PROJECT NUMBER: FST/2023/153

SUSTAINABLE EXPANSION OF FORESTRY AND WOOD PROCESSING IN LAOS AND AUSTRALIA

Information Note: ***The Pinglu Canal's Impact on Regional Wood Fibre Supply Chains***

Report Number: Market Intelligence #3

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Currency

At the time of writing (September,2026), the following exchange rates were in place:

- Laos: USD = LAK 22,385
- Vietnam: USD = VND 26,021
- Thailand: USD = THB33.28
- China: USD = RMB 6.70
- Australia: USD = AUD1.40

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The Pinglu Canal's Impact on Regional Wood Fibre Supply Chains

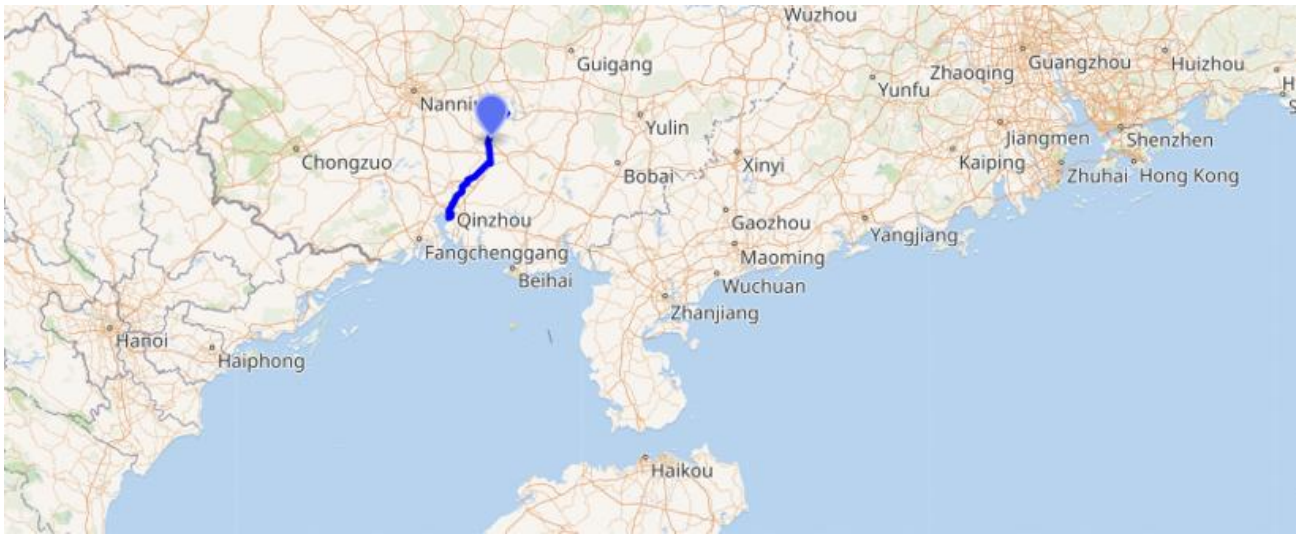


Figure 1. Location of the Pinglu Canal, Guangxi. [1]

Introduction and Background

The commissioning of the Pinglu Canal in September 2026 represents a structural turning point in the logistics and raw material dynamics of southern China's forest, pulp, and wood-products industries. As China's first direct river-to-sea canal constructed since 1949, the 134.2-kilometre, Class-I inland waterway connects the Xijiang (West River) river basin at Hengzhou on the Yu River directly south to the Qin River and out into the Beibu Gulf (Gulf of Tonkin).

Engineered for 5,000-tonne vessels (up to 90 m length, 15.8 m beam, and 5.0 m draft), the canal shortens inland waterway transit between southwest China and the sea by about 560 km compared with the traditional eastern detour through Guangzhou and the Pearl River Delta. This infrastructure lowers overall regional freight costs by an estimated 18% to 30%, generating an estimated $700–730 million in corridor-wide annual logistics savings.

