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Research Article

PULP IMPORT DEPENDENCY IN INDIAN PAPER MANUFACTURING: TRADE STRUCTURE, SUPPLY RISKS AND CAPACITY CONSTRAINTS

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Abstract

India's paper industry exhibits structural dependence on imported wood pulp, with annual imports valued at approximately USD 3.15 billion in 2024, making India the world's second-largest pulp importer after China [1]. This review evaluates the scale, composition and strategic implications of this dependency, examining supplier concentration, trade exposure and domestic capacity constraints that sustain reliance on international markets. Major suppliers include South Africa, Indonesia, the United States, Canada and Chile, with chemical wood pulp and dissolving grade pulp constituting the dominant import categories [2,4]. Import reliance is driven by sustained growth in domestic paper production, limited plantation forestry resources, and the capital-intensive nature of integrated pulping operations [5]. Exposure to global pulp price volatility, logistics disruptions during the COVID-19 pandemic, and foreign exchange fluctuations has underscored the supply chain risks associated with external fiber sourcing [6]. Although domestic pulping capacity has expanded incrementally, investment intensity, fiber availability limitations and environmental compliance requirements continue to restrict large-scale capacity additions [5]. Strategic responses by Indian producers include selective vertical integration to secure captive pulp supply, diversification of import sources to reduce concentration risk, and increased utilization of recovered fiber and agricultural residues to moderate virgin pulp dependency [8]. Trade policy instruments, customs duties and quality standards further shape the economic landscape of pulp procurement [9]. While import dependency reflects rational economic choices under prevailing forestry and capital constraints, it creates structural vulnerabilities that warrant coordinated industry and policy attention. Long-term fiber security will require a balanced portfolio approach combining domestic capacity development, diversified sourcing strategies and maximized recovered fiber utilization.

Keywords: Wood pulp imports, India, Trade dependency, Supply chain risk, Pulping capacity, Fiber security, Chemical pulp, Dissolving pulp, Import substitution.

INTRODUCTION

India's paper industry operates within a persistent structural fiber deficit. Total domestic paper production is estimated at approximately 23–24 million tonnes annually, supported by a diversified fiber mix comprising recovered paper, domestic wood and bamboo pulp, agricultural residues, and imported virgin pulp [10]. Recovered paper currently accounts for an estimated 73–76 percent of total fiber input [10]. However, virgin pulp remains strategically important for quality-sensitive grades, packaging applications requiring higher strength properties, and products where recycled fiber performance limitations cannot be fully offset through processing adjustments. India's dependence on imported wood pulp is significant in both absolute value and relative fiber balance terms. Annual pulp imports were valued at approximately USD 3.15 billion in 2024, making India the world's second-largest pulp importer after China [1]. This reliance reflects the widening gap between domestic fiber demand and available domestic pulping capacity, as paper and paperboard production has expanded more rapidly than domestic virgin pulp output.

The strategic implications of import dependence extend beyond trade volumes. Exposure to internationally traded pulp subjects Indian producers to global price volatility, freight and logistics risks, geopolitical disruptions, and foreign exchange fluctuations [6]. The COVID-19 pandemic highlighted these vulnerabilities, with port congestion, container shortages, and extended lead times disrupting procurement cycles and increasing input costs.

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Supplier concentration among a limited number of pulp-exporting countries further amplifies exposure to external shocks affecting production regions or global trade routes. This review examines the scale, composition, structural drivers, and strategic implications of India's pulp import dependency. It evaluates trade patterns with major supplying countries, analyzes domestic capacity constraints, assesses supply chain risks, and reviews policy and industry responses. Drawing on trade statistics, industry data, company disclosures, and technical literature, the paper situates India's fiber sourcing strategy within the broader dynamics of global pulp trade.

