

South Korea Market Potential Analysis for Forestry Products

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ABSTRAK

The use of wood as a high-value product does not stop there. Paper, furniture, carbon, and rubber are examples of other non-wood forestry products that we often encounter in everyday life but come from forests. The purpose of this study is to analyze the potential of the South Korean market for forestry products. In this study, we use qualitative methodology to understand and evaluate the opportunities and problems faced by Indonesian forestry products, as well as the global market potential for these products. The potential for Indonesian wood commodities and wood products to enter the South Korean market which has minimal domestic supply still has great potential. With abundant supply, offering quality, competitive prices and guaranteeing the required legal documents, it is believed that Indonesia has the opportunity to answer the needs of wood and wood products in the South Korean market in the future

INTRODUCTION

With various forms and methods of value-added management, wood and its derivative products are one of the first natural resources used by ancient humans until now so that its position and role in human life are difficult to replace (Sukmayana, 2023). Its very abundant reserves and relatively low-cost management are the main factors why wood is the main choice for energy fuel and basic building structures. The use of wood as a high-value product does not stop there (Korea Forest Service, 2014). Paper, furniture, carbon, and rubber are examples of other non-wood forestry products that we often encounter in everyday life but come from forests. However, of course not all countries have the rights or access to these resources in large quantities (Fauzi, H., M. Aryadi, 2014).

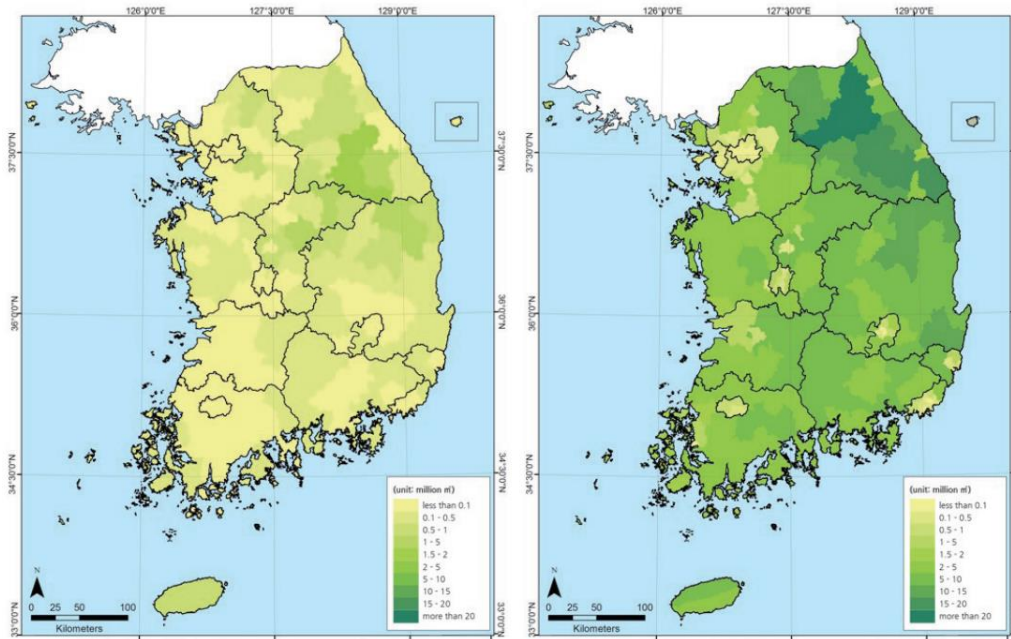


Apart from Japan, South Korea is one of the countries in East Asia that is a favorite export destination for forestry products, both wood and non-wood. Due to the limited land area covered with forestry products, South Korea must rely on imports to meet domestic needs (Al Qossam, 2019). After this pandemic, South Korea is predicted to continue to rise along with the increasingly rapid movement and development of the industrial sector in this country nicknamed the Asian Tiger. Among the industrial sectors in South Korea, the one that has experienced fairly consistent growth from year to year is the construction and furniture industry (Sukmayana, 2023). The reason is because development is always ongoing in this country, regardless of the economic slowdown that has hit the global market.

