

This report was prepared by GGSC, with support of ITTO and IPIM, and Focal Points of Indonesia, Malaysia, Gabon, Republic of Gongo, Brazil, Mexico, and China.

















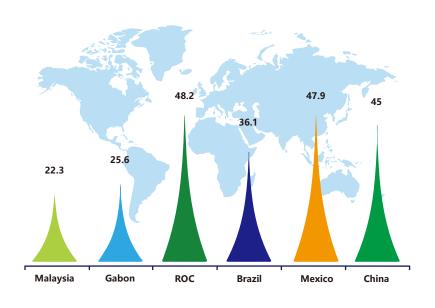






Overview of the GTI Index

In November 2022, the Global Timber Index (GTI) report showed that due to the global economic contraction, the decline in international demand. and the rainy season in Africa, the GTI index of timber producing countries such as Malaysia, Gabon, Republic of the Congo, Brazil and Mexico were below the critical level of 50%, which represents that the prosperity of timber production and operation this month shrink from last month. On the supply side, harvesting and production volume in the above timber producing countries were declining, and struggling with insufficient international orders and increasing fuel costs. GTI participating enterprises



from Malaysia and Brazil reported the impact of exchange rate fluctuations on the market competitiveness of their timber products. China, as one of the greatest timber importer and processing countries, personnel employment and logistics operation have been hindered, and the production activities of timber enterprises have slowed down accordingly due to pandemic. The GTI-China Index registered 45% this month, indicating that the operation of the superior timber enterprises represented by the GTI-China Index has contracted from last month. Detailed data and analysis were shown in the GTI report of pilot countries.

Acknowledgement

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Focal points:
Malaysia:
Ministry of Plantation Industries & Commodities (MPIC)
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Indonesia:
Sustainable Forest Management of the Ministry of Environment and Forestry
Gabon:
Ministry of Water and Forests, the Sea, the Environment, Responsible for the Climate Plan and Land Use
Gabon
Republic of the Congo:
Ministère de l' Economie Forestière
Brazil:
STCP
Mexico:
National Forestry Commission of Mexico/Comisión Nacional Forestal (CONAFOR)
China:
Global Green Supply Chain Initiative (GGSC)

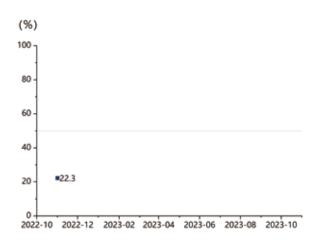


GTI-Malaysia Index in November 2022

Since 2022, Malaysia's economic development has shown strong vitality, benefiting from the release of domestic demand brought about by relaxed epidemic prevention, strong export demand for mechanical and electrical products and the recovery of tourism services. According to the data released by the Central Bank of Malaysia, Malaysia's gross domestic product (GDP) grew by 14.2% year-on-year in the third quarter (-4.5% in the same period last year, with a negative base effect in the same period last year). Under the relaxed internal and external economic development environment, Malaysia's timber industry has also shown a positive development trend. From January to June 2022, Malaysia's total timber exports reached 13.2 billion ringgit (about 20.16 billion RMB), an increase of 13.79% over the same period last year's 11.59 billion ringgit.

In November 2022, affected by the upstream rainy season and the decrease of orders, the development of timber industry slowed down, and the problems of insufficient supply of raw

GTI-Malaysia Index



materials, rising prices, labor shortage and increasing production and operation costs more prominent. This month, the GTI-Malaysia Index registered 22.3%, which is below the critical value (50%), indicating that the business prosperity of the superior timber enterprises represented by the GTI-Malaysia Index has decreased from the previous month.



Challenges

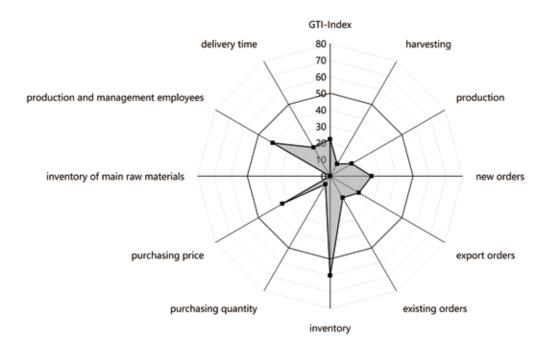
- Insufficient orders and reduced export orders.
- Risen price of raw materials.
- Shortage of labors.
- Slow acquisition of orders, reduced harvest and production, and increased in operating costs.
- Weak currencies of exporting countries and large inventories.
- Increased production cost and transportation cost.
- Insufficient raw materials and increased costs.
- Lower market activity due to (upstream) rainy season.

Suggestions

- Open up the international market and look for relatively cheap labor.
- Strict control of production cost.
- The exchange rate of the exporting country cannot be controlled, so it is suggested to adjust the production volume.
- Reduce the export of wood chips/acacia (based on quota).
- The government apartments adjust the timber tariff and freight.
- Increase harvest and output of plantations.

GTI-Malaysia sub-index

As for the GTI-Malaysia index, in November 2022, only the inventory of finished goods index was above the critical value (50%), while the remaining 10 sub-indexes were below the critical value.

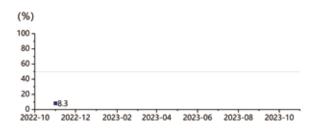


GTI-Malaysia sub-index

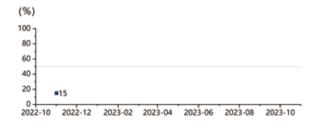
Global Timber Index



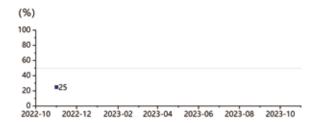
The harvesting index registered 8.3%, which is below the critical value, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-Malaysia is decreased sharply this from the previous month.