METHODOLOGY AND DATA SOURCES

This review is based on systematic analysis of secondary data sources to evaluate India's pulp import dependency and its structural implications. International trade data were primarily obtained from the United Nations Comtrade database [1], using Harmonized System (HS) classifications relevant to wood pulp categories, including chemical wood pulp and dissolving grade pulp. Reported values correspond to annual import statistics for 2024, expressed in current USD terms. Where applicable, trade values reflect reported customs data without inflation adjustment. Supplementary market intelligence on product segmentation, supplier shares and category-level trends was referenced from IndexBox industry reports covering chemical wood pulp and dissolving grade pulp markets [2,4]. Supplier country distribution and relative market shares were cross-checked across multiple datasets to ensure internal consistency. In cases where minor discrepancies existed between trade databases and market

intelligence summaries, preference was given to official customs statistics [1]. Domestic production volumes and fiber mix composition were sourced from the Indian Paper Manufacturers Association (IPMA) annual industry performance reports [10]. Global production context and comparative country output data were referenced from FAO forestry production databases and related statistical compilations [11]. Trade policy parameters, including customs duties and regulatory provisions, were reviewed from official Government of India trade policy documents [9]. Technical context relating to domestic pulping capacity, raw material availability and energy norms was drawn from published reports of the Central Pulp and Paper Research Institute (CPPRI) [5,7], supplemented by publicly available company disclosures and annual reports where relevant [8]. This review adopts a descriptive-analytical approach. Quantitative values are reported as published in the original sources. Where multiple estimates existed for specific indicators such as supplier share or import volumes, values were reconciled by prioritizing official trade statistics and ensuring consistency across datasets. No econometric modelling or primary survey data were employed in this study.

SCALE AND COMPOSITION OF PULP IMPORTS

Total Import Volume and Value

India's pulp imports in 2024 were valued at approximately USD 3.15 billion based on United Nations Comtrade statistics [1], confirming India's position as the world's second-largest pulp importer after China [2]. Reported annual import volumes for wood pulp categories are estimated at approximately 3–4 million tonnes, depending on product classification and grade segmentation. Import composition is concentrated in specific pulp categories. Chemical wood pulp, encompassing both sulfate (kraft) and sulfite grades used in paper and paperboard production, constitutes the dominant share of imports by volume [4]. Dissolving grade wood pulp, primarily used in viscose staple fiber manufacturing within the textile sector, represents a significant secondary category, with India accounting for approximately 13 percent of global dissolving pulp imports [2]. In contrast, mechanical and semi-chemical pulps account for comparatively smaller import volumes, reflecting India's relatively greater domestic production capability for these lower-grade pulp types.Key trade exposure indicators for 2024 are summarized in Table 1. The implied average unit value range reflects the sensitivity of total import expenditure to price movements. Even moderate fluctuations in global pulp prices can translate into substantial changes in foreign exchange outflows, reinforcing the economic significance of import dependency.

Supplier Country Concentration

India's pulp imports exhibit significant supplier concentration across both chemical and dissolving grade categories. In the chemical wood pulp segment, Indonesia, the United States and Chile collectively account for approximately 70–76 percent of total import value, indicating reliance on a limited set of large-scale exporting countries [4]. Secondary suppliers including Canada, Sweden, Brazil, Finland, New Zealand, Singapore and Malaysia contribute a further share in the range of 10–15 percent, with remaining volumes distributed among smaller exporters [4].

In the dissolving grade pulp segment, supplier concentration is even more pronounced. South Africa accounts for approximately 58–60 percent of India's dissolving pulp import value, followed by Canada and Sweden as secondary suppliers [2]. This concentration reflects the limited number of global producers with dedicated dissolving pulp capacity. Such supplier concentration generates structural exposure to external shocks. Production outages, energy cost fluctuations, logistics disruptions, trade policy changes or labor disputes in major exporting countries can directly affect procurement costs and availability for Indian mills. Furthermore, global pulp production capacity is geographically concentrated in forestry-rich regions including North America, South America, Nordic Europe, Indonesia and South Africa, constraining diversification opportunities for importing countries and reinforcing trade dependency patterns.The distribution of supplier shares across major pulp categories in 2024 is summarized in Table 2. The table illustrates the pronounced concentration in both segments. In the dissolving pulp category, a single supplier accounts for more than half of total import value. In chemical pulp, three exporting countries collectively dominate the majority of imports, limiting diversification potential.

DRIVERS OF IMPORT DEPENDENCY

Domestic Pulping Capacity Constraints

A primary structural driver of India's pulp import dependency is the gap between domestic fiber demand and available pulping capacity. Estimates indicate that the annual wood requirement for paper production exceeds domestically available pulpable wood supply, resulting in a persistent structural shortfall [5]. Earlier assessments placed total wood requirement at approximately 11 million tonnes against domestic availability of roughly 9 million tonnes, implying a deficit in the range of 2 million tonnes [5]. While actual figures vary over time depending on production levels and plantation output, the underlying imbalance between fiber demand and domestic raw material availability remains a defining constraint.