	2019	Trade balance	Market share
Dunia	140,701,511	5,526,816	100
China	21,976,659	8,560,830	15.6
Amerika Serikat	19,305,368	11,024,823	13.7
Jepang	10,682,927	10,365,281	7.6
Jerman	7,786,999	1,294,133	5.5
Inggris	7,400,907	6,812,156	5.3
Perancis	4,580,632	1,755,591	3.3
Italia	4,400,139	2,229,529	3.1
Belanda	4,110,722	2,332,244	2.9
Austria	3,219,378	2,225,483	2.3
Korea Selatan	3,114,628	3,027,216	2.2

Based on the table above, it can be concluded that among the countries importing wood products and their derivatives, South Korea is ranked 10th with total imports of these commodities of US\$ 3.11 billion in 2019. Although its consumption is far below other superpowers such as China and the United States, it can be traced that its trade balance for wood and non-wood forestry products has a very large deficit due to the limited resources for export.

Geographically, the Korean Peninsula was initially covered by forest areas and the lowland areas were not that large, around 22% of the total area. The proportion of forests in South Korea is quite large, which is around 63.35% (according to World Bank data in 2016). However, this figure did not come by itself. Much deforestation occurred during the period of Japanese imperialism from 1910 to 1945, followed by the Korean War from 1950 to 1953, causing severe damage to South Korea's forests. In 1973, the government established a 10-year forest development program phase 1 after inaugurating the Korea Forestry Service (KFS) in 1967, an agency that manages forests, their products and certification (south korean, 2023).



Forest map 1963

Forest map 2013

Although the condition of forests in South Korea has now improved significantly, the main reason why South Korea does not export forestry products is because the forests planted in the government's forest development program are still relatively young (Stangarone, 2020). In addition, due to the adaptation to the climatic conditions and hilly geographical conditions, only thin-stemmed and spaced pine trees are suitable for planting. This type of tree has a relatively lower selling value compared to the quality of tropical forest products (Ko Dong-hwan, 2020). Another reason is that with the success of the 10-year forest development program that has been running for the past 40 years, the government has launched a program to protect the limited number of domestic forests in order to ensure good air quality for its citizens. Moreover, with the onslaught of fine dust (미세먼지) that has always appeared in early spring for the past few years (Makmun, 2020). Reflecting on the above, it can be estimated that the South Korean government will continue to rely on imports of wood products.

METODOLOGY

In this study, we use qualitative methodology to understand and evaluate the opportunities and problems faced by Indonesian forestry products, as well as the global market potential for these products. Qualitative methods allow us to go further. attitudes, opinions, and experiences of various forestry industry players, such as government officials, indigenous peoples, and timber business owners. The purpose of this exploratory research is to find and understand several aspects that influence the global market prospects of products in the Korean market.

RESULT

Imports of South Korean wood products have their own obstacles. As a developed country, South Korea is required to be more responsible for the environment, especially because its manufacturing industry absorbs a lot of energy, which also still relies on fossil fuels (Korea Forestry Promotion Agency, 2022). The government's agenda is to build as many environmentally friendly renewable energy power generation facilities and infrastructure as possible in this period so that they can be fully utilized in the next few years. Meanwhile, domestic energy needs will still be met by the consumption of fossil fuels such as LNG, coal and nuclear power (Science, 2023).

Nevertheless, the potential for wood pellets, wood chips and wood charcoal products has the potential to be a substitute for coal to meet the need for environmentally friendly energy that has been needed by South Korea (Agriculture, 2023). Wood pellets provide benefits to Korean society in general in addition to providing energy. The majority of wood pellets are used in heating systems for individual homes and greenhouses. Government regulations encourage ecologically beneficial behavior, therefore it is natural that the use of wood pellets by the community will also increase significantly (Calo-Blanco & Naya, 2005).