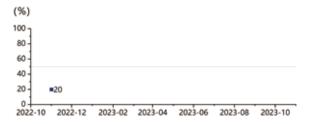
The production index registered 15.0%, which is below the critical value, indicating that the production volume of the superior timber enterprises represented by the GTI-Malaysia is decreased sharply from the previous month.



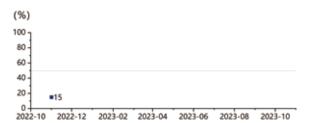
The new orders index registered 25.0%, which is below the critical value, indicating that the number of new orders of the superior timber enterprises represented by the GTI-Malaysia is decreased from the previous month.



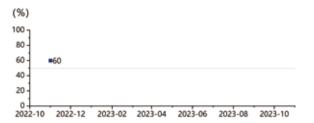
The export orders index registered 20%, which is below the critical value, indicating that the number of export orders of the superior timber enterprises represented by the GTI-Malaysia is decreased from the previous month.



The existing orders index registered 15%, which is below the critical value, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-Malaysia is decreased from the previous month.

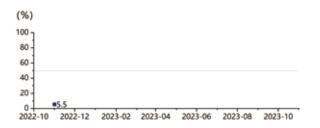


The inventory index of finished products registered 60%, which is above the critical value, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-Malaysia is more than that of last month.

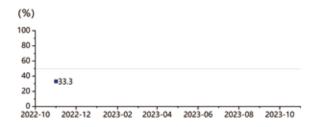




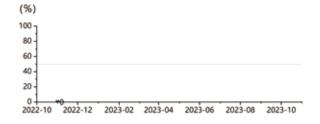
The purchasing quantity index registered 5.5%, which is below the critical value, indicating that the purchasing quantity of the superior timber enterprises represented by the GTI-Malaysia is decreased from the previous month.



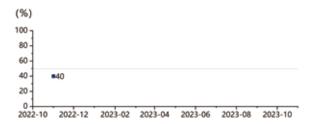
The purchasing price index is 33.3%, which is below the critical value, indicating that the purchasing price of the superior timber enterprises represented by the GTI-Malaysia is decreased from the previous month.



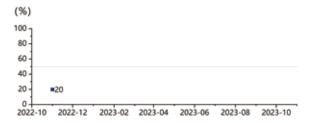
The inventory index of main raw materials index registered 0%, which is below the critical value, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-Malaysia this month all decreased compared with the previous month.



The production and management employees index registered 40%, which is below the critical value, indicating that the number of production and operation employees of the superior timber enterprises represented by the GTI-Malaysia is decreased from the previous month.



The delivery time index registered 20%, which is below the critical value, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-Malaysia has slowed down compared with the previous month.



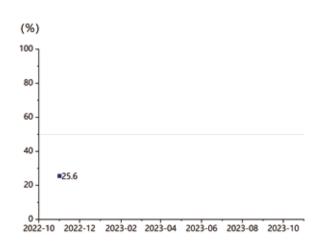


GTI-Gabon Index in November 2022

Gabon is rich in natural resources, with mineral deposits such as oil, forests and manganese ore, and is a major producer of oil, manganese ore and timber in Africa. In the first quarter of 2022, benefits from rising oil prices, oil exports amounted to 953.5 billion CFA (about \$1.4 billion), increased by 145% from a year earlier, making it an important driving force for economic growth, according to data released by Gabon Economic and Finance Department. During the same period, Gabon's non-oil exports increased by 55.1% year-on-year to 323.1 billion CFA (about \$477), of which timber exports increased by 120% to 194.7 billion CFA (about \$287). According to the Global Economic Outlook Report released by the International Monetary Fund (IMF) in October, Gabon's economic growth rate is expected to reach 2.7% in 2022 and 3.7% in 2023, benefiting from the growth of non-oil economic.

In the second half of 2022, the development of Gabon's timber industry slowed down due to the contraction of the global market. In November, under the influence of the rainy season the decline in market demand and the rise in fuel

GTI- Gabon Index



prices, the prosperity of production and operation of timber enterprises declined. In addition, Gabon's timber enterprises are struggling with poor road conditions and insufficient freight carriages. This month, the GTI-Gabon index registered 25.6%, below the critical value (50%), indicating that the business prosperity of the superior timber enterprises represented by the GTI-Gabon index has declined compared with the previous month.

Global Timber Index



Challenges

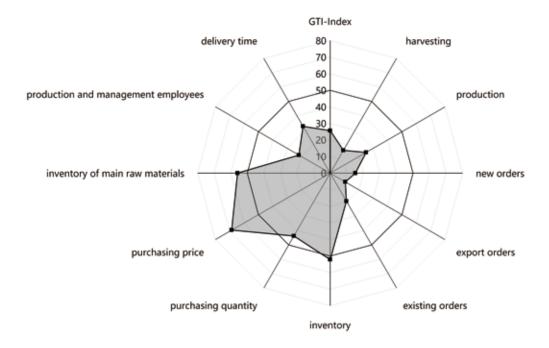
- Insufficient log supply, high prices of industrial diesel oil, no forestry business license.
- Insufficient orders.
- Rising diesel prices.
- Poor road condition for transportation.
- Product sales are blocked.
- Backlog of products, shortage of freight cars, poor road conditions in the rainy season, and a sharp rise in production costs.
- Order cancellations caused by depressed global market.
- Rainy season affects production and operation
- Poor road condition, land tax increases the cost of enterprises.
- Reduced customer demand and shrinking market.
- Depressed timber market.
- Rising fuel prices.
- Reduced market demand for raw materials.

Suggestions

- Obtain forest permits and reducing the diesel prices.
- Adjust the diesel prices.
- Wait for the dry season.
- Strengthen the traction capacity of SETRAG for timber products and emergency production evacuation plan. Reduce tariffs for producers and raise tariffs to the public level. National compensation to support enterprises.
- Waiting for the recovery of the global market.
- The government provides financial support for road maintenance (possibly compensated by the payment of land taxes) and reduces fuel prices.
- Pre-financing to facilitate pre-delivery operations (fuel, payroll and transportation).
- Review of local taxes that do not meet to the actual situation.
- MINEF provides more assistance in times.
- Diversification of customers and productions.
- Get support from different market.
- Reduced fuel prices.
- Looking for more customers and markets.
- The government gives support to timber industry, such as reduce taxes.