[1] Also access: https://weixin.qq.com/sph/A3xR9CBLa6 (Chinese language accessible via WeChat)



Figure 2. Drone photo of the Ma'dao navigation hub of the Pinglu Canal, Guangxi [2]

While broader public coverage highlights bulk commodities like bauxite, manganese, phosphate fertilisers, and containerised industrial goods, the canal sits directly across the world's most concentrated eucalyptus forestry and pulp manufacturing corridor. Rather than acting simply as a conduit to replace foreign imports with domestic timber, the Pinglu Canal establishes a dynamic, two-way logistics artery:

- **Southbound:** It moves domestic eucalyptus roundwood, woodchips, and finished wood panels from Guangxi's interior to coastal pulp mills and export docks.

- **Northbound:** It delivers imported hardwood chips from deepwater Beibu Gulf ports inland to massive riverine pulp complexes at significantly reduced freight costs.



Figure 3. The 134.2 km canal links the Xijiang River shipping route in the north with the Beibu (Tonkin) Gulf in the south

[2] Photographs sourced at South China Morning Post: https://www.scmp.com/photos/hong-kong/3367864/pictures-chinas-pinglu-canal-first-its-kind-1949?page=3#&gid=1&pid=3 . Also watch: https://www.youtube.com/watch?v=DmS45MtI86U (CNA Explains: Why China's new Pinglu Canal matters) and https://www.youtube.com/watch?v=6STBL3IF3fk (Xinhua) and https://www.youtube.com/watch?v=LcXwUR5QzrQ (Xinhua).

The Dual-Cluster Geography of Guangxi's Forest Industry

Guangxi's wood-processing sector is geographically bifurcated into two distinct manufacturing nodes:

Cluster Category	Location	Distance to Canal	Major Mill Operators	Key Infrastructure & Raw Materials
Inland Riverside Cluster	Nanning, Chongzuo, Laibin, Guigang	Northern Terminus (Yu/Xijiang Rivers)	Sun Paper Nanning, Lee & Man, Xianhe	Centred in the 2.0-million-hectare eucalypt plantation core; surrounded by major veneer, plywood, and MDF plants.
Coastal Mega-Mill Cluster	Qinzhou, Beihai, Fangchenggang	Southern Terminus (Gulf of Tonkin / Beibu Gulf)	APP Jingui, Sun Paper (Beihai), Nine Dragons, Stora Enso	Features deepwater ocean berths optimised for receiving imported hardwood chips from Vietnam, Thailand, Australia, and Latin America.

1. The Coastal Mega-Mill Cluster (Beihai & Qinzhou)

Situated directly on the deep water of the Gulf of Tonkin, this cluster was constructed to capitalise on seaborne trade.

- **Nine Dragons Paper (Beihai):** An integrated base with an estimated 2.45 million tonnes of chemical pulp capacity requiring ~5.15 million Bone Dry Metric Tonnes (BDMT) of woodchips annually. It is located about 150 km from the mouth of the canal.



Figure 4. Nine Dragons (Beihai) papermaking and processing line(Andritz Group).

- **Sun Paper (Beihai):** A 22.8 billion CNY (~$3.4 billion USD) forest-pulp-paper complex featuring ~1.40 million tonnes of Bleached Hardwood Kraft Pulp (BHKP) and Bleached Chemi-Thermal Mechanical Pulp (BCTMP) capacity, consuming ~2.40 million BDMT. It is located about 150 km from the mouth of the canal.



Figure 5. Sun Paper's new Beihai mill with extensive chemical and bleached mechanical pulp lines[3]. A fully integrated forest-pulp-paper supply chain with an estimated investment of Chinese Yuan (CNY) 22.8 billion (USD$3.4 billion).

- **APP China / Sinar Mas (Qinzhou - Jingui Pulp & Paper):** Located only 12 km from the mouth of the canal, this complex represents a baseline investment of ~23.05 billion CNY (~$3.43 billion USD) with a long-term planned regional footprint of 35–40 billion CNY (~$5.2–$6.0 billion USD). It currently operates 750,000 tonnes of APMP (consuming ~0.90 million BDMT), with Phase 2 adding another 750,000 tonnes of chemi-mechanical pulp alongside 1.8 million tonnes of board.

