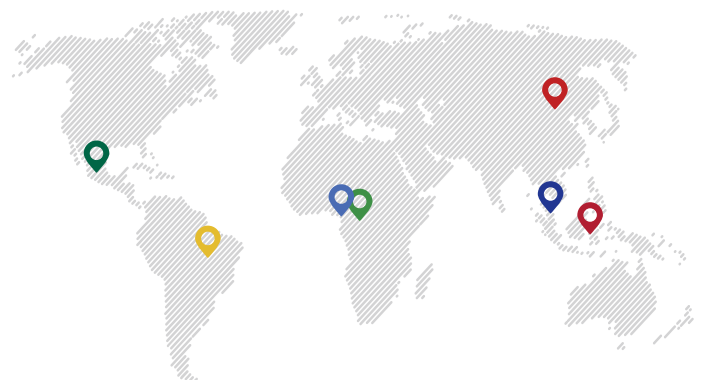


GLOBAL TIMBER INDEX GTI REPORT MONTHLY

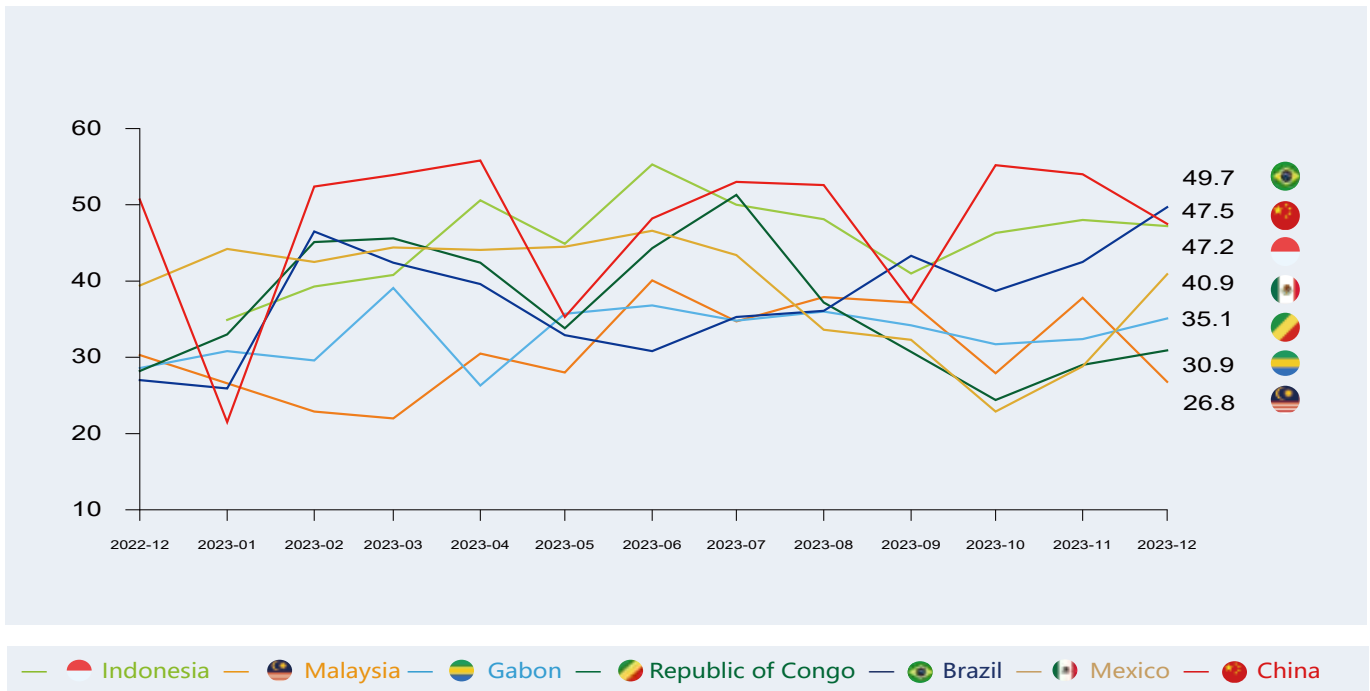
GGSC-No. 12/2023

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



Overview of the GTI Index

Timber markets in Brazil and Mexico see improvements, though downward trend continues



The Global Timber Index (GTI) report for December 2023 revealed that compared with the previous month, the GTI indexes of Mexico and Brazil rose by 12.1 and 7.2 percentage points, respectively, with GTI-Brazil enterprises seeing a notable increase in the number of new orders, indicating that the downturn in the timber markets of the above two countries had significantly eased. The GTI indexes of ROC and Gabon respectively increased by 2.7 and 1.9 percentage points from the previous month, though still below the critical value (50%). As to the timber markets in Indonesia and China, both markets saw a growth in order volume (including export orders) compared with the previous month, however, most enterprises were inclined to reduce inventory, and no marked

improvement was observed on the production and supply side.

This month, regions including Africa, Latin America and Asia were challenged by continuous heavy rains, which caused landslides, railway damage, logistics disruption and other problems, affecting timber transportation, production and business activities. GTI pilot countries and sample enterprises also shared new challenges they were facing, for instance, Brazilian enterprises said alternatives such as plastic, aluminium and MDF (medium density fibreboard) posed a challenge to the sales of wood products, and moreover, declining water level of the Amazon River and limited availability of containers resulted in decreased volume of harvesting; Gabonese

enterprises reported that heavy rains made it difficult to obtain the necessary resources for production, and some enterprises were unable to deliver logs to buyers on schedule; Malaysian enterprises expressed concerns about uncertain global economy caused by the war, which could potentially affect the demand in the global timber market; and, Mexican enterprises said forestry activities were hindered by a lack of tools to transport roundwood to the sawmill.

Thanks to the focal points from Indonesia, Malaysia, Gabon, Republic of the Congo, Brazil, Mexico, and China for their support and contribution to GTI.

Focal Points:

Indonesia:

- Sustainable Forest Management of the Ministry of Environment and Forestry

Malaysia:

- Malaysian Timber Council (MTC)
- Special thanks to Ministry of Plantation Industries & Commodities (MPIC) and Sarawak Timber Association (STA)

Gabon:

- Ministry of Water and Forests, Sea and Environment, Responsible for the Climate Plan and Land Use

Republic of the Congo:

- Ministère de l' Economie Forestière

Brazil:

- STCP Engenharia de Projetos Ltda

Mexico:

- National Forestry Commission of Mexico/Comisión Nacional Forestal (CONAFOR)

China:

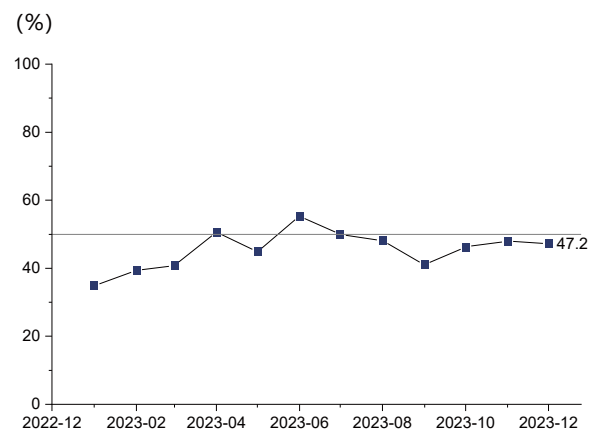
- The Secretariat of the Global Green Supply Chains Initiative (GGSC)

GTI-Indonesia Index in December 2023

During the 28th Conference of the Parties (COP28) to the UN Framework Convention on Climate Change (UNFCCC), Indonesia reaffirmed its cooperation with Brazil and the Democratic Republic of Congo, which aims to strengthen the influence of the world's three largest tropical forest owners in climate negotiations, through activities such as funding for REDD+ (reducing emissions from deforestation and forest degradation in developing countries, and additional forest-related activities that protect the climate). As the new energy market heated up, a number of Indonesian companies were investing in the wood pellet business and other biomass-related fields. For example, PT Indika Energy Tbk (INDY) would invest US\$21 million to build a factory, and PT Sumber Global Energy Tbk (SGER) diversified its business by selling processed wood pellets to the energy industry. Another news is that the Ministry of Environment and Forestry (MoEF) encouraged holders of Forest Utilization Business License (PBPH) to engage in diversified forestry businesses to support the goals of Indonesia's FOLU (Forestry and Other Land Use) Net Sink 2030, and in the implementation of the diversified businesses, companies needed to adopt an appropriate management regime according to local conditions, including environmental carrying capacity, land suitability, agro-climate and socio-economic institutions.

In December this year, the timber sector in Indonesia showed some signs of recovery, and

GTI-Indonesia Index



new orders (export orders in particular) increased compared with the previous month. However, as the overall demand in the international timber market was declining, some enterprises still didn't see recovery in orders. In addition, some of the GTI-Indonesia enterprises said both prices and sales in the log market dropped, and major plywood markets such as Japan had not yet recovered. This month, the GTI-Indonesia index registered 47.2%, a decrease of 0.8 percentage point from the previous month, was below the critical value (50%) for 5 consecutive months, indicating that the business prosperity of the superior timber enterprises represented by the GTI-Indonesia index shrank from last month, and the contraction expanded a little.

Main Challenges Reported by GTI-Indonesia Enterprises

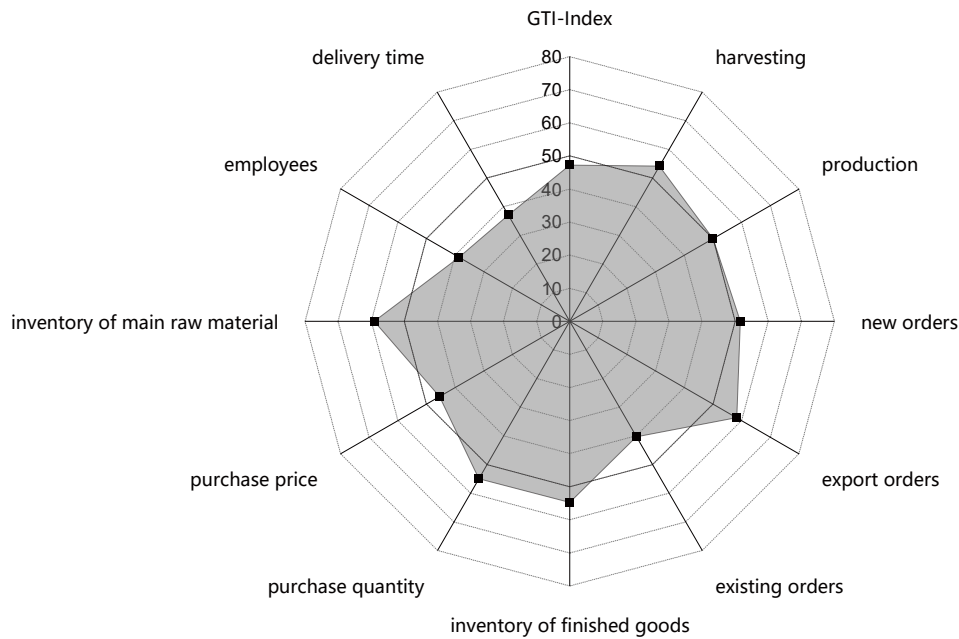
- Prices of logs were low, and the volume of incoming orders was decreasing.
- Buyers preferred certain types of timber, such as Keruing, Kapur, and Bangkirai.
- High fuel oil prices had resulted in increased log production costs.
- As the demand for timber was low in the international market, some enterprises had to rely on domestic orders and customers, while they also saw a contraction in the domestic demand.
- There was a drop in both orders and log prices, while the buyer's requirements for the products were increasingly stringent (super quality without defects, diameter above 50 cm, and FSC certified).
- The plywood markets in several countries (especially Japan) as the main export destinations were sluggish, leading to a significant decrease in log orders from the plywood industry.