GTI-Gabon sub-index

As for the GTI-Gabon sub-index, in November 2022, the inventory index of finished products index, purchasing price index and inventory index of main raw materials index were above the critical value (50%), while the remaining 8 sub-indexes were below the critical value.



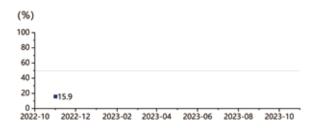
GTI-Gabon sub-index

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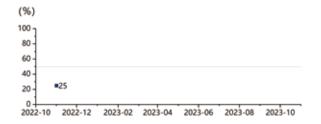
Global Timber Index



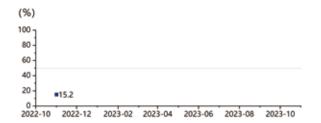
The harvesting index registered 15.9%, which is below the critical value, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-Gabon is decreased sharply this from the previous month.



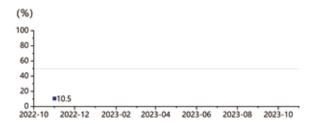
The production index registered 25.0%, which is below the critical value, indicating that the production volume of the superior timber enterprises represented by the GTI-Gabon is decreased from the previous month.



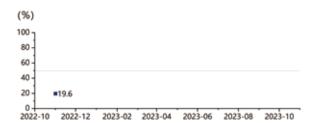
The new orders index registered 15.2%, which is below the critical value, indicating that the number of new orders of the superior timber enterprises represented by the GTI-Gabon shrinked dramatically from the previous month.



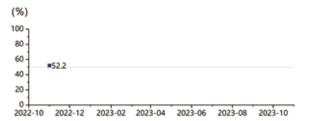
The export orders index registered 10.5%, which is below the critical value, indicating that the ability to obtain the export orders of the superior timber enterprises represented by the GTI-Gabon shrinked dramatically from the previous month.



The existing orders index registered 19.6%, which is below the critical value, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-Gabon is decreased sharply from the previous month.



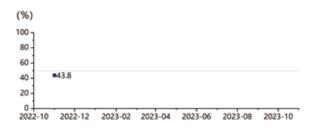
The inventory index of finished products registered 52.2%, which is above the critical value, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-Gabon is more than that of last month.



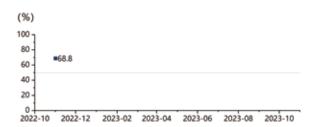




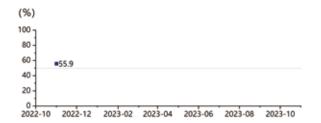
The purchasing quantity index registered 43.8%, which is below the critical value, indicating that the purchasing quantity of the superior timber enterprises represented by the GTI-Gabon is decreased from the previous month.



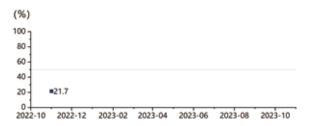
The purchasing price index is 68.8%, which is above the critical value, indicating that the purchasing price of the superior timber enterprises represented by the GTI-Gabon is increased from the previous month.



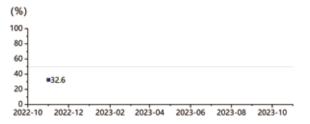
The inventory index of main raw materials index registered 55.9%, which is above the critical value, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-Gabon this month is increased from the previous month.



The production and management employees index registered 21.7%, which is below the critical value, indicating that the number of production and operation employees of the superior timber enterprises represented by the GTI-Gabon is decreased sharply from the previous month.



The delivery time index registered 32.6%, which is below the critical value, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-Gabon is slower than the previous month.



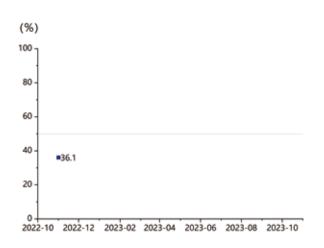


GTI-Brazil Index in November 2022

With the largest land area and the most populations in Latin America, Brazil's economic development was driven by domestic consumption, private investment and export growth in 2022. Brazil's gross domestic product (GDP) grew by 3.6% year-on-year and 0.4% by quarter-on-quarter in the third quarter of this year, the fifth consecutive quarter-on-quarter growth, according to a bulletin issued by the BInstituto Brasileiro de Geografia e Estatística (IBGE) on December 1. In terms of consumption, the data from IBGE showed that retail sales growth in September 2022 was 0.2% higher than market expectations, 2.8% higher than February 2020 before the COVID-19 epidemic. In the area of investment, a survey by the Organization for Economic Co-operation and Development (OECD) shows that in the first half of this year, Brazil ranked NO.3 of foreign direct investment in the world, after the United States and China. In terms of exports, data published by the Ministério da Economia showed that Brazil's exports in October were \$27.299 billion, up 27.1% year-on-year. From January to October, the cumulative trade surplus was \$51.6 billion, down 11.7% from the same period last year. While the economy is developing steadily, some market players lack sufficient confidence in local financial, economic policies and political stability.

In the second half of 2022, the decline in global market demand also affected the Brazil's timber market, and the development of the timber

GTI- Brazil Index



industry slowed down. In November, Brazil's timber enterprises reported that the problems of declining foreign market demand and decreasing timber orders were more serious. At the same time, the problems of exchange rate fluctuation, rising raw material supply prices, labor shortage and low market recognition of new tree species also restricted the development of Brazil's timber enterprises. Enterprises expect to find new customers, open new markets, and also expect the monetary policy of price/rate/logistics to be optimized and improved. This month, the GTI-Brazil Index recorded 36.1%, below the critical value (50%), indicating that the business prosperity of the superior timber enterprises represented by the GTI-Brazil Index has declined from the previous month.