[3] Source: https://new.abb.com/news/detail/90804/abb-supports-sun-papers-new-beihai-mill-with-automation-electrification-and-motors-order

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Figure 6. APP China (Sinar Mas) Qinzhou, with a core mill investment of about 23 billion CNY (US$3.4 billion), likely future investments, APP's total planned regional investment footprint to 35 - 40 billion CNY (approx. US$ 5.2- $6.0 billion)

- **Stora Enso (Beihai):** Produces premium food-grade packaging board supported by a 250,000-tonne CTMP line requiring ~0.30 million BDMT.

2. The Riverside Inland Cluster (Nanning, Chongzuo, Laibin, Guigang)

Located along the Yu and Xijiang river networks, this cluster sits inside Guangxi's forest belt. It includes:

- **Sun Paper (Nanning):** A rapidly expanding pulp hub hosting multiple fibre lines, anchored by a 1,600 air-dry tonnes per day (adt/day) high-Kappa hardwood line (among China's largest).
- **Lee & Man Paper and Xianhe:** Major producers operating inland integrated packaging and specialty paper facilities.
- **The Canal Industrial Corridor:** A planned 20-billion-yuan integrated "forest-pulp-paper" industrial park under development alongside major capacity expansions at Nanning Port, deliberately positioned to leverage canal barge traffic.



Figure 7. For cargo from southwest China, the new route will shorten the inland waterway journey to the sea by about 560 km compared with the route via Guangzhou Port, with overall logistics costs estimated to fall by 18 to 30%.

Domestic Timber Resource & Inter-Industry Competition

Guangxi is China’s preeminent timber province, with approximately 3.5 million hectares of plantation eucalyptus yielding an estimated 45 million cubic meters of annual harvest.

- **The 2.0-Million-Hectare Commercial Catchment:** While 3.5 million hectares cover the entire province, roughly 2.0 million hectares of high-yield, fast-growing eucalyptus (operating on 5- to 7-year rotations) are clustered in the central and southern inland plains around Nanning, Chongzuo, Laibin, and Guigang. This zone forms the immediate supply shed for the Pinglu Canal.

- **The Inter-Industry Fight for Wood:** On paper, Guangxi’s 45 million m^3 timber harvest comfortably exceeds the ~20 million m^3 roundwood equivalent (~8.75 million BDMT) required by the coastal pulp mega-mills. However, the pulp sector does not operate in a vacuum. Inland Guangxi (specifically Nanning, Guigang, and Beiliu) hosts China's densest concentration of rotary peeling veneer mills, plywood plants, and MDF/particleboard factories.

- **Price Arbitrage:** When domestic construction and furniture markets are firm, wood panel mills outbid pulp chippers for small- and medium-diameter logs. Consequently, coastal pulp mills cannot rely solely on domestic timber without spiking local log prices, so they must continue importing.

The Two-Way Logistics Realignment

The Pinglu Canal changes fibre flows in both directions across southern China:

Logistics Flow	Origin Point	Transport Method	Destination	Impact on Fibre Supply Chain
Southbound (Domestic Timber)	Inland Guangxi (Nanning / Laibin)	5,000-tonne river barges via the 134.2 km canal	Beibu Gulf Ports (Qinzhou, Beihai)	Bypasses road bottlenecks, delivering cheap domestic eucalyptus and finished wood panels to coastal mills and export docks.
Northbound (Imported Chips)	Deepwater Ocean Berths (Beibu Gulf)	5,000-tonne river barges navigating upstream	Inland Riverside Mills (Nanning cluster)	Reduces inland delivery costs for imported woodchips by 18% to 30%, making imported fibre highly competitive for inland pulp production.

Southbound Movement: Canal-Borne Domestic Fibre & Finished Goods

- **Relieving Highway Bottlenecks:** Moving inland roundwood to Beihai and Qinzhou historically required fleets of heavy trucks or constrained rail slots, leaving freight vulnerable to highway tolls and diesel surcharges. A single 5,000-tonne canal barge replaces 150 to 170 heavy trucks, delivering fibre directly to Qinzhou's deepwater industrial zone.

- **Wood Panels & Paper Exports:** Guangxi's inland plywood, veneer, and particleboard manufacturers gain cheap barge transport down to Beibu Gulf ports. This lowers the FOB export costs of finished wood products heading to ASEAN and other international markets.

