with legal sources (i.e., registered/legal tree growers). While this requirement allows some form of transparency and traceability in the supply chain, the contracts appear to be not completely binding and are in any case bound to be breached. Owing to DENR's Memorandum Order (DMO) No. 99-20, log suppliers are given the freedom to sell their logs to the highest bidder, which may or may not be the WPPs they have contracted with. This creates uncertainty for WPPs and, combined with the absence of direct contact between growers and WPPs, paves the way for the proliferation of middlemen in the supply chain.

Considering the above issues, there are possibilities of illegal practices and arbitrage opportunities at every tier in the supply chain. In the procurement of permits alone, circumvention, red-tapes/bribing to faking of permit documents are rampant but not documented.

Another problem with the supply contracts is the cost associated with it which is shouldered by WPPs. Accomplishing a log supply contract could be hundreds of thousands to millions in worth depending on a WPP's annual log requirement. Since the contract is to be renewed every five years, these costs accumulate. Combined with other transaction costs and information asymmetries, price distortions and market arbitrage likely exist in the supply chain.

RECOMMENDATIONS

To enable the ITP industry to realize its significant economic contributions particularly in providing employment and increasing rural incomes, the challenges in the supply chain must be attended to. The PCAARRD Industry Strategic Science and Technology Program for ITP addresses many of these concerns. On the policy issues, the following are advocated:

1. To protect the interest of the WPPs and tree farmers, there is a need to review DMO 99-20 and EO 23 and provide a

consistent policy in the marketing of cut logs. There is also a need to promote a rewarding environment for the wood industry players with legitimate transactions.

2. To deter illegal practices, implementation protocols of related policies have to be reviewed for standardization purposes and an effective control system has to be devised. Reforms should include intensive information dissemination to tree farmers, intensive education of DENR employees who are tasked to implement policies, and more transparent guidelines to establish ITP farms and harvest trees.
3. To improve transparency in the supply chain, guidelines for contract tree farming must be

formulated. There is a need to catalyze a coordinated response plan to managing the problems in the wood industry to strengthen existing wood industry organizations and farmer groups. Contract tree farming can help farmers have stable incomes by reducing production risks and ensuring a steady demand of logs from wood processing firms.

Streamlining permit processes to improve transparency in the supply chain is fundamental and deters illegal transactions. All these lead to inefficient allocation of resources and address many of the logistic issues in the supply chain.

EDITOR'S NOTE

This advocacy communication material relied heavily on the results of the following PCAARRD-funded projects:

Supply Chain Improvement for Gmelina in Regions 2 & 3. By Sarmiento, G.P. (NVSU) and Recto, M.S. (CLSU). 2016.

Supply Chain Improvement of Falcata in Selected Regions in the Philippines (Phase 1: Evaluation Research) by Laureto, A.S. (CMU), Balanay, R.M. (CSU), Laorden, N.L.(UPM) and Piquero A.P. (CMU). 2016.

POLICY BRIEF highlights DOST-PCAARRD's stance on policy issues on S&T in agriculture, aquatic, and natural resources through the coordination of the *Policy Advocacy Group (PAG)*. The PAG spearheads policy and advocacy related to PCAARRD Medium-term Plan.

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