

TRADITIONAL TIMBER TRADE IN INDIA - DIGITALIZATION AND INDIAN TRADE POLICY

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ABSTRACT

Indian Trade policy in the recent years has undergone some major transformations to smoothen the trade of the country at the national and international scenario. From a system of physical incentives and Red Tape it has moved to the digital first and trust based environment. In the year 2026 the Foreign Trade Policy FTP 2023 remains the most foundational document, but now it is prominent by the Digital Trade Facilitation Bill 2026 which is resting on the three important pillars of E Commerce Exports, Process Automation and Digital Public Infrastructure DPI.

Keywords: Indian Trade Policy, FTP 2023, Digital Trade, E-Commerce, Process Automation

1. INTRODUCTION

Indian Trade policy in the recent years has undergone some major transformations to smoothen the trade of the country at the national and international scenario. From a system of physical incentives and Red Tape it has moved to the digital first and trust based environment. In the year 2026 the Foreign Trade Policy FTP 2023 remains the most foundational document, but now it is prominent by the Digital Trade Facilitation Bill 2026 which is resting on the three

important pillars of E Commerce Exports, Process Automation and Digital Public Infrastructure DPI.

The Digital Trade Facilitation Bill 2026 is the recent update in the Indian Trade Policy and provides a legal niche for a paperless work and trade environment in which even the electronic trade documents, bills and invoices have the same legal standing as the original paper counterparts.

Digitalization of the trade has gifted Bharat Net Trade which has been implemented by India as the DPI for trade which is a unified layer used by the bankers, exporters and customs offices to verify the documents instantly and it completely overcomes the trust deficit issues that were responsible for delaying

The trade finance. Under the UNCITRAL Compliance the bill is positioning India within the international standards making the Indian Digital documents stand equally competent with global trade systems like the ones followed in

Europe and Singapore. The E Commerce is the new frontier employing which India is targeting to achieve \$ 2 trillion in exports by 2030.

With time there has been revolutionary changes in the Indian trade policy both at the domestic as well as at the International level. However in the year 2026 the traditional timber trade in India which was historically characterized by physical permits, manual ledger entries and many such cumbersome tasks was radically refurbished by Digital Public Infrastructure DPI.

A major change was noticed from Regulation Heavy model to an Efficiency First Digital ecosystem. There are lot of reforms noticed in the Indian domestic trade policy for the traditional timber business that made the work easy and smooth.

The national Transit Pass System NTPS or the One Nation - One Pass brought about a big change in removing the biggest hurdle of the Transit Pass or TP. In the earlier times before this the logistics from Kerala to Delhi needed a separate physical permit from every state it crossed. The biggest digital facility is the Pan

India launched facility of NTPS which is a unified online portal has made the timber trade smooth as the tree growers and traders apply for a single QR Coded transit permit in the online platform.

There is a Check post Revolution in which the handheld scanners at the state borders are verified through the QR code against a central database eliminating the need for the physical paperwork which use to be time consuming and complicated. It was also difficult to maintain record of all paperwork jobs. The facility has reduced the transit time by 40 percent.

In the traditional structure timber was sold through physical auctions at the government depots and in this process often the small buyers were excluded, and this was the reason responsible for the localized unfair price manipulation. This unfair system was controlled to a great extent after the e auction and digital sales depot came into existence.

The digital facility was provided through the State Forest Corporations like the Forest Corporation have been shifted to the Cloud based E Auction portals. This has greatly impacted buyers across India who can bid in real time and has greatly increased the average revenue per log for the government and also ensuring the Fair market value for the timber trade. In the traditional method the farmers and timber traders were ignorant about the trees that should not be cut and the illegal aspects of the timber trade which determined its worthiness but the emergence of the Van Vigyan Kendras VVK and Agro forestry Digitalization that acts as digital hubs for the farmers.