Challenges

- Unstable exchange rates and uncompetitive export goods.
- Decline in sales caused by unstable domestic market and oversupplied foreign market.
- High transportation costs and low product demand.
- High raw material costs and low inventory turnover.
- High cost of raw material procurement and transportation.
- Tree species such as Toona ciliate and Kahya gadifoliola have only modest market recognition.
- Insufficient labor.
- Low market demand and unqualified labor.
- Decreased timber processing orders.
- Lower export prices.

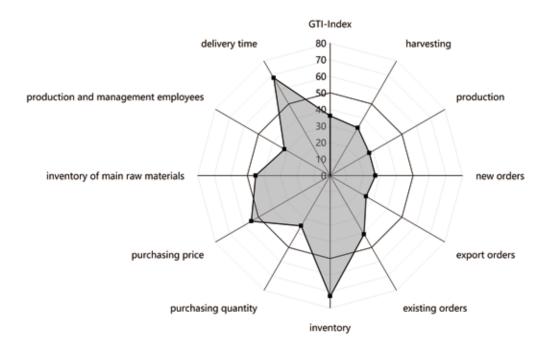
Suggestions

- Brazil needs more competitive export goods and increase freight policy optimization (prices/rates/logistics).
- Need stable domestic market and reduced inventory of foreign market.
- Look for lower price raw materials.
- Promote legal and certified timber products from the Plantation.
- Organize staff training and open up new markets.
- Look for more customers.
- Wait for economic recovery in Europe and the United States.



GTI-Brazil sub-index

As for the GTI-Brazil sub-index, in November 2022, the inventory index of finished products index, purchasing price index and delivery time index were above the critical value (50%), while the remaining 8 sub-indexes were below the critical value.



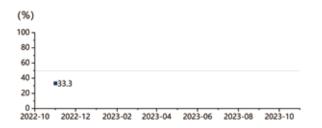
GTI-Brizal sub-index

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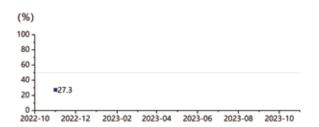
Global Timber Index



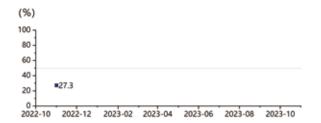
The harvesting index registered 33.3%, which is below the critical value, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-Brazil is decreased this from the previous month.



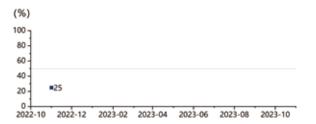
The production index registered 27.3%, which is below the critical value, indicating that the production volume of the superior timber enterprises represented by the GTI-Brazil is decreased from the previous month.



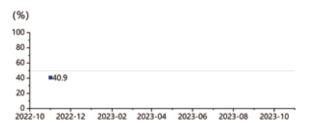
The new orders index registered 27.3%, which is below the critical value, indicating that the number of new orders of the superior timber enterprises represented by the GTI-Brazil shrinked from the previous month.



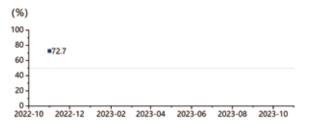
The export orders index registered 25.0%, which is below the critical value, indicating that the ability to obtain the export orders of the superior timber enterprises represented by the GTI-Brazil shrinked from the previous month.



The existing orders index registered 40.9%, which is below the critical value, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-Brazil is decreased from the previous month.



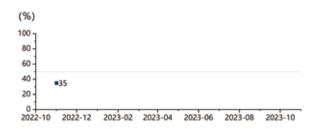
The inventory index of finished products registered 72.7%, which is above the critical value, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-Brazil is more than that of last month.



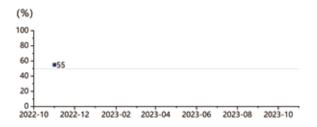
Global Timber Index



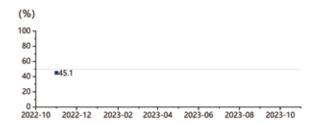
The purchasing quantity index registered 35.0%, which is below the critical value, indicating that the purchasing quantity of the superior timber enterprises represented by the GTI-Brazil is decreased from the previous month.



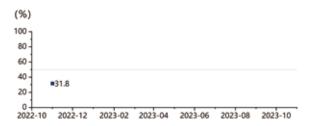
The purchasing price index is 55.0%, which is above the critical value, indicating that the purchasing price of the superior timber enterprises represented by the GTI-Brazil is increased from the previous month.



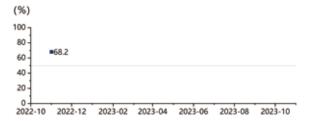
The inventory index of main raw materials index registered 45.1%, which is below the critical value, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-Brazil this month are all decreased from the previous month.



The production and management employees index registered 31.8%, which is below the critical value, indicating that the number of production and operation employees of the superior timber enterprises represented by the GTI-Brazil is decreased from the previous month.



The delivery time index registered 68.2%, which is below the critical value, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-Brazil is faster than the previous month.



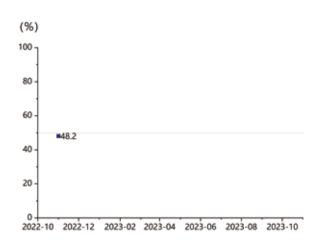


GTI-ROC Index in November 2022

Located in the central and western part of Africa, Republic of Congo is rich in mineral and forest resources, with a forest coverage rate of more than 60% of its land area, accounting for about 10% of the forest resources in Africa. ROC mainly relys on the export of oil, timber and other resources products. According to the International Monetary Fund, ROC's GDP shows resilience and is expected to reach 4.1 trillion CFA franc in 2022, up 4.3% year-on-year; however, the inflation rate is expected to be 7.4% in 2022 due to rising world food and fuel prices and increasing supply chain bottlenecks.