This structural gap is partially mitigated through increased utilization of recovered paper and agricultural residues. However, virgin pulp remains necessary for grades requiring higher strength properties, brightness stability, and fiber length characteristics that cannot be fully achieved through recycled inputs.

Expansion of domestic pulping capacity is constrained by the capital-intensive nature of integrated pulp mill operations. Investments are required in continuous digesters, chemical recovery systems, bleaching sequences, power boilers, and effluent treatment infrastructure, all of which significantly elevate project costs [7]. Securing long-term fiber supply through plantation forestry or structured procurement arrangements is a prerequisite for economic viability, limiting the feasibility of large-scale greenfield projects in the absence of assured raw material access. In addition, increasingly stringent environmental regulations governing effluent discharge, air emissions, and chemical handling increase compliance costs and extend permitting timelines, further raising investment thresholds for capacity expansion.

Table 1. India Wood Pulp Imports: Scale Indicators, 2024

Indicator	Value	Source
Total Import Value	USD 3.15 Billion	[1]
Estimated Total Import Volume	3–4 Million Tonnes	Section 3.1
Average Unit Value (Implied Range)*	~USD 790–1050 per tonne	Derived from value & volume
India's Global Rank (Import Value)	2nd Largest Importer	[2]

*Calculated as Import Value ÷ Estimated Volume.
Source: Compiled from UN Comtrade [1] and market data [2].

Table 2. Major Supplier Shares in India's Wood Pulp Imports, 2024

Supplier Country	Chemical Wood Pulp (CWP) – Value Share (%)	Dissolving Wood Pulp (DWP) – Value Share (%)	Remarks
South Africa	—	58–60	Dominant DWP supplier
Indonesia	Part of top three (combined ~70–76%)	—	Major CWP exporter
United States	Part of top three (combined ~70–76%)	—	Significant CWP supplier
Chile	Part of top three (combined ~70–76%)	—	Major CWP supplier
Canada	Secondary share	~13	Second largest DWP supplier
Sweden	Secondary share	~11	Nordic DWP supplier
Brazil	<10	—	Emerging CWP exporter

Source: Compiled from trade statistics and market intelligence reports [2,4].
CWP = Chemical Wood Pulp; DWP = Dissolving Wood Pulp.
Note: Shares represent approximate value proportions within respective pulp categories.

Forestry Resource Limitations

India's domestic pulp production potential is constrained by the limited scale and structure of its plantation forestry base relative to the size of its paper industry. In contrast to major pulp-exporting countries such as Brazil, Chile, Indonesia and South Africa, where large-scale industrial plantations have been developed specifically to supply integrated pulp and paper operations, India's forestry resources are dispersed across natural forests subject to harvesting restrictions, farm forestry systems with variable yields, and comparatively limited industrial plantation acreage [5,11]. This constraint is structural rather than cyclical. Land-use competition, regulatory protections for natural forests, fragmented land ownership patterns, and the high capital and gestation costs associated with establishing commercial pulpwood plantations limit rapid expansion of domestic fiber supply. While farm forestry initiatives have improved raw material availability in certain regions, productivity variability and supply chain fragmentation continue to restrict the development of a vertically integrated plantation–pulp model comparable to those in major exporting economies.

Global Pulp Production Concentration

Global pulp production is geographically concentrated in regions with abundant plantation forestry resources, large-scale integrated mills, and established export logistics infrastructure. The United States, Brazil and China together account for roughly one-half of global chemical pulp production, based on recent industry statistics [4,11]. In the dissolving pulp segment, Indonesia, Brazil and the United States collectively represent approximately one-third of global output [2].

This concentration reflects the capital-intensive nature of modern pulping operations and the scale economies achieved through vertically integrated plantation–pulp complexes. Countries with secure fiber bases, efficient logistics networks and access to global markets are structurally positioned to dominate export-oriented pulp production. As a result, importing countries such as India operate within a global supply framework characterized by limited geographic diversification and significant producer concentration.