Main Suggestions from GTI-Indonesia Enterprises

- To overcome the low prices of logs and the situation that the domestic wood processing industry couldn't absorb all the logs, it is necessary to make a breakthrough in the wood products market by adjusting the marketing policy, strengthening efforts in the market and improving relevant supply chains.
- Obtain FSC certification as required by the buyer and prepare necessary infrastructure to support full operational activities.
- To cope with the problem of excessively low prices of logs in the domestic market, the government may establish reference prices for logs in the domestic market, so as to stabilize log prices, and it could also provide incentives for processed wood products sourced from sustainably managed and/or legal forests.
- Monitor developments in the global wood products market and continue to communicate with overseas buyers.

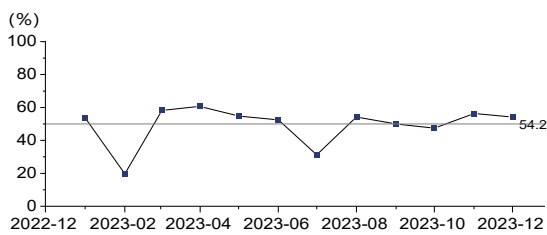
GTI-Indonesia sub-index

As for the GTI-Indonesia sub-index, in December 2023, 6 sub-indexes — harvesting, new orders, export orders, inventory of finished products, purchase quantity, and inventory of main raw materials — were above the critical value, the production index was equal to the critical value, while the remaining 4 sub-indexes were below the critical value.

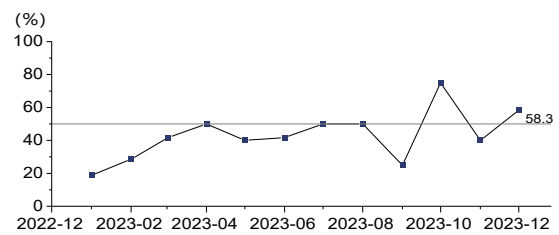


GTI-Indonesia sub-index

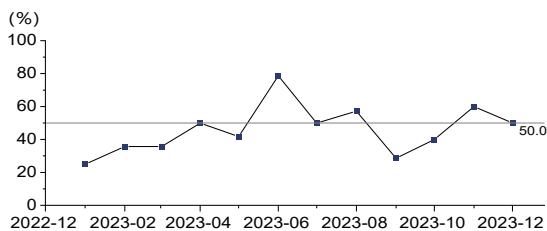
The harvesting index registered 54.2%, a decrease of 2.1 percentage points from the previous month, was above the critical value (50%) for 2 consecutive months, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-Indonesia was more than that of last month.



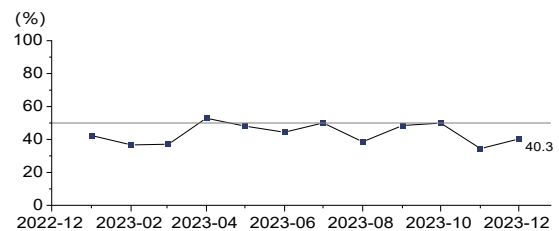
The export orders index registered 58.3%, an increase of 18.3 percentage points from the previous month, rose above the critical value after one month, indicating that the number of export orders of the superior timber enterprises represented by the GTI-Indonesia was more than that of last month.



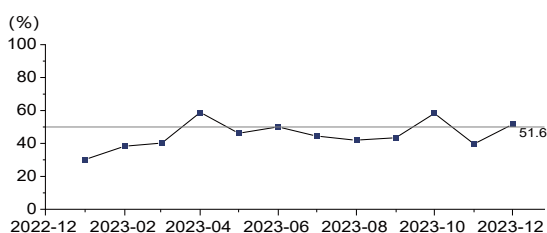
The production index registered 50.0%, a decrease of 10.0 percentage points from the previous month, fell to the critical value after one month, indicating that the production volume of the superior timber enterprises represented by the GTI-Indonesia was the same with that of last month.



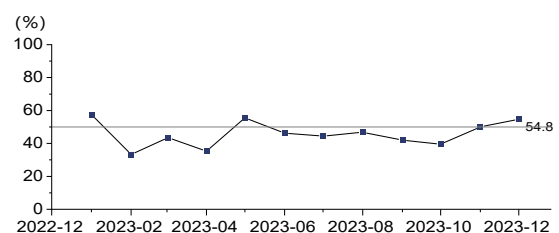
The existing orders index registered 40.3%, an increase of 5.8 percentage points from the previous month, was below the critical value for 2 consecutive months, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-Indonesia was less than that of last month.



The new orders index registered 51.6%, an increase of 11.9 percentage points from the previous month, rose above the critical value after one month, indicating that the number of new orders of the superior timber enterprises represented by the GTI-Indonesia was more than that of last month.

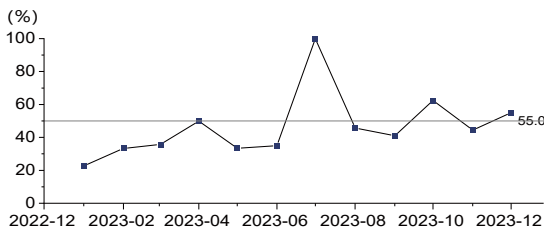


The inventory index of finished products registered 54.8%, an increase of 4.8 percentage points from the previous month, rose above the critical value after one month, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-Indonesia was more than that of last month.

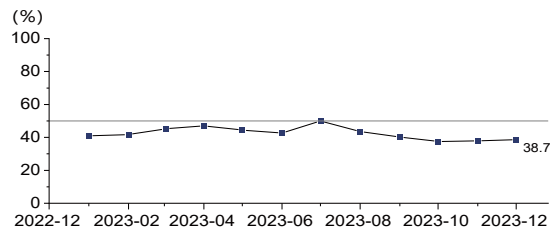




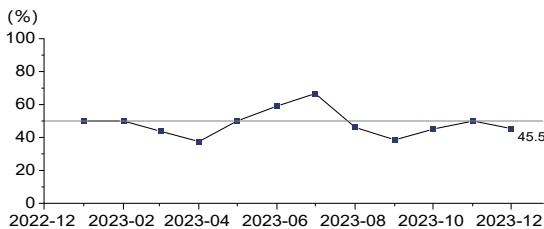
The purchase quantity index registered 55.0%, an increase of 10.6 percentage points from the previous month, rose above the critical value after one month, indicating that the purchase quantity of the superior timber enterprises represented by the GTI-Indonesia was more than that of last month.



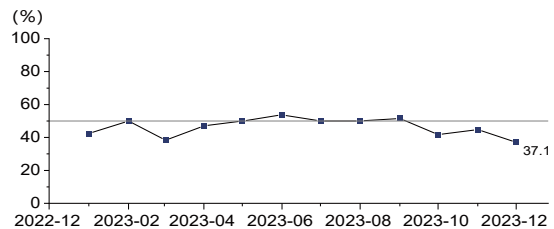
The production and management employees index registered 38.7%, an increase of 0.8 percentage point from the previous month, was below the critical value for 5 consecutive months, indicating that the number of employees in the superior timber enterprises represented by the GTI-Indonesia was less than that of last month.



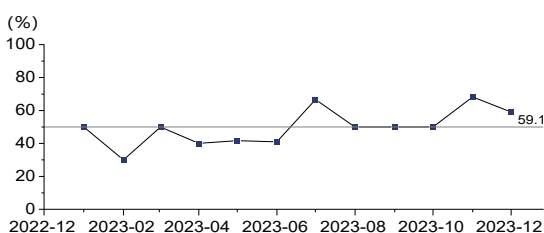
The purchase price index registered 45.5%, a decrease of 4.5 percentage points from the previous month, fell below the critical value after one month, indicating that the purchase price of the superior timber enterprises represented by the GTI-Indonesia was lower than that of last month.



The delivery time index registered 37.1%, a decrease of 7.7 percentage points from the previous month, was below the critical value for 3 consecutive months, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-Indonesia was shorter than that of last month.



The inventory index of main raw materials registered 59.1%, a decrease of 9.1 percentage points from the previous month, was above the critical value for 2 consecutive months, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-Indonesia was more than that of last month.

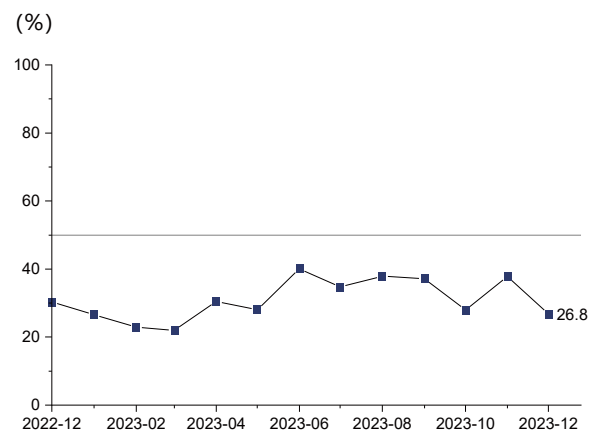


GTI-Malaysia Index in December 2023

Recently, Malaysia's Ministry of Plantation and Commodities launched the National Biomass Action Plan 2023-2030 (NBAP2030), calling for the establishment of biomass hubs to carry out centralized and systematic collection of biomass raw materials. Moreover, the NBAP2030 would increase investments in the biomass industry and may create about 3,000 job opportunities. In the Malaysia Budget 2024, an additional tax deduction of up to RM300,000 was proposed for companies that engage in measurement, reporting and verification (MRV) related to the development of carbon projects, aiming to encourage companies to actively participate in carbon projects that could mitigate climate change. To implement strategies to reduce greenhouse gas emissions and achieve net-zero carbon emissions in the State of Sarawak by 2050, the Sarawak Legislative Assembly passed the Environment (Reduction of Greenhouse Gases Emission) Bill on November 20, making Sarawak the first state in Malaysia to have legislation to address climate change.

In December this year, GTI-Malaysia enterprises said that weak overseas markets and turbulent political environments in the world had imposed great business pressure on Malaysian timber enterprises. The enterprises reported such

GTI-Malaysia Index



prominent challenges as insufficient export orders, labor shortages, and low sales prices, and expressed a strong desire to expand markets and increase sales. At the same time, they hoped the government may provide financial support to help them purchase/upgrade production and processing equipment. This month, the GTI-Malaysia index registered 26.8%, a decrease of 11.0 percentage points from the previous month, was below the critical value (50%) for 14 consecutive months, indicating that the business prosperity of the superior timber enterprises represented by the GTI-Malaysia index shrank from last month, and the contraction expanded.

Main Challenges Reported by GTI-Malaysia Enterprises

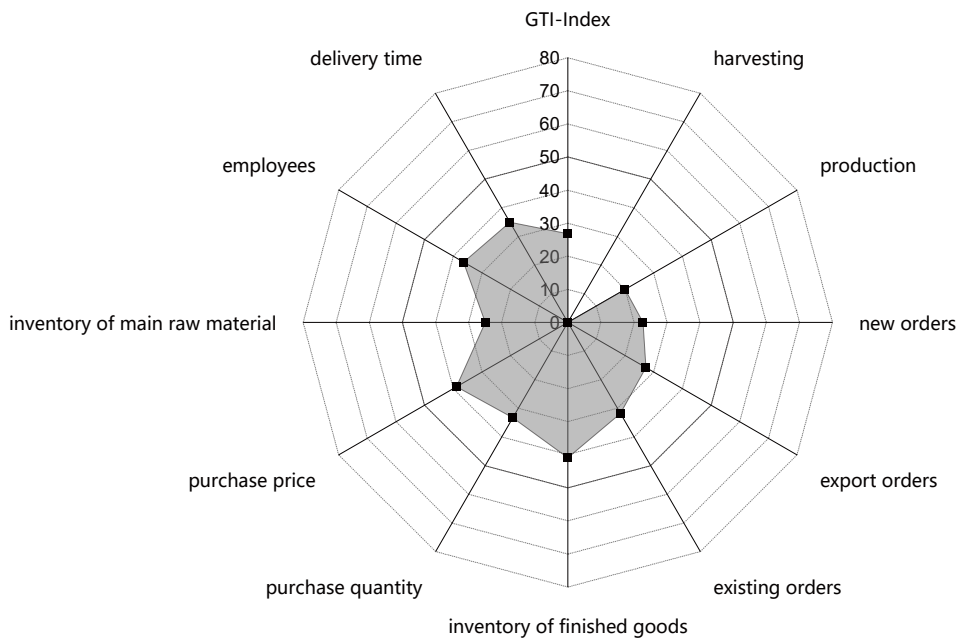
- Labor and orders were not enough.
- Export volume was insufficient due to weak overseas markets.
- The war led to uncertain global economy.
- The market slowed down due to an appreciation in the currency exchange rate.
- Insufficient demand for building materials led to a decline in wood product prices.
- The prices of sawn timber were too low compared to the costs.