From the construction industry, with limited land that can be used for the construction of residential, commercial and industrial buildings, the growth of the South Korean construction and property industry has shifted to the construction of high-rise buildings that utilize concrete as foundations and supporting pillars, causing a decrease in the number of traditional landed house constructions that use a lot of wood (Indonesian Trade Promotion Center (ITPC) Busan, 2021). However, the trend shows that more than half of South Koreans who live in high-rise buildings (apartments, villas, officetels) actually want a more natural interior feel so that they tend to fill their homes with non-metal furniture, leaving room for wood and non-wood forestry products to meet the demands and needs of the South Korean people (Jade Saunders and Marigold Normanfile:///C:/Users/HP/Downloads/httpsilk.dephut.go.id/index.php/about.txt, 2018).

Countries	2018	Changes	2019	Changes
TOTAL	3,787,700	10.4	3,114,119	17.8
Vietnam	789,211	55	654,243	17.1
China	490,509	8	434,887	11.3
Indonesia	458,360	27	421,526	8.0
New Zealand	335,829	7	258,867	22.9
Malaysia	311,379	9	202,745	34.9
Thailand	271,558	27	187,363	31.0
Russia	167,958	8	143,654	14.5
Chile	141,449	4	133,104	5.9
Canada	166,426	17	100,780	39.4
USA	111,326	8	88,688	20.3

Above is a table of South Korean wood product imports from the world in 2018-2019. It is reflected that there was a significant decline in 2019 due to the global economic slowdown after 2018, the trade war between China and the United States, causing countries that are closely affiliated with the United States and China to experience major economic impacts. However, Indonesia's position as one of the suppliers of wood products to South Korea is ranked 3rd, not too far from Vietnam and China.

If we look further based on product type, here are the 15 types of wood products that South Korea imports the most from the world. (Values in thousands of US\$

Source : www.kita.org (processed)

HS code	Description	2018		2019	
		Value	Changes	Value	Changes
TOTAL		3,787,700	10.4	3,114,119	17.8
4412.31	Plywood, veneered panels and similar laminated wood; With at least one outer ply of tropical wood	520,682	22.7	451,579	13.3
4401.31	Wood pellets	521,771	86.1	362,283	30.6
4407.11	Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6 mm; Of pine (<i>Pinus</i> spp.)	324,148	4.5	270,939	16.4
4403.21	Of pine (<i>Pinus</i> spp.), of which any cross-sectional dimension is 15 cm or more	227,235	18.8	189,419	16.6
4410.11	Particle board	214,592	9.4	148,883	30.6
4407.19	Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6 mm; Other	168,298	3.6	122,283	27.3
4407.12	Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6 mm; Of fir (<i>Abies</i> spp.) and spruce (<i>Picea</i> spp.)	116,007	4.2	119,258	2.8
4402.90	Wood charcoal (including shell or nut charcoal), whether or not agglomerated; Other	121,866	12.2	110,109	9.6
4412.33	Other, with at least one outer ply of non-coniferous wood of the species alder (<i>Alnus</i> spp.), ash (<i>Fraxinus</i> spp.), beech (<i>Fagus</i> spp.), birch (<i>Betula</i> spp.), cherry (<i>Prunus</i> spp.), chestnut (<i>Castanea</i> spp.), elm (<i>Ulmus</i> spp.), eucalyptus (<i>Eucalyptus</i> spp.), hick	76,873	94.0	104,687	36.2
4409.22	Wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, V-jointed, beaded, moulded, rounded or the like) along any of its edges, ends or faces,	73,358	66.7	79,797	8.8

	whether or not planed, sanded or end-jointed; Of tropical wood				
4401.22	Fuel wood, in logs, in billets, in twigs, in faggots or in similar forms; wood in chips or particles; sawdust and wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms; Non-coniferous	66,349	4.6	75,701	14.1
4412.99	Plywood, veneered panels and similar laminated wood; Other	92,695	13.3	74,019	20.1
4403.25	Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared; Other, of which any cross-sectional dimension is 15 cm or more	84,394	11.6	65,567	22.3
4409.29	Wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, V-jointed, beaded, moulded, rounded or the like) along any of its edges, ends or faces, whether or not planed, sanded or end-jointed; Other	70,331	24.0	54,082	23.1
4419.90	Tableware and kitchenware, of wood; Other	55,024	4.5	49,157	10.7