Northbound Movement: Lowering the Delivered Cost of Imported Chips Inland

- **Direct Access to Nanning:** Deepwater berths at Beihai, Qinzhou, and Fangchenggang accept ocean-going chip carriers from Vietnam, Thailand, Australia, and South America. Instead of transhipping imports onto trucks or rail to reach inland mills, 5,000-tonne river vessels can now load directly at coastal berths, navigate up the Qin River, through the canal locks, and down the Yu River to Nanning.

- **Lowering Delivered Import Costs:** Applying the 18% to 30% logistics discount to inland imported fibre makes large chemical lines like Sun Paper Nanning far more cost-effective when running on imported woodchips. Rather than replacing foreign woodchips, the canal makes it economical for inland mills to consume more of them.



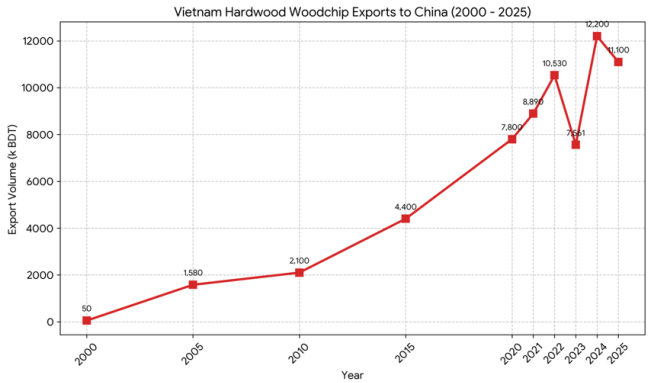
Figure 8. The Zicai bridge, one of the 27 bridges spanning the Pinglu Canal.

Implications for Southeast Asian Exporters[4]

Vietnam: Market Security Balanced Against Buyer Optionality

Vietnam remains China's primary overseas supplier, sending 5.3 million tons of chips (68.6% of its total export volume) to China in the first half of 2026 alone.

Vietnam Hardwood Woodchip Exports to China (2000 - 2025)



[4] [4] See: Global Times: "Pinglu Canal will significantly strengthen China-ASEAN trade, economic ties: business leaders": available at: https://www.globaltimes.cn/page/202609/1370947.shtml?shem=dsdf,sharefoc,agadiscoversdl,,sh/x/discover/m1/4 and: Source: ThinkChina "Pinglu Canal: Redrawing China-ASEAN trade routes " https://share.google/LUlj0M7VwX6AnjpTu S

- **Not Demand Displacement, but Market Expansion:** The canal does not structurally cut Vietnam out of coastal berths in Beihai and Qinzhou. Instead, it expands the addressable market by opening the inland Nanning cluster to waterborne imports.

- **Increased Chinese Purchasing Leverage:** Because Chinese corporate buyers (e.g., Sun Paper, APP) can now shuttle domestic timber south or imported fibre north with minimal freight friction, their blending and purchasing optionality increases. This weakens foreign exporters' leverage during chip contract price negotiations.

- **Corridor Concentration Risk:** A growing share of southern China's raw fibre demand will funnel through a single gateway: the Beibu Gulf port-and-lock complex. Delays caused by lock maintenance, severe regional weather, or typhoon damage to Vietnamese loading berths now pose larger systemic risks to the supply chain.

- **Domestic Fibre Competition:** Vietnam's chip export volume also faces domestic headwinds, including government incentives prioritising local value-added furniture manufacturing, rising export taxes, and growing competition from the wood pellet biomass energy sector.

Indonesia: The Structural Demand Engine & Regional Disruption

While the Pinglu Canal reshapes internal Chinese logistics, Indonesia's emergence as a long-term, large-scale woodchip importer is fundamentally altering the broader Asia-Pacific woodchip trade.

- **Concession Revocations and the Domestic Fibre Deficit:** In late 2025, the Government of Indonesia revoked numerous forestry plantation concessions from corporate mega-pulp producers, notably affiliates of APP (Sinar Mas) and APRIL (Royal Golden Eagle). This regulatory intervention abruptly wiped out significant captive plantation areas, creating a structural and long-term domestic hardwood fibre shortage across Indonesia’s massive coastal pulp mills.