Main Suggestions from GTI-Malaysia Enterprises

- Expand markets and seek labor force.
- Strictly control production costs.
- Look for new alternative markets and products to replace some of the traditional markets.
- Search for new markets of plantation-based sawn timber.
- Need the government's financial support to purchase/upgrade production equipment.

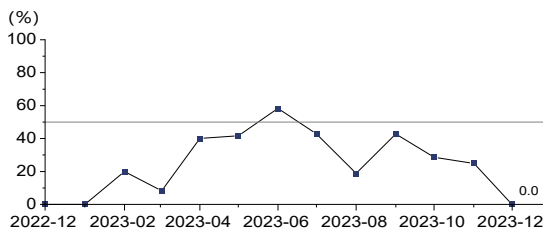
GTI-Malaysia sub-index

As for the GTI-Malaysia sub-index, in December 2023, the 11 sub-indexes were all below the critical value.

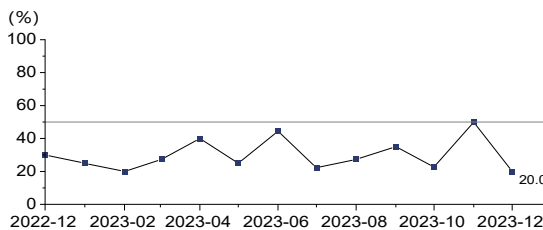


GTI-Malaysia sub-index

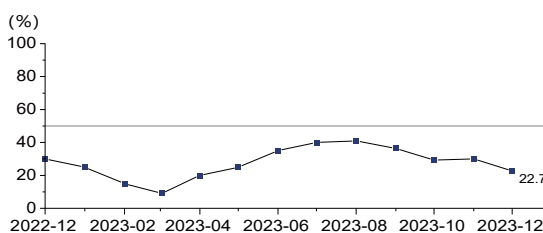
The harvesting index registered 0.0%, a decrease of 25.0 percentage points from the previous month, was below the critical value for 6 consecutive months, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-Malaysia was much less than that of last month.



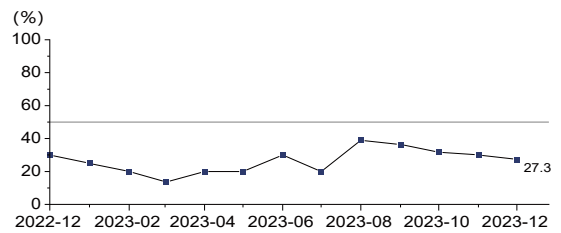
The production index registered 20.0%, a decrease of 30.0 percentage points from the previous month, fell below the critical value after one month, indicating that the production volume of the superior timber enterprises represented by the GTI-Malaysia was much less than that of last month.



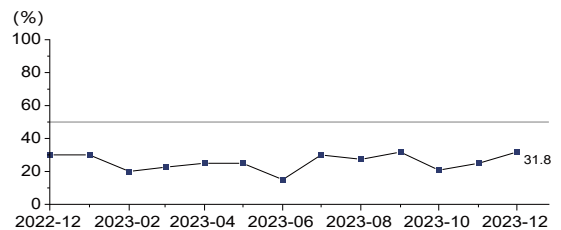
The new orders index registered 22.7%, a decrease of 7.3 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the number of new orders of the superior timber enterprises represented by the GTI-Malaysia was much less than that of last month.



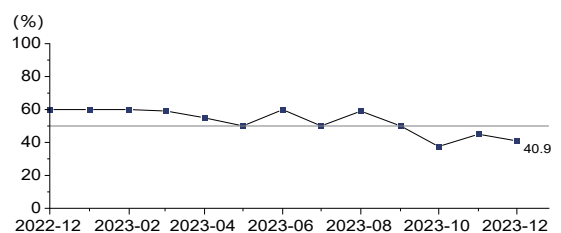
The export orders index registered 27.3%, a decrease of 2.7 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the number of export orders of the superior timber enterprises represented by the GTI-Malaysia was less than that of last month.



The existing orders index registered 31.8%, an increase of 6.8 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-Malaysia was less than that of last month.

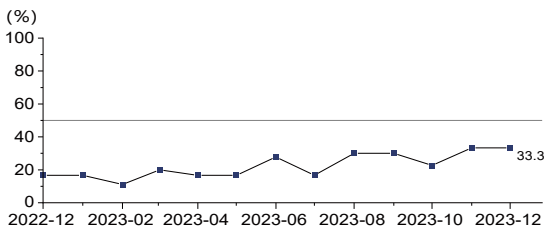


The inventory index of finished products registered 40.9%, a decrease of 4.1 percentage points from the previous month, was below the critical value for 3 consecutive months, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-Malaysia was less than that of last month.

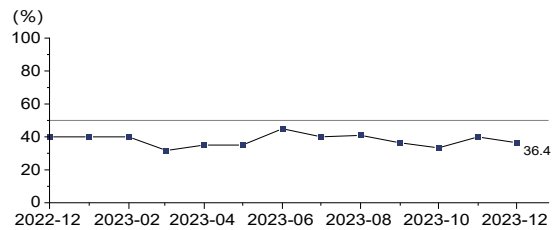




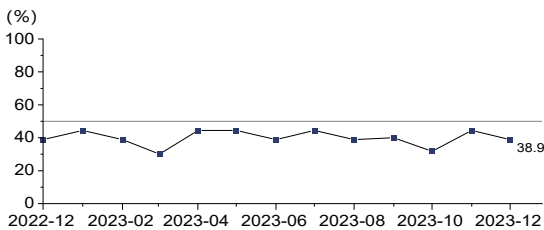
The purchase quantity index registered 33.3%, same with the previous month, was below the critical value for 14 consecutive months, indicating that the purchase quantity of the superior timber enterprises represented by the GTI-Malaysia was less than that of last month.



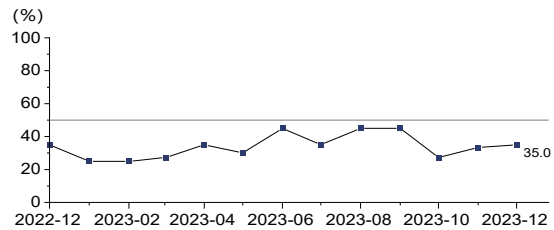
The production and management employees index registered 36.4%, a decrease of 3.6 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the number of employees in the superior timber enterprises represented by the GTI-Malaysia was less than that of last month.



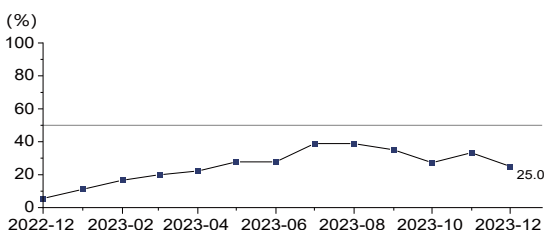
The purchase price index registered 38.9%, a decrease of 5.5 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the purchase price of the superior timber enterprises represented by the GTI-Malaysia was lower than that of last month.



The delivery time index registered 35.0%, an increase of 1.7 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-Malaysia was shorter than that of last month.



The inventory index of main raw materials registered 25.0%, a decrease of 8.3 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-Malaysia was less than that of last month.

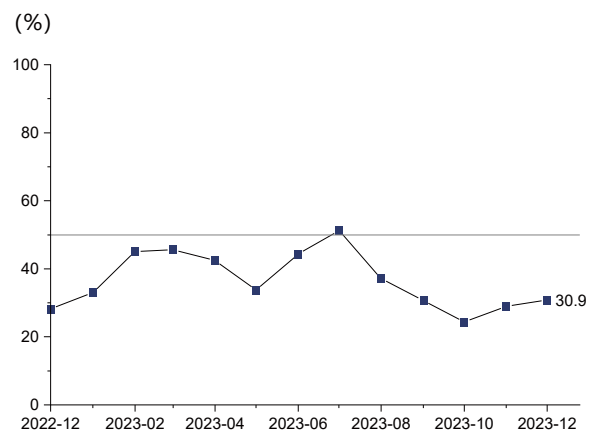


GTI-Gabon Index in December 2023

Data released by Gabon’s Ministry of Economy showed that Gabon's economic growth rate is expected to be 2.7% in 2023 and 3.1% in 2024, driven by growth in both the supply side (e.g., mining, timber, and transportation) and the demand side (e.g., consumption and investment). Specifically, it is expected that the timber industry will grow by 7.1% in 2024, and the industries of manganese mining and cash crops (such as palm) may see an increase of 5.6% and 5.3%, respectively. Recently, Gabon's transitional president had a conversation with stakeholders in the forestry sector to discuss the challenges and opportunities facing the sector. The President and the Minister of Water and Forests pledged to revitalize the timber and forestry sectors and said that relevant authorities would make efforts to address issues such as rising fuel costs, value-added tax refunds and poor infrastructure to create attractive and more regulated business atmosphere and environment for enterprises. In the meantime, the Gabonese government was carrying out key reform in the Special Economic Zone NKOK to solve problems such as irregular social security payments, low salaries and overtime work.

In December this year, GTI-Gabon enterprises reported that the speed of logistics was seriously

GTI-Gabon Index



affected by deteriorating road and railway conditions caused by the continuous heavy rains. At the same time, high transportation costs and tax pressure had greatly restricted their production and operation. The enterprises hoped the government would increase the number of road and rail vehicles, reduce the tax pressure on enterprises, and take measures to help them explore domestic and international markets. This month, the GTI-Gabon index registered 30.9%, an increase of 1.9 percentage points from the previous month, was below the critical value (50%) for 5 consecutive months, indicating that the business prosperity of the superior timber enterprises represented by the GTI-Gabon index shrank from last month.

Main Challenges Reported by GTI-Gabon Enterprises

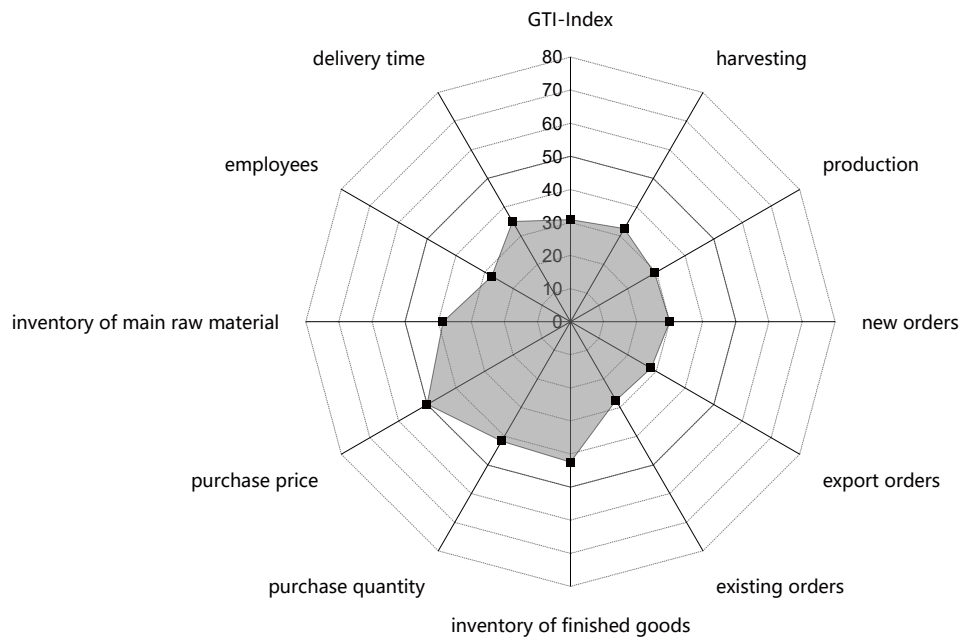
- The number of customer orders decreased.
- High land tax imposed heavy pressure on business.
- Diesel and transportation costs remained high, and the overall condition of the Ovan-Makokou Highway continued to deteriorate.
- High fuel prices led to an increase in production costs.
- The payment process for export orders was complex and the delivery time couldn't be guaranteed.
- Heavy rains made it difficult to obtain the necessary resources for production.
- Enterprises were unable to deliver logs to buyers on schedule.
- The global economy was sluggish, and the international timber market saw a decrease in demand and a decline in prices.