There is a self-generation of the NOC for all those species of the trees that are exempt and do not require a permit to be cut like bamboo and poplar. Farmers can also now the self-generated NOCs through the mobile apps. Through the Digital Twins there are 3D scans of premium logs like Teak and Rosewood which is allowing the international buyers to assess the actual quality of the wood and its worthiness even without visiting the depot in person. Market Intelligence is another aspect of the digitalization of the timber trade in which the digital dashboards provide farmers with real time Market or mandi prices for the wood species of different kinds so that exploitation by the middlemen could be avoided.

The Blockchain is another revolution in the digital world of trade which has been a medium of legal and sustainable trade meeting the standards of 2026 and with the Digital Trade Facilitation Bill 2026 India has started integrating blockchain to track the legal aspects of timber trade. Immutable Logs is a digital passport that tracks the wood from the forest to the sawmill and to the final furniture exporter with each harvested log assigned a digital ID or QR Tag. For trade in the international European market it is the Export Advantage, a digital traceability that allows the Indian Timber products to easily meet the strict European Deforestation Regulation increasing the competency of the Indian furniture in the European markets.

The process of Digitalization of the timber trade has bridged the gap by solving various problems. In the year 2014 the proof of Origin problem was tried to be solved and for this something was formulated but the plan eventually failed as the foresters personally felt that if they allowed the exempt species then it will lead to illegal logging in the government forests.

In the year 2026 the problem was solved through the Digitalization process which used the Historical Satellite Verification in which the NTMS portal compared the farmers current geotagged photos with Google Earth and ISRO Satellite imagery from 5 years ago. It becomes easier to see the Proof of Origin instantly without even a human visit to the farm to see the trees growing overtime on that specific KML.

From the year 2014 Timber transport was a hub of corrupt practices at the state borders but the Digital facility in the year 2026 with the Digital Trade Facilitation Bill 2026 every truck was considered as a moving data packet. At the Check post officers were provided palmtop tablets to scan the QR code on the driver's phone which instantly allows the central server to verify the code and its destination which makes it completely impossible to reuse the same permit for multiple trips.

The biggest gap that was found in the 2014 was that the farmers had no data of the volume of timber they had and, in this respect, the NTMS app uses the computer vision when a farmer takes the photo of a tree, then at the same time the AI is estimating its circumference, its worth, height and the amount of timber it is going to yield in cubic meters. This is very helpful for the farmers to negotiate with the wood and timber-based industries with a strong backup of data backup strength which has all the details of the wood used.

As compared to other products and variants made up of plastics, metal and cement timber products are environmentally superior, recyclable and energy efficient. Various countries across the world have promoted sustainable forestry programmes in for the conservation of the biodiversity and to control illegal timber logging.

In the world scenario India is the timber importer and this import is growing fast to meet the domestic as well as the global demand. With the changes in the Indian trade policy and digitalization the timber trade has been liberalized to a great

extent prohibiting the export of the unprocessed logs as a conservation measure to protect the Indian forests.

It is important to manage this diligence system in the absence of which India will become a destination of illegal harvesting and cutting of the logs which is

An unsustainable practice. In the domestic arena of timber trade, the State Forest Development Corporations set by the State Forest Departments have established a credit system in harvesting, transporting and marketing of timber and in the implementation of the plans that are developed on the scientific forestry principles. In order to address the problems related to this field the National Forest Policy has made a major shift from previous policies and has focused more on the sustained formula of wood for industry and large timber for defence, communication and other national purposes.

In an era where speed and clarity are essential the traditional business models do not work and this is very much true in the context of the timber trade both in the domestic as well as the global field. Where outdated manual processes can lead to inefficiencies. In this context the adoption of the digital customer service offers a transformative solution, it integrates the automation process and real time updates which are capable of enhancing the customer interactions and streamline operations. According to Amir Rashad the CEO of Timber Exchange:

“We’re shifting from reactive problem-solving to proactive customer engagement,” says Amir Rashad, CEO of Timber Exchange. “The goal is to create an experience where customers feel supported and informed at every step.