- **The Siphon of Thai Hardwood Chips:** Forced into international spot and contract markets to maintain mill throughput, Indonesian producers have targeted Southeast Asian suppliers, primarily Thailand. Historically, Indonesia was only an occasional buyer of Thai chips (importing 39.8 kt in 2019, 92.6 kt in 2022, 170.0 kt in 2023, and 197.0 kt in 2025). However, during the first half of 2026, Thai exports to Indonesia surged to 268,000 tonnes (valued at US$25.3 million FOB) - a dramatic 557% year-on-year increase.

- **Competition Across the Regional Pool:** Total Thai eucalyptus chip supply expanded by only 2.7% in early 2026, meaning Indonesia captured all incremental supply and actively pulled volume away from existing long-term off-takers. Furthermore, Indonesian buyers are absorbing roughly 10.4% of Vietnam's woodchip exports in 2026 and bidding competitively for secondary fibre (paying up to US$220/tonne for imported American Old Corrugated

Containers (AOCC) to secure mill furnish. This aggressive buying has driven Thai FOB wood chip expectations toward US$85–90/GMT, setting a higher price floor across the region.

Thailand: Market Diversification & Laos Strategic Balance

Thailand's chip export volumes face rising domestic log constraints, escalating land-use competition from cassava and sugarcane, and tightening EUDR traceability compliance for smallholder woodlots.

- **Declining Surplus to China:** Thai woodchip shipments to China have softened in recent years, shifting instead toward stable long-term contracts with Japan, burgeoning seaborne shipments to Indonesia, and overland cross-border trade into neighbouring Lao PDR.

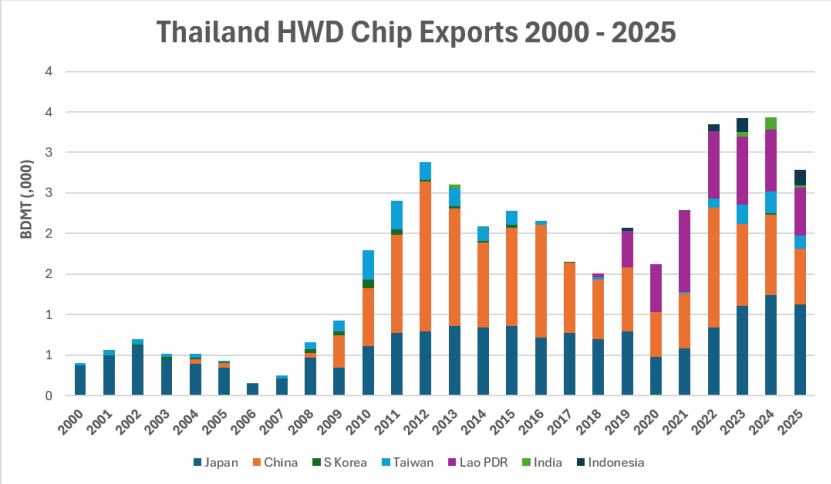


Figure 9. Thailand's hardwood Chip Exports 2000 - 2025

- **The Cross-Border Tug-of-War with Laos:** Sun Paper Holding Lao Co., Ltd. operates Laos's sole industrial-scale eucalyptus pulp mill at Xepon (Sepone), Savannakhet – a US$ 1.2 billion investment featuring a 350 – 400 kt/yr BHKP/ dissolving pulp swing line, a 1.0 Mt/yr containerboard machine, and a 400 kt/yr recycled pulp line. Operating at full capacity, the chemical mill requires 1.8 million green metric tonnes (GMT) of usable wood fibre annually, and its domestic plantation base has not yet matured. The company depends upon Thailand for 80-% of its wood furnish (valued at est. US$110 in 2025).