Main Suggestions from GTI-Gabon Enterprises

- The government may roll out policies to support enterprises in exploring new markets.
- Relevant authorities may adjust the prices of industrial diesel to prepare for production in the next dry season.
- Enterprises need to have a stable workforce.
- Reduce the tax burden on enterprises.
- The transportation authorities may increase the number of road and rail transport vehicles.
- Develop domestic and international secondary markets.
- Increase international and domestic sales, strengthen communication with foreign customers, and provide smoother services for international customers.

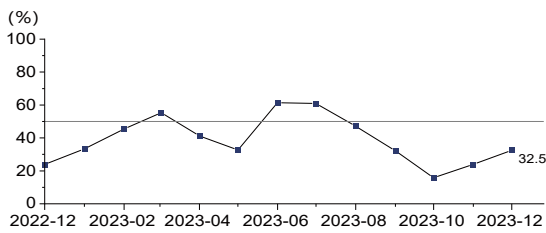
GTI-Gabon sub-index

As for the GTI-Gabon sub-index, in December 2023, only the purchase price index was equal to the critical value, while the remaining 10 sub-indices were all below the critical value.

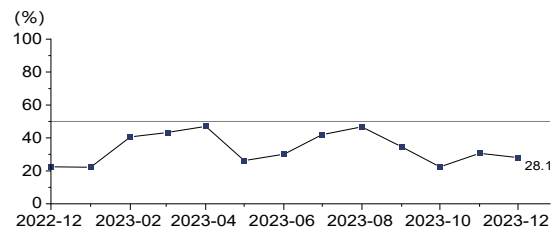


GTI-Gabon sub-index

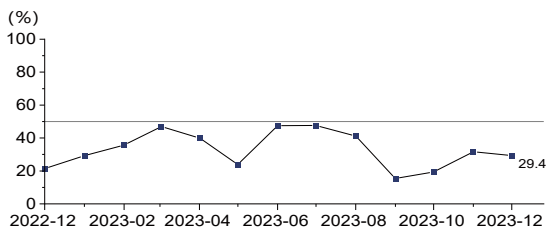
The harvesting index registered 32.5%, an increase of 8.6 percentage points from the previous month, was below the critical value for 5 consecutive months, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-Gabon was less than that of last month.



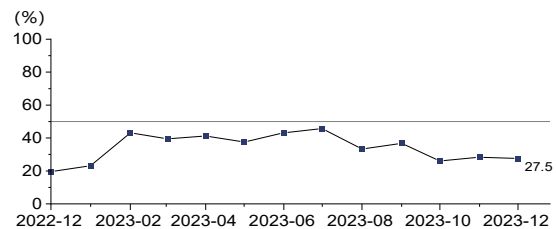
The export orders index registered 28.1%, a decrease of 2.5 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the number of export orders of the superior timber enterprises represented by the GTI-Gabon was less than that of last month.



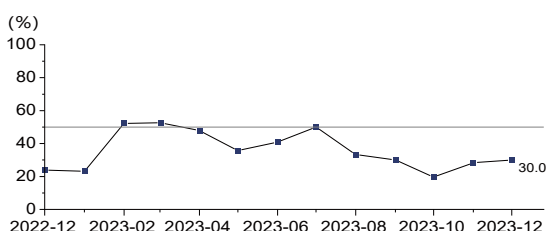
The production index registered 29.4%, a decrease of 2.2 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the production volume of the superior timber enterprises represented by the GTI-Gabon was less than that of last month.



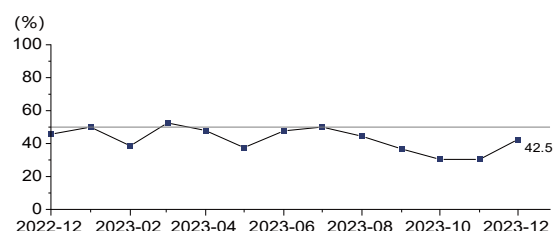
The existing orders index registered 27.5%, a decrease of 0.8 percentage point from the previous month, was below the critical value for 14 consecutive months, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-Gabon was less than that of last month.



The new orders index registered 30.0%, an increase of 1.7 percentage points from the previous month, was below the critical value for 5 consecutive months, indicating that the number of new orders of the superior timber enterprises represented by the GTI-Gabon was less than that of last month.

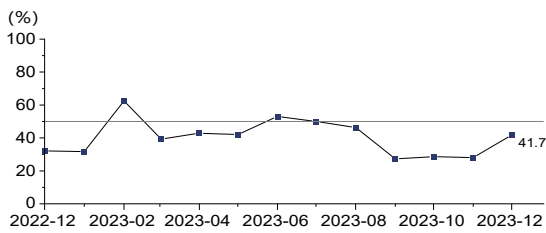


The inventory index of finished products registered 42.5%, an increase of 12.1 percentage points from the previous month, was below the critical value for 5 consecutive months, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-Gabon was less than that of last month.

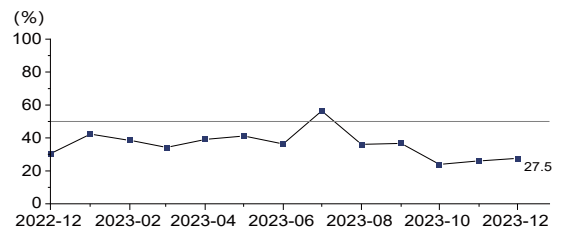




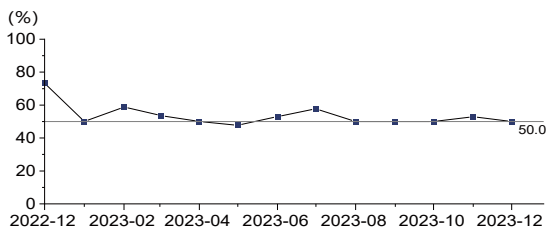
The purchase quantity index registered 41.7%, an increase of 13.6 percentage points from the previous month, was below the critical value for 5 consecutive months, indicating that the purchase quantity of the superior timber enterprises represented by the GTI-Gabon was less than that of last month.



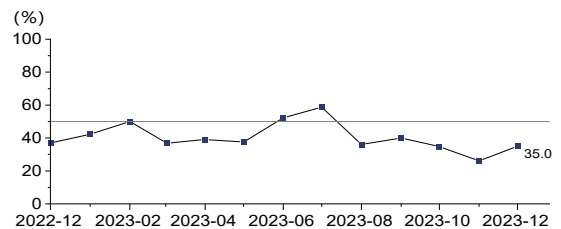
The production and management employees index registered 27.5%, an increase of 1.4 percentage points from the previous month, was below the critical value for 5 consecutive months, indicating that the number of employees in the superior timber enterprises represented by the GTI-Gabon was less than that of last month.



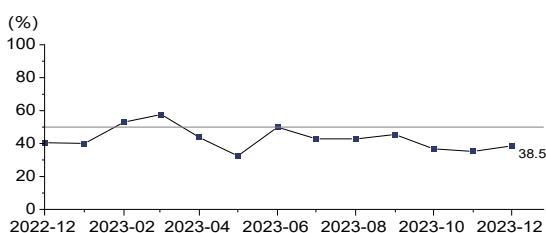
The purchase price index registered 50.0%, a decrease of 2.9 percentage points from the previous month, fell to the critical value after one month, indicating that the purchase price of the superior timber enterprises represented by the GTI-Gabon was the same with that of last month.



The delivery time index registered 35.0%, an increase of 8.9 percentage points from the previous month, was below the critical value for 5 consecutive months, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-Gabon was shorter than that of last month.



The inventory index of main raw materials registered 38.5%, an increase of 3.2 percentage points from the previous month, was below the critical value for 6 consecutive months, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-Gabon was less than that of last month.

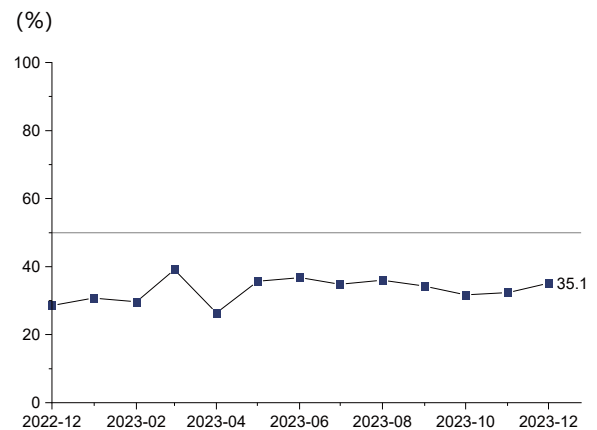


GTI-ROC Index in December 2023

During the 28th Conference of the Parties of the UNFCCC (COP28), the Republic of Congo (ROC), along with international partners, announced an ambitious vision to protect biodiversity and promote a sustainable economic model. According to the vision, measures would be taken in several key areas, including strengthening scientific research, expanding protected areas, supporting afforestation and reforestation, and raising awareness about the importance of preserving biodiversity and climate. On December 5, ROC and Cameroon signed a cooperation agreement in Brazzaville to jointly exploit and develop projects related to the Avima, Badondo and Nabeba iron ore mines. They also signed a cooperation agreement worth more than US\$1.3 billion, for the financing, design, construction, operation and maintenance of the Nababa-Mbaram-Avima-Padondo railway line with a total length of 149 kilometers that would see a construction period of 24 months.

In December 2023, heavy rains affected Pointe-Noire and some other areas in ROC. At the time that the international market demand was still

GTI-ROC Index



slowing down and fuel prices continued to rise, some enterprises chose to reduce production in response to the market environment. GTI-ROC enterprises reported that the ban on log exports had a serious impact on their production, and hoped the government departments would adjust relevant regulations. This month, the GTI-ROC index registered 35.1%, an increase of 2.7 percentage points from the previous month, was below the critical value (50%) for 14 consecutive months, indicating that the business prosperity of the superior timber enterprises represented by the GTI-ROC index shrank from last month.