Meanwhile, the following are the 15 wood products that are most imported from Indonesia.
(Value in thousands of US\$)

HS code	Description	2018		2019	
		Value	Changes	Value	Changes
TOTAL		458,360	26.5	421,526	8.0
4412.31	Plywood, veneered panels and similar laminated wood; With at least one outer ply of tropical wood	241,004	37.4	217,994	9.5
4409.22	Wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, V-jointed, beaded,	58,549	60.9	66,354	13.3

	moulded, rounded or the like) along any of its edges, ends or faces, whether or not planed, sanded or end-jointed; Of tropical wood				
4401.31	Wood pellets	31,463	129.2	31,936	1.5
4402.90	Wood charcoal (including shell or nut charcoal), whether or not agglomerated; Other	29,114	1.7	26,884	7.7
4409.29	Wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, V-jointed, beaded, moulded, rounded or the like) along any of its edges, ends or faces, whether or not planed, sanded or end-jointed; Other	26,586	41.2	15,896	40.2
4410.11	Particle board	12,400	663.1	14,533	17.2
4412.34	Plywood, veneered panels and similar laminated wood; Other, with at least one outer ply of non-coniferous wood not specified under Subheading 4412.33	20,102	10.5	8,960	55.4
4412.94	Blockboard, laminboard and battenboard	10,409	13.7	8,872	14.8
4418.20	Builders, joinery and carpentry of wood, including cellular wood panels, assembled flooring panels, shingles and shakes; Doors and their frames and thresholds	5,803	1.5	7,196	24.0
4418.75	Builders, joinery and carpentry of wood, including cellular wood panels, assembled flooring panels, shingles and shakes; Other, multilayer	3,028	14.8	3,365	11.2
4421.99	Clothes hangers; Other	1,966	37.2	3,364	71.1
4419.90	Tableware and kitchenware, of wood; Other	2,160	108.7	2,501	15.8
4418.99	Builders, joinery and carpentry of wood, including cellular wood panels, assembled	1,659	35.9	2,451	47.7

	flooring panels, shingles and shakes; Other				
4407.29	Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6 mm; Coniferous	1,353	8.8	1,475	9.0
4409.10	Wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, V-jointed, beaded, moulded, rounded or the like) along any of its edges, ends or faces, whether or not planed, sanded or end-jointed; Coniferous	1,674	61.0	1,423	15.0

Sumber : www.kita.org (diolah)

According to the World Resources Institute report in 2018, Indonesia has the 3rd largest tropical forest area in the world but is ranked 2nd for deforestation (News, n.d.). Knowing this, South Korea together with many other importing countries have implemented environmental protection programs by implementing the Act on the Sustainable Use of Timbers issued by the Korea Forest Service and ratified on October 1, 2018. The goal is none other than to ensure that wood and/or wood products imported by South Korea are planted, managed and cut legally in accordance with the laws in force in the exporting country (Dwiprabowo et al., 2017). It lists 7 types of products that are required to have verification letters from the country of origin in order to enter South Korea and be used or traded. These products include:

1. *Log* (HS 4403)
2. *Sawn timber* (HS 4407)
3. *Anti-decay wood* (HS 4407)
4. *Fire-retardant-treated wood* (HS 4407)
5. *Laminated wood* (HS 4407)
6. *Plywood* (HS 4412)
7. *Wood pellet* (HS 4401.31)

For the case of Indonesia, the required documents are issued by the Indonesian Forestry Certification Cooperation (IFCC). The required documents are:

1. Logging permit issued by the country of origin
2. Documents that are internationally recognized as certification that the felled wood and/or wood products are legal, namely:

- A. Forest Management Certificate issued by the FSC (Forest Stewardship Council) Indonesia
 - B. Forest Management Certificate issued by PEFC (Program for Endorsement of Forest Certification)
 - C. Certificates issued in accordance with the Indonesian wood product certification system, in this case SVLK (Timber Legality Verification System) issued by the Ministry of Environment and Forestry of the Republic of Indonesia
 - D. Documents issued in accordance with international certification systems (including third-party certification under ISO 17065) for sustainable biomass use
3. Documents that are mutually recognized by South Korea and Indonesia through bilateral consultations
4. Other documents stating that the felled wood and/or wood products are legal, such as:
- A. Sertifikat yang dikeluarkan sesuai dengan sistem manajemen established by the exporting country under the Forest Law Enforcement, Governance and Trade-Voluntary Partnership Agreement (FLEGT-VPA) operated by the European Union
 - B. Export permits verifying that the timber and/or timber products have been legally harvested in accordance with the laws of the exporting country
 - C. Documents with official stamps or signatures from the government of the exporting country or its delegated agents, including transport permits and packing lists
 - D. Documents written and signed by the exporter stating that the exporting country has laws and systems that prohibit illegal logging and other illegal businesses
 - E. Other documents that can prove that the exported timber and/or timber products have been legally harvested

In the Asia Pacific region, South Korea is a market for wood and non-wood with a very significant value for Indonesia's export value. Indonesia benefits from having a European standard FLEGT permit since November 2016 and has a stable market in Europe, America and Australia (Cho & KEEL, 2018). However, if imported wood and/or wood products are found to not have the required complete documents, the goods are still allowed to enter South Korea but are not allowed to be withdrawn, used and traded until all documents are complete. The Korea Forest Service (KFS) in collaboration with local governments has the authority to conduct inspections and investigations into importing companies if irregularities and indications of illegal logging are found and has the legal power to impose fines of up to US\$ 30,000 or a maximum prison sentence of 3 years (Forest, n.d.).

South Korea is also one of a number of developed countries that implement strict non-tariff protection programs (NTB), including import bans, restrictions on the number or volume of imports, import taxes, import practices by countries and the application of high standards. However, in general, most of these protection programs are imposed on agricultural, fishery and marine products where

South Korea has relatively large production capabilities and consumption levels. Meanwhile, wood and wood products are types of commodities where South Korea does not have the production capacity to match its consumption levels so that it is not required to protect domestic producers. Increased consumption of wood pellets and decreased production of wood pellets in South Korea Indonesian wood pellet producers have great opportunities here. In addition, the price of Indonesian wood pellet products is also competitive when compared to many other wood pellet products (Forestry, 2019). among others, different from a number of other exporting countries including Malaysia, Vietnam, Canada, America, etc. The trade cooperation agency that is now established between Korea and Indonesia can be utilized by Indonesian wood pellet entrepreneurs. Trade cooperation organizations between Korea and Indonesia include KOTRA and KOICA. The Ministry of Trade has also established offices in South Korea, including the Indonesian Trade Attaché at the Indonesian Embassy in Seoul and the Indonesian Trade Promotion Center (ITPC) in Busan, to gather information on trade and markets in the country.

DISCUSSION

It is undeniable that many types of wood products experienced a drastic decline in imports in 2019. Plywood products, which contributed 52.6% of South Korea's total wood product imports in 2018, shrank by 9.5% in 2019. Wood strips for flooring made from other materials (HS code 4409.29) also fell by 40.2%, but wood strips for flooring made from tropical wood (HS code 4409.22) increased by 13.3%. What needs to be noted is that for the wood strip category (HS code 4409), Indonesia ranks first, far behind China, Malaysia and Estonia and dominates 49.9% of the market for this product. This indicates that wood strips from Indonesia are recognized and accepted in South Korea because of their uniqueness which is difficult to find in local wood producers. In addition, wood pellets are still growing with a slight increase of 1.5% when overall imports of South Korean wood products are falling. In the energy sector, South Korea is one of the developed countries that focuses heavily on manufacturing machine tools and electronics but does not turn a blind eye to environmental sustainability (Indonesian Trade Promotion Center (ITPC) Busan, 2021).

South Korean society upholds Eastern customs that uphold the importance of health and safety so that the pressure from society on the government to improve their quality of life is also very great. Coal is one of the oldest, most abundant, cheapest energy sources and its waste is classified as the most dangerous. Its massive use has had a negative impact on the health of the South Korean people whose average age is relatively no longer young.