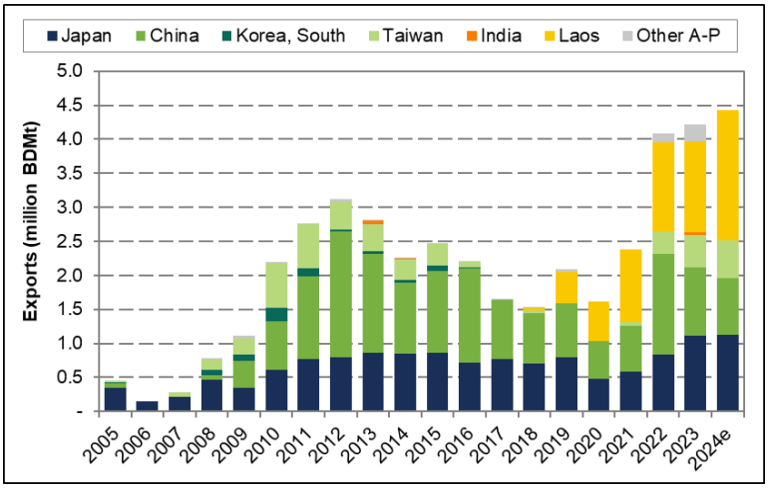


Figure 10. Thailand's Wood chip exports 2025 – 2024. Note the emergence of imports by Sun Paper (Laos).

- **The 2026 "Triple Squeeze" on Sun Paper Xepon:** Indonesia's aggressive entry into the Thai market has directly impacted Sun Paper Laos. In the first five months of 2026, Lao imports of Thai chips contracted 5.8% YoY (from 599 kt to 564 kt) as Thai suppliers diverted volumes to higher-paying Indonesian export vessels. This volume loss forms part of an acute 2026 "triple squeeze" on Sun Paper Xepon:

    1. *Thai Fibre Price Hike:* Indonesia's buying pull is pushing Thai FOB to US85-90/GMT, creating a US$ 15–25 million annual cost headwind.
    2. *Freight and Fuel Surge:* Severe diesel inflation and volatility (Lao diesel up +150%, Thai diesel up +30%) have increased transport costs, where fuel now represents 48–58% of cross-border trucking expenses, adding US$5–10 million annually.

    3. *Imported OCC Inflation:* A greatly increased competition for AOCC grades within the USA (Sun Paper's major source of wastepaper grades), accompanied by strong global demand and Indonesian competition, has lifted Asian OCC benchmarks, adding ~US$25 million to Sun Paper's recycled furnish costs. Together, these factors represent a US$45–60 million annual headwind, eroding 33% to 43% of Sun Paper Xepon's baseline operational surplus.

Corporate Fibre Allocation: The Pinglu Canal Balancing Act

Under this regional price squeeze, the Pinglu Canal emerges as a crucial corporate mitigation tool for multi-site producers like Sun Paper:

- **Guangxi Optimisation (Beihai & Nanning):** By leveraging the Pinglu Canal, Sun Paper can seamlessly supply its Nanning and Beihai mega-mills using low-cost domestic Guangxi plantation wood (moving south via canal barges) supplemented by imported Vietnamese acacia chips delivered cheaply upriver.

- **Isolating and Protecting Laos:** Maintaining high operating margins and low delivered fibre costs in Guangxi gives corporate management the financial

resilience to absorb higher delivered wood costs at Xepon. Concurrently, if Chinese coastal mills reduce their spot calls on Thai chips because canal-transported Guangxi timber is available, more Thai inland fibre (particularly from Northeast Thailand / Isan) remains available to keep the cross-border supply chain into Savannakhet intact until Lao plantation estates fully mature.