Main Challenges Reported by GTI-ROC Enterprises

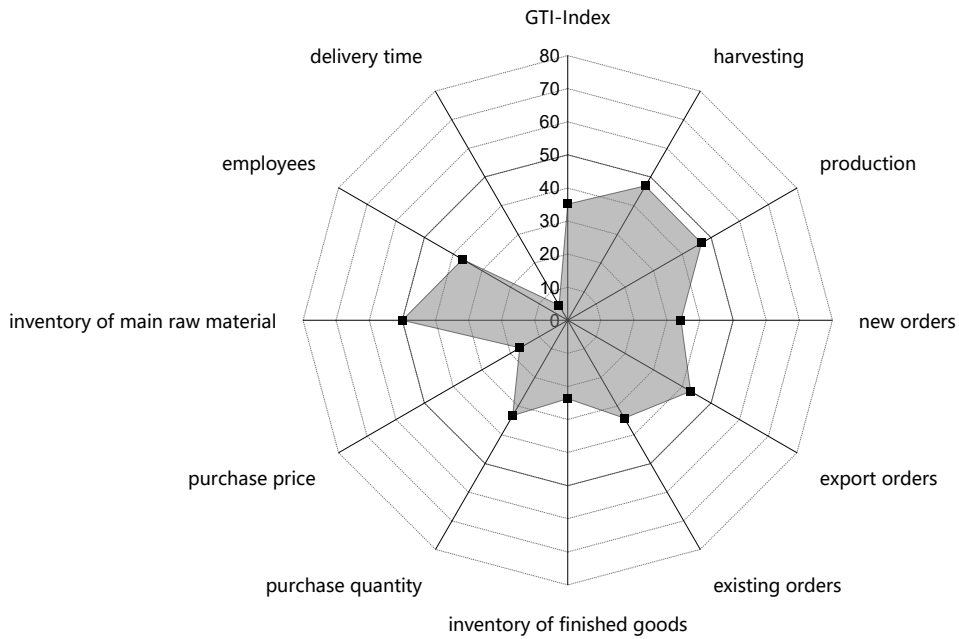
- The international timber market was sluggish.
- Some enterprises felt hindered by a lack of skilled and stable labor force.
- The rainfall resulted in less field operation time and lower production volume.
- The laws on log production and the ban on log exports restricted production.
- Fuel supply remained insufficient and its prices continued to rise, making it impossible to ensure long-term production stability.

Main Suggestions from GTI-ROC Enterprises

- The forestry authorities may increase support for enterprises.
- Adjust the laws regarding log production and exports.
- Adjust the fuel distribution system to ensure sufficient fuel supply in all regions.
- Lower the fuel prices and alleviate some tax burdens on enterprises, so as to reduce operation pressures of enterprises.
- Governments may strengthen road maintenance to ensure smooth logistics.

GTI-ROC sub-index

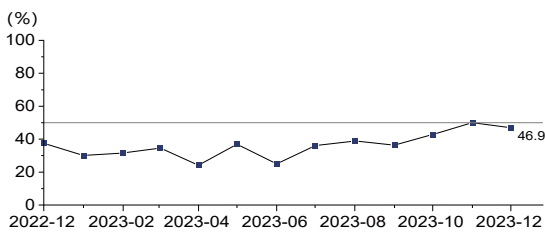
As for the GTI-ROC sub-index, in December 2023, only the inventory index of main raw materials was equal to the critical value, while the remaining 10 sub-indexes were below the critical value.



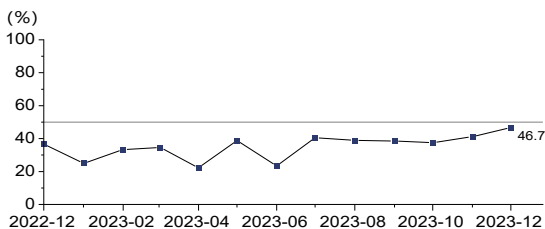
GTI-ROC sub-index



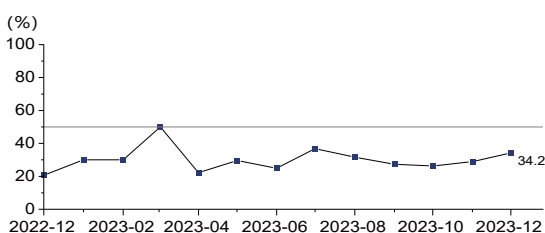
The harvesting index registered 46.9%, a decrease of 3.1 percentage points from the previous month, fell below the critical value after one month, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-ROC was less than that of last month.



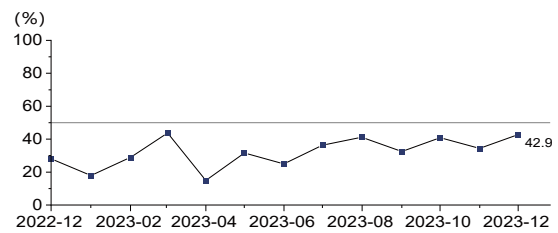
The production index registered 46.7%, an increase of 5.5 percentage points from the previous month, was below the critical value for 13 consecutive months, indicating that the production volume of the superior timber enterprises represented by the GTI-ROC was less than that of last month.



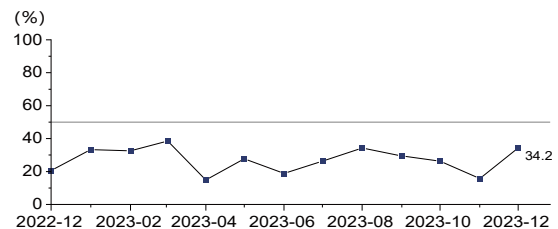
The new orders index registered 34.2%, an increase of 5.3 percentage points from the previous month, was below the critical value for 9 consecutive months, indicating that the number of new orders of the superior timber enterprises represented by the GTI-ROC was less than that of last month.



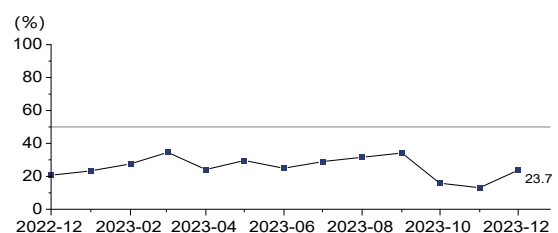
The export orders index registered 42.9%, an increase of 8.5 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the number of export orders of the superior timber enterprises represented by the GTI-ROC was less than that of last month.



The existing orders index registered 34.2%, an increase of 18.4 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-ROC was less than that of last month.

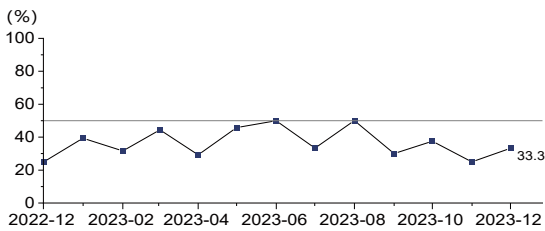


The inventory index of finished products registered 23.7%, an increase of 10.5 percentage points from the previous month, was below the critical value for 13 consecutive months, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-ROC was much less than that of last month.

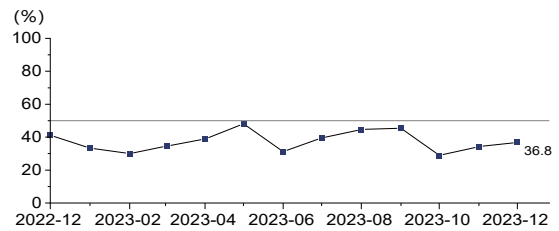




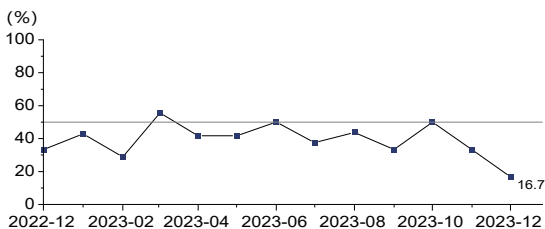
The purchase quantity index registered 33.3%, an increase of 8.3 percentage points from the previous month, was below the critical value for 4 consecutive months, indicating that the purchase quantity of the superior timber enterprises represented by the GTI-ROC was less than that of last month.



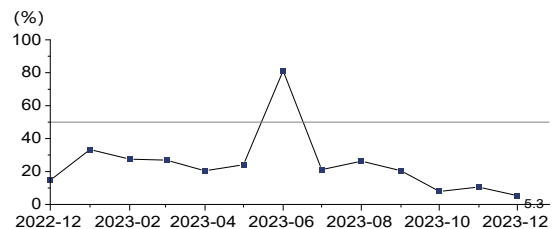
The production and management employees index registered 36.8%, an increase of 2.6 percentage points from the previous month, was below the critical value for 13 consecutive months, indicating that the number of employees in the superior timber enterprises represented by the GTI-ROC was less than that of last month.



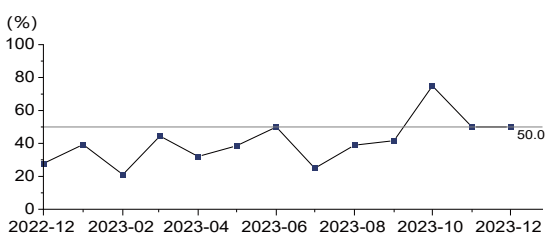
The purchase price index registered 16.7%, a decrease of 16.6 percentage points from the previous month, was below the critical value for 2 consecutive months, indicating that the purchase price of the superior timber enterprises represented by the GTI-ROC was much lower than that of last month.



The delivery time index registered 5.3%, a decrease of 5.2 percentage points from the previous month, was below the critical value for 6 consecutive months, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-ROC was much shorter than that of last month.



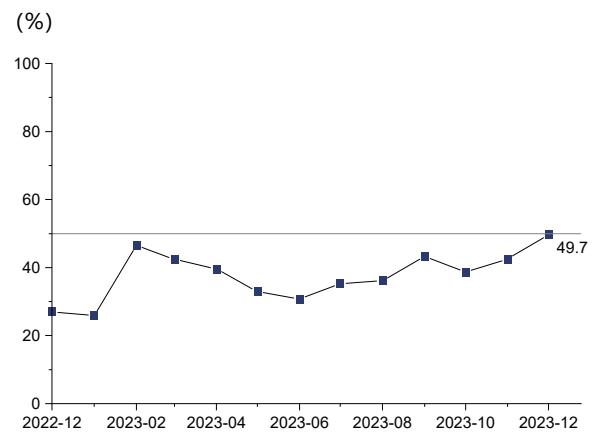
The inventory index of main raw materials registered 50.0%, same with the previous month, was equal to the critical value for 2 consecutive months, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-ROC was the same with that of last month.



GTI-Brazil Index in December 2023

The Annual Report 2023 of the Brazilian Tree Industry (Ibá) revealed that currently the area of planted forests in Brazil is about 9.94 million hectares. Among the states in the country, Minas Gerais continues to see extension of planted areas, with 2.2 million hectares recorded, followed by Mato Grosso do Sul with 1.1 million, and São Paulo, which maintains 1.0 million hectares of planted forests. During a meeting with several forest-based sectors, the Ministry of Agriculture, Livestock and Food Supply (MAPA) presented the Forest + Sustainable Plan, which aims to identify forest production chains, increase the area of forests planted for commercial purposes and build a network that will connect project-holding institutions and investors. Since November, the Plan has been launched nationally by MAPA and ready to receive projects with investors who are interested in supporting sustainable forest management. The Plan will also focus on forest seed production, forest nurseries, agroforestry systems, research and development, conservation of endangered species and carbon businesses. In December this year, the overall timber sector in

GTI-Brazil Index



Brazil was still contracting, as a result of slow logistics at ports and the large amounts of rain. And in the face of high tax burden, some enterprises hoped the government may introduce preferential policies to alleviate the business pressure on them. This month, the GTI-Brazil index registered 49.7%, an increase of 7.2 percentage points from the previous month, was below the critical value (50%) for 14 consecutive months, indicating that the business prosperity of the superior timber enterprises represented by the GTI-Brazil index shrank from last month, however, the contraction eased.