The automation of processes reduces the manual interventions and errors, speeds up the responses and the real time updates keep the customers informed with timely information which prevents unwanted disruptions and costly

Mistakes leading to heavy charges and fine. The integrated system easily connects with the ports, banks and smart contracts for a seamless workflow. For a bunch of reasons, tropical timber-producing countries are building and implementing timber traceability systems, like exercising control over the forest sector and getting private actors access to regulated markets oriented towards legality. Plus, they need to sharpen monitoring and control over the management of forest resources to combat illegal logging. For instance, Peru has created a national timber traceability system that tracks timber from the forest to the industry, to reduce the risk of illegal timber entering the market.

The Timber-producing countries have the mandate to document the legality of timber products to show they fulfil international commitments that require proof of legal origin, such as the European Union Voluntary Partnership Agreements (VPAs) with select countries and the United States of America–Peru Free Trade Agreement. VPAs are trade agreements signed between the EU and any willing timber-producing country.

Till date around 15 countries are either implementing a VPA or are at various stages of negotiation with the EU. VPAs have brought about significant improvements in regulations and laws, making things smoother and more efficient. As a result, there has been a decline in illegal logging and trade within certain industries. Additionally, there has been a positive shift towards promoting a mindset of ‘traceability’, particularly among local small and medium-sized businesses. This means that they are more conscious of where their resources come from and are taking steps to ensure accountability.

While VPAs have stimulated the adoption of private third-party traceability systems (e.g. chain-of-custody), national data collection and analysis and end-to-end

implementation of national traceability systems are still fragile in most countries. Tracking timber from its origin to the final product can be quite a daunting task. Timber supply chains are intricate webs of processes, making it challenging to establish effective traceability systems. Such systems often demand changes in approaches, operations management, and logistics, which in turn require substantial investments of both money and labor.

On top of that, those responsible for implementing these systems often encounter opposition from the industry itself and face gaps in their own capabilities. To overcome these hurdles, forest authorities need strong support from top-level politicians who recognize the importance of timber traceability. They also require a robust legal and regulatory framework to ensure compliance and enforcement. Additionally, financial and technical assistance is crucial to successfully developing and implementing traceability systems.

Indian IT multinational CSM Technologies with big stakes in the African business landscape, has recently inked a multi-million-dollar agreement with the Ministry of Economy and Recovery in Gabon. The deal is for the implementation of a timber traceability solution and an electronic timber trade platform for the Ministry. The project aims at the digital transformation of existing forest and business operations, ensuring sustainable forest management

Through digitalization and end-to-end tracking of all administrative and technical activities.

The digital platform aims at transparency in transactions, rooting out illegal timber harvest and ensuring environmental sustainability by cutting Greenhouse emissions. Further, the platform is designed to perform forecasts in timber provenance for 20 years.

This is akin to having a GPS system for a forest, allowing users to track the progress of timber production, understand where it is being transported, and anticipate possible areas of conflict. It would be like having a comprehensive map that not only shows the terrain but also the industry and government regulations that protect the environment.

Illegal production and trade of timber is the key cause of environmental degradation, leading to the loss of habitats and biodiversity and increased GHG emissions. It is critical for the Gabon government and the SEZ to ensure an uninterrupted supply of raw materials and keep a vigil on the traceability of logs.

Gabon is a predominantly forest nation where timber is the crucial export item after oil and manganese and accounting for nine per cent of the export share by value. With its ability to collate, consolidate and validate logging operations even in remote forest locations, the digital platform developed by CSM caters to both state and non-state actors- Concessionaire, Government, Contract Loggers, Graders and Logistics Providers.

While fully implemented, such a traceability system can trace individual logs, or batches of timber, from a legal place of harvest through the supply chain to domestic or international retail. With improved quality control, streamlined processes and business optimization, it can increase business competitiveness and open up access to regulated markets, which are sensitive to sourcing illegal or controversial timber.

CONFLICT OF INTERESTS

None .

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None.

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