November 2022 is the rainy season in ROC, the logging production and operation activities of the timber industry slowed down. Feedbacks from GTI participating enterprises shows that problems such as backward road facilities, lack of means of transport and poor logistics are prominent, in addition to the reduction of market customers, failure of logging equipment, fuel shortage and rising cost of raw materials. In this regard, enterprises in ROC expect its government to

GTI-ROC Index



introduce policies to attract investors, re-plan transportation routes, increase the promotion of timber products, and reduce the cost of raw materials through effective methods. In November 2022, the GTI-ROC Index registered 48.2%, below the critical value (50%), indicating that the business prosperity of the superior timber enterprises represented by the GTI-ROC index has declined compared with the previous month.



Challenges

- A large number of logging equipment failures and rainfall effects.
- Higher raw material costs and fewer customers.
- Poor transportation, lack of fuel, lack of skilled labor.
- Transport and rainfall impacts.
- Lack of transport, bad roads and weather conditions.
- Customer reduction due to bad transportation.
- Backward road facilities.
- Bad weather, long transport time.
- Slow logistics.
- Fuel costs for enterprises are very high and non-compliance with economic agreements has led to the accumulation of arrears.

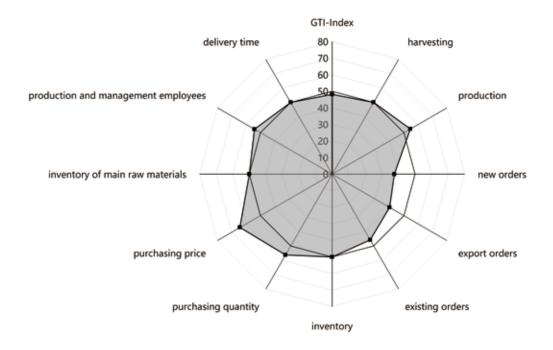
Suggestions

- Improve harvesting and processing equipment.
- Reduce the cost of raw materials and further promote local plywood products internationally.
- Reconstruction of roads and bridges.
- Introduce measures to attract investors.
- Strengthen the promotion of various timber products.
- Re-planning transport routes.
- Reduce fuel costs and comply with economic agreement terms.



GTI-ROC sub-index

As for the GTI-ROC sub-index, in November 2022, 4 sub-indexes: production, purchasing quantity, purchasing price and production and management employees were above the critical value (50%), 4 sub-indexes: harvesting, inventory of finished goods, inventory of main raw materials, and delivery were equal to the critical value, while the remaining 3 sub-indexes were below the critical value.



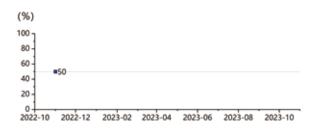
GTI-ROC sub-index

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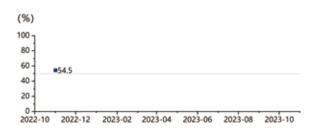
Global Timber Index



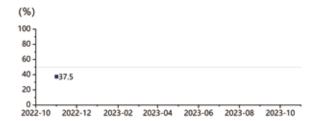
The harvesting index registered 50.0%, which is equal to critical value, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-ROC is same as the previous month.



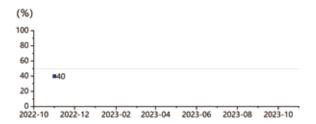
The production index registered 54.5%, which is above the critical value, indicating that the production volume of the superior timber enterprises represented by the GTI-ROC is increased from the previous month.



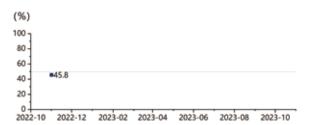
The new orders index registered 37.5%, which is below the critical value, indicating that the number of new orders of the superior timber enterprises represented by the GTI-ROC shrinked from the previous month.



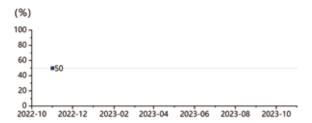
The export orders index registered 40.0%, which is below the critical value, indicating that the ability to obtain the export orders of the superior timber enterprises represented by the GTI-ROC shrinked from the previous month.



The existing orders index registered 45.8%, which is below the critical value, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-ROC is decreased from the previous month.



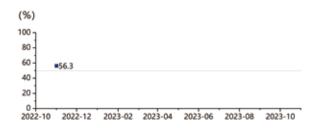
The inventory index of finished products registered 50.0%, which is equal to the critical value, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-ROC is same with that of last month.



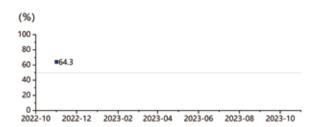




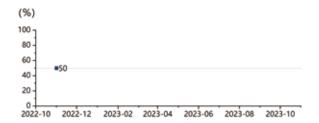
The purchasing quantity index registered 56.3%, which is above the critical value, indicating that the purchasing quantity of the superior timber enterprises represented by the GTI-ROC is increased from the previous month.



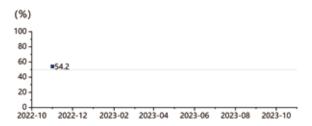
The purchasing price index is 64.3%, which is above the critical value, indicating that the purchasing price of the superior timber enterprises represented by the GTI-ROC is increased from the previous month.



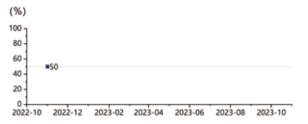
The inventory index of main raw materials index registered 50.0%, which is equal to the critical value, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-ROC this month are all same as the previous month.



The production and management employees index registered 54.2%, which is above the critical value, indicating that the number of production and operation employees of the superior timber enterprises represented by the GTI-ROC is increased from the previous month.



The delivery time index registered 50.0%, which is equal to the critical value, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-ROC is same as the previous month.