Therefore, since 2014, South Korea has begun to look at alternative coal energy fuels that are burned but are more environmentally friendly, namely wood pellets, wood chips and wood and non-wood charcoal. Vietnam saw the potential of wood products as a renewable energy source sought by South Korea and was very aggressive in offering its wood fuel products, causing Indonesia, which was late in entering the relatively new market at that time, to lose momentum to become a market share leader.

Opportunities became more open with the introduction of the "The Green New Deal" program by the President-elect for the 2nd term of South Korea, President Moon Jae In in April 2019. The Green New Deal program has a short and clear mission: low carbon, green growth - low carbon, green / environmentally friendly growth. As a result, 80% of programs in President Moon's 2nd term focused on environmentally friendly projects such as renovating government buildings, creating urban forests, providing incentives for recycling, encouraging associations that are related to renewable energy products, and facilitating access to opening low-emission industrial complexes. In addition, other policy packages include carbon taxes and the elimination of coal subsidies as an energy source.



With such projections, the potential for Indonesian coal exports to South Korea will not last long, after which South Korea will focus on renewable energy. Even if examined further, it is known that although a third of South Korea's energy is generated from coal combustion, the environmental and social impacts they face are much greater. Therefore, wood fuel products (wood pellets, wood chips, coconut charcoal, sawdust charcoal, rice husk charcoal, charcoal briquettes, etc.) as a substitute for coal will increase slowly but surely in the future. Plywood (HS code 4412) is also a major contributor to South Korea's wood product imports. Judging from the data for the last 10 years, only 2015 and 2019 were recorded as having decreased imports. Even in the midst of the pandemic, imports from January to May 2020 (US\$ 943 million) have recorded a figure greater than the import figure from January to May 2019 (US\$

933 million). Assuming that this year the pandemic can be controlled, the prediction for 2020 is that plywood imports will rebound and in the future show a promising increase in value.

Woodworking products and home building materials (builders' joinery and carpentry of wood - HS code 4418) also showed import performance similar to plywood. By posting a figure of US\$ 78.7 million, the acquisition of the first 5 months of 2020 has exceeded the acquisition of the first 5 months of 2019, which was US\$ 73.2 million. Indications show that this year will record an increase in imports compared to the previous year (Forestry, 2019).

Produk kayu lainnya yang mungkin bisa ditawarkan adalah peti, kotak, krat, drum, palet dan pengemas lain dari kayu (*packing cases, boxes, crates, drums, pallets and similar packings from wood* - kode HS 4415) mengingat permintaan sejak tahun 2015 selalu menunjukkan peningkatan yang signifikan. Hal ini didukung dengan terus melambungnya angka penjualan retail *online* dalam negeri sebesar 13,2% and tren positif berdasarkan data 5 tahun terakhir (Sucindo, 2020).

In the particle board product line (HS code 4410), Indonesia must break the dominance of products from Thailand which control more than 70% of the South Korean market. However, Thailand's exports to South Korea experienced a drastic decline of 32.1% in 2019, while Indonesia's actually soared 17% to record US\$ 14.5 million in the same year (Trade, 2022). Wooden tableware such as cutting boards, chopsticks, spoons, forks, glasses, straws, etc. (tableware and kitchenware of wood - HS code 4419) from Indonesia are also starting to be popular, as shown by an increase of 12.7% from US\$ 2.3 million to US\$ 2.6 million in 2019. Although far below the revenue of Chinese products which recorded US\$ 44 million in 2018, China experienced a decline of 6.8% for this product, recording only US\$ 41 million in 2019. This indicates that the Chinese market can be eroded by offering consistent and better quality assurance.

CONCLUSION

In general, it can be concluded that the potential of Indonesian wood and wood product commodities to enter the South Korean market which has minimal domestic supply still has great potential. With abundant supply, offering quality, competitive prices and guaranteeing the required legal documents, it is believed that Indonesia has the opportunity to answer the needs of wood and wood products in the South Korean market in the future. Recommendations for further research are to develop other sources of materials in the growth of the market in Indonesia,

FURTHER STUDY

For further research, it is hoped that other indicators will be examined further as supporting factors for the potential of wood commodities in Indonesia.

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