Summary of Major Guangxi Pulp Mill Woodchip Requirements

Mill Operation	Primary Pulp Lines	Est. Annual Pulp Capacity	Est. Annual Woodchip Demand (BDMT)	Logistical Connection to Pinglu Canal
Nine Dragons Paper *(Beihai)*	Chemical Hardwood Pulp	2.45 million tonnes	~5.15 million BDMT	Coastal: ~150 km from canal mouth; deepwater ocean berth.
Sun Paper *(Beihai)*	BHKP & Bleached Chemi-Mechanical (BCTMP)	~1.40 million tonnes	~2.40 million BDMT	Coastal: ~150 km from canal mouth; deepwater ocean berth.
APP Jingui *(Qinzhou)*	Chemi-Mechanical Pulp (APMP)	0.75 million tonnes *(Phase 1)*	~0.90 million BDMT	Coastal: 12 km from canal mouth; immediate deepwater berth.
Stora Enso *(Beihai)*	Chemi-Thermal Mechanical (CTMP)	0.25 million tonnes	~0.30 million BDMT	Coastal: Deepwater ocean berth.
Sun Paper *(Nanning)*	High-Kappa BHKP / Packaging Grades	Multiple lines (incl. 1,600 adt/d line)	~1.20–1.50 million BDMT	Riverside: Directly connected via Yu River to northern canal terminus.
Total Major Cluster Demand	—	**>5.50 million tonnes**	**>10.0 million BDMT**	Combined intake capacity across coastal and inland waterways.

Key Takeaway Messages

1. **A Two-Way Logistics Artery, Not an Import Replacement:** The Pinglu Canal does not merely substitute domestic timber for foreign chips. While 5,000-tonne barges will carry domestic logs and panels south, the canal's most transformative role is northbound: slashing inland transport costs by 18% to 30%, making imported seaborne woodchips from Vietnam, Thailand and beyond highly cost-effective for large riverside mills like Sun Paper Nanning.

2. **Indonesia Has Become a Disruptive Regional Demand Engine:** Following the widespread cancellation of forestry concessions in late 2025, Indonesian mega-mills (APP and APRIL) face deep structural wood deficits. Indonesia's purchases of Thai eucalyptus chips surged by 557% in early 2026,

establishing a powerful, high-paying competitor to Chinese buyers and driving up regional FOB benchmarks to US$85–90/GMT.

3. **Intense Domestic Competition Mandates Continued Imports:** Guangxi's 45 million m³ annual eucalyptus harvest cannot be monopolised by the pulp sector. The province's substantial veneer, plywood, and panel industries compete for roundwood, forcing coastal and inland pulp producers to maintain diversified overseas chip-import pipelines to avoid spiking domestic timber prices.

4. **Transnational Strategic Balancing for Multi-Mill Groups:** For regional operators like Sun Paper, the Pinglu Canal provides operational breathing room. By optimising Guangxi operations with canal-delivered domestic timber and cost-effective waterborne imports, corporate leadership can counter the severe "triple squeeze" of fibre, fuel, and AOCC inflation currently impacting its cross-border mill at Xepon, Laos.

Annex 1: TTOBMA Infographic (https://ttobma.com/)



Annex 2. Report from Lao television (Source: National Television 3HD).

The opening of the Pinglu Canal marks another significant step in expanding transport networks and logistics channels connecting the Lao PDR with China - particularly the Guangxi region - potentially paving the way for Lao products to access international markets more widely.

Dr. Sathabandith Inthisiengmay, Vice President of the National Institute for Economic Research, noted that the Pinglu Canal is important for the Lao PDR in terms of enhancing maritime access by leveraging the integration of railway systems and broader transport networks.

Increased transport options could help reduce costs and transit times for shipping goods to markets in ASEAN and Europe.

Dr. Sathabandith believes that developing transport networks in conjunction with the Laos-China Railway can boost trade, investment, and economic activity.

Transporting goods from the Lao PDR to China (specifically the Guangxi region) and international markets could become more efficient, thereby opening up further market access for Lao products. Furthermore, the expanding transportation network could create new opportunities for domestic and foreign businesses and investors.

From this perspective, increased transport routes can facilitate the flow of goods and cross-border trade, particularly during the post-COVID-19 economic recovery.

At the same time, improved transport connectivity can generate tourism opportunities by making it easier for Lao people to travel to China and for Chinese tourists to visit Laos.

Beyond trade and transportation, increased interaction can also foster exchanges regarding lifestyles, customs, and culture between the peoples of the two nations.

This connectivity can also extend to organising seminars and technical training, sharing experiences, and cooperating in other areas.

Annex 3. Alternative Map for the Pinglu Canal[5] .



Contact:

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Website: https://www. laoplantation.org.la

[5] Source: https://www.thinkchina.sg/economy/big-read-pinglu-canal-redrawing-china-asean-trade-routes