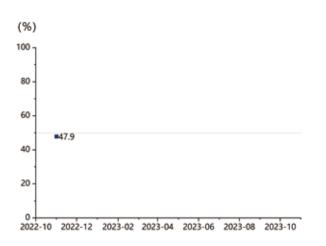


GTI-Mexico Index in November 2022

As a large economic and trade entity in Latin America, Mexico is also the major foreign direct investment destination, with abundant forestry resources. On November 25, GDP released by Instituto Nacional de Estadística y Geografía (INEGI) showed that in the third quarter of 2022, Mexico's economic recovery began to accelerate after the deregulation of the COVID-19 pandemic. The data shows that GDP grew by 4.3% (after excluding the price factor) over the same period last year, 1.9% faster than the previous quarter, same with the same period last year. In terms of attracting investment, data from Secretaría de Economía shows that Mexico attracted \$27.5 billion in foreign investment in the first half of 2022, an increase of 49.2% over the same period last year. In terms of trade, according to the Instituto Nacional de Estadística y Geografía (INEGI), in the first half of this year, Mexico's total import and export volume was \$574.49 billion, the total export volume was \$280.77 billion, which is the record in the same period.

After entering the rainy season, due to floods and power failures, Mexico's timber harvesting slowed down from the previous month, and its production and operation remained basically the same as the previous month.GTI participating

GTI- Mexico Index



enterprises feedback that they are struggling with the rising production costs, lower sales and regulations for commercial plantations. For the above difficulties, enterprises hoped to strengthen customer communications, open up the international market, and suggested the government to adjust forest planning, such as extending the service life of commercial plantations. In November 2022, the GTI-Mexico Index registered 47.9%, which is below the critical value (50%), indicating that the business prosperity of the superior timber enterprises represented by the GTI-Mexico Index declined slightly from the previous month.



Challenges

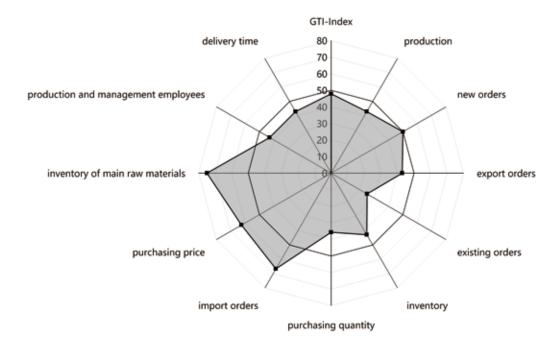
- Floods caused by heavy rains have made productions more difficult.
- Overregulation on commercial plantation.
- Timber in stock not commercialized and annuity matures.
- Dramatic climate change.
- Failure of power facilities, increased production costs and decreased sales.
- Mechanical failure of production equipment.

Suggestions

- Adjust the forest planning every year.
- Adjust the forest law to treat commercial plantations as cultivated land rather than natural forests.
- Develop new customers and increase the service life of the forest.
- Improve the road infrastructure.
- Stabilize power supply, strengthen customer communication and open up the international market.

GTI-Mexico sub-index

As for the GTI-Mexico sub-index, in November 2022, 3 sub-indexes: purchasing quantity, purchasing price and inventory of raw materials were above the critical value (50%); production index was equal to the critical value, while the remaining 7 sub-indexes were below the critical value.



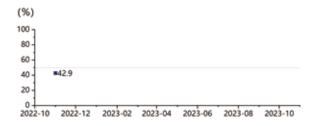
GTI-Mexico sub-index

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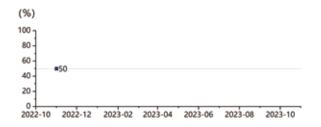
Global Timber Index



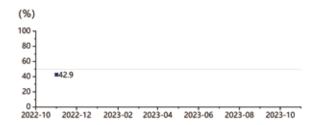
The harvesting index registered 42.9%, which is below the critical value, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-Mexico is decreased from previous month.



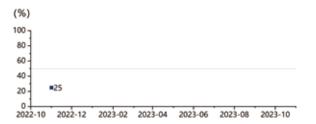
The production index registered 50.0%, which is equal to the critical value, indicating that the production volume of the superior timber enterprises represented by the GTI-Mexico is same with the previous month.



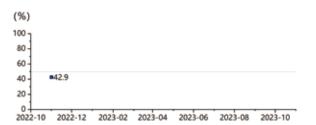
The new orders index registered 42.9%, which is below the critical value, indicating that the number of new orders of the superior timber enterprises represented by the GTI-Mexico shrinked from the previous month.



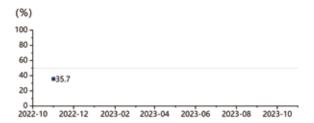
The export orders index registered 25.0%, which is below the critical value, indicating that the ability to obtain the export orders of the superior timber enterprises represented by the GTI-Mexico shrinked sharply from the previous month.



The existing orders index registered 42.9%, which is below the critical value, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-Mexico is decreased from the previous month.



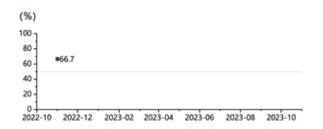
The inventory index of finished products registered 35.7%, which is below the critical value, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-Mexico is decreased from the previous month.



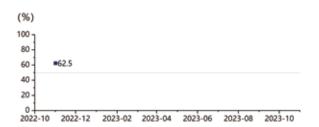




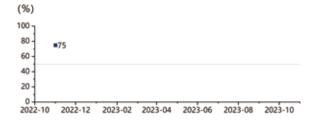
The purchasing quantity index registered 66.7%, which is above the critical value, indicating that the purchasing quantity of the superior timber enterprises represented by the GTI-Mexico is increased from the previous month.