Main Challenges Reported by GTI-Brazil Enterprises

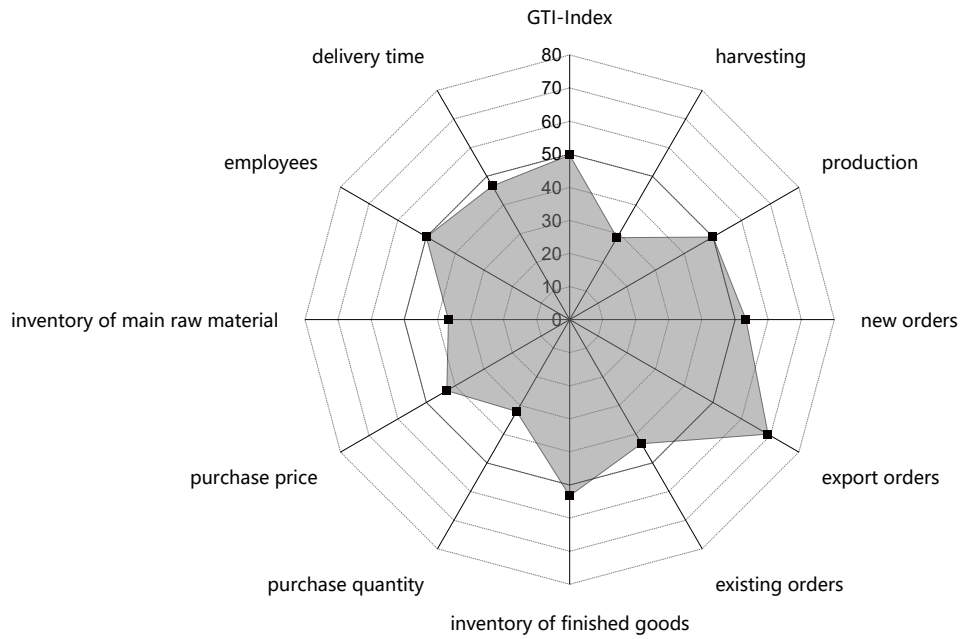
- The weather (a lot of rain) had an impact on field operations.
- The statutory holiday at the end of the year affected production.
- The market was stagnant and consumers had low demand for finished products.
- Alternatives such as plastic, aluminium and MDF (medium density fibreboard) posed a challenge to the sales of wood products.
- The enterprises faced heavy tax burden, and there was a lack of tax incentives to promote the timber market.
- Flow of cargo at the ports was slow, accompanied by a lack of space in port warehouses.
- There was a delay in releasing LPCO (Licenses, Permits, Certificates and Other Documents) by forestry authorities.
- Declining water level of the Amazon River and limited availability of containers resulted in decreased volume of harvesting.
- There was a lack of market recognition of new hardwood species such as Australian cedar (Toona Ciliata) and African mahogany (Khaya Grandifoliola).

Main Suggestions from GTI-Brazil Enterprises

- Set a schedule for field operations according to the seasonal climate.
- The government may formulate more effective policies to promote the development of the forest sector, and reduce the tax burden on enterprises through tax incentives.
- Seek new commercial partnerships and boost sales.
- Increase storage areas for finished products combined with the adjustment of production planning.
- Increase market recognition of new hardwood species such as Australian cedar (Toona Ciliata) and African mahogany (Khaya Grandifoliola).

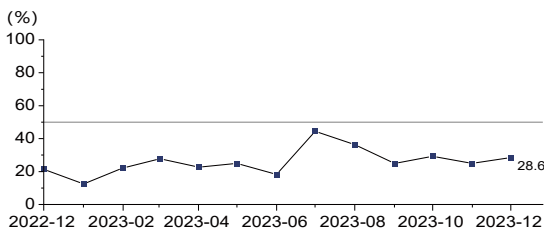
GTI-Brazil sub-index

As for the GTI-Brazil sub-index, in December 2023, three indexes were above the critical value, including new orders, export orders, and inventory of finished products, while production index and employees index were equal to the critical value and the remaining 6 sub-indexes were below the critical value.

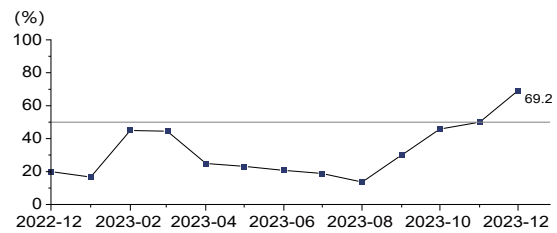


GTI-Brazil sub-index

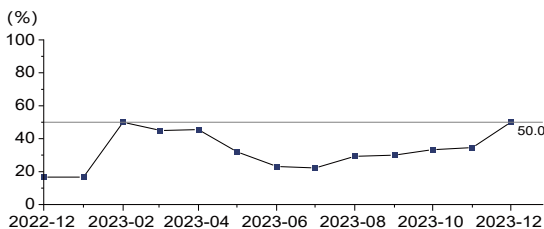
The harvesting index registered 28.6%, an increase of 3.6 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-Brazil was less than that of last month.



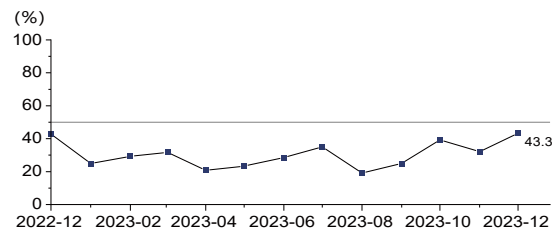
The export orders index registered 69.2%, an increase of 19.2 percentage points from the previous month, rose above the critical value after one month, indicating that the number of export orders of the superior timber enterprises represented by the GTI-Brazil was more than that of last month.



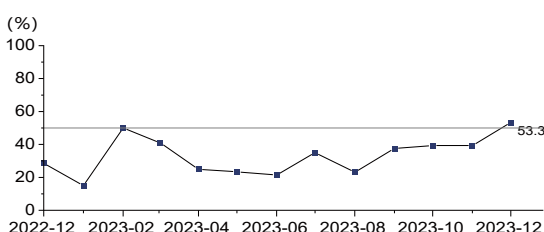
The production index registered 50.0%, an increase of 15.4 percentage points from the previous month, rose to the critical value after 9 months, indicating that the production volume of the superior timber enterprises represented by the GTI-Brazil was the same with that of last month.



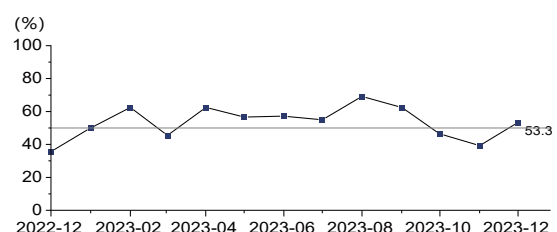
The existing orders index registered 43.3%, an increase of 11.2 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-Brazil was less than that of last month.



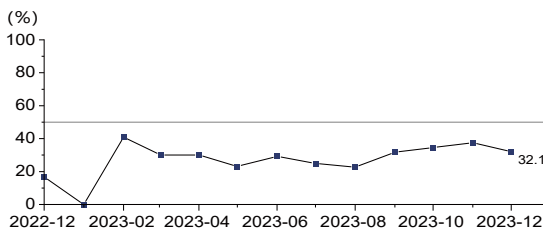
The new orders index registered 53.3%, an increase of 14.0 percentage points from the previous month, rose above the critical value after 9 months, indicating that the number of new orders of the superior timber enterprises represented by the GTI-Brazil was more than that of last month.



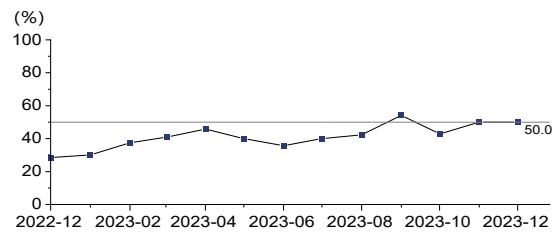
The inventory index of finished products registered 53.3%, an increase of 14.0 percentage points from the previous month, rose above the critical value after one month, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-Brazil was more than that of last month.



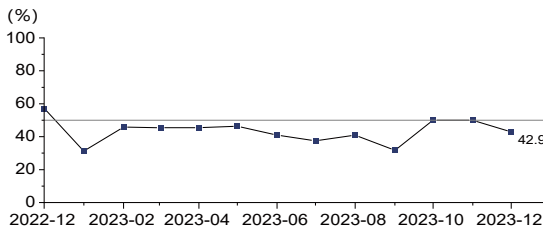
The purchase quantity index registered 32.1%, a decrease of 5.4 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the purchase quantity of the superior timber enterprises represented by the GTI-Brazil was less than that of last month.



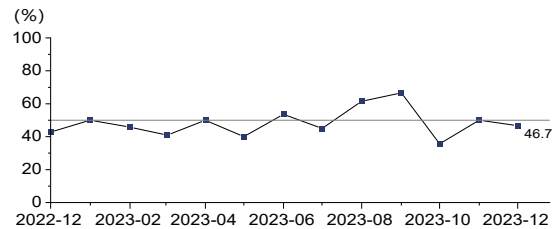
The production and management employees index registered 50.0%, same with the previous month, was equal to the critical value for 2 consecutive months, indicating that the number of employees in the superior timber enterprises represented by the GTI-Brazil was the same with that of last month.



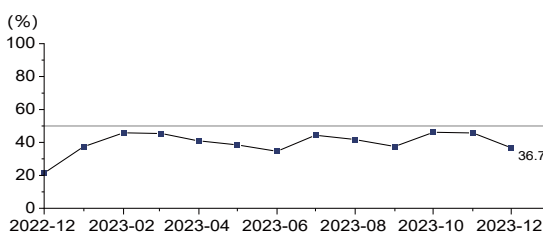
The purchase price index registered 42.9%, a decrease of 7.1 percentage points from the previous month, fell below the critical value after 2 months, indicating that the purchase price of the superior timber enterprises represented by the GTI-Brazil was lower than that of last month.



The delivery time index registered 46.7%, a decrease of 3.3 percentage points from the previous month, fell below the critical value after one month, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-Brazil was shorter than that of last month.



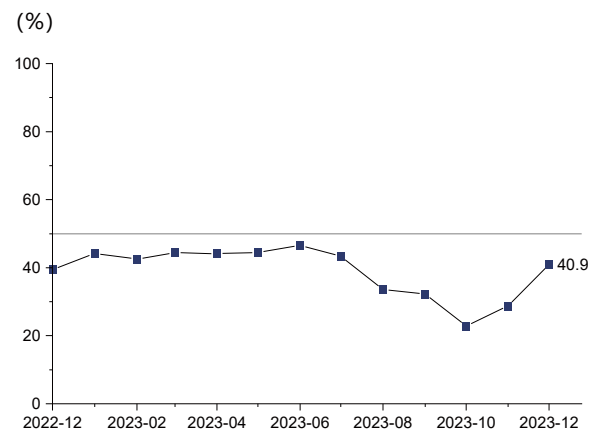
The inventory index of main raw materials registered 36.7%, a decrease of 9.1 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-Brazil was less than that of last month.



GTI-Mexico Index in December 2023

The latest edition of the Trade and Integration Monitor released by the Inter-American Development Bank (IDB) revealed that in the first half of 2023, the value of goods exports from Latin America and the Caribbean fell by 2.7% year-on-year, with export prices falling by 4.7% and export volumes increasing slightly by 2.9%. Among the countries in the region, Mexico led the growth in terms of shipments, growing by 3.9% during the same period. Data also showed that Mexico's total exports reached US\$50.25 billion and imports hit US\$49.62 billion in November 2023, resulting in a trade surplus of US\$630 million. On December 15, Mexico's central bank released findings of a survey which said that Mexican economists predicted a GDP growth rate of 3.37% for 2023, unchanged from the previous estimates, while the forecast for 2024 was raised from 2.18% to 2.29%. MEXICO2 (a platform for trading carbon credits in the country) reported that in an effort to mitigate and adapt to climate change, six states in Mexico had started levying carbon taxes, with a total of Mex\$882 million collected so far. Among them, the state of Querétaro implemented the highest tax rate, at Mex\$580 per ton of carbon dioxide. In December this year, GTI-Mexico enterprises

GTI-Mexico Index



reported that while the international timber market remained sluggish, the imported timber products had squeezed the market share of Mexican enterprises as they had price advantages. In addition, GTI-Mexico enterprises were faced with challenges such as poor road conditions, lack of production tools, insufficient power supply, and expiration of the harvesting permit, which had restricted the vitality of their production and operation. This month, the GTI-Mexico index registered 40.9%, an increase of 12.1 percentage points from the previous month, was below the critical value (50%) for 14 consecutive months, indicating that the business prosperity of the superior timber enterprises represented by the GTI-Mexico index shrank from last month, however, the contraction eased.