PRICE VOLATILITY AND SUPPLY CHAIN VULNERABILITIES

Import Price Trends

International pulp prices are characterized by cyclical volatility driven by global supply–demand balances, energy and chemical input costs, freight rates, and currency movements. Import prices for chemical wood pulp into India have fluctuated markedly over the past decade, with relatively stable phases interrupted by sharp price increases during periods of global supply disruption and logistics constraints [4]. Dissolving grade pulp prices exhibit similar cyclical behavior. Average import prices for dissolving pulp were reported at approximately USD 936 per tonne in 2024, reflecting moderation from earlier peak levels observed during recent supply tightening phases [3]. Such price variability is inherent to globally traded commodity-grade pulp markets where supply capacity additions, maintenance shutdowns, and macroeconomic demand shifts influence pricing cycles. These price movements have direct implications for Indian paper producers' cost structures. Virgin pulp constitutes a significant proportion of raw material cost for fiber-intensive grades, and upward price cycles compress operating margins when cost pass-through to customers is constrained by competitive pressures and demand elasticity [6]. While forward contracts and long-term supply agreements can reduce short-term price uncertainty, they may also reduce procurement flexibility during downward price cycles, exposing mills to timing risk.

COVID-19 Supply Chain Disruptions

The COVID-19 pandemic exposed structural vulnerabilities in globally integrated pulp supply chains. International logistics disruptions, including port congestion, container shortages and shipping delays, created procurement uncertainty for Indian mills dependent on imported fiber [6]. Freight rates increased sharply during peak disruption periods as container imbalances and capacity constraints affected global shipping networks. Extended transit times and scheduling unpredictability complicated production planning and working capital management.

In response to these disruptions, many Indian producers increased safety stock levels to buffer against supply uncertainty, resulting in higher inventory carrying costs. Elevated freight charges and volatile arrival schedules contributed to cost pressures, and in isolated cases production schedules were adjusted due to delayed raw material availability. The episode underscored the operational risks associated with reliance on internationally traded commodity inputs subject to external shocks. Although logistics conditions have stabilized relative to peak pandemic disruption levels, the experience reinforced the importance of supplier diversification, inventory strategy optimization and procurement flexibility. Mills maintaining multi-country sourcing arrangements and adaptive contracting structures were better positioned to manage volatility than those reliant on limited supplier channels.

DOMESTIC PULPING CAPACITY DEVELOPMENT

Existing Domestic Capacity

India maintains domestic pulping capacity across several integrated paper producers; however, aggregate domestic output remains insufficient to meet total industry fiber demand. Major integrated companies, including ITC, JK Paper, Tamil Nadu Newsprint and Papers Limited (TNPL), and West Coast Paper Mills, operate captive pulping facilities utilizing a combination of wood, bamboo and agro-residues such as bagasse [5,8]. These integrated operations demonstrate the technical and operational viability of domestic pulp production, but total installed capacity represents only a portion of national fiber requirements, necessitating continued reliance on imports. Capacity utilization at existing pulping facilities is reported to be relatively high, reflecting sustained demand for virgin fiber rather than the presence of idle capacity [7]. This utilization profile suggests that incremental output increases are constrained less by market demand and more by structural factors, including capital intensity, raw material availability and environmental compliance requirements. Consequently, capacity expansion has largely occurred through brownfield additions and debottlenecking at existing integrated sites rather than through large-scale greenfield pulp mill investments.

Barriers to Capacity Expansion

Multiple structural barriers constrain large-scale expansion of domestic pulping capacity. Integrated pulp mill projects require substantial capital investment in continuous digesters, chemical recovery systems, bleaching lines, power and steam generation units, and effluent treatment infrastructure, resulting in high entry thresholds and extended payback periods [7]. The scale economies inherent in modern pulp production further increase minimum efficient plant size, amplifying financial exposure for new entrants.

Fiber security remains a central constraint. Investors are reluctant to commit capital without long-term assurance of plantation supply or structured procurement agreements, particularly in a context of fragmented landholding patterns and variable farm forestry productivity. Environmental compliance requirements, including effluent discharge standards, air emission controls and chemical handling regulations, add to project complexity and extend permitting timelines, increasing regulatory risk.

In addition, cost competitiveness relative to imported pulp is influenced by differences in plantation productivity, fiber costs, energy pricing and logistics efficiencies between India and major exporting countries. Where imported pulp benefits from lower plantation costs and large-scale integrated operations, domestic greenfield projects may face narrower operating margins. While policy measures such as investment incentives, plantation forestry promotion and streamlined regulatory approvals could mitigate some constraints, structural limitations related to fiber availability and scale economics would continue to influence expansion feasibility.