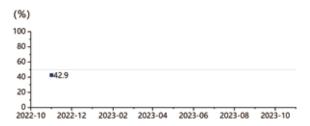
The purchasing price index is 62.5%, which is above the critical value, indicating that the purchasing price of the superior timber enterprises represented by the GTI-Mexico is increased from the previous month.



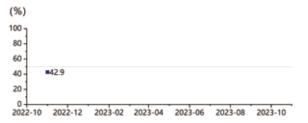
The inventory index of main raw materials index registered 75.0%, which is above the critical value, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-Mexico this month are increased from the previous month.



The production and management employees index registered 42.9%, which is below the critical value, indicating that the number of production and operation employees of the superior timber enterprises represented by the GTI-Mexico is decreased from the previous month.



The delivery time index registered 42.9%, which is below the critical value, indicating that the delivery from the supplier to the superior timber enterprises represented by the GTI-Mexico is much slower from the previous month.



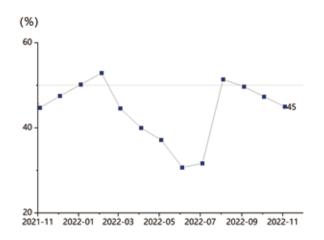


GTI-China Index in November 2022

In November 2022, due to the frequent occurrence of the COVID-19 pandemic, the market price tended to decline, and the upstream and downstream of the industrial chain slowed down synchronously. But some industries still doing well, subdivisions related to people's livelihood maintained a steady rise, and the export demand of high-tech manufacturing and consumer goods manufacturing also stopped falling and stabilized. In November, China's PMI registered 48%, decreased 1.2 percentage points from the previous month, falling for two consecutive months and ranking the second lowest since this year, indicating that the economic recovery has further slowed down and the momentum of recovery is obviously insufficient.

In this context, the pandemic led to the obstruction of personnel induction and logistics operation, the corresponding slowdown in the production activities of timber enterprises, the low purchasing enthusiasm, and the destocking of raw materials. Enterprise feedback shows that the

GTI- China Index



problems of single raw material procurement channel, unstable quality of some raw materials, and untimely supply of raw materials affected by transportation are more prominent. In November, the GTI-China Index registered 45%, decreased 4.6 percentage points from the previous month, still below the critical value(50%), indicating that the business prosperity of the superior timber enterprises represented by the GTI-China Index has contracted from the previous month.



Challenges

- Single procurement channel for raw materials
- Unstable quality of raw materials.
- Transportation is not smooth due to the pandemic.
- Dollar currency rate up.
- Rising material prices in North America.
- Increase in cost due to increase in purchase price.
- Some timber resources are in short supply.
- The birch backboard new material has not been cut down, the supply is tight.
- And the proportion of large single width of high-grade oak is low.
- Some raw materials are not supplied in time due to the pandemic.

Products in short supply

European oak above 1500

Samrong wood, raw material of Betis wood

Birch backboard, large size oak

Commodity of which the price has been increased

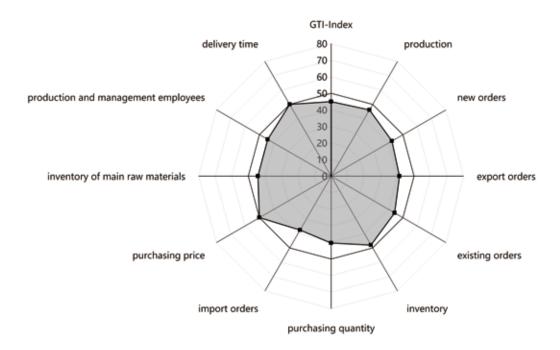
High-density base wood, Veneer, Black walnut, OKAN, Teak, Oak, Melamine

Commodity of which the price has been decreased

Taun, Dipteryx, Locust, Eucalyptus, Veneer core, European spruce, Particleboard, Taun blank, Miscellaneous firewood, Pine wood, Accessories

GTI-China sub-index

As for the GTI-China sub-index, in November 2022, only the purchasing price index and delivery time index registered the critical value (50%), while the remaining 9 sub-indexes were below the critical value.

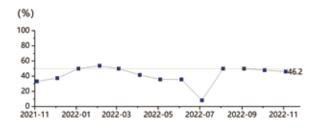


GTI-China sub-index

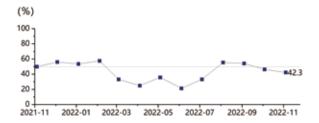
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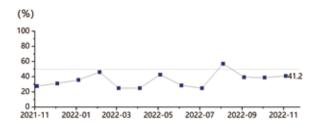
The production index registered 46.2%, a decrease of 2.0 percentage points from the previous month, which is below the critical value, indicating that the production volume of the superior timber enterprises represented by the GTI-China is decreased from the previous month.



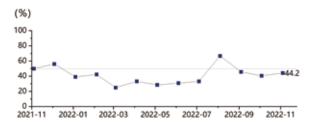
The new orders index registered 42.3%, a decrease of 4.0 percentage points from the previous month, which is below the critical value, indicating that the number of new orders of the superior timber enterprises represented by the GTI-China shrinked from the previous month.



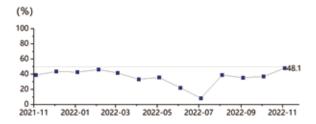
The export orders index registered 41.2%, an increase of 2.3 percentage points from the previous month, which is below the critical value, indicating that the ability to obtain the export orders of the superior timber enterprises represented by the GTI-China shrinked from the previous month.



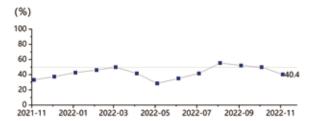
The existing orders index registered 44.2%, an increase of 3.5 percentage points from the previous month, which is below the critical value, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-China is decreased from the previous month.



The inventory index of finished products registered 48.1%, an increase of 11.0 percentage points from the previous month, however still below the critical value, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-China is less than that of last month.