Main Challenges Reported by GTI-Mexico Enterprises

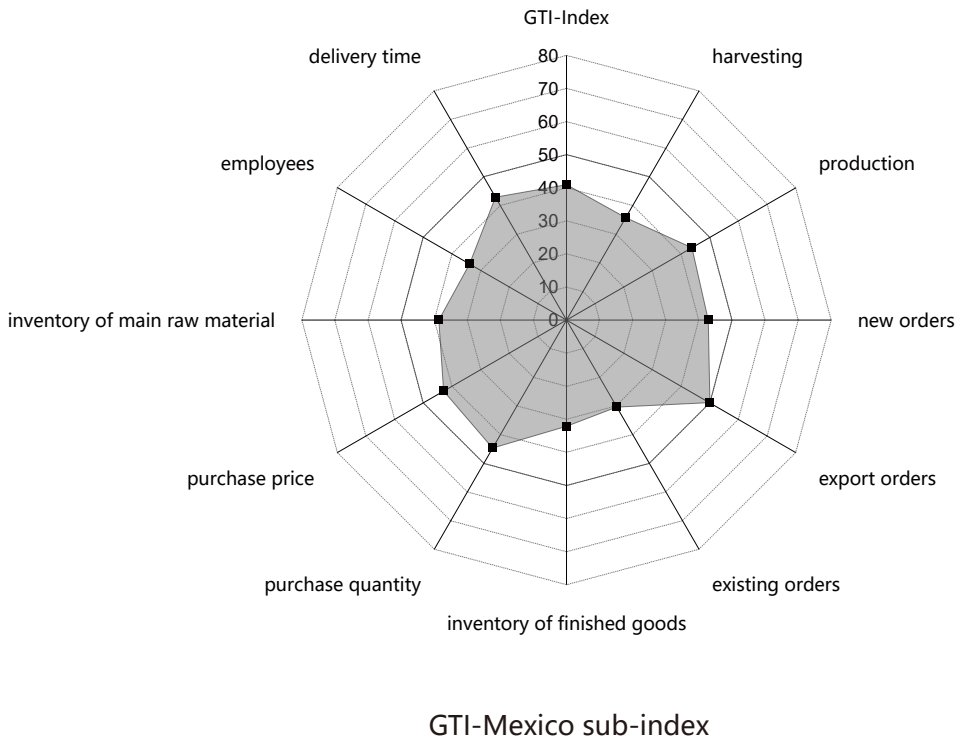
- The long-term stagnation of the sawn timber market continued, and the selling prices were decreasing.
- The domestic market became saturated due to imported products.
- The production and operation costs were very high, but the market prices of products were low.
- The demand for wood was sluggish and the sales were low.
- During the rainy season, enterprises were faced with poor road conditions, wood supply problems, and a slowdown in production.
- The timber prices continued to decline.
- For some enterprises, forestry activities were hindered by a lack of tools to transport roundwood to the sawmill.
- Power supply from Mexico's Federal Electricity Commission (CFE) was insufficient.
- The forest harvesting permit expired.

Main Suggestions from GTI-Mexico Enterprises

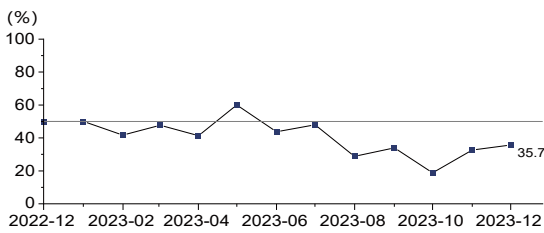
- Restrict the entry of imported products.
- Help is needed from the government.
- Improve the planning for forestry operations.
- Roll out policies to reactivate the country's economy.
- The federal government could charge tariffs on foreign products and encourage consumers to give preference to domestic forest products.
- Repair main roads.
- Promote and sell products through social media.
- Give priority to processing mechanization.
- Encourage productive activities to stimulate demand for wood.

GTI-Mexico sub-index

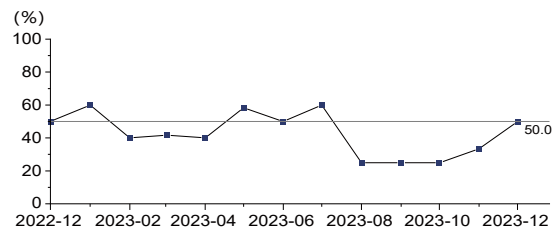
As for the GTI-Mexico sub-index, in December 2023, the export orders index was equal to the critical value, while the remaining 10 sub-indexes were all below the critical value.



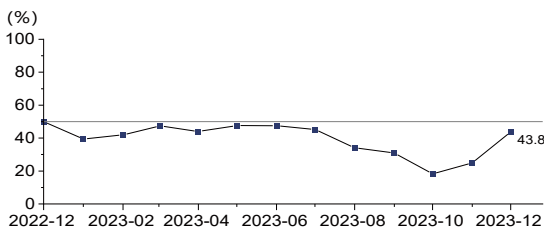
The harvesting index registered 35.7%, an increase of 3.0 percentage points from the previous month, was below the critical value for 7 consecutive months, indicating that the harvesting volume of the superior timber enterprises represented by the GTI-Mexico was less than that of last month.



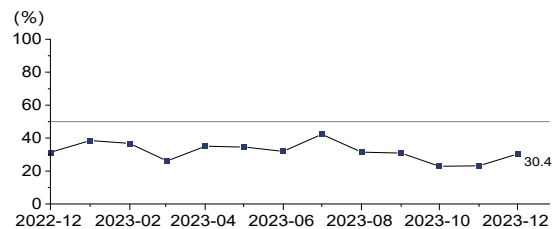
The export orders index registered 50.0%, an increase of 16.7 percentage points from the previous month, rose to the critical value after 4 months, indicating that the number of export orders of the superior timber enterprises represented by the GTI-Mexico was the same with that of last month.



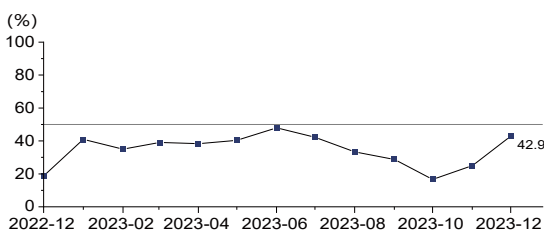
The production index registered 43.8%, an increase of 18.8 percentage points from the previous month, was below the critical value for 12 consecutive months, indicating that the production volume of the superior timber enterprises represented by the GTI-Mexico was less than that of last month.



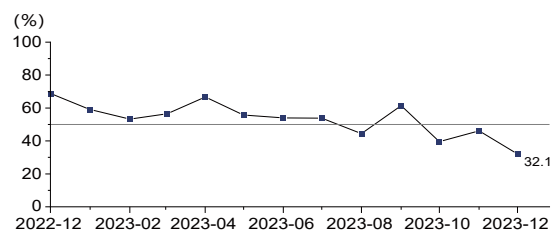
The existing orders index registered 30.4%, an increase of 7.3 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-Mexico was less than that of last month.



The new orders index registered 42.9%, an increase of 17.9 percentage points from the previous month, was below the critical value for 14 consecutive months, indicating that the number of new orders of the superior timber enterprises represented by the GTI-Mexico was less than that of last month.

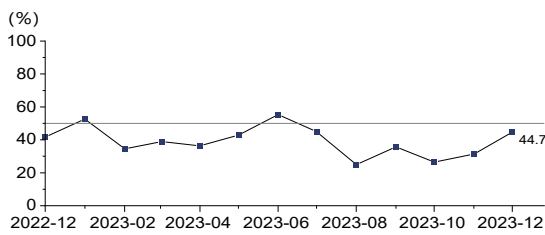


The inventory index of finished products registered 32.1%, a decrease of 14.1 percentage points from the previous month, was below the critical value for 3 consecutive months, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-Mexico was less than that of last month.

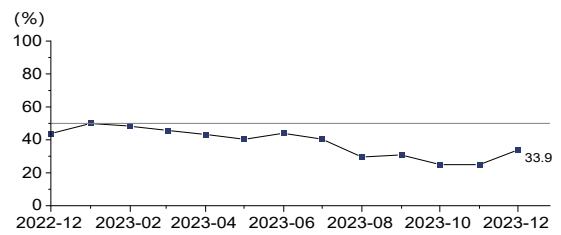




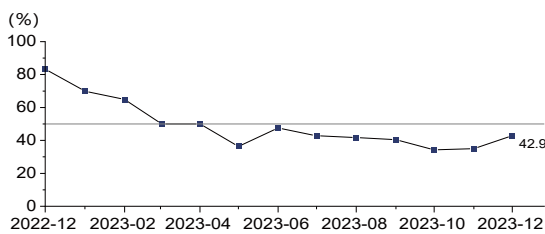
The purchase quantity index registered 44.7%, an increase of 13.4 percentage points from the previous month, was below the critical value for 6 consecutive months, indicating that the purchase quantity of the superior timber enterprises represented by the GTI-Mexico was less than that of last month.



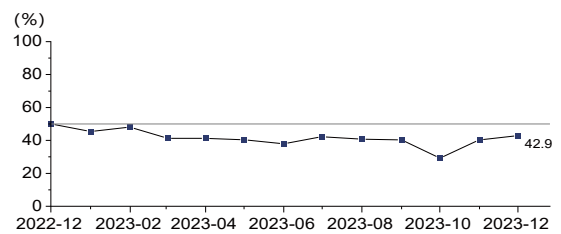
The production and management employees index registered 33.9%, an increase of 8.9 percentage points from the previous month, was below the critical value for 11 consecutive months, indicating that the number of employees in the superior timber enterprises represented by the GTI-Mexico was less than that of last month.



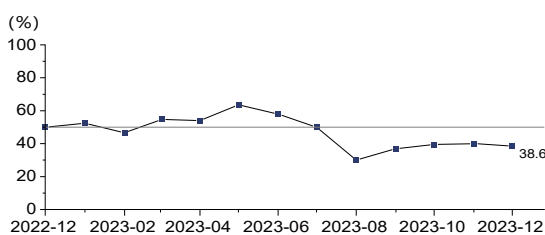
The purchase price index registered 42.9%, an increase of 7.9 percentage points from the previous month, was below the critical value for 8 consecutive months, indicating that the purchase price of the superior timber enterprises represented by the GTI-Mexico was lower than that of last month.



The delivery time index registered 42.9%, an increase of 2.5 percentage points from the previous month, was below the critical value for 12 consecutive months, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-Mexico was shorter than that of last month.



The inventory index of main raw materials registered 38.6%, a decrease of 1.4 percentage points from the previous month, was below the critical value for 5 consecutive months, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-Mexico was less than that of last month.

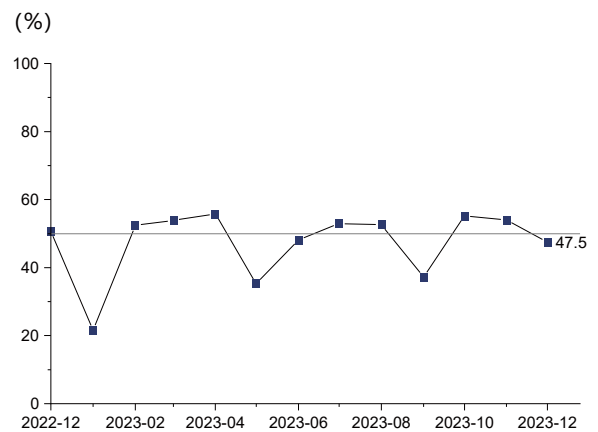


GTI-China Index in December 2023

On December 12, 2023, the BOC Research Institute (a unit of Bank of China) released the 2024 edition of China's Economic and Financial Outlook, which estimated that China is likely to see its GDP expand by around 5.6% in the fourth quarter of 2023, and the full-year GDP growth in 2023 may reach around 5.3%, higher than the projected target of 5%. At the beginning of January 2024, some adjustments were made to housing provident fund policies (of Beijing) and loan policies (of Shanghai). For example, the minimum down payment ratio for a second improved housing in Shanghai could be lowered to 40%. On January 4, Shenzhen issued the "Implementation Opinions on Actively and Steadily Promoting the Transformation of Urban Villages to Achieve High-quality Development" (Exposure Draft), soliciting opinions from the public before February 4, 2024, and an estimated 40% of the city's total buildings would be involved in the transformation of urban villages.