STRATEGIC RESPONSES BY INDIAN PRODUCERS

Vertical Integration Initiatives

Several Indian paper producers have adopted vertical integration strategies to enhance fiber security and reduce exposure to imported pulp markets. ITC Limited operates integrated pulping facilities at multiple locations, utilizing eucalyptus plantations and agro-residues such as bagasse to support its paperboard and specialty paper operations [8]. Tamil Nadu Newsprint and Papers Limited (TNPL) similarly integrates bagasse-based pulping with paper production. Such integration provides greater control over raw material supply and reduces sensitivity to international pulp price volatility. However, these strategies require significant capital investment in pulping infrastructure as well as sustained access to plantation resources or agro-residue supply chains. Vertical integration therefore mitigates import risk but does not eliminate structural exposure to domestic fiber constraints.

Supplier Diversification

Producers reliant on imported pulp have pursued supplier diversification to manage concentration risk and maintain procurement flexibility. Rather than depending on a single exporting country, mills typically source from multiple regions including South Africa, Indonesia, North America, South America and Nordic Europe [2,4]. This multi-country sourcing model enables tactical procurement decisions based on pricing cycles, freight conditions and grade specifications, while also providing contingency options in the event of regional disruptions. Supplier diversification functions as a risk management strategy within the broader framework of global pulp market concentration, allowing mills to moderate exposure to localized production outages or logistics bottlenecks.

Recovered Fiber and Alternative Inputs

The most significant structural response to virgin pulp import dependency has been increased reliance on recovered fiber and agricultural residues. Recovered paper now accounts for approximately 73–76 percent of total fiber input in the Indian paper industry [10]. This shift reduces direct dependence on imported virgin pulp and moderates raw material cost exposure.The current structural composition of fiber inputs is summarized in Table 3.

As shown in Table 3, recovered paper constitutes the dominant fiber source in India’s paper industry. However, the remaining quarter of fiber input consists primarily of virgin material, a portion of which must be met through imports due to domestic pulpwood constraints.

Table 3. Estimated Fiber Mix in India's Paper Production

Fiber Source	Share of Total Fiber Input (%)	Remarks	Source
Recovered Paper	73–76	Dominant fiber source	[10]
Virgin Fiber (Domestic + Imported)	24–27	Required for strength-sensitive grades	Derived from [10]
– of which Imported Wood Pulp	Significant component of virgin fiber	Supports structural deficit	[1]
Agricultural Residues (Bagasse, Wheat Straw, Rice Straw)	Supplementary	Used in integrated mills	[5,8]

Source: Compiled from IPMA industry data [10] and related industry reports [5,8].

This composition underscores that even a high recycled fiber share does not eliminate dependence on international virgin pulp markets. At the same time, greater reliance on recovered fiber introduces alternative supply considerations, including dependence on domestic collection systems and imported waste paper markets. Agricultural residues such as bagasse, wheat straw and rice straw provide supplementary virgin fiber sources, but their utilization is influenced by seasonal availability, storage constraints and process adaptation requirements.

POLICY FRAMEWORK AND TRADE CONSIDERATIONS

Customs Duties and Trade Policy

Trade policy influences the cost structure of pulp procurement through customs duties, tariff classifications and related import regulations. India's customs duty framework for wood pulp has evolved over time, reflecting competing policy considerations: on one hand, the objective of encouraging domestic pulping capacity; on the other, the need to ensure competitively priced fiber inputs for paper manufacturers [9]. Duty levels therefore affect the relative economics of imported versus domestically produced pulp. Industry stakeholders often express differing perspectives on optimal tariff design, with domestic pulp producers generally favoring protective measures and paper manufacturers emphasizing cost competitiveness and input affordability. The prevailing policy approach reflects a balancing of these interests within the broader industrial and trade policy framework.

Quality Standards and Specifications

Imported pulp used in Indian paper manufacturing must comply with technical specifications aligned with end-use requirements. Applicable standards and industry practices define performance parameters such as brightness, fiber length, kappa number, ash content and chemical purity to ensure process compatibility and finished product quality [9]. Compliance with these specifications reduces operational risk by minimizing variability in furnish performance and protecting mills from substandard material that could impair papermaking efficiency or product characteristics. Quality standards therefore function not only as technical benchmarks but also as safeguards within an import-dependent raw material system.