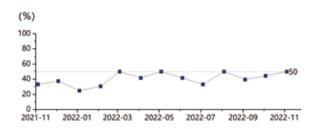


The purchasing quantity index registered 40.4%, a decrease of 9.6 percentage points from the previous month, which is below the critical value, indicating that the purchasing quantity of the superior timber enterprises represented by the GTI-China is decreased from the previous month.

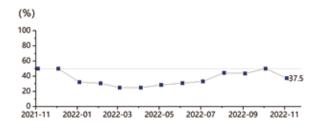




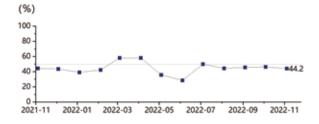
The purchasing price index is 50.0%, an increase of 5.6 percentage points from the previous month, which is equal to the critical value, indicating that the purchasing price of the superior timber enterprises represented by the GTI-China is almost same with the previous month.



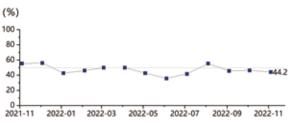
The import orders index registered 37.5%, a decrease of 12.5 percentage points from the previous month, which is below the critical value, indicating that the number of import orders of the superior timber enterprises represented by the GTI-China is decreased from the previous month.



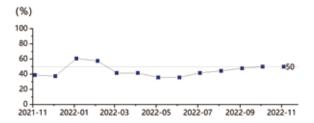
The inventory index of main raw materials index registered 44.2%, a decrease of 2.7 percentage points from the previous month, which is below the critical value, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-China this month are all decreased compared with the previous month.



The production and management employees index registered 44.2%, a decrease of 2.7 percentage points from the previous month, which is below the critical value, indicating that the number of production and operation employees of the superior timber enterprises represented by the GTI-China is decreased from the previous month.



The delivery time index registered 50.0%, same as the previous month, which is equal to the critical value, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-China is almost same with the previous month.









Survey methodology

The Global Timber Index (hereinafter referred to as GTI) is compiled based on the a survey of leading timber enterprises from the main timber producing and consuming countries. The questionnaire is disseminated to the timber enterprises monthly and the Secretariat of Global Green Supply Chain Initiative (hereinafter referred to as GGSC) organizes the experts to calculate and compile the GTI report, based on statistical analysis of the collected data and information.

With the support of the International Tropical Timber Organization (hereinafter referred to as ITTO), GGSC has set up focal points in the pilot countries from the timber producing and consuming countries. In the initial phase (2022), the GTI plaform will cover seven pilot countries: Indonesia, Malaysia, Gabon, Republic of Congo, Brazil, Mexico, and China. The questionnaires will be completed and collected by these focal points from 25th to 30th every month. The GTI reports will be regularly released to stakeholders of global forest products industry.

Based on the characteristics of the timber and timber products industry in different countries, the current GTI questionnaire is divided into two categories: the timber producer and the timber manufacturer. For the timber producing countries, the focus is the investigation on the development trend of local timber harvesting and supply, covering logs, sawn timber, plywood, etc. For the timber consuming countries (such as China), the focus is the investigation on the prosperity and development trend of local timber processing and manufacturing industry, covering wooden floor, doors and furniture, etc.

Data and Interpretation

GTI index contains diffusion index and comprehensive index.

(1)

The calculation of GTI diffusion index. GTI has 11 diffusion index (or called sub-indices) based on the data from 11 objective questions which covers production (or harvesting), new orders, new export orders, existing orders, inventory of products, purchasing quantity or import, purchasing prices of main raw materials, inventory of raw material, employees, and delivery time. The diffusion index is calculated by adding the percentage of enterprises with positive answers to half of the percentage with unchanged answers.

(2)

The calculation of GTI comprehensive index. GTI comprehensive index(GTI index for short) is calculated based on the diffusion indexes of five of the indexes with different weights: production, new orders, inventory of raw material, employees, delivery time. The five diffusion indexes and their weights are determined according to their leading influence on the industrial economy.

The value of the index is between 0-100%, and 50% is the critical value of the index. A GTI index reading above 50 percent indicates that the industry prosperity is generally expanding; below 50 percent indicates that it is generally declining.



Declaration

GTI report is compiled based on the data provided by the timber enterprises in the pilot countries. The data can not be used in investment decision-making, but can help to understand the timber industry trend.

The data and intellectual property in the reports are owned by ITTO and GGSC jointly. ITTO and GGSC hereby grant you a limited, revocable, nonsublicensable license to access and display on your individual device the GTI report (excluding any software code) solely for your personal, non-commercial use. Without the permission from ITTO and GGSC, you shall not copy, download, stream, capture, reproduce, duplicate, archive, upload, modify, translate, publish, broadcast, transmit, retransmit, distribute, perform, display, sell, or otherwise use any GTI report Content.

About ITTO

The International Tropical Timber Organization, ITTO for short, is an intergovernmental organization promoting the sustainable management and conservation of tropical forests and the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests. It's located in Yokohama, Japan. At present, there are 75 ITTO members. ITTO's membership represents about 90% of the global tropical timber trade and more than 80% of the world's tropical forests.

About GGSC

Global Green Supply Chain Initiative (abbreviated as GGSC), supported by International Tropical Timber Organization (ITTO), is a global service platform voluntarily established by enterprises, research institutes, industry associations, international organizations and other stakeholders involved in forest products R&D, design, manufacturing, distributing, consuming and recycling, to implement "the Initiative to build a collaboration network of global green supply chain of forest products" jointly launched by industry sectors, associations, international organizations and research institutions all over the world who were participants of the International Forum on "Together Towards Global Green Supply Chains – A Forest Products Industry Initiative" held in Shanghai, China in October, 2019.

Vision

Connect foresters, live in natural and harmony.

Mission

Build a sustainable development ecology of the global timber industry, promote the transformation of corporate social and environmental responsibilities into competitive advantages, and serve the better life of mankind.

Values

Openness, Share, Greenness, Collaboration.

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