In December this year, China's construction sector showed some signs of recovery and the timber sector saw a significant rebound in orders from both home and abroad, driven by continuous stimulus policies in the real estate sector. However,

GTI-China Index



most enterprises were inclined to reduce inventory, and no marked improvement was observed on the production and supply side. The feedback from GTI-China enterprises indicated that there was a significant increase in the varieties of timber and chemicals with price increase, and amid fierce market competition, some enterprises still hadn't seen obvious rebound in orders. This month, the GTI-China index recorded 47.5%, a decrease of 6.5 percentage points compared to that of the previous month, fell below the critical value (50%) again after being above the value for 2 months, indicating that the business prosperity of the superior timber enterprises represented by the GTI-China index shrank from last month.



Products in Short Supply

Red Oak Veneer, Okan

Commodities with Price Increase in this Period

Black Walnut Wood Blank, Black Walnut Cross-band Veneer, Radiate Pine Log, White Oak Veneer, Rubberwood, Oak, Taun, Okan, Wood Based Panel, Solid Wood, Leather, Sponge, Cloth, Paint, Paperboard, Urea, Waterproofing Agent, Formaldehyde-Free Adhesive

Main Suggestions from GTI-China Enterprises

- Explore the Belt and Road markets.
- The government may regulate the market.

Commodities with Price Decrease in this Period

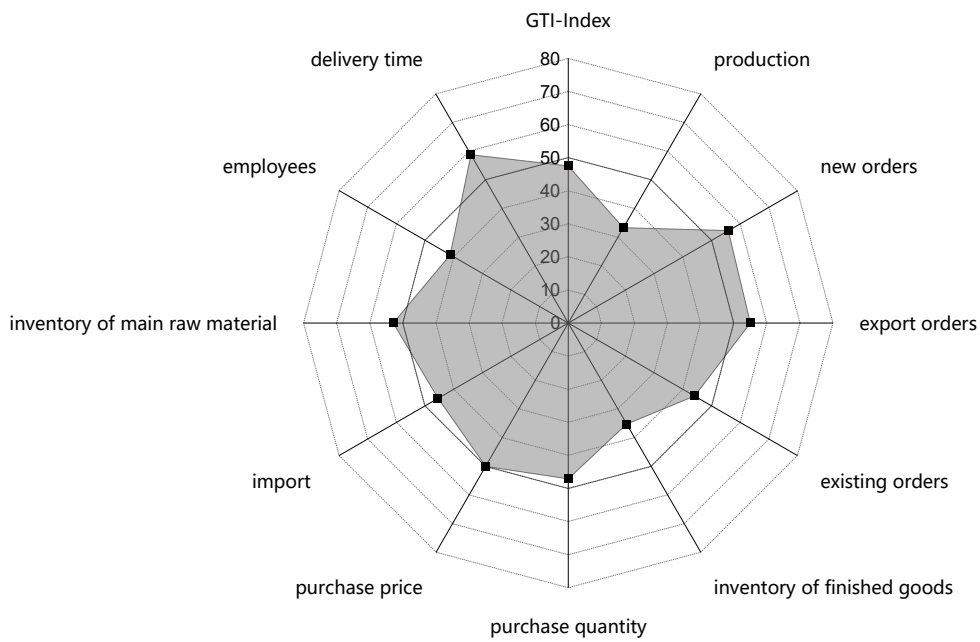
Birch, Methanol, Melamine, Paraffin

Main Challenges Reported by GTI-China Enterprises

- Product sales declined.
- The supply of goods was unstable and the delivery took a significant amount of time.
- Orders were insufficient and material prices rose.
- It was not feasible to raise prices, as price competition was fierce.

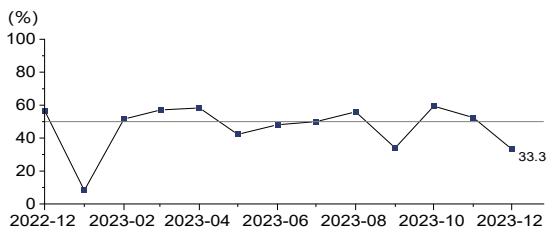
GTI-China sub-index

As for the GTI-China sub-index, in December 2023, four indexes were above the critical value, including new orders, export orders, inventory of main raw materials, and delivery time, while the purchase price index was equal to the critical value and the remaining 6 sub-indexes were below the critical value.

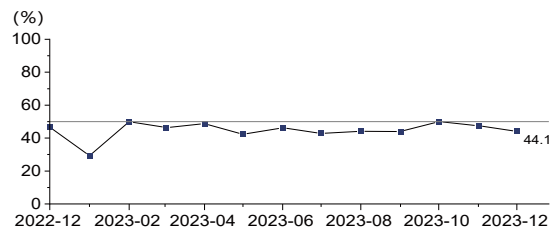


GTI-China sub-index

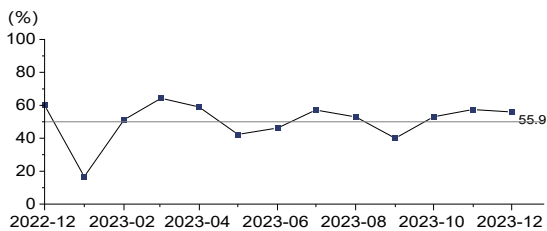
The production index registered 33.3%, a decrease of 19.2 percentage points from the previous month, fell below the critical value after 2 months, indicating that the production volume of the superior timber enterprises represented by the GTI-China was less than that of last month.



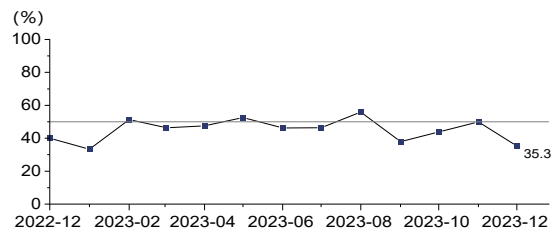
The existing orders index registered 44.1%, a decrease of 3.4 percentage points from the previous month, was below the critical value for 2 consecutive months, indicating that the number of existing orders of the superior timber enterprises represented by the GTI-China was less than that of last month.



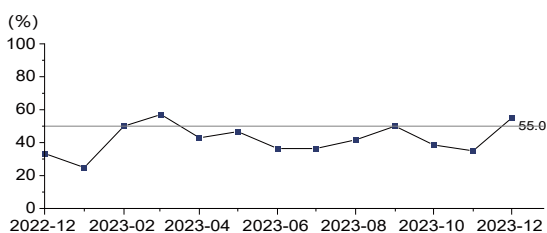
The new orders index registered 55.9%, a decrease of 1.6 percentage points from the previous month, was above the critical value for 3 consecutive months, indicating that the number of new orders of the superior timber enterprises represented by the GTI-China was more than that of last month.



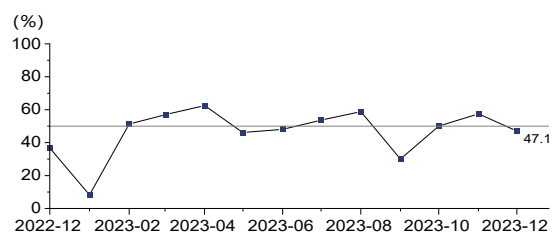
The inventory index of finished products registered 35.3%, a decrease of 14.7 percentage points from the previous month, fell below the critical value after one month, indicating that the inventory of finished products of the superior timber enterprises represented by the GTI-China was less than that of last month.



The export orders index registered 55.0%, an increase of 22.0 percentage points from the previous month, rose above the critical value after 2 months, indicating that the number of export orders of the superior timber enterprises represented by the GTI-China was more than that of last month.

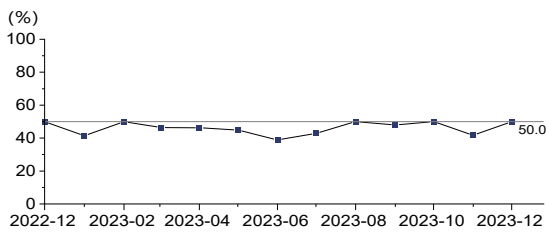


The purchase quantity index registered 47.1%, a decrease of 10.4 percentage points from the previous month, fell below the critical value after one month, indicating that the purchase quantity of the superior timber enterprises represented by the GTI-China was less than that of last month.

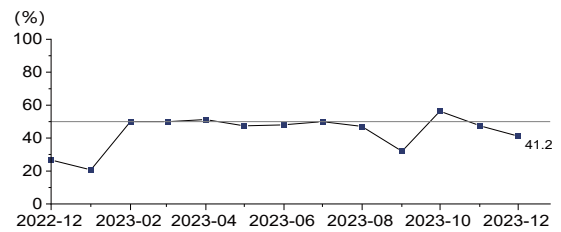




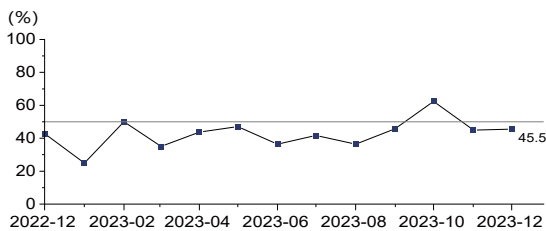
The purchase price index registered 50.0%, an increase of 8.3 percentage points from the previous month, rose to the critical value after one month, indicating that the purchase price of the superior timber enterprises represented by the GTI-China was the same with that of last month.



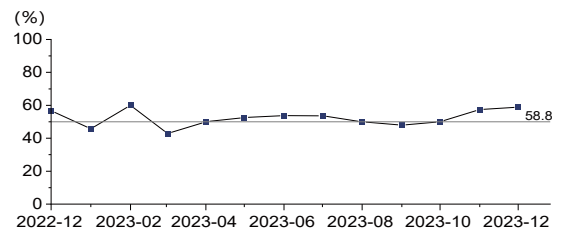
The production and management employees index registered 41.2%, a decrease of 6.3 percentage points from the previous month, was below the critical value for 2 consecutive months, indicating that the number of employees in the superior timber enterprises represented by the GTI-China was less than that of last month.



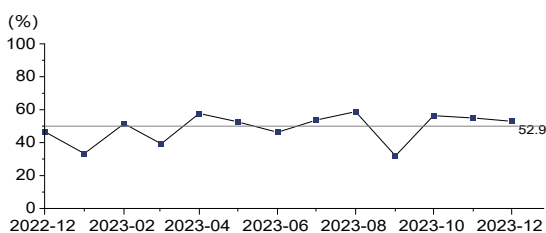
The import index registered 45.5%, an increase of 0.5 percentage point from the previous month, was below the critical value for 2 consecutive months, indicating that the import volume of the superior timber enterprises represented by the GTI-China was less than that of last month.



The delivery time index registered 58.8%, an increase of 1.3 percentage points from the previous month, was above the critical value for 2 consecutive months, indicating that the delivery time from the supplier to the superior timber enterprises represented by the GTI-China was longer than that of last month.



The inventory index of main raw materials registered 52.9%, a decrease of 2.1 percentage points from the previous month, was above the critical value for 3 consecutive months, indicating that the inventory of main raw materials of the superior timber enterprises represented by the GTI-China was more than that of last month.



Survey Methodology

The Global Timber Index (hereinafter referred to as GTI) is compiled based on the 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 Chains 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 platform covered 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. 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 content of the GTI report .

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 76 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 Chains Initiative (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” .

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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