CONCLUSION

India's dependence on imported wood pulp is structural and economically embedded within the current configuration of its paper industry. The scale of imports and concentration of supply among a limited number of exporting countries reflect underlying constraints in domestic fiber availability, plantation forestry development and capital-intensive pulping infrastructure [1,2].

Given prevailing resource and cost conditions, a rapid or complete substitution of imports with domestic production is unlikely in the near term. At the same time, import reliance exposes the industry to external risks, including global price volatility, logistics disruptions and currency fluctuations. Recent supply chain disruptions underscored the operational sensitivity of internationally traded fiber inputs. Domestic pulping capacity has expanded incrementally, yet structural barriers related to investment scale, raw material security and environmental compliance continue to limit large-scale greenfield expansion [5,7]. Industry responses such as vertical integration, supplier diversification and increased utilization of recovered fiber have moderated, but not eliminated, exposure to global pulp market risks [8,10]. Long-term fiber security for India's paper sector is therefore best approached through diversification rather than substitution. A balanced strategy incorporating measured domestic capacity expansion, plantation productivity enhancement, diversified import sourcing and optimized recovered fiber utilization offers greater resilience than reliance on any single pathway. Trade policy instruments can influence procurement economics, but structural fiber constraints cannot be resolved solely through tariff adjustments. For policymakers, the priority lies in facilitating sustainable raw material development and reducing investment bottlenecks in environmentally compliant pulping capacity. For producers, strategic emphasis should remain on risk management through multi-source procurement, operational flexibility and capital discipline. Managing import dependency, rather than attempting to eliminate it, represents the more realistic and economically grounded pathway under current structural conditions.

Abbreviations

CAGR – Compound Annual Growth Rate
CPPRI – Central Pulp and Paper Research Institute
CWP – Chemical Wood Pulp
DWP – Dissolving Wood Pulp
FAO – Food and Agriculture Organization
IPMA – Indian Paper Manufacturers Association
TPA – Tonnes per Annum
TNPL – Tamil Nadu Newsprint and Papers Limited
USD – United States Dollar

Declarations

Conflicts of Interest

The author declares no conflicts of interest.

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Author Contribution

The author reviewed the subject literature and wrote the article.

REFERENCES

1. United Nations COMTRADE. India Imports of Pulp of Wood, Fibrous Cellulosic Material, Waste - 2024 Data. New York: UN; 2024. Available at: https://comtrade.un.org
2. IndexBox. India's Dissolving Grade Wood Pulp Market Report 2026. San Francisco: IndexBox; 2025.
3. IndexBox. India's Dissolving Grade Wood Pulp Market Report 2025. San Francisco: IndexBox; 2025.
4. IndexBox. India's Chemical Wood Pulp Market Report 2026. San Francisco: IndexBox; 2025.
5. CPPRI. Pulp and Paper Industry Raw Material Scenario. Saharanpur: Central Pulp and Paper Research Institute; 2013.
6. Industry analysts. India Paper Industry Supply Chain Analysis 2020-2024. Various sources; 2024.
7. CPPRI. Energy Norms for the Pulp and Paper Industry. Saharanpur/New Delhi: CPPRI; 2005.
8. ITC Limited. Annual Report 2023-24. Kolkata, India: ITC Limited; 2024.
9. Government of India. Customs Tariff and Trade Policy - Paper and Pulp. New Delhi: Ministry of Commerce; 2024.
10. IPMA. Indian Paper Industry - Performance Highlights 2023-24. New Delhi, India: Indian Paper Manufacturers Association; 2024.
11. Statista. Pulp Production by Country 2024. Hamburg, Germany: Statista; 2024.
12. IndexBox. India's Wood Pulp Market Report 2025. San Francisco: IndexBox; 2025.
13. IndexBox. Global Dissolving Grade Wood Pulp Market Report 2025. San Francisco: IndexBox; 2025.
14. IndexBox. Global Wood Pulp Market Report 2025. San Francisco: IndexBox; 2025.
15. IndexBox. World's Dissolving Grade Wood Pulp Market Poised for Steady Growth. San Francisco: IndexBox; October 2025.

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